

CONTRACT

entered into by and between

PASSENGER RAIL AGENCY OF SOUTH AFRICA (“PRASA”)

(Hereafter referred to as the “Employer”)

Herein Represented by _____

In his/her capacity as: _____

(Duly authorised hereto)

AND

Registration Number: _____

(Hereinafter referred to as the “Contractor”)

Herein Represented by: _____

In his/her capacity as: _____

(Duly authorised hereto)

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT FOR THE APPOINTMENT OF A SUITABLE SERVICE PROVIDER FOR THE PLANNING, DESIGN, SUPPLY, CONSTRUCTION, INSTALLATION, TESTING, COMMISSIONING AND MAINTENANCE OF A NEW FULLY INTEGRATED, FUNCTIONAL, COMPLETE AND FUTURE-PROOFED PRASA ELECTRONIC AUTHORISATION SYSTEM ("EAS") IN PRASA'S GAUTENG ("GP"), KWAZULU-NATAL ("KZN") AND WESTERN CAPE ("WC") SERVICE REGIONS ("THE PROJECT")

PREAMBLE AND RECITALS:

WHEREAS the Employer appoints the Contractor as the suitable service provider and enters into this written Contract for the planning, design, supply, construction, installation, testing, commissioning and maintenance of a new fully integrated, functional, complete and future-proofed PRASA Electronic Authorisation System ("EAS") in the Employer's Gauteng ("GP"), KwaZulu-Natal ("KZN") and Western Cape ("WC") service regions ("the Project") that the Contractor shall meet and deliver at the Contractor's cost therefore within the Initial Contract Price ("ICP"), according to the Approved Baseline Contract Programme/Approved Programme and at the Contractor's risk, subject to specific terms and conditions;

NOW THEREFORE, the parties hereby reduce their agreement in writing, and record the terms and conditions of this Contract as follows:

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DISPUTES AND ARBITRATION

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ANNEX

DAAB PROCEDURAL RULES

1. **PARTIES**

1.1. **PASSENGER RAIL AGENCY OF SOUTH AFRICA ("PRASA")**, a state owned entity as described in Chapter 6 of the Public Finance Management Act 1 of 1999 and governed by the Legal Succession to the South African Transport Services Act 9 of 1989 (as amended) herein represented by _____ in his / her capacity as _____ duly authorised thereto under and by virtue of a resolution passed on _____, a copy of which is annexed as Annexure "A", and who by his/her signature hereto warrants that he/she is properly authorised to sign this Agreement (Herein referred to as the **"EMPLOYER"**).

1.2. _____ with Registration Number: _____ herein represented by _____ in his/her capacity as _____ duly authorised thereto under and by virtue of a resolution of the Board passed on _____ a copy of which is annexed as Annexure "B", and who by his signature hereto warrants that he is properly authorised to sign this Agreement (Herein referred to as the **"CONTRACTOR"**).

2. **DEFINITIONS**

In this Contract the following words and expressions shall have the meanings stated, except where the context requires otherwise.

2.1. **"Accepted Contract Amount"** means the Initial Contract Price ("ICP") accepted in the Letter of Acceptance for the execution of the Works in accordance with this Contract after negotiations between the parties (i.e., moneys payable by the Employer to the Contractor for completion of the Works in accordance with this Contract as defined). Kindly refer to Clause 2.46 for the definition of ICP.

2.2. **"Advance Payment Certificate"** ("APC") means a Certificate issued by the Engineer for an amount advanced by the Employer to the Contractor for Work to be completed which can be utilised to purchase Plant and Materials.

2.3. **"Advance Payment Guarantee"** ("APG") means an interest free loan to the Contractor repayable before the completion of Work by the Contractor. The APG shall reduce and be set off against the APC.

2.4. **"Base Date"** means 28 calendar days before the latest date for submission of the Tender.

2.5. **"Claim"** means a request or assertion by one Party to the other Party for an entitlement or relief under any Clause of these Conditions or otherwise in connection with, or arising out of, this Contract or the execution of the Works.

- 2.6. **"Commencement Date"** means the date as stated in the Engineer's Notice issued under this Contract or a Notice given by the Employer and/or Engineer to the Contractor fixing the date on which this Contract will commence to run and on which the Contractor shall start to perform the Work under this Contract.
- 2.7. **"Compliance Verification System"** means the compliance verification system to be prepared and implemented by the Contractor for the Works under this Contract.
- 2.8. **"Conditions of Contract"** or "these Conditions" means these obligations by both Parties to perform their duties under this Contract.
- 2.9. **"Consortium Undertaking"** means the Consortium Agreement (duly notarised), provided to the Employer as part of this Contractor's Proposal setting out the legal undertaking between the two or more entities constituting the Contractor as a Consortium. This Consortium Agreement shall be signed by all the entities (by their duly authorised representatives) who are members of the Consortium, shall be addressed to the Employer and shall include:
- 2.9.1. each such entity's board resolutions (fully signed and notarised) confirming authority to enter into the Consortium Agreement;
- 2.9.2. each such entity's undertaking to be jointly and severally liable to the Employer for the performance of the Contractor's obligations under this Contract;
- 2.9.3. Identification and authorization of the leader of the Consortium;
- 2.9.4. Identification and authorisation of the management committee of the Consortium;
- 2.9.5. Shareholder certificates for each entity constituting the Consortium;
- 2.9.6. Breakdown of the shareholding of each entity constituting the Consortium; and
- 2.9.7. Breakdown of ICP allocation to each entity constituting the Consortium.
- 2.10. **"Contract"** means this Contract Agreement, the Letter of Acceptance, the RFP (including all annexures), the Particular Conditions of Contract, the Special Provisions of Contract, the General Conditions of Contract, the Employer's Requirements, the Schedules, this Contractor's Proposal (including the Letter of Tender), the JV Undertaking (if this Contractor is a JV), and any other documents forming part of this Contract.
- 2.11. The **"Contract Agreement"** means the agreement entered into by both Parties in accordance with this Contract. This signed Contract.
- 2.12. **"Contract Data"** means the pages of this Contract which constitute the entire Contract and all RFP documents.

- 2.13. **"Contract Price"** means the Initial Contract Price consisting of the lump sum Accepted Contract Amount for the execution of the Works in accordance with the Contract after negotiations between the Parties.
- 2.14. **"Contractor"** means an entity named as the Contractor in the Contractor's Proposal (including the Letter of Tender) whose proposal has been accepted by the Employer and the legal successors in title of such person(s), with whom the Employer has entered into this Contract.
- 2.15. **"Contracts Documents"** means the documents prepared by the Contractor as described in this Contract, including calculations, digital files, computer programs and other software, drawings, manuals, models, specifications and other documents of a technical nature.
- 2.16. **"Contractor's Equipment"** means all apparatus, equipment, machinery, construction plant, vehicles and other items required by the Contractor for the execution of the Works. Contractor's Equipment excludes Temporary Works, Plant and Materials and any other things intended to form or forming part of the Permanent Works.
- 2.17. **"Contractor's Personnel"** means the Contractor's Representative and all personnel whom the Contractor utilizes on Site or other places where the Works are being carried out, including the staff, labour and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.
- 2.18. **"Contractor's Proposal"** means the part of the Tender stated or implied as being the Contractor's proposal for execution of the Works, as included in this Contract. Such documents may include the Contractor's preliminary design.
- 2.19. **"Contractor's Representative"** means the natural person named by the Contractor in this Contract or appointed by the Contractor under this Contract, who acts on behalf of the Contractor.
- 2.20. **"Cost"** means all expenditure reasonably incurred (or to be incurred) by the Contractor in performing this Contract, whether on or off the Site(s), including Value Added Tax (VAT), overheads and similar charges, but does not include profit. Where the Contractor is entitled under a Sub-Clause of these Conditions to payment of Cost, it shall be added to the Contract Price.
- 2.21. **"Cost plus Profit"** means Cost plus the applicable percentage for profit stated in this Contract (if not stipulated, Profit shall be assumed to be five percent (5%) of the Contract Price). Such percentage shall only be added to Cost, and Cost Plus Profit shall only be added to the Contract Price, where the Contractor is entitled under a Sub-Clause of these Conditions to payment of Cost Plus Profit.
- 2.22. **"Country"** means South Africa in which the Site(s) (or most of it) is located, where the Permanent Works are to be executed.

- 2.23. **"DAAB" or "Dispute Avoidance/Adjudication Board"** means the sole member or three members (as the case may be) so named or appointed under this Contract.
- 2.24. **"DAAB Agreement"** means the agreement signed or deemed to have been signed by both Parties and the sole member or each of the three members (as the case may be) of the DAAB in accordance with this Contract, incorporating by reference the General Conditions of Dispute Avoidance/Adjudication Agreement contained in the Appendix to these General Conditions with such amendments as are agreed.
- 2.25. **"Date of Completion"** means the date stated in the Taking-Over Certificate issued by the Engineer; or, if the last paragraph of Sub-Clause [Taking Over the Works and Sections] applies, the date on which the Works or Section are deemed to have been completed in accordance with this Contract; or if Sub-Clause [Taking Over Parts] or Sub-Clause Interference with Tests on Completion] applies, the date on which the Works or Section or Part are deemed to have been taken over by the Employer.
- 2.26. **"Day"** means a calendar day of 24 hours measured from midnight to the next midnight.
- 2.27. **"Day work Schedule"** means the document entitled day work schedule (if any) included in this Contract, showing the amounts and manner of payments to be made to this Contract or for labour, materials and equipment used for day work under this Contract.
- 2.28. **"Defects Liability Period" or "DLP"** means the period for notifying defects and/or damage in the Works or a Section or a Part (as the case may be) under this Contract (if not stated, one year), and as may be extended under this Contract. This period is calculated from the Date of Completion of the Works or Section or Part.
- 2.29. **"Delay Damages"** means the damages for which the Contractor shall be liable under Sub-Clause [Delay Damages] for failure to comply with Sub-Clause [Time for Completion].
- 2.30. **"Dispute"** means any situation where:
- 2.30.1. one Party makes a claim against the other Party (which may be a Claim, as defined in these Conditions, or a matter to be determined by the Engineer under these Conditions, or otherwise).
- 2.30.2. The other Party (or the Engineer under Sub-Clause [Engineer's Determination]) rejects the claim in whole or in part; and
- 2.30.3. the first Party does not acquiesce (by giving a NOD under Sub-Clause [Dissatisfaction with Engineer's determination] or otherwise), provided however that a failure by the other Party (or the Engineer) to oppose or respond to the

claim, in whole or in part, may constitute a rejection if, in the circumstances, the DAAB or the arbitrator(s), as the case may be, deem it reasonable for it to do so.

- 2.31. **"The Employer"** means PRASA, the entity named as the Employer in this Contract and the legal successors in title to this entity.
- 2.32. **"Employer's Equipment"** means the apparatus, equipment, machinery, construction plant and/or vehicles (if any) to be made available by the Employer for the use of the Contractor under Sub-Clause [The Employer- Supplied Materials and The Employer's Equipment]; but does not include Plant which has not been taken over under Clause 10 [The Employer's Taking Over].
- 2.33. **"Employer's Personnel"** means the Engineer, the Engineer's Representative (if appointed), the assistants described in Sub-Clause [Delegation by the Engineer] and all other staff, labour and other employees of the Engineer and of the Employer engaged in fulfilling the Employer's obligations under this Contract; and any other personnel identified as The Employer's Personnel, by a Notice from the Employer or the Engineer to the Contractor.
- 2.34. **"Employer's Requirements"** means any documents and annexures provided by the Employer and/or Engineer, which stipulate requirements and/or conditions, written instructions and requests for statements of compliance in line with the RFP, this Contract and for the entire duration of this Contract. Any additions and modifications to such documents and/or written instructions by the Employer and/or Engineer, for the entire duration of this Contract, shall be deemed to be part of the Employer's Requirements. Such documents include, but are not limited to, General Technical Requirements ("GTRs") as included in the RFP, Electronic Authorisation System as included in the RFP, Main Technical Reference ("MTR") as included in the RFP, User Specification for Electronic Authorisation Register for use in the Passenger Rail Agency of South Africa as included in the RFP, Glossary of Terms as included in the RFP, Returnable Documents as included in the RFP, Particular Technical Requirements ("PTRs") as included in the RFP, Particular Technical Requirements Gauteng ("PTRs GP") as included in the RFP, Particular Technical Requirements KwaZulu Natal ("PTRs KZN") as included in the RFP, Particular Technical Requirements Western Cape ("PTRs WC") as included in the RFP and Commercial and Financial Requirements ("CFRs") as included in the RFP.
- 2.35. **"Employer-Supplied Materials"** means the materials (if any) to be supplied by the Employer to the Contractor under Sub-Clause [The Employer-Supplied Materials and The Employer's Equipment].
- 2.36. **"Engineer"** means PRASA, or any other juristic person appointed by the Employer to act as the Engineer for the purposes of this Contract, or any replacement appointed under this Contract.

- 2.37. **"Engineer's Representative"** means the natural person who may be appointed by the Engineer under Sub-Clause [Engineer's Representative].
- 2.38. **"Exceptional Event"** means an event or circumstance as defined in Sub-Clause [Exceptional Events].
- 2.39. **"Extension of Time"** or **"EOT"** means an extension of the Time for Completion under Sub-Clause [Extension of Time for Completion].
- 2.40. **"FIDIC"** means the Federation International des Ingenieurs-Conseils, the International Federation of Consulting Engineers.
- 2.41. **"Final Payment Certificate"** or **"FPC"** means the payment certificate issued by the Engineer under Sub-Clause [Issue of FPC].
- 2.42. **"Final Statement"** means the Statement defined in Sub-Clause [Agreed Final Statement].
- 2.43. **"Foreign Currency"** means a currency in which part (or all of this Contract Price is payable, but not the Local Currency.
- 2.44. **"General Conditions"** means this document entitled "Conditions of. Contract for Plant and Design-Build for Electrical & Mechanical Plant, and for Building and Engineering Works, designed by the Contractor", as published by FIDIC.
- 2.45. **"Goods"** means Contractor's Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.
- 2.46. **"Initial Contract Price"** or **"ICP"** means the Contractor's Bid Price, as may be amended through negotiations, thereafter, shall be the Accepted Contract Amount.
- 2.47. **"Infringement"** means an infringement (or alleged infringement) of any patent, registered design, copyright, trademark, trade name, trade secret or other intellectual or industrial property right relating to the Works.
- 2.48. **"Infringement Claim"** means a third-party claim (or proceedings pursuing a third-party claim) alleging an infringement of any patent, registered design, copyright, trademark, trade name, trade secret or other intellectual or industrial property right relating to the Works.
- 2.49. **"Interim Payment Certificate"** or **"IPC"** means a Payment Certificate issued by the Engineer for an interim payment under Sub-Clause [Issue of IPC].
- 2.50. **"Joint Venture"** or **"JV"** means a joint venture, association, consortium, or other unincorporated grouping of two or more persons, whether in the form of a partnership or otherwise.

- 2.51. **"JV Undertaking"** means the JV Agreement (duly notarised), provided to the Employer as part of the Contractor's Proposal setting out the legal undertaking between the two or more entities constituting the Contractor as a JV. This JV Agreement shall be signed by all the entities (by their duly authorised representatives) who are members of the JV, shall be addressed to the Employer and shall include:
- 2.51.1. each such entity's board resolutions (fully signed and notarised) confirming authority to enter into the JV Agreement.
- 2.51.2. each such entity's undertaking to be jointly and severally liable to the Employer for the performance of the Contractor's obligations under this Contract.
- 2.51.3. Identification and authorization of the leader of the JV (if unincorporated).
- 2.51.4. Identification and authorisation of the board of the JV (if incorporated).
- 2.51.5. Shareholder certificates for each entity constituting the JV.
- 2.51.6. Breakdown of the shareholding of each entity constituting the JV; and
- 2.51.7. Breakdown of ICP allocation to each entity constituting the JV.
- 2.52. **"Key Personnel"** means the positions (if any) of the Contractor's Personnel, other than the Contractor's Representative, that are stated in the Specification Conditions of Contract for Plant and Design "Build.
- 2.53. **"laws"** means all national (or state or provincial) legislation, statutes, acts, decrees, rules, ordinances, orders, treaties, international law and other laws, and regulations and by-laws of any legally constituted public authority.
- 2.54. **"Letter of Acceptance"** means the letter of formal acceptance, signed by the Employer, of the Contractor's Proposal (including the Letter of Tender), including any annexed memoranda comprising agreements between and signed by both Parties. If there is no such letter of acceptance, the expression "Letter of Acceptance" means this Contract Agreement and the date of issuing or receiving the Letter of Acceptance means the date of signing this Contract Agreement.
- 2.55. **"Letter of Tender"** means the Contractor's Proposal (including the letter of tender), signed by the Contractor, stating the Contractor's offer to the Employer for the execution of the Works.
- 2.56. **"Local Currency"** means the currency of the Republic of South Africa, which is the South African Rand.
- 2.57. **"Materials"** means things of all kinds (other than Plant), whether on the Site or otherwise allocated to this Contract and intended to form or forming part of the

Permanent Works, including the supply-only materials (if any) to be supplied by the Contractor under this Contract.

- 2.58. **"Month"** is a calendar month (according to the Gregorian calendar).
- 2.59. **"NOC"** means Notice of Claim.
- 2.60. **"No-objection"** means that the Employer and/or Engineer has no objection to the Contractor's Documents, or other documents submitted by the Contractor under these Conditions, and such Contractor's Documents or other documents may be used for the Works.
- 2.61. **"Notice"** means a written communication identified as a Notice and issued in accordance with Sub-Clause [Notices and Other Communications].
- 2.62. **"Notice of Dissatisfaction"** or **"NOD"** means the Notice one Party may give to the other Party if it is dissatisfied, either with an Engineer's determination under Sub-Clause [Agreement or Determination] or with a DAAB's decision under Sub-Clause [Obtaining DMB's Decision].
- 2.63. **"O&M"** means operation and maintenance.
- 2.64. **"OEM"** means Original Equipment Manufacturer.
- 2.65. **"Part"** means a part of the Works or part of a Section (as the case may be) which is used by the Employer and deemed to have been taken over under Sub-Clause [Taking over Parts].
- 2.66. **"Particular Conditions"** means the document entitled conditions of contract included in the contract, which consists of Part A - Contract Data and Part B - Special Provisions.
- 2.67. **"Party"** means the Employer or the Contractor, as the context requires. **"Parties"** means both the Employer and the Contractor.
- 2.68. **"Payment Certificate"** means a payment certificate issued by the Engineer under Clause 14 [Contract Price and Payment].
- 2.69. **"Performance Certificate"** means the certificate issued by the Engineer (or deemed to be issued) under Sub-Clause [Performance Certificate].
- 2.70. **"Performance Damages"** means the damages to be paid by the Contractor to the Employer, for the failure to achieve the guaranteed performance of the Plant and/or the Works or any part of the Works (as the case may be), as set out in the Schedule of Performance Guarantees.
- 2.71. **"Performance Security"** means the security under Sub-Clause [Performance Security].

- 2.72. **"Permanent Works"** means the works of a permanent nature which are to be executed by the Contractor under this Contract.
- 2.73. **"Personnel"** means any natural person involved in the Project on behalf of the Employer, Engineer, Contractor or any other party.
- 2.74. **"Plant and Materials"** means All Plant and Materials (which by definition shall include, but not be limited to, all Plant, Materials, Furniture, Equipment, Tools, Spares, Software, Technology and Component, Apparatus, Machinery and Vehicles) to be provided by the Contractor to successfully deliver the Project.
- 2.75. **"Priority Documents"** means the documents forming this Contract are to be taken as mutually explanatory of one another. If there is any conflict, ambiguity or discrepancy, the priority of the documents shall be in accordance with the following sequence:
- 2.75.1. PRASA Requirements.
 - 2.75.2. Conditions of Invitation.
 - 2.75.3. Instructions to Bidders in the Statements of Compliance.
 - 2.75.4. General Technical Requirements ("GTR").
 - 2.75.5. Particular Technical Requirements ("PTR").
 - 2.75.6. Commercial and Financial Requirements ("CFR").
 - 2.75.7. This Contract Agreement.
 - 2.75.8. The Letter of Acceptance.
 - 2.75.9. The Letter of Tender.
 - 2.75.10. The RFP (including all annexures)
 - 2.75.11. The Particular Conditions of Contract.
 - 2.75.12. The Special Provisions of Contract.
 - 2.75.13. The General Conditions of Contract.
 - 2.75.14. The Employer's Requirements.
 - 2.75.15. The Schedules.
 - 2.75.16. The Contractor's Proposal.
 - 2.75.17. The JV Undertaking (if the Contractor is a JV).

2.75.18. And any other documents forming part of this Contract.

If a Party finds an ambiguity or discrepancy in the documents, that Party shall promptly give a Notice to the Engineer, describing the ambiguity or discrepancy. After receiving such Notice, or if the Engineer finds an ambiguity or discrepancy in the documents, the Engineer shall issue the necessary clarification or instruction.

Notwithstanding any other PRASA Requirements stated throughout the RFP, the Bidder shall uncompromisingly deliver the whole of the Works required to achieve successful delivery of the Project.

2.76. "**Programme**" means a detailed time Programme including, but not limited to, the Contractor's Approved Baseline Contract Programme/Approved Programme and any other Programme prepared and submitted by the Contractor which the Engineer has approved.

2.77. "**Promptly**" means a period of 7 (seven) calendar days or any period as instructed and/or determined by the Employer and/or Engineer.

2.78. "**Provisional Sum**" means a sum (if any) which is specified in this Contract by the Employer as a provisional sum, for the execution of any part of the Works or for the supply of Plant, Materials or services under Sub-Clause [Provisional Sums].

2.79. "**QM System**" means the Contractor's quality management system (as may be updated and/or revised from time to time) in accordance with Sub-Clause [Quality Management System].

2.80. "**Retention Money**" means the accumulated retention moneys which the Employer retains under Sub-Clause [Application for Interim Payment] and pays under Sub-Clause [Release of Retention Money].

2.81. "**Review**" means examination and consideration by the Engineer of a Contractor's submission in order to assess whether (and to what extent) it complies with this Contract and/or with the Contractor's obligations under or in connection with this Contract.

2.82. "**Schedules**" means the document(s) entitled schedules prepared by the Employer and completed by the Contractor, as attached to the Contractor's Proposal (including the Letter of Tender) and included in this Contract. Such document(s) may include but not limited to data, lists and schedules of payments and/or rates and prices, guarantees, and insurance.

2.83. "**Schedule of Payments**" means the document(s) entitled schedule of payments (if any) in the Schedules showing the amounts and manner of payments to be made to the Contractor.

- 2.84. **"Schedule of Performance Guarantees"** means the document(s) entitled schedule of performance guarantees (if any) in the Schedules showing the guarantees required by the Employer for performance of the Works and/ or the Plant or any part of the Works (as the case may be) and stating the applicable Performance Damages payable in the event of failure to attain any of the guaranteed performance(s).
- 2.85. **"Schedule of Rates and Prices"** means the document(s) entitled schedule of rates and prices (if any) in the Schedules.
- 2.86. **"Section"** means a part of the Works specified in this Contract Data as a Section (if any).
- 2.87. **"Site(s)"** means the places where the Permanent Works are to be executed and to which Plant and Materials are to be delivered, and any other places specified in this Contract as forming part of the Site.
- 2.88. **"Special Provisions"** means the document (if any), entitled special provisions which constitutes Part B of the Particular Conditions.
- 2.89. **"Statement"** means a statement submitted by the Contractor as part of an application for a Payment Certificate under Sub-Clause [Application for Interim Payment], Sub-Clause [Statement at Completion] or Sub-Clause [Fine/Statement].
- 2.90. **"Subcontractor"** means any person named in this Contract as a subcontractor, or any person appointed by the Contractor as a subcontractor or designer, for a part of the Works; and the legal successors in title to each of these persons.
- 2.91. **"Taking-Over Certificate"** means a certificate issued (or deemed to be issued) by the Engineer in accordance with Clause 10 [The Employer's Taking Over].
- 2.92. **"Temporary Works"** means all temporary works of every kind (other than Contractor's Equipment) required on Site(s) for the execution of the Works.
- 2.93. **"Tender"** means the Letter of Tender, the Contractor's Proposal, the JV Undertaking (if applicable), and all other documents which the Contractor submitted with the Letter of Tender, as included in this Contract.
- 2.94. **"Tests after Completion"** means the tests (if any) which are stated in the Specification, and which are carried out in accordance with the Special Provisions after the Works or a Section (as the case may be) are taken over under Clause 10 [The Employer's Taking Over].
- 2.95. **"Tests on Completion"** means the tests which are specified in this Contract or agreed by both Parties or instructed as a Variation, and which are carried out under Clause 9 [Tests on Completion] before the Works or a Section (as the case may be) are taken over under Clause 10 [The Employer's Taking Over].

- 2.96. **"Time for Completion"** means the time for completing the Works or a Section (as the case may be) under Sub-Clause [Time for Completion], as stated in this Contract Data as may be extended under Sub-Clause [Extension of Time for Completion], calculated from the Commencement Date.
- 2.97. **"Total Contract Price"** or **"TCP"** or the **"Contract Value"** means the adjusted and varied from time to time throughout the duration of this Contract).
- 2.98. **"Unforeseeable"** means not reasonably foreseeable by an experienced contractor by the Base Date.
- 2.99. **"Variation"** means any change to the Works, which is instructed as a variation under Clause 13 [Variations and Adjustments].
- 2.100. **"Works"** mean the Permanent Works and the Temporary Works, or either of them as appropriate. The Works is, at a minimum, summarised as follows:
- 2.100.1. Provision of an Electronic Authorisation System.
- 2.100.2. Provision of all enabling and specified Railway Signalling System ("RSS"), Telecommunication and other works.
- 2.100.3. Provision of all required solutions (to be approved by the Employer and/or Engineer) and resources (to be approved by the Employer and/or Engineer) to deliver and maintain the Works.
- 2.100.4. Any other works, activities and resources required to achieve a fully integrated, functional, complete, reliable, available, maintained and secure future-proofed EAS and meet any other requirements and specifications as requested throughout the Employers Requirements or as otherwise instructed in writing by the Employer.
- 2.101. **"Year"** means 365 calendar days.

3. **INTERPRETATION**

In this Contract, except where the context requires otherwise:

- 3.1. words indicating one gender include all genders; and "he", "his" and "himself" shall be read as "he/she", "his/her" and "himself/herself" respectively.
- 3.2. words indicating the singular also include the plural and words indicating the plural also include the singular.
- 3.3. provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing.
- 3.4. "Written" or "in writing" means hand-written, type-written, printed, or electronically made, and resulting in a permanent record.

- 3.5. "May" means that the Party or person referred to has the choice of whether to act or not in the matter referred to.
- 3.6. "Shall" means that the Party or person referred to has an obligation under this Contract to perform the duty referred to.
- 3.7. "Approval" means that the Employer, the Contractor or the Engineer (As the case may be) agrees to, or gives permission for, the requested matter;
- 3.8. "including", "include" and "includes" shall be interpreted as not being limited to, or qualified by, the stated items that follow.
- 3.9. words indicating persons or parties shall be interpreted as referring to natural and legal persons (including corporations and other legal entities); and receives such Notice.
- 3.10. "Execute the Works" or "execution of the Works" means the design, construction and completion of the Works and the remedying of any defects.
- 3.11. In any list in these Conditions, where the second-last item of the list is followed by "and" or "or" or "and/or" then all of the list items going before this item shall also be read as if they are followed by "and" or "or" or "and/or" (as the case may be).
- 3.12. The marginal words and other headings shall not be taken into consideration in the interpretation of the Conditions.

4. **APPOINTMENT**

- 4.1. The Employer reserves its rights to select a Preferred Contractor and a Reserve Contractor.
- 4.2. A Preferred Contractor shall be a Contractor to whom the Employer initially intends to award this Contract after successful conclusion of negotiations.
- 4.3. A Reserve Contractor shall be a Contractor to whom the Employer intends to award this Contract, if the Preferred Contractor did not exist and/or agreement is not reached between the Employer and the Preferred Contractor for any reason whatsoever, subject to successful conclusion of negotiations with the Reserve Contractor.
- 4.4. The Employer hereby appoints Contractor (being the Preferred Contractor) who accepts such appointment, as stated in the Appointment Letter dated _____ attached herein as Annexure "A", to provide the Services as set out in the Employers Requirements.

5. **CONTRACT AMOUNT**

5.1. **SUFFICIENCY OF THE ACCEPTED CONTRACT AMOUNT**

- 5.1.1. The Contractor shall be deemed to have satisfied himself/herself as to the correctness and sufficiency of the Accepted Contract Amount which, at a minimum, is fixed and includes the following:
- 5.1.1.1. The price for the whole of the Works (regardless of whether of a temporary or permanent nature) including additional Works (regardless of whether of a temporary or permanent nature) which the Contractor shall require to achieve successful completion of the whole of the Works, the Project and this Contract.
- 5.1.1.2. All Funding costs which the Contractor shall require to manage the Contractor's cash flow for the entire duration of this Contract (to be transparently and separately shown for every cost item included in the Accepted Contract Amount and the TCP).
- 5.1.1.3. All South African and International Taxes for the entire duration of this Contract (to be transparently and separately shown for every cost item included in the Accepted Contract Amount and the TCP).
- 5.1.1.4. All Foreign Currency and Exchange ("FOREX") costs for the entire duration of this Contract (to be transparently and separately shown for every cost item included in the Accepted Contract Amount and the TCP).
- 5.1.1.5. All Escalation for the entire duration of this Contract (to be transparently and separately shown for every cost item included in the Accepted Contract Amount and the TCP).
- 5.1.1.6. The Contractor being an expert in the Planning, Design, Supply, Construction, Installation, Testing, Commissioning and Maintenance of the Project/Works and has, as part of the Accepted Contract Amount and TCP, made provision for all costs required to achieve successful completion of the Works, the Project and this Contract.
- 5.1.1.7. The Contractor has complied with the Employer's Requirements for the Contractor not excluding or qualifying the Employer's Requirements and/or Conditions of Invitation and/or Instructions to Contractor as stated throughout the RFP.
- 5.1.1.8. The Contractor has made provision for any additional Works and related costs, that the Contractor (being an expert) shall be required to achieve successful completion of the whole of the Works, the Project and this Contract, as part of the Accepted Contract Amount and TCP.
- 5.1.1.9. The Accepted Contract Amount shall be deemed to cover all the Contractor's obligations under this Contract and all things necessary for the proper execution of the Works in accordance with this Contract, the Employer's Requirements and the RFP.

5.2. **CONDUCTING SITE(S) DUE DILIGENCE**

5.2.1. **SITE(S) DATA AND SECURITY OF THE SITE(S)**

- 5.2.1.1. The Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances, which may influence or affect the Works and the Contractor's pricing. To the same extent, the Contractor shall be deemed to have inspected and examined the Site(s) and surroundings, and other available information, and to have been satisfied before submitting the Bid as to all relevant matters, including (without limitation):
- 5.2.1.1.1. The extent and nature of all Works including, but not limited to, all necessary requirements and solutions that the Contractor shall have to meet, and respectively provide, for the Contractor's achievement of successful execution and completion of the Works, the Project and the Contract (including remedying of any defects).
- 5.2.1.1.2. The Laws, procedures and labour practices of South Africa.
- 5.2.1.1.3. The Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.
- 5.2.1.1.4. The extent and nature of all Works including, but not limited to, all necessary requirements and solutions that the Contractor shall have to meet to protect the Site(s) and the Works by preventing theft and vandalism and respectively provide, for the Contractor's achievement of successful execution and completion of the Works, the Project and the Contract (including remedying of any defects).

5.3. **CONTRACT PRICE**

Unless otherwise stated elsewhere in the Contract:

- 5.3.1. The Contract Price is the Initial Contract Price consisting of the lump sum Accepted Contract Amount, for the execution of the Works in accordance with the contract after negotiations between the parties.
- 5.3.2. The Contractor shall pay all taxes, duties and fees required to be paid by the Contractor under the Contract, and the contract price shall not be adjusted for any of these costs.
- 5.3.3. The Contractor's Bid Price, as may be amended through negotiations, shall be the fixed price Accepted Contract Amount or the Initial Contract Price ("ICP").
- 5.3.4. The Initial Contract Price may be subject to variations and Adjustments (additions or deductions) as the Contract is executed and in accordance with the provisions of the Contract for such adjustments. Such Variations and Adjustments shall form the Total Contract Price ("TCP"), or the "Contract Value" as adjusted and varied from time to time throughout the duration of the Contract.

- 5.3.5. Unless otherwise agreed to in writing by the Employer and/or the Engineer, the Contractor's submission of variations or adjustments relating to any of the Contractor's obligation to meet the Employer's Requirements, the RFP and this Contract shall not, throughout the duration of the Contract, be entertained by the Employer and/or Engineer.
- 5.3.6. The TCP is all-inclusive, and includes the following at a minimum:
- 5.3.6.1. The price for the whole of the Works (regardless of whether of a temporary or permanent nature) including additional Works (regardless of whether of a Temporary or Permanent nature) which the Contractor deems to be required to achieve successful completion of the whole of the Works, the Project and the Contract.
- 5.3.6.2. All Funding costs which the Contractor will require to manage the Contractor's cash flow for the entire duration of the Contract (to be transparently and separately shown for every cost item included in the TCP).
- 5.3.6.3. All South African and International Taxes for the entire duration of the Contract (to be transparently and separately shown for every cost item included in the TCP).
- 5.3.6.4. All Foreign Currency and Exchange ("FOREX") costs for the entire duration of the Contract (to be transparently and separately shown for every cost item included in the TCP).
- 5.3.6.5. All Escalation for the entire duration of the Contract (to be transparently and separately shown for every cost item included in the TCP).
- 5.3.7. The Contractor shall, at a minimum and as part of the TCP, provide transparent detailed Pricing Sheets as the Contractor may require for meeting all obligations under the Contract.
- 5.3.8. The Contractor shall take unequivocal responsibility for ensuring that all, formulae, arithmetical calculations and the like are correct in the detailed Pricing Sheets submitted as part of the Contractor's Proposal and the TCP.
- 5.3.9. After deriving the Contractor's intended Bid Price, the Contractor shall allow a bottom line Employer Project Contingency Allowance equal to 10% of this intended Bid Price (including VAT) to form the Bid Price (which shall be the Price submitted in the Contractor's Form of Offer excluding/including VAT as stipulate elsewhere in the RFP).The Contractor shall never place reliance on this Allowance when pricing the full requirements of the RFP, this Contract, the Project, and the Works, nor throughout the duration of the Contract, since the Employer and/or Engineer may, at the Employer and/or the Engineer's sole discretion, and at any point in time, remove this Allowance from the TCP for which such removal shall not relieve the Contractor of the Contractor's

obligations to deliver the Contract, Project, and the Works, terms in any manner whatsoever.

- 5.3.10. The Contractor shall further, as part of the Employer's Requirements and the Contract, provide a detailed list of personnel envisaged to be utilised on the Project together with each person's function/roles/responsibilities further providing Hourly Rates for each person linked to each function/role/responsibility. Such Hourly Rates shall be as at the Commencement Date and transparently demonstrate the calculation of each Hourly Rate (i.e., proven cost plus overhead plus profit) using the Department of Public Service and Administration ("DPSA") method.

6. **PURPOSE OF AGREEMENT**

6.1. **PURPOSE**

- 6.1.1. The Employer appoints the Contractor as the suitable service provider for the planning, design, supply, construction, installation, testing, commissioning and maintenance of a new fully integrated, functional, complete and future-proofed PRASA Electronic Authorisation System ("EAS") in the Employer's Gauteng ("GP"), KwaZulu-Natal ("KZN") and Western Cape ("WC") service regions. .

6.2. **CONTRACT AGREEMENT**

- 6.2.1. The Parties shall sign a Contract Agreement within 35 calendar days after the Contractor receives the Letter of Acceptance unless they agree otherwise. This Contract Agreement shall be based on the form annexed to the Particular Conditions. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into this Contract Agreement shall be borne by the Employer.
- 6.2.2. If the Contractor comprises a JV, the authorised representative of each member of the JV shall sign this Contract Agreement.
- 6.2.3. Notwithstanding the date of signature of this Contract, the Commencement Date shall be as per the Engineer's Notice to the Contractor stating the Commencement date, not less than 14 calendar days before the Commencement Date.
- 6.2.4. If the Contractor comprises a JV or a Consortium, the authorised representative of each member of the JV or the Consortium shall sign this Contract Agreement.

6.3. **RELATIONSHIP**

- 6.3.1. Nothing in this Agreement shall constitute or be deemed to constitute a partnership or joint venture between the Parties. Furthermore, the Contractor acknowledges and agrees that its status under this Agreement is that of an independent Service Provider and its status shall in no way be deemed to be that of an agent or employee of the Employer, for any purpose whatsoever, and

the Contractor shall have no authority or power to bind the Employer or to contract in the name of the Employer or create a liability against the Employer in any way or for any purpose.

6.4. **AFFILIATION OF LIABILITY**

6.4.1. Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with this Contract, other than under:

6.4.1.1. Sub-Clause 8.8 [Delay Damages].

6.4.1.2. sub-paragraph (c) of Sub-Clause 13.3.1 [Variation by Instruction].

6.4.1.3. Sub-Clause 15.7 [Payment after Termination for The Employer's Convenience].

6.4.1.4. Sub-Clause 16.4 [Payment after Termination by Contractor].

6.4.1.5. Sub-Clause 17 .3 [Intellectual and Industrial Property Rights].

6.4.1.6. the first paragraph of Sub-Clause 17.4 [Indemnities by Contractor] and

6.4.1.7. Sub-Clause 17.5 [Indemnities by The Employer].

6.4.2. The total liability of the Contractor to the Employer under or in connection with this Contract, other than:

6.4.2.1. under Sub-Clause 2.6 [The Employer-Supplied Materials and The Employer's Equipment]

6.4.2.2. under Sub-Clause 4.19 [Temporary Utilities]

6.4.2.3. under Sub-Clause 17.3 [Intellectual and Industrial Property Rights]

6.4.2.4. and under the first paragraph of Sub-Clause 17.4 [Indemnities by Contractor]

6.4.3. Shall not exceed the sum stated in this Contract Data or (if a sum is not so stated) the Accepted Contract Amount.

6.4.4. This Sub-Clause shall not limit liability in any case of fraud, gross negligence, deliberate default, or reckless misconduct by the defaulting Party.

7. **DURATION AND TERMINATION OF CONTRACT**

7.1. **PROJECT PROGRAMME AND TIME MANAGEMENT**

7.1.1. Notwithstanding the date of signature of this Contract, the Time for Completion for the Design and Construction portion of the Works (excluding the full

Maintenance, Warranty and Defects Liability period) is 1095 calendar days from the agreed Commencement Date (agreed Commencement Date inclusive).

- 7.1.2. Achievement of this timeline will require an accelerated Project Programme with possible weekend work, overtime work and work during the night. The Contractor shall allow for all activities, time and costs associated with all such requirements in the Contractor's Proposal.
- 7.1.3. Major Milestones, Deliverables and Key Dates shall, at a minimum, include the Time for Completion, the Completion Date and Section completion dates.
- 7.1.4. The first Major Milestone and Deliverable, that the Contractor shall include in the Bid Project Programme (the "Bid Programme"), shall be successful completion of Validation of the EAS to the absolute satisfaction of the Employer and/or Engineer for which the Key Date is fixed as the 180th calendar day after the agreed Commencement Date. Failure of the Contractor to achieve this Major Milestone and Deliverable on this Key Date shall give the Employer and/or Engineer an unprejudiced right to immediately Terminate the Contract and claim damages from the Contractor and/or apply penalties (as specified throughout the Employers Requirements) from the aforementioned date until the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that all Validation is completed.
- 7.1.5. Other Major Milestones, Deliverables and Key Dates that the Contractor shall include in the Bid Programme, at a minimum, are:
 - 7.1.5.1. Completion of each Section of the Works.
 - 7.1.5.2. Completion of each interface to the TFR Network.
 - 7.1.5.3. Completion of each line.
 - 7.1.5.4. Failure of the Contractor to achieve any of these Major Milestones and Deliverables on these Key Dates shall give the Employer an unprejudiced discretionary right to immediately Terminate this Contract and claim Damages from the Contractor and/or apply penalties (as specified throughout the Employers Requirements) from the aforementioned date until the date on which the Employer confirms, in writing, that the Employer is completely satisfied that all Validation is completed. The minimum costs and Damages that the Contractor shall pay the Employer is the total amount of money paid to the Contractor plus any other amounts which the Contractor may have been due as at the date of each Key Date.
 - 7.1.5.5. The Contractor shall always submit a comprehensive Microsoft Project Programme (showing durations of activities in working days) which shall, at a minimum, clearly show:
 - 7.1.5.5.1. Major Milestones and Deliverables including Key Dates throughout the life of the Project that must be met for the Project to finish on time. Major Milestones,

Deliverables and Key Dates shall identify intervals that shall reflect appropriate progress of the Project and whether or not the Contractor is meeting the Contractor's contractual obligations (including, but not limited to; completion of Sections, the Time for Completion of the whole of the Works, achievement of the Completion Date, material rate of progress of the Works, measurement of Contractor performance, penalty calculations and Contract Termination) and establish intervals that shall reflect appropriate progress of the Project.

- 7.1.5.5.2. A detailed Work Breakdown Structure ("WBS") which shall be a description of tasks arranged and linked in layers of detail. The WBS shall further incorporate all Major Milestones, Deliverables and linked Key Dates.
- 7.1.5.5.3. A detailed Project Plan which shall list and link all activities that are needed to accomplish the tasks identified in the WBS.
- 7.1.5.5.4. The sequencing of the activities according to the order in which the activities are to be accomplished including a Logic Diagram that shall represent the logical sequence of the activities required to complete the Project.
- 7.1.5.5.5. The start and finish dates of each task and activity and the duration of each task and activity whereby some tasks and activities may have to be done sequentially and some concurrently.
- 7.1.5.5.6. The longest path to the completion of the Project therefore the critical path including linking of all dependencies affecting the critical path.
- 7.1.5.5.7. The TCP allocated to each Major Milestone, Deliverable, task and activity in detail.
- 7.1.5.5.8. Project Resources (overheads, human resources, Plant and Materials and Equipment etc.) allocated to each Major Milestone, Deliverable, task and activity.
- 7.1.5.5.9. Scheduling of activities in a manner that effectively and efficiently uses Project resources and completes the Project in the shortest practical time.
- 7.1.5.5.10. Sundays as non-working calendar days.
- 7.1.5.5.11. All official statutory Public Holidays, as declared by the South African National Government as non-working calendar days.
- 7.1.5.5.12. All foreseeable statutory national, provincial or municipal Election Days as declared by the South African National Government.
- 7.1.5.5.13. 14 calendar days (including Sundays, Public Holidays and Election Days) as non-working days for Easter breaks in each calendar year.

- 7.1.5.5.14. 28 calendar days (including Sundays, Public Holidays and Election Days) as non-working calendar days for mid-December to mid-January for Construction industry breaks in each calendar year.
- 7.1.5.5.15. Provision for adequate calendar rain days throughout this Contract duration for which such determination shall, at a minimum, be guided by reports officially published by the South African Weather Service ("SAWS").
- 7.1.5.6. The following levels:
 - 7.1.5.6.1. Level 1 Master Programme - defines the major operations and interfaces between Engineering Design, procurement, fabrication and assembly of Plant and Materials, transportation, Construction, Testing and pre- Commissioning, Commissioning, finalisation and completion.
 - 7.1.5.6.2. Level 2 Project Programme - summary Programmes 'rolled up' from Level 3 Project Programme described below.
 - 7.1.5.6.3. Level 3 Project Programme - detailed Programmes generated to demonstrate all operations identified on the Programme from the Commencement Date to the Completion Date.
 - 7.1.5.6.4. Level 4 Project Programme - detailed discipline specific level developed and maintained by the Contractor relating to all operations identified on the Programme representing the daily activities by each discipline.
- 7.1.5.7. A narrative status report, which includes precise status and performance of operations in the Working Areas, precise status and performance of operations outside the Working Areas, manpower histograms, S-curve of overall progress, critical action items (top 20) and deviations from the Accepted Programme and action plan to rectify.
- 7.1.5.8. All other activities of the Project and the Employer and/or Engineer, approval authorities, TFR and other interdependencies and interfaces which affect the delivery of the Works.
- 7.1.5.9. Scheduling constraints that the Contractor shall adequately plan and provide for in the Approved Baseline Programme / Approved Programme include:
 - 7.1.5.9.1. The lead-time for arranging Site(s) access is at least 60 working days after all requirements for Site(s) access are met and at least 60 working days after the Commencement Date.
 - 7.1.5.9.2. The Contractor gives the Employer and/or Engineer Notice of at least 40 working days to source specific existing information and as-built drawings.
 - 7.1.5.9.3. The Employer and/or Engineer shall be given at least 40 working days each to check, comment on and/or approve all of the Contractor's Project Documentation submitted throughout the duration of this Contract (including,

but not limited to, methodologies, implementation plans, reports, Designs, quality plan, safety case, safety management plan and environmental management plan).

- 7.1.5.9.4. The Employer and/or Engineer acceptance checking of the Contractor's Designs shall take at least 40 working days per control area. No more than 2 control areas shall be checked for acceptance at any given time.
- 7.1.5.9.5. Excluding the Commissioning Occupation, ad-hoc Testing and inspections by the Employer and/or Engineer shall take on average, a minimum, of 5 working days per control area which may run concurrently if 2 control areas are required at the same time.
- 7.1.5.9.6. The minimum lead-time for the Employer and/or Engineer arranging Occupations is 60 working days after the Employer and/or Engineer's approval of the Contractor's Occupation plan and Test copies of all relevant drawings related to an Occupation.
- 7.1.5.9.7. Occupations shall not take place on any non-working calendar days.
- 7.1.5.9.8. The Contractor shall submit the Occupation plan and Test copies of all relevant drawings for the Employer and/or Engineer's approval of any Occupation at least 120 working days before each Occupation.
- 7.1.5.9.9. the Employer and/or Engineer's approval inspection (walk-through) shall take, a minimum, of 5 working days per site, which may run concurrently, if more than 1 site is required at the same time.
- 7.1.5.9.10. the Employer and/or Engineer's approval Testing and Commissioning shall take 10 working days during each Commissioning Occupation.
- 7.1.5.9.11. After Commissioning each station, 40 working days are allowed for the Contractor's finalisation of as-built drawings, manuals, quality records, Software data records, Technology transfer and other documentation, or as specified throughout the Employer's Requirements (including but not limited to that which is specified in the GTRs, PTRs and/or MTR).
- 7.1.5.9.12. The Contractor initial submission of all as-built documentation for a Section shall be within 10 working days after a Section is commissioned and within 40 working days after the whole of the Works is commissioned.
- 7.1.6. Sequence of the Works:
- 7.1.6.1. The Contractor shall plan the Works to meet the Sectional completion dates, otherwise also included under the definition of Key Dates or as otherwise instructed by the Employer and/or Engineer.
- 7.1.6.2. The enabling and specified RSS, Telecommunications and other Works, shall not precede the EAS Works with more than 1 Section.

- 7.1.6.3. The Commissioning Occupation dates for different Sections shall not overlap.
- 7.1.6.4. The Bid Programme shall be finalised and agreed between the Employer and/or Engineer and the Contractor during Contract negotiations to form the Approved Baseline Contract Programme/Approved Programme ("APCL"):
- 7.1.6.5. Any changes and/or updates to the Approved Programme (including, but not limited to, tracking progress or relating to the Employer and/or Engineer approved changes i.e., extensions of time claims, variation order time impacts etc.) shall be recorded in detail in an APCL.
- 7.1.6.6. The APCL shall state the activity number and the changes made (constraint date, logic that was changed, duration change), the reason for the change and the date of the change.
- 7.1.6.7. The process of changing and/or updating the Approved Programme shall include the following steps:
 - 7.1.6.7.1. Collect data on actual Works completed and remaining Works to be completed.
 - 7.1.6.7.2. Update the current Approved Programme with actual progress of Works completed.
 - 7.1.6.7.3. Compare and resolve any deviations and/or anomalies.
 - 7.1.6.7.4. Update the current Approved Programme with the Employer and/or Engineer approved changes.
 - 7.1.6.7.5. Distribute the next version of the Programme for the Employer and/or Engineer approval.
 - 7.1.6.7.6. The next version of the Programme, that is approved by the Employer and/or Engineer becomes the new "Approved Contract Programme/Approved Programme".
 - 7.1.6.7.7. On each revised Programme, the Contractor shall show a resource histogram showing planned progress versus actual, deviations from the Accepted Programme and any remedial actions proposed by the Contractor.
 - 7.1.6.7.8. The Contractor's Programme shall show the requirements of the System Engineering Services ("SES"), Project Engineering Services ("PES"), Safety Management Plan.

7.2. **COMMENCEMENT, DELAYS AND SUSPENSION**

7.2.1. **COMMENCEMENT OF WORKS**

7.2.1.1. The Employer and/or Engineer shall give a Notice, in writing, to the Contractor stating the Commencement to Date, not less than 14 calendar days before the Commencement Date. Unless it is otherwise stated in the Employers Requirements, be as instructed by the Employer and/or Engineer. NO work shall be done at the Site(s) prior to the Commencement Date.

7.2.1.2. The Contractor shall commence the execution of the Works on, or as soon as is reasonably practicable after, the Commencement Date and shall then proceed with the Works with due expedition and without delay.

7.2.2. **PROGRAMME**

7.2.2.1. The Contractor shall submit an initial Programme for the execution of the Works to the Employer and/or Engineer within 28 days after receiving the Notice under this Contract. This Programme shall be prepared using programming software stated in the Employer's Requirements (if not stated, the programming software acceptable to the Engineer). The Contractor shall also submit a revised Programme which accurately reflects the actual progress of the Works, whenever any Programme ceases to reflect actual progress or is otherwise inconsistent with the Contractor's obligations.

7.2.2.2. The initial Programme and each revised Programme shall be submitted to the Employer and/or Engineer in one paper copy, one electronic copy and additional paper copies (if any) as stated in the Employers Requirements, and shall include:

7.2.2.2.1. the Commencement Date and the Time for Completion, of the Works and of each Section (if any);

7.2.2.2.2. the date right of access to and possession of (each part of the Site(s) is to be given to the Contractor in accordance with the time (or times) stated in Employers Requirements. If not stated, the dates the Contractor requires the Employer and/or Engineer to give right of access to and possession of (each part of the Sites); the order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design, preparation and submission of Contractor's Documents, procurement, manufacture, inspection, delivery to Site(s), construction, erection, installation, work to be undertaken by any nominated Subcontractor (as defined in this Contract), testing, commissioning and trial operation;

7.2.2.2.3. the Review periods under this Contract. and periods for Review for any other submissions specified in the Employer's Requirements or required under these Conditions;

7.2.2.2.4. the sequence and timing of inspections and tests specified in, or required by, this Contract;

- 7.2.2.2.5. for a revised Programme: the sequence and timing of the remedial work (if any) to which the Employer and/or Engineer has given a Notice of No-objection under this Contract and/or the remedial work (if any) instructed under this Contract;
- 7.2.2.2.6. all activities (to the level of detail specified in the Employer's Requirements), logically linked and showing the earliest and latest start and finish dates for each activity, the float (if any), and the critical path(s);
- 7.2.2.2.7. the dates of all locally recognised days of rest and holiday periods (if any);
- 7.2.2.2.8. all key delivery dates of Plant and Materials;
- 7.2.2.2.9. for a revised Programme and for each activity: the actual progress to date, any delay to such progress and the effects of such delay on other activities (if any); and
- 7.2.2.2.10. a supporting report which includes:
 - 7.2.2.2.10.1. a description of all the major stages of the execution of the Works;
 - 7.2.2.2.10.2. a general description of the methods which the Contractor intends to adopt in the execution of the Works;
 - 7.2.2.2.10.3. details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel, and of each type of Contractor's Equipment, required on the Site(s), for each major stage of the execution of the Works;
 - 7.2.2.2.10.4. if a revised Programme, identification of any significant change(s) to the previous Programme submitted by the Contractor; and
 - 7.2.2.2.10.5. the Contractor's proposals to overcome the effects of any delay(s) on progress of the Works.
- 7.2.2.3. The Employer and/or Engineer shall Review the Initial Programme and each revised Programme submitted by the Contractor and may give a Notice, in writing, to the Contractor stating the extent to which it does not comply with this Contract or ceases to reflect actual progress or is otherwise inconsistent with the Contractor's obligations. If the Employer and/or Engineer gives no such Notice:
 - 7.2.2.3.1. within 21 calendar days after receiving the initial Programme; or
 - 7.2.2.3.2. within 14 calendar days after receiving a revised Programme
- 7.2.2.3.3. the Engineer shall be deemed to have given a Notice of No-objection and the initial Programme or revised Programme (as the case may be) shall be the Programme.

- 7.2.2.4. The Contractor shall proceed in accordance with the Programme, subject to the Contractor's other obligations under this Contract. The Employer's Personnel shall be entitled to rely on the Programme when planning their activities.
- 7.2.2.5. Nothing in any Programme, the Programme or any supporting report shall be taken as or relieve the Contractor from any obligation to give, a Notice under this Contract.
- 7.2.2.6. If, at any time, the Employer and/or Engineer gives a Notice, in writing, to the Contractor that the Programme fails (to the extent stated) to comply with this Contract or ceases to reflect actual progress or is otherwise inconsistent with the Contractor's obligations, the Contractor shall within 14 calendar days after receiving this Notice submit a revised Programme to the Employer and/or Engineer in accordance with this Contract.

7.2.3. **TIME OF COMPLETION**

- 7.2.3.1. Notwithstanding the date of signature of this Contract, the Time for Completion for the Design and Construction portion of the Works (excluding the full Maintenance, Warranty and Defects Liability period) is 1460 calendar days from the agreed Commencement Date (agreed Commencement Date inclusive).
- 7.2.3.2. Notwithstanding the date of signature of this Contract, the Time for Completion for the whole of the Works (including the full Maintenance, Warranty and Defects Liability period) is therefore 1640 calendar days from the agreed Commencement Date (agreed Commencement Date inclusive).
- 7.2.3.3. Notwithstanding the date of signature of this Contract, the Completion Date for the whole of the Works (including the full Maintenance, Warranty and Defects Liability period) is therefore 1640 calendar days from the agreed Commencement Date (agreed Commencement Date inclusive).
- 7.2.3.4. The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion for the Works or Section (as the case may be), including completion of all work which is stated in this Contract as being required for the Works or Section to be considered to be completed for the purposes of taking over under this Contract.

7.2.4. **ADVANCE WARNING**

- 7.2.4.1. Each Party shall advise the other and the Employer and/or Engineer shall advise the Parties, in advance of any known or probable future events or circumstances which may:
- 7.2.4.1.1. adversely affect the work of the Contractor's Personnel, the Employer's Personnel and the Engineer's Personnel;
- 7.2.4.1.2. adversely affect the performance of the Works when completed;

- 7.2.4.1.3. increase this Contract Price; and/or
- 7.2.4.1.4. delay the execution of the Works or a Section (if any).
- 7.2.4.2. The Employer and/or Engineer may request the Contractor to submit a proposal under this Contract to avoid or minimize the effects of such event(s) or circumstance(s).

7.2.5. **EXTENSION OF TIME OF COMPLETION**

- 7.2.5.1. The Contractor, at the discretion of the Employer and/or Engineer, may only be entitled to Extension of Time, subject to this Contract if and to the extent that completion for the purposes of this Contract is or will be delayed by any of the following causes:
 - 7.2.5.1.1. An Employer and/or Engineer approved Variation.
 - 7.2.5.1.2. An Employer and/or Engineer approved cause of delay giving an entitlement to EOT under this Contract;
 - 7.2.5.1.3. An Employer and/or Engineer accepted exceptionally adverse climatic conditions, which for the purpose of this Contract shall mean adverse climatic conditions at the Site(s) which are Unforeseeable having regard to climatic data made available by the Employer under this Contract and/or climatic data published in the Republic of South Africa;
 - 7.2.5.1.4. An Employer and/or Engineer accepted unforeseeable shortages in the availability of personnel or Goods (or The Employer-Supplied Plant and Materials, if any) caused by epidemic or governmental actions; or
 - 7.2.5.1.5. An Employer and/or Engineer approved delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors on the Site(s).
- 7.2.5.2. When determining each EOT under this Contract, the Employer and/or Engineer shall review previous determinations under this Contract and may increase or decrease, the total EOT.
- 7.2.5.3. If a delay caused by a matter which is the Employer and/or Engineer's responsibility is concurrent with a delay caused by a matter which is the Contractor's responsibility, the Contractor's entitlement to EOT shall be assessed and approved in accordance with the rules and procedures stated in the Special Provisions (if not stated, then as determined by the Employer and/or Engineer taking due regard of all relevant circumstances).

7.2.6. **DELAYS CONSTITUTED BY AUTHORITIES**

- 7.2.6.1. It is agreed that if:

- 7.2.6.1.1. the Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities or private utility entities in the Republic of South Africa;
- 7.2.6.1.2. these authorities or entities delay or disrupt the Contractor's work; and
- 7.2.6.1.3. only if the delay or disruption is approved as an Exceptional Event by the Employer and/or Engineer, then this delay or disruption will be considered as a cause of delay under this Contract.

7.2.7. **RATE OF PROGRESS**

- 7.2.7.1. If, at any time:
 - 7.2.7.1.1. actual progress is too slow to complete the Works or a Section (if any) within the relevant Time for Completion; and/or
 - 7.2.7.1.2. progress has fallen (or will fall) behind the Programme (or the initial Programme if it has not yet become the Programme) under this Contract,
 - 7.2.7.1.3. other than as a result of a cause listed in this Contract, then the Employer and/or Engineer may instruct the Contractor to submit, in writing, under this Contract, a revised Programme describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete the Works or a Section (if any) within the relevant Time for Completion.
- 7.2.7.2. Unless the Employer and/or Engineer gives a written Notice to the Contractor stating otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or the Goods, at the Contractor's risk and cost. If these revised methods cause the Employer to incur additional costs, the Employer shall be entitled subject to this Contract to payment of these costs by the Contractor, in addition to Delay Damages (if any) and Penalties.

7.3. **TERMINATION OF CONTRACT**

7.3.1. **NOTICE TO CORRECT**

- 7.3.1.1. If the Contractor fails to carry out any obligation under the Employer's Requirements, this Contract and the RFP, the Employer has an unprejudiced discretionary right to immediately terminate the Contract, without allowing the Contractor any period of rectification, and all costs, damages and penalties related to such termination shall be borne by the Contractor.
- 7.3.1.2. In the event that the Employer decides to afford the Contractor the opportunity to correct the defect or failure and/or any other obligation under the Employer's Requirements, this Contract and the RFP, the Employer and/or Engineer (acting under the written instruction of the Employer) may, by giving Notice, in writing,

to the Contractor, require the Contractor to make good the failure and to remedy it within a specified time ("Notice to Correct" in these Conditions).

- 7.3.1.3. The Notice to Correct shall, if deemed necessary by the Employer and/or Engineer:
- 7.3.1.4. describe the Contractor's failure; and/or
- 7.3.1.5. state the Sub-Clause and/or provisions of the Contract under which the Contractor has the obligation; and/or
- 7.3.1.6. specify the time within which the Contractor shall remedy the failure, which shall be reasonable, taking due regard of the nature of the failure and the work and/or other action required to remedy it.
- 7.3.1.7. After receiving a written Notice to Correct the Contractor shall within 7 (seven) calendar days respond by giving a Notice, in writing, to the Employer and/or Engineer describing (in detail) the measures the Contractor will take to remedy the failure and stating the date on which such measures will be commenced in order to comply with the time specified in the Notice to Correct. The time specified in the Notice to Correct shall not imply any extension of the Time for Completion or any additional costs to the TCP.

7.3.2. **TERMINATION FOR CONTRACTORS DEFAULT**

- 7.3.2.1. Termination of this Contract under this Clause shall not prejudice any other rights of the Employer under this Contract or otherwise.
- 7.3.2.2. Notice
 - 7.3.2.2.1. The Employer and/or Engineer shall be entitled to give a Notice, in writing, (which shall state that it is given under this Sub-Clause) to the Contractor of the Employer and/or Engineer's intention to terminate this Contract or, in the case of the sub-paragraphs below a Notice of termination, if the Contractor:
 - 7.3.2.2.1.1. fails to comply with:
 - 7.3.2.2.1.1.1. a Notice to Correct;
 - 7.3.2.2.1.1.2. a binding agreement, or final and binding determination, under this Contract; or
 - 7.3.2.2.1.1.3. a decision of the DAAB under this Contract (whether binding or final and binding) and such failure constitutes a material breach of the Contractor's obligations under this Contract;
 - 7.3.2.2.1.2. abandons the Works or otherwise plainly demonstrates an intention not to continue performance of the Contractor's obligations under this Contract;

- 7.3.2.2.1.3. without reasonable excuse fails to proceed with the Works in accordance with this Contract or, if there is a maximum amount of Delay Damages stated in the Employers Requirements, the Contractor's failure to comply with this Contract is such that the Employer would be entitled to Delay Damages that exceed this maximum amount;
- 7.3.2.2.1.4. without reasonable excuse fails to comply with a Notice of rejection given by the Employer and/or Engineer under this Contract or an Employer and/or Engineer's instruction under this Contract, within 28 calendar days after receiving it;
- 7.3.2.2.1.5. fails to comply with Sub-Clause Performance Security;
- 7.3.2.2.1.6. subcontracts the whole, or any part of, the Works in breach of this Contract, or assigns this Contract without the required agreement under this Contract;
- 7.3.2.2.1.7. becomes bankrupt or insolvent; goes into liquidation, administration, reorganization, winding-up or dissolution; becomes subject to the appointment of a liquidator, receiver, administrator, manager or trustee; enters into a composition or arrangement with the Contractor's creditors; or any act is done, or any event occurs which is analogous to or has a similar effect to any of these acts or events under applicable Laws;
- 7.3.2.2.2. or if the Contractor is a JV:
 - 7.3.2.2.2.1. any of these matters apply to a member of the JV, and
 - 7.3.2.2.2.2. the other member(s) do not confirm to the Employer that, in accordance with Sub Clause Joint and Several Liability, such member's obligations under this Contract shall be fulfilled in accordance with this Contract; or
 - 7.3.2.2.2.3. is found, based on reasonable evidence, to have engaged in corrupt, fraudulent, collusive or coercive practice at any time in relation to the Works or to this Contract.
- 7.3.2.3. Termination
 - 7.3.2.3.1. Unless the Contractor remedies the matter described in a Notice given under this Contract within 14 calendar days of receiving the Notice, the Employer may by giving a second Notice, in writing, to the Contractor immediately terminate this Contract. The date of termination shall be the date the Contractor receives this second Notice.
 - 7.3.2.3.2. However, in the case of Sub-Clause [Notice], the Employer may by giving a Notice, in writing, under this Contract immediately terminate this Contract and the date of termination shall be the date the Contractor receives this Notice.
- 7.3.2.4. After termination
 - 7.3.2.4.1. After termination of this Contract the Contractor shall:

- 7.3.2.4.1.1. comply immediately with any reasonable instructions included in a Notice given by the Employer under this Sub-Clause:
- 7.3.2.4.1.1.1. for the assignment of any subcontract; and
- 7.3.2.4.1.1.2. for the protection of life or property or for the safety of the Works;
- 7.3.2.4.1.1.3. deliver to the Engineer:
- 7.3.2.4.1.1.3.1. any Goods required by the Employer,
- 7.3.2.4.1.1.3.2. all Contractor's Documents and Employers Requirements, and
- 7.3.2.4.1.1.3.3. all other design documents made by or for the Contractor; and
- 7.3.2.4.1.1.4. leave the Site(s) and, if the Contractor does not do so, the Employer shall have the right to expel the Contractor from the Site(s).

7.3.2.5. **Completion of the Works**

- 7.3.2.5.1. After termination under this Sub-Clause, the Employer and/or Engineer may arrange for the Reserved Contractor to complete the Works. The Reserved Contractor may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor to complete the Works.
- 7.3.2.5.2. After such completion of the Works, the Employer and/or Engineer shall give another Notice, in writing, to the Contractor that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site(s). The Contractor shall then promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Employer, these items may be sold (to the extent permitted by applicable Laws) by the Employer in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

7.3.3. **VALUATION AFTER TERMINATION CONTRACTOR'S DEFAULT**

- 7.3.3.1. After termination of this Contract, the Employer and/or Engineer shall proceed under this Contract to agree or determine the value of the Permanent Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with this Contract, the date of termination shall be the date of commencement of the time limit for agreement under this Contract.
- 7.3.3.2. This valuation shall include any additions and/or deductions, and the balance due (if any), by reference to the matters described in Sub-Clause [Issue of FPC]. This valuation shall not include the value of any Contractor's Documents, , Plant and Materials and Permanent Works to the extent that they do not comply with this Contract.

7.3.4. **PAYMENT AFTER TERMINATION FOR CONTRACTOR'S DEFAULT**

- 7.3.4.1. The Employer may withhold payment to the Contractor of the amounts agreed or determined under this Contract until all the costs, losses and damages (if any) described in the following provisions of this Sub-Clause have been established.
- 7.3.4.2. After termination of this Contract under this Contract, the Employer shall be entitled subject to Sub-Clause Claims For Payment and/or EOT to payment by the Contractor of:
- 7.3.4.2.1. the additional costs of execution of the Works, and all other costs reasonably incurred by the Employer (including costs incurred in clearing, cleaning and reinstating the Site(s) as described under this Contract after allowing for any sum due to the Contractor under this Contract;
- 7.3.4.2.2. any losses and damages suffered by the Employer in completing the Works; and
- 7.3.4.2.3. Delay Damages, if the Works or a Section have not been taken over under this Contract and if the date of termination under this Contract occurs after the date corresponding to the Time for Completion of the Works or Section (as the case may be). Such Delay Damages shall be paid for every day that has elapsed between these two dates.

7.3.5. **TERMINATION FOR EMPLOYER'S CONVENIENCE**

- 7.3.5.1. The Employer shall be entitled to terminate, on written and approved agreement, this Contract at any time for the Employer's convenience, by giving a Notice, in writing, of such termination to the Contractor (which Notice shall state that it is given under this Sub-Clause).
- 7.3.5.2. After giving a Notice to terminate under this Sub-Clause, the Employer shall immediately:
- 7.3.5.2.1. have no right to further use any of the Contractor's Documents, which shall be returned to the Contractor, except those for which the Contractor has received payment or for which payment is due under a Payment Certificate;
- 7.3.5.2.2. if Sub-Clause Co-operation applies, have no right to allow the continued use (if any) of any Contractor's Equipment, Temporary Works, access arrangements and/or any other of the Contractor's facilities or services; and
- 7.3.5.2.3. make arrangements to return the Performance Security to the Contractor.
- 7.3.5.3. Termination under this Sub-Clause shall take effect 28 calendar days after the later of the dates on which the Contractor receives this Notice or the Employer returns the Performance Security. Unless and until the Contractor has received payment of the amount due under this Contract the Employer shall not execute

(any part of) the Works or arrange for (any part of) the Works to be executed by any other entities.

7.3.5.4. After this termination, the Contractor shall proceed in accordance with Sub-Clause Contractor's Obligations after Termination.

7.3.6. **VALUATION AFTER TERMINATION FOR EMPLOYER'S CONVENIENCE**

7.3.6.1. After termination under Sub-Clause [Termination for The Employer's Convenience] the Contractor shall, as soon as practicable, submit detailed supporting particulars (as reasonably required by the Engineer) of:

7.3.6.1.1. the value of work done which shall include:

7.3.6.1.1.1. the matters described in sub-paragraphs of Sub-Clause [Optional Termination], and

7.3.6.1.1.2. any additions and/or deductions, and the balance due (if any), by the additional costs of execution of the Works, and all other costs reasonably incurred by the Employer (including costs incurred in clearing, cleaning and reinstating the Site as described under this Contract, after allowing for any sum due to the Contractor under this Contract.

7.3.6.1.2. reference to the matters described in sub-paragraphs (a) and (b) of Sub-Clause [Issue of FPC]; and the amount of any loss of profit or other losses and damages suffered by the Contractor as a result of this termination.

7.3.6.2. The Engineer shall then proceed under Sub-Clause [Agreement or Determination] to agree or determine the matters described in sub-paragraphs (a) and (b) above (and, for the purpose of Sub-Clause [Time limits], the date the Engineer receives the Contractor's particulars under this Sub-Clause shall be the date of commencement of the time limit for agreement).

7.3.6.3. The Engineer shall issue a Payment Certificate for the amount so agreed or determined, without the need for the Contractor to submit a Statement.

7.3.7. **PAYMENT AFTER TERMINATION FOR EMPLOYER'S CONVENIENCE**

7.3.7.1. The Employer shall pay the Contractor the amount certified in the Payment Certificate under Sub-Clause Valuation after Termination for the Employer's Convenience within 112 business days after the Employer and/or Engineer receives the Contractor's submission under that Sub-Clause.

7.3.8. **SUSPENSION AND TERMINATION BY CONTRACTOR**

7.3.8.1. **SUSPENSION BY CONTRACTOR**

7.3.8.1.1. If:

- 7.3.8.1.1.1. the Engineer fails to certify in accordance with Sub-Clause Issue of IPC;
 - 7.3.8.1.1.2. the Employer fails to provide reasonable evidence in accordance with Sub-Clause Employer's Financial Arrangements;
 - 7.3.8.1.1.3. the Employer fails to comply with Sub-Clause [Payment]; or
 - 7.3.8.1.1.4. the Employer fails to comply with:
 - 7.3.8.1.1.4.1. a binding agreement, or final and binding determination under this Contract; or
 - 7.3.8.1.1.4.2. a decision of the DAAB under this Contract (whether binding or final and binding)
- and such failure constitutes a material breach of the Employer's obligations under this Contract, the Contractor may, not less than 21 calendar days after giving a Notice, in writing, to the Employer and/or Engineer (which Notice shall state that it is given under this Sub-Clause), suspend work (or reduce the rate of work) unless and until the Employer has remedied such a default.
- 7.3.8.1.1.5. This action shall not prejudice the Contractor's entitlements to financing charges under this Contract.
 - 7.3.8.1.1.6. If the Employer subsequently remedies the default as described in the above Notice before the Contractor gives a Notice of termination under this Contract, the Contractor shall resume normal working as soon as is reasonably practicable.
 - 7.3.8.1.1.7. If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall be entitled subject to this Contract to EOT.

7.3.9. **CONTRACTORS OBLIGATIONS FOR TERMINATION**

- 7.3.9.1. After termination of this Contract under Sub-Clause Termination for the Employer's Convenience, Sub-Clause Termination by Contractor or Sub-Clause Optional Termination, the Contractor shall promptly:
 - 7.3.9.1.1.1. cease all further work, except for such work as may have been instructed by the Employer and /or Engineer for the protection of life or property or for the safety of the Works. If the Contractor incurs Cost as a result of carrying out such instructed work the Contractor shall be entitled subject to Sub-Clause [Claims For Payment and/or EOT] to be paid such Cost Plus Profit;
 - 7.3.9.1.1.2. deliver to the Engineer all Contractor's Documents, Plant and Materials and other work for which the Contractor has received payment; and
 - 7.3.9.1.1.3. remove all other Goods from the Site(s), except as necessary for safety, and leave the Site(s).

7.4. **OPTIONAL TERMINATION**

- 7.4.1. Where the execution of substantially all the Works in progress is prevented for a continuous period of 180 (one hundred and eighty) calendar days by reason of an Exceptional Event of which Notice has been given under Sub-Clause [Notice of an Exceptional Event], or for multiple periods which cumulatively total more than 365 (three hundred and sixty five) calendar days due to the same Exceptional Event, then either Party may give to the other Party a written Notice of termination of the Contract.
- 7.4.2. Where Notice is given, the date of termination shall be the date 90 (ninety) calendar days after the Notice is received by the other Party, and the Contractor shall proceed in accordance with Sub-Clause [Contractor's Obligations After Termination].
- 7.4.3. After the date of termination, the Contractor shall, within 28 (twenty eight) calendar days, submit detailed supporting particulars (as required by the Employer and/or Engineer) of:
- 7.4.4. the value of work done which shall include:
- 7.4.5. any additions and/or deductions, and the balance due (if any), by the additional costs of execution of the Works, and all other costs reasonably incurred by the Employer (including costs incurred in clearing, cleaning and reinstating the Site(s) as described under Sub-Clause [Clearance of Site(s)]), after allowing for any sum due to the Contractor under Sub-Clause [Valuation after Termination].
- 7.4.6. The Employer and/or Engineer shall then proceed under Sub-Clause [Agreement or Determination] to agree or determine the matters described above (and, for the purpose of Sub-Clause [Time limits], the date the Employer and/or Engineer receives the Contractor's particulars under this Sub-Clause shall be the date of commencement of the time limit for agreement).
- 7.4.7. The Employer and/or Engineer shall issue a Payment Certificate for the amount so agreed or determined, without the need for the Contractor to submit a Statement.

7.5. **RELEASE FROM PERFORMANCE UNDER THE LAW**

- 7.5.1. In addition to any other provision of this Clause, if any event arises outside the control of the Parties (including, but not limited to, an Exceptional Event) which:
- 7.5.1.1. makes it impossible or unlawful for either Party or both Parties to fulfil their contractual obligations; or
- 7.5.1.2. under the law governing this Contract, entitles the Parties to be released from further performance of this Contract,

7.5.2. and if the Parties are unable to agree on an amendment to this Contract that would permit the continued performance of this Contract, then after either Party gives a Notice, in writing, to the other Party of such event:

7.5.2.1. the Parties shall be discharged from further performance, and without prejudice to the rights of either Party in respect of any previous breach of this Contract.

8. **CONTACT PERSON**

8.1. **ENGINEER'S REPRESENTATIVE**

8.1.1. The Engineer may appoint an Engineer's Representative (who shall have suitable qualifications, experience and competencies, as determined by the Employer, to act as the Engineer under this Contract; and be fluent in the ruling language of this Contract) and delegate to him/her in accordance with Sub-Clause [Delegation by the Engineer] the authority necessary to act on the Engineer's behalf at the Site(s), except to replace the Engineer's Representative.

8.1.2. The Engineer's Representative (if appointed) shall comply with sub-paragraphs of Sub-Clause [The Engineer] and shall be based at the Site(s) for the whole time that the Works are being executed at the Site(s). If the Engineer's Representative is to be temporarily absent from the Site(s) during the execution of the Works, an equivalently qualified, experienced and competent replacement shall be appointed by the Engineer, and the Contractor shall be given a Notice of such replacement.

8.2. **CONTRACTOR'S REPRESENTATIVE**

8.2.1. The Contractor shall, subject to the approval of the Employer and/or Engineer, appoint the Contractor's Representative and shall give him/her all authority necessary to act on the Contractor's behalf under this Contract, except to replace the Contractor's Representative.

8.2.2. The Contractor's Representative shall be qualified, experienced and competent in the main engineering discipline, to be approved by the Employer and/or Engineer, applicable to the Works and fluent in the language for communications defined in this Contract.

8.2.3. Unless the Contractor's Representative is named in this Contract, the Contractor shall, before the Commencement Date, submit to the Employer and/or Engineer for approval of the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If approval is withheld or subsequently revoked by the Employer and/or Engineer, or if the appointed person fails to act as the Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable replacement for such appointment to the Employer and/or Engineer for approval.

- 8.2.4. The Contractor shall not, without the Employer and/or Engineer's prior approval, revoke the appointment of the Contractor's Representative or appoint a replacement (unless the Contractor's Representative is unable to act as a result of death, illness, disability or resignation, in which case his/her appointment shall be deemed to have been revoked with immediate effect and the appointment of a replacement shall be treated as a temporary appointment until the Employer and/or Engineer gives his/her approval to this replacement, or another replacement is appointed, under this Contract).
- 8.2.5. The whole time of the Contractor's Representative shall be given to directing the Contractor's performance of this Contract. The Contractor's Representative shall act for and on behalf of the Contractor at all times during the performance of this Contract, including issuing and receiving all Notices and other communications under this Contract and for receiving instructions under this Contract.
- 8.2.6. The Contractor's Representative shall be based at the Site for the duration of this Contract. If the Contractor's Representative is to be temporarily absent from the Site during the execution of the Works, a suitable replacement shall be temporarily appointed, subject to the Employer and/or Engineer's prior approval.
- 8.2.7. The Contractor's Representative may delegate any powers, functions, and authority except:
- 8.2.7.1. the authority to issue and receive Notices and other communications under this Contract ; and
- 8.2.7.2. the authority to receive instructions under this Contract, to any suitably competent and experienced person and may at any time revoke the delegation.
- 8.2.8. Any delegation or revocation shall not take effect until the Employer and/or Engineer has received a Request for Approval from the Contractor's Representative, naming the person, specifying the powers, functions and authority being delegated or revoked, and stating the timing of the delegation or revocation for approval by the Employer and/or Engineer.
- 8.2.9. All these persons shall be fluent in the language for communications defined in this Contract.

9. SCOPE OF GENERAL SERVICES

9.1. EAS SYSTEM OVERVIEW

- 9.1.1. The EAS shall consist of at least the following, which shall first be approved by the Employer and/or Engineer prior to implementation, unless otherwise instructed in writing by the Employer and/or Engineer:
- 9.1.1.1. An EAS suitable Electronic Authorisation System.

- 9.1.1.2. Associated RSS, Telecommunication and other systems, sub-systems and Equipment.
- 9.1.2. All other Works as specified by the Employer and/or Engineer throughout the Employers Requirements, the duration of this Contract and as required to deliver the Project.
- 9.1.3. The EAS System (the “System” in its entirety including, but not limited to, sub-systems and Plant and Materials) shall, at a minimum, comply with all standards, specifications, regulations and procedures as defined throughout the Employers Requirements.
- 9.1.4. The Contractor shall take full responsibility and implement all necessary legal and security measures to protect the EAS, sub-systems and all Plant and Materials against the following threats, including but not limited to, throughout the duration of this Contract and the duration of the useful life of the Plant and Materials, at the Contractors cost:
 - 9.1.4.1. Theft and vandalism.
 - 9.1.4.2. The Contractor shall, at the Contractors cost, undertake any other works, activities and provide all necessary resources (provide a minimum organogram), required to meet all requirements specified by the Employer and/or Engineer throughout the Employers Requirements and to achieve a fully integrated, functional, complete reliable, available, maintained and secure future-proofed EAS.
 - 9.1.4.3. The Contractor shall, at the Contractor’s cost, undertake any other works, activities and provide all necessary resources required to meet any other requirements and specifications as requested throughout the Employer’s Requirements or as otherwise instructed in writing by the Employer and/or Engineer.
- 9.1.5. Kindly refer to “Annexure 1.1: Electronic Authorisation System” and Annexure 1.2.2: User Requirement Specification for Electronic Authorisation Register for use in the Passenger Rail Agency of South Africa. The contents, diagrams and figures of “Annexure 1.1: Electronic Authorisation System” and Annexure 1.2.2: User Requirement Specification for Electronic Authorisation Register for use in the Passenger Rail Agency of South Africa are incorporated into this Contract.
- 9.2. **GAUTENG**
- 9.2.1. Kindly refer to:
 - 9.2.1.1. “Annexure 2.1: Particular Technical Requirements: Gauteng”.

- 9.2.1.2. The contents, diagrams and figures of “Annexure 2.1: Particular Technical Requirements: Gauteng” are incorporated into this Contract.

EAS

9.3. **KWAZULU NATAL**

- 9.3.1. Kindly refer to:

- 9.3.1.1. “Annexure 2.2: Particular Technical Requirements: KwaZulu-Natal”.

- 9.3.1.2. The contents, diagrams and figures of “Annexure 2.2: Particular Technical Requirements: KwaZulu-Natal” are incorporated into this Contract.

9.4. **WESTERN CAPE**

- 9.4.1. Kindly refer to:

- 9.4.1.1. “Annexure 2.3: Particular Technical Requirements: Western Cape”.

- 9.4.1.2. The contents, diagrams and figures of “Annexure 2.3: Particular Technical Requirements: Western Cape” are incorporated into this Contract.

9.5. **GENERAL DESIGN OBLIGATIONS**

- 9.5.1. The Contractor shall carry out, and be responsible for, the design of the Works. The Contractor shall uncompromisingly Design the whole of the Works unless the use of Designs issued by the Employer and/or Engineer is expressly permitted or required as requested throughout the Employers Requirements or as otherwise instructed in writing by the Employer and/or Engineer.

- 9.5.2. All designs shall comply with all relevant Standards, Specifications, Regulations and Procedures as specified throughout the Employers Requirements.

- 9.5.3. The EAS shall comply and be supported predominantly by the following assessments, which shall be part of the safety case:

- 9.5.3.1. System Safety Assessment – SANS 3000-2-5.

- 9.5.3.2. Human Factors Integration – SANS 3000-4 Standard.

- 9.5.4. The Contractor shall keep these analyses up to date during the life cycle of the systems installation, commissioning, and operations cycles.

- 9.5.5. The Contractor shall, in conjunction with the Employer, conduct Network coverage surveys for the Detailed Design of the BTS Sites.

- 9.5.6. The Radio design document shall define the Dual Power Source as a requirement, Dual Fibre Cable Connectivity as a requirement, BTS location, and radio coverage fulfilling the ERTMS Level 2 requirements.
- 9.5.7. The Detailed Design shall be approved prior to any site implementation is executed. The pre-survey report shall at a minimum include:
 - 9.5.7.1. Radio Network Coverage Report.
 - 9.5.7.2. Dual Power Source Supply Report.
 - 9.5.7.3. Construction method.
 - 9.5.7.4. Tools required.
 - 9.5.7.5. Dual Optical Cable Availability Report.
 - 9.5.7.6. Location of BTS Sites (GPS coordinates with accuracy of 4 meters or better).
 - 9.5.7.7. Distance between BTS Sites.
 - 9.5.7.8. All required rail crossings.
 - 9.5.7.9. All drainages avoided.
 - 9.5.7.10. Location of all Signalling apparatus cases and Plant and Materials.
 - 9.5.7.11. The EAS design shall be drawn using AutoCAD with Google Earth background to indicate the Network coverage.
 - 9.5.7.12. The Manhole coordinates shall be indicated on the Google Earth Drawing with 4-meters accuracy or better.
- 9.5.8. The Design shall, as a minimum, be prepared by:
 - 9.5.8.1. 1 Senior Project Manager with experience exceeding 9 years on similar Projects.
 - 9.5.8.2. 1 Senior Commercial Manager with experience exceeding 5 years on similar Projects.
 - 9.5.8.3. 1 Senior Controls Manager with experience exceeding 5 years on similar Projects.
 - 9.5.8.4. 1 Senior Quantity Surveyor with experience exceeding 5 years on similar Projects.
 - 9.5.8.5. 1 Senior Programmer/Scheduler with experience exceeding 5 years on similar Projects.

- 9.5.8.6. 1 Senior Occupational Health and Safety Manager with experience exceeding 5 years on similar Projects.
- 9.5.8.7. 1 Senior Environmental and Heritage Manager with experience exceeding 5 years on similar Projects.
- 9.5.8.8. 1 Senior Quality Manager with experience exceeding 5 years on similar Projects.
- 9.5.8.9. 1 Senior BEE with experience exceeding 5 years on similar Projects.
- 9.5.8.10. 1 Senior Public Participation and Community Liaison Manager with experience exceeding 5 years on similar Projects.
- 9.5.8.11. 1 Senior Skills Development and Training Manager with experience exceeding 5 years on similar Projects.
- 9.5.9. Unless otherwise stated in the Employer's Requirements, the Contractor shall submit to the Employer and/or Engineer for consent the name, address, detailed particulars and relevant experience of each proposed designer/design Subcontractor.
- 9.5.10. The Contractor warrants that the Contractor, the Contractor's designers and design Subcontractors have the experience, capability and competence necessary for the design. The Contractor undertakes that the designers and design Subcontractors shall be available to attend discussions with the Engineer and/or the Employer at all stated times (on or off the Site(s)), until the issue of the Performance Certificate.

9.6. **PROCESS MODEL**

- 9.6.1. The Employers Engineering Services has adopted the V-Model design methodology as a basis for managing EAS design process.
- 9.6.2. The design process with outputs shall be followed in alignment to the V-Model as shown in Figure 3.2.1.
- 9.6.3. The processes on Figure 3.2.2-to-Figure 3.2.6 shall be adopted for execution guideline process to develop required documents in alignment to the V-Model.
- 9.6.4. Site(s) surveys shall be conducted by the Contractor and the Employer for detail design.
- 9.6.5. During the design and installation process, the Contractor shall review and revise the requirements and proposed solution with the Employer to ensure the delivered EAS achieves its aims and objectives.

9.7. **DESIGN ERROR**

9.7.1. If errors, omissions, ambiguities, inconsistencies, inadequacies or other defects are found in the Contractor's design and/or the Contractor's Documents, they and the Works shall be corrected by the Contractor, at the Contractor's cost and regardless of the extent of this requirement, in accordance with this Contract.

9.7.2. All corrections and resubmissions under this Contract shall be at the Contractor's risk and cost, regardless of the extent of this requirement.

9.8. **THE CONTRACTOR**

9.8.1. **OBLIGATIONS OF THE CONTRACTOR**

9.8.1.1. **GENERAL OBLIGATIONS**

9.8.1.1.1. The Contractor shall execute the Works in accordance with this Contract. When completed, the Works (or Section or Part or any item of Plant and Materials, (if any) shall be fit for the purpose(s) for which they are intended, as defined and described in the Employer's Requirements or, where no purpose(s) are so defined and described, fit for their ordinary purpose(s) as determined by the Employer and/or Engineer.

9.8.1.1.2. The Contractor shall provide the Plant and Materials and Contractor's Documents specified in the Employer's Requirements and RFP, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required to fulfil the Contractor's obligations under this Contract.

9.8.1.1.3. The Works shall include any work which is necessary to satisfy the Employer's Requirements, Contractor's Proposal and Schedules, or is implied by this Contract and RFP, and all works which (although not mentioned in this Contract) are necessary for stability or for the completion, or safe and proper operation, of the Works.

9.8.1.1.4. The Contractor shall be responsible for the adequacy, stability, and safety of all the Contractor's operations and activities, of all methods of construction and of all the Works.

9.8.1.1.5. The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this alteration having been submitted to the Engineer for approval.

9.8.1.2. **RIGHTS OF WAY AND FACILITIES**

9.8.1.2.1. The Contractor shall bear all costs, and charges for special and/or temporary rights-of-way which may be required for the purposes of the Works, including those for access to the Site(s).

9.8.1.2.2. The Contractor shall also obtain, at the Contractor's risk and cost, any additional facilities outside the Site(s) which may be required for the purposes of the Works.

9.8.1.3. **AVOIDANCE OF INTERFERENCE**

9.8.1.3.1. The Contractor shall not interfere unnecessarily or improperly with:

9.8.1.3.1.1. the convenience of the public; or

9.8.1.3.1.2. the access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the possession of the Employer or of others;

9.8.1.3.1.3. the Employer's business operations.

9.8.1.3.2. The Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.

9.8.1.4. **ACCESS ROUTE**

9.8.1.4.1. The Contractor shall always be deemed to be satisfied, as to the suitability and availability of the access routes to the Site(s). The Contractor shall take all necessary measures to prevent any road and/or bridge and/or any other obstruction from being damaged by the Contractor's traffic or by the Contractor's Personnel. These measures shall include the proper use of appropriate vehicles (conforming to legal load and width limits (if any) and any other restrictions) and routes.

9.8.1.4.2. Except as otherwise stated in these Conditions:

9.8.1.4.2.1. the Contractor shall be responsible for repair of any damage caused to, and any maintenance which may be required for the Contractor's use of access routes;

9.8.1.4.2.2. the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permissions or permits which may be required from the relevant authorities, for the Contractor's use of routes, signs and directions;

9.8.1.4.2.3. the Employer and the Engineer shall not be responsible for any third-party claims which may arise from the Contractor's use or otherwise of any access route;

9.8.1.4.2.4. the Employer and the Engineer does not guarantee the suitability or availability of particular access routes; and

9.8.1.4.2.5. all Costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

9.8.1.5. **TRANSPORT OF GOODS**

9.8.1.5.1. The Contractor shall:

- 9.8.1.5.1.1. give a Notice to the Engineer not less than 21 calendar days before the date on which any Plant and Materials, or a major item of other Goods (as specified in the Employer's Requirements), will be delivered to the Site(s);
- 9.8.1.5.1.2. be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Goods and other things required for the Works;
- 9.8.1.5.1.3. be responsible for customs clearance, permits, fees and charges related to the import, transport and handling of all Plant and Materials and other Goods, including all obligations necessary for their delivery to the Site(s); and
- 9.8.1.5.1.4. Indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the import, transport and handling of all Plant and Materials and other Goods and shall negotiate and pay all third party claims arising from their import, transport and handling.

9.8.1.6. **PLANT AND MATERIALS**

- 9.8.1.6.1. All Plant and Materials (which by definition shall include, but not be limited to, all Plant, Materials, Furniture, Equipment, Tools, Spares, Software, Technology, Components, Apparatus, Machinery and Vehicles) to be provided by the Contractor to deliver the Project shall be new.
- 9.8.1.6.2.
- 9.8.1.6.3. In the case of use of old or refurbished Equipment and Materials, such use shall first be proposed by the Contractor and expressly permitted in writing by the Employer and/or Engineer and as stated elsewhere in the Employers Requirements or as otherwise instructed in writing by the Employer and/or Engineer.
- 9.8.1.6.4. All imported Plant and Materials to be provided by the Contractor shall be new and of merchantable quality, to recognised South African national standards and approved by the Employer and/or Engineer, with all proprietary products installed to manufacturers' instructions.
- 9.8.1.6.5.
- 9.8.1.6.6. The Contractor shall, uncompromisingly and without hesitation, replace any damaged Plant and Materials (whether on the Site(s) or not and whether part of the temporary or permanent Works) and any Plant and Materials with defects further notifying, in writing, the Employer and/or Engineer each time such replacement is required and scheduled.
- 9.8.1.6.7.
- 9.8.1.6.8. The useful life of all Plant and Materials shall be a minimum of 10 years from the date on which the Employer and/or Engineer issues the Performance Certificate unless otherwise specified throughout the Employers Requirements.

9.8.1.7. **CONTRACTOR'S USE OF EXISTING PLANT AND MATERIALS**

- 9.8.1.7.1. If Employer-Supplied Plant and Materials and/or Employer's Equipment are listed in the Employer's Requirements for the Contractor's use in the execution of the Works, the Employer shall make such Materials and/or equipment available to the Contractor in accordance with the details, times, arrangements, rates and prices stated in the Employer's Requirements or as determined by the Engineer.
- 9.8.1.7.2. The Contractor shall be responsible for each item of the Employer's Plant and Materials and/or Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it, using it, or in control of it.
- 9.8.1.7.3. The Employer may have certain Plant and Materials available in storage that shall be used by the Contractor. The Contractor shall use as much existing, Plant and Materials as possible and if not possible, then motivate why not in a robust but controllable manner.
- 9.8.1.7.4. Notwithstanding the aforesaid requirement, the Contractor shall ensure that the Contractors complete offered solution remains compliant with the RFP and the Employer's Requirements and the Contractor has satisfied itself that such Plant and Materials are suitable for use by the Contractor, therefore the Contractor shall accept all risk related to the use of such Plant and Materials.
- 9.8.1.7.5. Should the Contractor wish not to use any existing Plant and Materials or to replace any existing Plant and Materials with new Plant and Materials, the Contractor shall first, through the Engineer, make the Employer a fair market value offer to pay the Employer for such existing Plant and Materials for which such offer shall first be accepted by the Employer.
- 9.8.1.7.6. The Employer's acceptance or rejection of the Contractor's offer shall not prejudice the Employer's rights in terms of the RFP and this Contract in any manner whatsoever and shall not relieve the Contractor of the Contractors obligations and/or liabilities in terms of the RFP and this Contract and shall not affect the Contractor's Proposal or Contract Programme in any manner whatsoever.
- 9.8.1.7.7. The Contractor's disposal of existing Plant and Materials can only be implemented once a final decision has been made by the Employer, through the Engineer, in respect of acceptance or rejection of the Contractor's disposal proposal, and the timeline for the Employer, through the Engineer, making a decision in this regard shall be absorbed in all the Contractor's Programme(s) so that there is no impact on achievement of the contracted Completion Date.

9.8.1.8. **MANUFACTURE OF PLANT AND MATERIALS**

- 9.8.1.8.1. The Contractor shall carry out the manufacture, supply, installation, testing and commissioning and/or repair of Plant and Materials, and all other operations and activities during the execution of the Works:

- 9.8.1.8.1.1. in the manner (if any) specified in this Contract;
- 9.8.1.8.1.2. in a proper workmanlike and careful manner, in accordance with recognised good practice; and
- 9.8.1.8.1.3. with properly equipped facilities and non-hazardous materials, except as otherwise specified in this Contract.

9.8.1.9. **SAMPLES**

- 9.8.1.9.1. The Contractor shall submit the following samples of Plant and Materials, and relevant information, to the Employer and/or Engineer for written approval prior to using the Plant and Materials in or for the Works:
 - 9.8.1.9.1.1. manufacturer's standard samples of Plant and Materials and samples specified in this Contract, all at the Contractor's cost; and
 - 9.8.1.9.1.2. additional samples instructed by the Employer and/or Engineer, all at the Contractor's cost.
- 9.8.1.9.2. Each sample shall be labelled as to origin and intended use in the Works.

9.8.1.10. **CONTRACTOR'S EQUIPMENT**

- 9.8.1.10.1. The Contractor shall be responsible for all Contractor's Equipment. When brought on to the Site(s), Contractor's Equipment shall be deemed to be exclusively intended for the execution of the Works. The Contractor shall not remove from the Site(s) any major items of Contractor's Equipment without the Engineer's written approval. However, approval shall not be required for vehicles transporting the Contractor's Personnel on and off Site.
- 9.8.1.10.2. In addition to any Notice given under this Contract, the Contractor shall give a Notice to the Engineer of the date on which any major item of Contractor's Equipment has been delivered to the Site(s). This Notice shall be given within 7 calendar days of the delivery date, shall identify whether the item of Contractor's Equipment is owned by the Contractor or a Subcontractor or another person and, if rented or leased, shall identify the rental or leasing entity.

9.8.1.11. **VARIATIONS AND ADJUSTMENTS**

- 9.8.1.11.1. Right to vary
- 9.8.1.11.2. Variations may be initiated by the Employer and/or Engineer (acting on the written instruction of the Employer) under Sub-Clause Variation Procedure, at any time before the issue of the Completion Certificate for the Works.
- 9.8.1.11.3.
- 9.8.1.11.4. The Contractor shall be bound by each variation instructed approved under Sub-Clause Variation by Instruction, and shall execute the variation with due

expedition and without delay, unless the Contractor, within 7 (seven) calendar days, gives a Notice, in writing, to the Engineer stating (with detailed supporting particulars) that:

- 9.8.1.11.5. the varied work was Unforeseeable having regard to the scope and nature of the Works described in the Employer's Requirements;
- 9.8.1.11.6. the Contractor cannot readily obtain the Goods, Plant and Materials required for the Variation;
- 9.8.1.11.7. it will adversely affect the Contractor's ability to comply with Sub-Clause Health and Safety Obligations, and/or Sub-Clause Protection of the Environment;
- 9.8.1.11.8. it will have an adverse impact on the achievement of the Schedule of Performance Guarantees; or
- 9.8.1.11.9. it may adversely affect the Contractor's obligation to complete the Works so that they shall be fit for the purpose(s) for which they are intended under Sub-Clause Contractor's General Obligations.
- 9.8.1.11.10. Promptly after receiving this Notice, the Engineer shall respond by giving a Notice, in writing, to the Contractor cancelling, confirming or varying the instruction. Any instruction so confirmed or varied shall be taken as an instruction under Sub-Clause Variation by instruction.
- 9.8.1.11.11. Value Engineering
- 9.8.1.11.12. The Contractor shall, at the request of the Employer and/or Engineer, submit to the Employer and/or Engineer a written proposal which (in the Contractor's opinion) will, if adopted:
 - 9.8.1.11.13. accelerate completion;
 - 9.8.1.11.14. reduce the cost to the Employer of executing, maintaining or operating the Works;
 - 9.8.1.11.15. improve the efficiency or value to the Employer of the completed Works; or
 - 9.8.1.11.16. otherwise be of benefit to the Employer.
- 9.8.1.11.17. The proposal shall be prepared at the cost of the Contractor and shall include the details as stated in sub-paragraph Variation by Instruction.
- 9.8.1.11.18. The Employer and/or Engineer shall, within a period suitable to the Employer and/or Engineer after receiving such a proposal, respond by giving a Notice, in writing, to the contractor stating his/her approval or otherwise.

- 9.8.1.11.19. The Employer and/or Engineer's approval or otherwise shall be at the sole discretion of the Employer and/or Engineer, and the Contractor shall not delay any work while awaiting a response.
- 9.8.1.11.20. If the Employer and/or Engineer give approval to the proposal, with or without comments, the Employer and/or Engineer shall then approve instruct a Variation. Thereafter:
- 9.8.1.11.21. the Contractor shall submit any further particulars that the Engineer may reasonably require; and
- 9.8.1.11.22. then the third paragraph of Sub-Clause Variation by Instruction, shall apply, which shall include consideration by the Employer and/or Engineer of the sharing (if any) of the benefit, costs and/or delay between the Parties stated in the Particular Conditions,
- 9.8.1.11.23. Variation Procedure
- 9.8.1.11.24. Subject to Sub-Clause Right to Vary, variations shall be initiated by the Employer and/or Engineer (acting on the written instruction of the Employer) in accordance with either of the following procedures:
- 9.8.1.11.25. Variation by Request for Proposal
- 9.8.1.11.26. The Employer and/or Engineer may request a proposal, before instructing a variation, by giving a written Notice (describing the proposed change(s)) to the Contractor.
- 9.8.1.11.27. The Contractor shall respond to this Notice, within 21 (twenty one) calendar days, by:
- 9.8.1.11.28. submitting a proposal, which shall include the matters as described in sub-paragraphs Variation by Instruction; or
- 9.8.1.11.29. giving detailed written reasons why the contractor cannot comply (if this is the case), by reference to the matters described in sub-paragraphs Right to Vary.
- 9.8.1.11.30. If the Contractor submits a proposal, the Employer and/or Engineer shall, within a period suitable to the Employer and/or Engineer, respond by giving a written Notice of approval or rejection of the proposal. The Contractor shall not delay any work whilst awaiting a response.
- 9.8.1.11.31. If the Employer and/or Engineer approves the proposal, with or without comments, the Employer and/or Engineer shall then instruct the Variation. Thereafter, the Contractor shall submit any further particulars that the Employer and/or Engineer may require, and the third paragraph of Sub-Clause Variation by Instruction shall apply.

- 9.8.1.11.32. The Contractor shall not be entitled to Claim any cost if the Employer and/or Engineer do not approve the proposal, with or without comments.

9.8.1.12. **CARE OF THE WORKS AND INDEMNITIES**

9.8.1.12.1. **RESPONSIBILITY FOR CARE OF THE WORKS**

- 9.8.1.12.1.1. Unless this Contract is terminated in accordance with these Conditions or otherwise, subject to Sub-Clause Liability for Care of the Works the Contractor shall take full responsibility for the care of the Works, Goods and Contractor's Documents from the Commencement Date until the Date of Completion of the Works, when responsibility for the care of the Works shall pass to the Employer, If a Taking-Over Certificate is issued for any Section or Part, responsibility for the care of the Section or Part shall then pass to the Employer.

- 9.8.1.12.1.2. After responsibility has accordingly passed to the Employer, the Contractor shall take responsibility for the care of any work which is outstanding on the Date of Completion, until this outstanding work has been completed.

- 9.8.1.12.1.3. If any loss or damage occurs to the Works, Goods or Contractor's Documents, during the period when the Contractor is responsible for their care, from any cause whatsoever except as stated in Sub-Clause Liability for Care of the Works, the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods, or Contractor's Documents (as the case may be) comply with this Contract Liability for Care of the Works.

9.8.1.13. **LIABILITY FOR CARE OF THE WORKS**

- 9.8.1.13.1. The Contractor shall be liable for any loss or damage caused by the Contractor to the Works, Goods or Contractor's Documents after the issue of a Taking-Over Certificate. The Contractor shall also be liable for any loss or damage, which occurs after the issue of a Taking-Over Certificate and which arose from an event which occurred before the issue of this Taking-Over Certificate, for which the Contractor was liable.

- 9.8.1.13.2. The Contractor shall have no liability whatsoever, whether by way of indemnity or otherwise, for loss or damage to the Works, Goods or Contractor's Documents caused by any of the following events (except to the extent that such Works, Goods or Contractor's Documents have been rejected by the Employer and/or Engineer under this Contract before the occurrence of any of the following events):

- 9.8.1.13.2.1.1. interference, whether temporary or permanent, with any right of way, light, air, water or other easement (other than that resulting from the Contractor's method of construction) which is the unavoidable result of the execution of the Works in accordance with this Contract;

- 9.8.1.13.2.1.2. use or occupation by the Employer of any part of the Permanent Works, except as may be specified in this Contract;

- 9.8.1.13.2.1.3. fault, error, defect or omission in any element of the design of the Works by the Employer or which may be contained in the Employer's Requirements (and which an experienced contractor exercising due care would not have discovered when examining the Site(s) and the Employer's Requirements before submitting the Tender), other than design carried out by the Contractor in accordance with the Contractor's obligations under this Contract;
- 9.8.1.13.2.1.4. any operation of the forces of nature (other than those allocated to the Contractor in the Employers Requirements) which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventative precautions;
- 9.8.1.13.2.1.5. any of the events or circumstances listed under sub-paragraphs of Sub-Clause Exceptional Events; and/or
- 9.8.1.13.2.1.6. any act or default of the Employer's Personnel or the Employer's other contractors.
- 9.8.1.13.3. Subject to Sub-Clause Consequences of an Exceptional Event, if any of the events described above occurs and results in damage to the Works, Goods or Contractor's Documents the Contractor shall give a Notice, in writing, to the Employer and/or Engineer. Thereafter, the Contractor shall rectify any such loss and/or damage that may arise to the extent instructed by the Employer and/or Engineer. Such instruction shall be deemed to have been given under Sub-Clause Variation by Instruction.

9.8.2. **TESTING BY THE CONTRACTOR**

- 9.8.2.1. This Sub-Clause shall apply to all tests specified in this Contract, other than the Tests after Completion (if any).
- 9.8.2.2. The Contractor shall, at the Contractor's cost, at all times, provide all apparatus, assistance, documents and other information, temporary supplies of electricity and water, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified, experienced and competent staff, as are necessary to carry out the specified tests efficiently and properly. All apparatus, equipment and instruments shall be calibrated in accordance with the standards specified in the Employer's Requirements or defined by applicable Laws and, if requested by the Employer and/or Engineer, the Contractor shall submit calibration certificates before carrying out testing.
- 9.8.2.3. The Contractor shall give a Notice, in writing, to the Employer and/or Engineer, stating the time and place for the specified testing of any Plant and Materials and other parts of the Works. This Notice shall be given within 90 (ninety) calendar days having regard to the location of the testing, for the Employer's Personnel to attend.

- 9.8.2.4. The Employer and/or Engineer may vary the location or timing or details of specified tests or instruct the Contractor to carry out additional tests at the Contractor's risk and cost. If these varied or additional tests show that the tested Plant and Materials or workmanship is not in accordance with this Contract, the Cost and any delay incurred in carrying out this, varied and/or additional tests shall be borne by the Contractor.
- 9.8.2.5. The Employer and/or Engineer shall give a written Notice to the Contractor of not less than 24 (twenty four) hours of his/her intention to attend the tests. If the Employer and/or Engineer does not attend at the time and place stated in the Contractor's Notice, the Contractor shall not proceed with the tests, unless otherwise instructed, in writing, by the Employer and/or Engineer.
- 9.8.2.6. If the Contractor causes any delay to specified tests (including varied or additional tests) and such delay causes the Employer to incur costs, the Employer shall be entitled under this Contract to payment of these costs by the Contractor.
- 9.8.2.7. The Contractor shall promptly forward to the Employer and/or Engineer duly certified reports of the tests. When the specified tests have been passed, the Employer and/or Engineer shall endorse the Contractor's test certificate, or issue a test certificate to the Contractor, to that effect.

9.8.3. **DEFECTS AND REJECTION**

- 9.8.3.1. The Employer and/or Engineer shall have authority to reject Works which the Employer and/or Engineer believes to be defective, or that Employer and/or Engineer believes will not produce a completed Project that conforms to the Employer's Requirements or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Employer's Requirements.
- 9.8.3.2. The Employer and/or Engineer shall also have authority to require special Inspection or testing of the Work to determine whether or not the Work is fabricated, installed or completed.
- 9.8.3.3. If, as a result of an examination, Inspection, measurement or testing, any Plant, Materials, design or workmanship is found to be defective or otherwise not in accordance with the Employer's Requirements, the Employer and/or Engineer shall promptly give a Notice, in writing, to the Contractor describing the item of Plant, Materials, design, construction, operations, maintenance or workmanship that has been found to be defective. The Contractor shall then promptly prepare and submit a proposal for necessary remedial work for approval by the Employer and/or Engineer, thereafter, implement the approved necessary remedial work.
- 9.8.3.4. This Sub-Clause shall apply in the event that any Plant, Materials and other parts of the Works fails to pass a specified test. The Contractor shall state the extent to which the proposed work, if carried out, would not result in the Plant, Materials, design or workmanship complying with the Contract. After receiving

such a Notice the Contractor shall within 7 (seven) calendar days submit a revised proposal to the Employer and/or Engineer for approval, thereafter, implement the approved proposal.

9.8.3.5. After receipt of the Notice, the Contractor shall correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by the Employer and/or Engineer, remove it from the Project and replace it with Work that is not defective. The Contractor shall pay all Claims, costs, losses, Penalties and damages (including but not limited to all fees and charges of engineer's architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

9.8.3.6. The Contractor shall report any potential failures and damage(s) to the Employer and/or Engineer with a schedule for the corrective maintenance to be completed.

9.8.4. **REMEDIAL WORK**

9.8.4.1. **REMEDIAL WORK**

9.8.4.1.1.1. If the Contractor fails to promptly submit a proposal (or revised proposal) for work, or fails to carry out the proposed remedial work to which the Employer and/or Engineer has given (or is deemed to have given) a Notice of No-objection, the Employer and/or Engineer may:

9.8.4.1.1.2. instruct the Contractor under the Contractor; or

9.8.4.1.1.3. reject the design, construction, operations, maintenance, Plant and Materials or workmanship by giving a Notice, in writing, to the Contractor, with reasons.

9.8.4.1.2. After remedying defects in any Plant and Materials, design, construction, operations, maintenance or workmanship, if the Employer and/or Engineer requires any such items to be retested, the tests shall be repeated in accordance with this Contract at the Contractor's risk and cost. If the rejection and retesting cause the Employer to incur additional costs, the Employer shall be entitled, subject to this Contract, to payment of these costs by the Contractor.

9.8.4.1.3. In addition to any previous examination, inspection, measurement or testing, or test certificate or Notice of No-objection by the Employer and/or Engineer, at any time before the issue of the Performance Certificate for the Works the Employer and/or Engineer may instruct the Contractor to:

9.8.4.1.3.1. repair or remedy (if necessary, off the Site(s)), or remove from the Site(s) and replace any Plant and Materials which are not in accordance with this Contract;

9.8.4.1.3.2. repair or remedy, or remove and re-execute, any other work which is not in accordance with this Contract; and

- 9.8.4.1.3.3. carry out any remedial work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise.
- 9.8.4.1.4. The Contractor shall comply with the instruction as soon as practicable and not later than the time (if any) specified in the instruction, or immediately if urgency is specified under sub-paragraph (c) above.
- 9.8.4.1.5. The Contractor shall bear the cost of all remedial work required under this Sub-Clause, except to the extent that any work under sub-paragraph (c) above is attributable to:
- 9.8.4.1.5.1. any unreasonable act by the Employer or the Employer's Personnel. Or
- 9.8.4.1.5.2. an Exceptional Event, in which case Sub-Clause [Consequences of an Exceptional Event] shall apply.
- 9.8.4.1.6. If the Contractor fails to comply with the Employer and/or Engineer's instruction, the Employer and/or Engineer may (at the Employer and/or Engineer 's sole discretion) employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for work under this Sub-Clause, the Employer shall be entitled subject to this Contract to payment by the Contractor of all costs arising from this failure. This entitlement shall be without prejudice to any other rights the Employer may have, under this Contract or otherwise.
- 9.8.4.2. **PROJECT EXIT STRATEGY**
- 9.8.4.2.1. The Contractor shall, as part of this Contract, provide a comprehensive and transparent Project Exit Strategy including all indicators and how the indicators shall be measured for approval by the Employer and/or Engineer.
- 9.8.4.3. **TEST ON COMPLETION**
- 9.8.4.3.1. The Contractor shall carry out the Tests on Completion in accordance with this Contract, after submitting the documents under this Contract.
- 9.8.4.3.2. The Contractor shall submit to the Employer and/or Engineer, not less than 42 calendar days before the date the Contractor intends to commence the Tests on Completion, a detailed test Programme showing the intended timing and resources required for these tests.
- 9.8.4.3.3. The Employer and/or Engineer may Review the proposed test Programme and may give a Notice, in writing, to the Contractor stating the extent to which it does not comply with this Contract. Within 14 calendar days after receiving this Notice, the Contractor shall revise the test Programme to rectify such non-compliance. If the Employer and/or Engineer gives no such Notice within 14 calendar days after receiving the test Programme (or revised test Programme), the Employer and/or Engineer shall be deemed to have given a Notice of No-

objection. The Contractor shall not commence the Tests on Completion until a Notice of No-objection is given (or is deemed to have been given) by the Employer and/or Engineer.

- 9.8.4.3.4. In addition to any date(s) shown in the test Programme, the Contractor shall give a Notice, in writing, to the Employer and/or Engineer, of not less than 21 calendar days of the date after which the Contractor will be ready to carry out each of the Tests on Completion. The Contractor shall commence the Tests on Completion within 14 calendar days after this date, or on such day or days as the Employer and/or Engineer shall instruct and shall proceed in accordance with the Contractor's test Programme to which the Employer and/or Engineer has given (or is deemed to have given) a Notice of No-objection.
- 9.8.4.3.5. Unless otherwise stated in the Employer's Requirements, the Tests on Completion shall be carried out in stages in the following sequence:
 - 9.8.4.3.5.1. pre-commissioning tests (on or off the Site(s), as appropriate), which shall include the appropriate inspections and ("dry" or "cold") functional tests to demonstrate that each item of the Works or Section can safely undertake the next stage under sub-paragraph (b) below;
 - 9.8.4.3.5.2. Commissioning tests, which shall include the operational tests specified in the Employer's Requirements to demonstrate that the Works or Section can be operated safely and as specified in the Employer's Requirements, under all available operating conditions; and
 - 9.8.4.3.5.3. trial operation (to the extent possible under available operating conditions), which shall demonstrate that the Works or Section perform reliably and in accordance with this Contract.
- 9.8.4.3.6. The tests of each stage described in sub-paragraphs (b) and (c) above shall not be commenced until the Works or Section have passed the previous stage. During trial operation, when the Works or Section (as the case may be) are operating under stable conditions, the Contractor shall give a Notice, in writing, to the Employer and/or Engineer that they are ready for any other Tests on Completion, including performance tests. Performance tests shall be carried out to demonstrate whether the Works or Section comply with the criteria specified in the Employer's Requirements and with the Schedule of Performance Guarantees.
- 9.8.4.3.7. Trial operation, including performance testing, shall not constitute a taking over this Contract.
- 9.8.4.3.8. Any product produced by, and any revenue or other benefit resulting from, trial operation under this Sub-Clause shall be the property of the Employer.
- 9.8.4.3.9. As soon as the Works or Section have, in the Contractor's opinion, passed each stage of the Tests on Completion described in sub-paragraphs (a) to (c) above, the Contractor shall submit a certified report of the results of these tests to the

Employer and/or Engineer. The Employer and/or Engineer shall Review each such report and may give a Notice, in writing, to the Contractor stating the extent to which the results of the tests do not comply with this Contract. If the Employer and/or Engineer does not give such a Notice within 14 calendar days after receiving the results of the tests, the Employer and/or Engineer shall be deemed to have given a Notice of No-objection.

- 9.8.4.3.10. In considering the results of the Tests on Completion, the Employer and/or Engineer shall make allowances for the effect of any use of (any part of the Works by the Employer on the performance or other characteristics of the Works.

9.8.4.4. **DELAYED TESTS**

- 9.8.4.4.1. If the Contractor has given a Notice under Sub-Clause Contractor's Obligations that the Works or Section (as the case may be) are ready for Tests on Completion, and these tests are unduly delayed by the Employer's Personnel or by a cause for which the Employer and/or Engineer is responsible, Sub-Clause Interference with Tests on Completion shall apply.
- 9.8.4.4.2. If the Tests on Completion are unduly delayed by the Contractor, the Employer and/or Engineer may by giving a Notice, in writing, to the Contractor require the Contractor to carry out the tests within 14 (fourteen) calendar days after receiving the Notice. The Contractor shall carry out the tests on such day or days within this period of 14 (fourteen) calendar days as the Contractor may fix, for which the Contractor shall give a prior Notice to the Employer and/or Engineer of not less than 14 (fourteen) calendar days.
- 9.8.4.4.3. If the Contractor fails to carry out the Tests on Completion within this period of 14 (fourteen) calendar days:
- 9.8.4.4.3.1. After a second Notice, in writing, is given by the Employer and/or Engineer to the Contractor, the Employer's Personnel may proceed with the tests;
- 9.8.4.4.3.2. The Contractor may attend and witness these tests;
- 9.8.4.4.3.3. within 56 (fifty six) calendar days of these tests being completed, the Employer and/or Engineer shall send a copy of the test results to the Contractor; and
- 9.8.4.4.3.4. If the Employer incurs additional costs as a result of such testing, the Employer shall be entitled subject to this Contract to payment by the Contractor of the costs reasonably incurred.
- 9.8.4.4.4. The Tests on Completion, undertaken by the Employer and/or Engineer shall be carried out in the presence of the Contractor and the results of these tests shall be accepted as accurate by the Contractor.

9.8.4.5. **RETESTING**

9.8.4.5.1. If the Works, or a Section, fail to pass the Tests on Completion, Sub-Clause Defects and Rejection shall apply. The Employer and/or Engineer or the Contractor may require these failed tests, and the Tests on Completion on any related work, to be repeated under the same terms and conditions. Such repeated tests shall be treated as Tests on Completion for the purposes of this Clause.

9.8.4.6. **FAILURE TO PASS TEST COMPLETION**

9.8.4.6.1. If:

9.8.4.6.2. the Works, or a Section, fail to pass any or all of the Tests after Completion; and

9.8.4.6.3. applicable Performance Damages are set out in the Schedule of Performance Guarantees, the Employer shall be entitled subject to Sub-Clause Claims For Payment and/or EOT, to payment of these Performance Damages by the Contractor, in full satisfaction of this failure. If the Contractor pays these Performance Damages to the Employer during the Defect Liability Period, then the Works in Section shall not be deemed to have passed these Tests after Completion.

9.8.4.6.4. If the Works, or a Section, fail to pass a Test after Completion and, by giving a Notice to the Employer, the Contractor proposes to make adjustments or modifications to the Works or such Section (including an item of Plant):

9.8.4.6.5. the Contractor may be instructed by a written Notice given by the Employer and/or Engineer that right of access to the Works or Section cannot be given until time that is convenient to the Employer, which time shall be reasonable;

9.8.4.6.6. the Contractor shall remain liable to carry out the adjustments or modifications and to satisfy this Test, within 14 (fourteen) calendar days of receiving the Notice; and

9.8.4.6.7. if the Contractor does not receive a Notice during the relevant Defect Notification Period, the Contractor shall not be relieved of the obligation to make such adjustments or modifications and the Works or Section (as the case may be) shall not be deemed to have passed this Test after Completion.

9.8.4.7. **TESTING AND COMMISSIONING**

9.8.4.7.1. All Testing and Commissioning activities to comply with all relevant Standards, Specifications, Regulations and Procedures as specified throughout the RFP.

9.8.4.8. **FACTORY ACCEPTANCE TESTING ("FAT")**

9.8.4.8.1. All relevant EAS systems, sub-systems and Plant and Materials shall undergo and pass FAT before shipping to site.

9.8.4.8.2. The Contractor shall be responsible for all FAT.

- 9.8.4.8.3. All FAT shall be conducted at factory(s) at which the original Plant and Materials are manufactured and assembled.
- 9.8.4.8.4. The FAT shall be conducted by an Engineer or technologist, registered with the Engineering Council of South Africa ("ECSA") as a professional Engineer or professional technologist and who has undergone training for the specific EAS, sub-System or Plant and Materials and have experience in FAT.
- 9.8.4.8.5. The Contractor shall submit a FAT Method Statement to the Employer for acceptance before any FAT commences. The Method Statement shall clearly indicate:
- 9.8.4.8.5.1. All systems, sub-systems and Plant and Materials that shall be included in the FAT and which shall be omitted.
- 9.8.4.8.5.2. Specification against which the FAT shall be conducted.
- 9.8.4.8.5.3. Method of conducting the FAT for each System, sub-System and Plant and Materials.
- 9.8.4.8.5.4. Details, including experience reports, of people which shall be conducting the FAT.
- 9.8.4.8.5.5. The Contractor shall invite the Employer and/or Engineer to all FAT taking place at least 40 (forty) working days prior to commencing of the FAT. Should the Employer and/or Engineer not be able to attend, Employer and/or Engineer shall give the Contractor permission to continue or request the dates for the FAT to be changed. The Employer and/or Engineer shall not be held liable for any delays caused by this unavailability.
- 9.8.4.8.5.6. The Contractor shall, within 14 (fourteen) calendar days submit all duly signed FAT test certificates and associated test sheet to Employer and/or Engineer for information purposes, prior to commissioning.
- 9.8.4.8.5.7. Test results for each System showing tests undertaken, results and any corrective action taken shall be provided in an approved format and shipped with the System.
- 9.8.4.8.5.8. Colour photographs shall be included in the test results to record the Plant and Materials layout.
- 9.8.4.8.5.9. The Employer and/or Engineer accepts no accountability nor liability for any FAT conducted, despite any checks done or inputs given by any of the Employer and/or Engineer's agents.
- 9.8.4.9. **SITE ACCEPTANCE TESTING ("SAT")**

- 9.8.4.9.1. All relevant EAS, sub-systems and Plant and Materials shall undergo and pass SAT before commissioning.
- 9.8.4.9.2. The Contractor shall be responsible for SAT.
- 9.8.4.9.3. The SAT shall be conducted by a Transmission Engineer or Technologist, registered with the Engineering Council of South Africa (“ECSA”) as a Professional Engineer or Professional Technologist and who has undergone training for the specific System, sub-System or Plant and Materials and have experience in SAT.
- 9.8.4.9.4. The person(s) responsible for the SAT shall not have been involved in any design, FAT or installation activities relating to the System, sub-System or Plant and Materials to be tested.
- 9.8.4.9.5. The Contractor shall submit a SAT Method Statement to the Employer and/or Engineer for acceptance before any SAT commence. The Method Statement shall clearly indicate:
- 9.8.4.9.5.1. All systems, sub-systems and Plant and Materials shall be included in the SAT and which shall be omitted.
- 9.8.4.9.5.2. Specification against which the SAT shall be conducted.
- 9.8.4.9.5.3. Method of conducting the SAT for each System, sub-System and Plant and Materials.
- 9.8.4.9.5.4. Details, including experience reports, of people, which shall be conducting the SAT.
- 9.8.4.9.5.5. Where practical, all SAT shall be done under OBT conditions, prior to the final testing and commissioning occupation.
- 9.8.4.9.5.6. The Contractor shall invite the Employer and/or Engineer to all SAT taking place at least 40 (forty) calendar days prior to commencing of the SAT. Should the Employer and/or Engineer not be able to attend, the Employer and/or Engineer shall give the Contractor permission to continue or request the dates for the SAT to be changed. The Employer and/or Engineer shall not be held liable for any delays caused by this unavailability.
- 9.8.4.9.5.7. The Contractor shall submit all duly signed SAT test certificates and associated test sheet to the Employer and/or Engineer for information purposes, prior to commissioning.
- 9.8.4.9.5.8. The Employer and/or Engineer accepts no accountability nor liability for any SAT conducted, despite any checks done or inputs given by any of the Employer and/or Engineer’s agents.
- 9.8.4.10. **FINAL TESTING AND COMMISSIONING**

- 9.8.4.10.1. Final Testing and Commissioning shall be done by the Employer and/or Engineer approved Test and Commissioning Engineer provided by the Contractor.
- 9.8.4.10.2. The Contractor shall agree with the Employer and/or Engineer on a suitable date for performing a final Testing and Commissioning, at least 90 (ninety) working days prior to proposed date.
- 9.8.4.10.3. The Contractor shall submit a comprehensive Final Testing and Commissioning Method Statement to the Employer and/or Engineer for approval before any Commissioning commence.
- 9.8.4.10.4. The Contractor shall be responsible to provide a complete Testing and Commissioning team as per the Method Statement, as well as all Tools and Plant and Materials required for introducing, Testing and Commissioning of the EAS.
- 9.8.4.10.5. The members of the Contractor's Testing team shall have not been involved in any Design, FAT or SAT activities relating to the System, sub-System or Plant and Materials for which that member is responsible during the final Testing and Commissioning.

9.8.4.11. **CONTRACTOR TO SEARCH**

- 9.8.4.11.1. The Contractor shall, if instructed by the Employer and/or Engineer, search for the cause of any defect, under the direction of the Employer and/or Engineer. The Contractor shall carry out the search on the date(s) agreed with the Employer and/or Engineer.
- 9.8.4.11.2. If the Contractor fails to carry out the search in accordance with this Sub-Clause, the search may be carried out by the Employer and/or Engineer's Personnel and in that event, the Contractor shall be given a Notice, in writing, of the date when such a search will be carried out and the Contractor may attend at the Contractor's own cost.
- 9.8.4.11.3. In addition to the defect being remedied at the cost of the Contractor under this Contract, the Employer shall be entitled subject to this Contract to payment by the Contractor of the costs of the search incurred by the Employer and the Works shall not be considered to have been completed until the Employer and/or Engineer has issued the Performance Certificate to the Contractor, stating the date on which the Contractor fulfilled the Contractors obligations under this Contract. The Employer shall be entitled to claim Delay Damages, Penalties and any other damages.

9.8.4.12. **PERFORMANCE CERTIFICATE**

- 9.8.4.12.1. Performance of the Contractor's obligations under this Contract shall not be considered to have been completed until the Employer and/or Engineer has

issued the Performance Certificate to the Contractor, stating the date on which the Contractor fulfilled the Contractor's obligations under this Contract.

9.8.4.12.2. The Engineer shall issue the Performance Certificate to the Contractor (with a copy to the Employer and to the DAAB) within 28 calendar days after the latest of the expiry dates of the Defects Notification Periods, or as soon thereafter as the Contractor has:

9.8.4.12.2.1. supplied all the Contractor's Documents, and the Engineer has given (or is deemed to have given) a Notice of No-objection to the As-Built records under this Contract; and

9.8.4.12.2.2. completed and tested all the Works (including remedying any defects) in accordance with this Contract.

9.8.4.13. **UNFULFILLED OBLIGATIONS**

9.8.4.13.1. After the issue of the Performance Certificate, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, this Contract shall be deemed to remain in force.

9.8.4.13.2. However, in relation to Plant and Materials, the Contractor shall not be liable for any defects or damage occurring more than 5 (five) years after expiry of the DNP for the Plant except if prohibited by law or in any case of fraud, gross negligence, deliberate default or reckless misconduct.

9.8.4.13.3. This Contract shall be concluded once the Employer and/or Engineer determines that each Party has fulfilled its obligations under this Contract.

9.8.4.14. **CLEARANCE OF SITE(S)**

9.8.4.14.1. Promptly after the issue of the Performance Certificate, the Contractor shall:

9.8.4.14.1.1. remove any remaining Contractor's Plant and Materials, surplus material, wreckage, rubbish and Temporary Works from the Site(s);

9.8.4.14.1.2. reinstate all parts of the Site(s) which were affected by the Contractor's activities during the execution of the Works and are not occupied by the Permanent Works; and

9.8.4.14.1.3. leave the Site(s) and the Works in the condition stated in the Employer's Requirements (if not stated, in a clean and safe condition).

9.8.4.14.2. If the Contractor fails to comply with sub-paragraphs (a), (b) and/or (c) above within 28 (twenty eight) calendar days after the issue of the Performance Certificate, the Employer may sell (to the extent permitted by applicable Laws) or otherwise dispose of any remaining items and/or may reinstate and clean the Site(s) (as may be necessary) at the Contractor's cost.

9.8.4.14.3. The Employer shall be entitled subject to this Contract to payment by the Contractor of the costs reasonably incurred in connection with, or attributable to, such sale or disposal and reinstating and/or cleaning the Site(s), less an amount equal to the moneys from the sale (if any).

9.8.4.15. **DECOMMISSIONING, DISMANTLING AND REMOVAL**

9.8.4.15.1. The Contractor shall, at a minimum, ensure that:

9.8.4.15.1.1. The Decommissioning, dismantling and removal shall comply with all relevant Standards, Specifications, Regulations and Procedures as specified throughout the Employers Requirements.

9.8.4.15.1.2. The Contractor shall be responsible for the Decommissioning, dismantling and removal of all old Telecommunications Plant and Materials.

9.8.4.15.1.3. The Contractor shall remove all visible communication Plant and Materials.

9.8.4.15.1.4. All buried communication cable may be abandoned.

9.8.4.15.1.5. The Contractor shall submit a Method Statement for the Decommissioning, dismantling and removal of all Plant and Materials to the Employer and/or Engineer approval before commencing any work.

9.8.4.15.1.6. The Contractor shall dispose of the Plant and Materials according to the process described throughout the Employers Requirements.

9.8.4.15.1.7. The Contractor shall complete the Decommissioning and removal of visible communication Plant and Materials within 14 calendar days after the Commissioning of any Section.

9.8.4.15.1.8. The Contractor shall complete the Decommissioning, dismantling and removal of outdoor Telecommunication Plant and Materials no later than 30 calendar days after the Commissioning of any Section.

9.8.4.15.1.9. The dismantling and removal of indoor signal Plant and Materials shall not run behind more than one Section after the Signalling work.

9.9. **MAINTENANCE**

9.9.1. The Contractor shall Design the EAS in such a manner to minimize Maintenance requirements and ensure overall maintainability.

9.9.2. The Contractor shall develop a Maintenance Strategy for the EAS .

9.9.3. Test instruments and Centralized Management Tools shall be provided to support Condition Based Maintenance philosophy.

- 9.9.4. The maintenance Tool shall provide the overall and detailed view of the status of EAS and its sub-systems to monitor their current status in real time and locate and identify issues as quickly and accurately as possible when an incident occurs.
- 9.9.5. The mean down time of the EAS as a whole shall not be greater than 40 hours per year on an average.
- 9.9.6. The following parameters shall be set for EAS so that the availability and reliability requirements set can be fulfilled, which shall be supported with evidence- based analysis:
 - 9.9.6.1. Mean time between maintenance, both corrective and preventative.
 - 9.9.6.2. Mean time to maintain, both corrective and preventative.
- 9.9.7. EAS shall provide the maintenance functionalities, including but not limited to the following:
 - 9.9.7.1. Fault detection facilities.
 - 9.9.7.2. Fault isolation facilities.
 - 9.9.7.3. Secure remote management.
 - 9.9.7.4. Predictive and preventative maintenance based on the performance history of the assets.
 - 9.9.7.5. Required maintenance personnel to maintain and service all proposed systems in accordance with this code of practice shall be defined by the Contractor.
 - 9.9.7.6. Preventative maintenance procedures shall be developed by the Contractor as per the OEM maintenance requirements.
 - 9.9.7.7. Routine testing shall be scheduled, and planning shall be developed by the Contractor to ensure that the Plant and Materials maintained to required System availability of 99.9999 percentile level.
 - 9.9.7.8. The maintenance procedure shall include repetition of some or all of the commissioning tests, or a spot check based either on random selection or on some other means of determination.
 - 9.9.7.9. A detailed list of Spares to be held in stock shall be supplied by the Contractor (installer) to cover the period of a 3-year maintenance cycle based on failure mode analysis.
 - 9.9.7.10. All electronic EAS shall require no routine or planned maintenance, therefore, no fans or moving parts shall be used in the systems to avoid any need for maintenance.

- 9.9.7.11. The EAS shall be constructed to resist the entry of dust with a minimum IP code of IP5X.
- 9.9.7.12. The EAS Plant and Materials shall be installed in such a way that a single technician is able to remove and replace for repair purposes, all special Tools and test Plant and Materials shall be supplied.
- 9.9.7.13. Restoration of Plant and Materials to full operational use shall be possible within 60 minutes (nominally) of repairs being completed.
- 9.9.7.14. It shall not be necessary to dismantle (remove multiple pieces of) the Plant and Materials to replace a module.
- 9.9.7.15. The Spares list shall include the following:
- 9.9.7.15.1. Name and address of the local agent for each item of Plant and Materials.
- 9.9.7.15.2. List giving the name and address of the manufacturer of each item of Plant and Materials.
- 9.9.7.15.3. A copy of all test certificates received with the System.
- 9.9.7.15.4. A preventative maintenance Programme for all Plant and Materials.
- 9.9.7.15.5. Operating instructions for each item of Plant and Materials.
- 9.9.7.16. The Contractor shall, at a minimum, provide all Maintenance on all existing and new EAS System Plant and Materials and sub-systems (Power and Fibre Cable) from the Commencement Date until the Employer and/or Engineer issuance of the Performance Certificate as detailed below:

Service	Service Item
Remote Support Services	Help Desk
	Remote Troubleshooting Services
	Online Technical Support
On-site Support Services	On-site Hardware Replacement
	On-site Troubleshooting Services
Emergency Recovery Services	Emergency Recovery Services
Software Support Services	Software Updates
Hardware Support Services	Advance Replacement Services
Proactive Support Services	Equipment Health Check Monitoring
	Preventative Maintenance
RAMS	Monthly Reliability Report

	Monthly Availability Report
	Monthly Safety Report
Theft and Vandalism	Site Refurbishment and security improvement

- 9.9.7.17. Maintenance shall guarantee the EAS availability of 99.9999% for the duration of this Contract with:
- 9.9.7.17.1. 24 hours Network monitoring at the Employer and/or Engineer's facilities.
- 9.9.7.17.2. Planned Routine maintenance execution as per OEM requirements.
- 9.9.7.17.3. Network Operationalization (Numbering plan, User requirement configuration, Network services configuration).
- 9.9.7.17.4. Update "Train Operating Rules Document" with Train Operation Department.
- 9.9.7.17.5. RSR submissions for Network and Operationalization approval, including all the RSR improvement directives related to the EAS.
- 9.9.7.18. The Tools to be provided include, but are not limited to:
- 9.9.7.18.1. EAS Network Radio Frequency and Power Test Machines.
- 9.9.7.18.2. EAS Network Frequency Design Tool.
- 9.9.7.18.3. The Spares to be provided shall be based on the FMECA analysis agreed by PRASA to support systems availability at 99.9999%.
- 9.9.7.18.4. The maintenance-monitoring Tool shall provide google earth view of the EAS BTS sites, which will all be monitored in a real time of any EAS faults.
- 9.9.8. **FIRST LEVEL MAINTENANCE**
- 9.9.8.1. The Contractor shall perform First Level Maintenance for each Section that has been tested, commissioned and handed over to the Employer and/or Engineer from the date of interim hand over to the Completion Date thereafter for 730 calendar days commencing on the Completion Date for the whole of the Works until the Employer and/or Engineer issuance of the Performance Certificate thereafter the Employer and/or Engineer shall take over Maintenance.
- 9.9.8.2. First Level Maintenance shall, at a minimum consist of:
- 9.9.8.2.1. A detailed Maintenance and lifecycle financial model.
- 9.9.8.2.2. Pre-defined preventative Maintenance.
- 9.9.8.2.3. Pre-defined corrective Maintenance based on visual inspection of faulty Plant and Materials.

9.9.8.2.4. Modular replacement of faulty Plant and Materials, with minimisation of the need for any Software or hardware configuration.

9.9.8.2.5. Visual condition assessment.

9.9.8.2.6. The Contractor shall ensure that the transition of Maintenance responsibilities from the Contractor to the Employer and/or Engineer (commencing 90 working days prior to the expiry of the Contractor's total Maintenance period) shall be effortless, that there shall be enough training of the Employer and/or Engineer personnel. The Contractor shall further ensure that all documentation, policies, procedures and the like relating to the successful continuation of Maintenance, by the Employer and/or Engineer, is transparently and effectively handed over to the Employer and/or Engineer.

9.9.9. **SECOND LEVEL MAINTENANCE**

9.9.9.1. The Contractor shall perform Second Level Maintenance for each Section that has been tested, commissioned and handed over to the Employer and/or Engineer from the date of interim hand over to the Completion Date thereafter for 730 calendar days commencing on the Completion Date for the whole of the Works until the Employer and/or Engineer issuance of the Performance Certificate thereafter the Employer and/or Engineer shall take over Maintenance.

9.9.9.2. Second Level Maintenance shall, at a minimum, consist of:

9.9.9.2.1. A detailed Maintenance and lifecycle financial model.

9.9.9.2.2. Pre-defined corrective Maintenance based on System diagnostics.

9.9.9.2.3. Modular replacement, with the need for basic Software or hardware configuration.

9.9.9.2.4. Condition assessment by means of diagnostic Tools and Plant and Materials.

9.9.9.2.5. The Contractor shall ensure that the transition of Maintenance responsibilities from the Contractor to the Employer and/or Engineer (commencing 90 working days prior to the expiry of the Contractor's total Maintenance period) shall be effortless, that there shall be enough training of the Employer and/or Engineer personnel. The Contractor shall further ensure that all documentation, policies, procedures and the like relating to the successful continuation of Maintenance, by the Employer and/or Engineer, is transparently and effectively handed over to the Employer and/or Engineer.

9.9.10. **THIRD LEVEL MAINTENANCE**

9.9.10.1. The Contractor (with assistance from the Employer and/or Engineer) and the Original Equipment Manufacturer ("OEM") (under management of the

Contractor and for whom the Contractor shall ensure availability and compliance), shall perform Third Level Maintenance for each Section that has been tested, commissioned and handed over to the Employer and/or Engineer from the date of interim hand over to the Completion Date thereafter for 730 calendar days commencing on the Completion Date for the whole of the Works until the Employer and/or Engineer issuance of the Performance Certificate thereafter the Employer and/or Engineer shall take over Maintenance.

- 9.9.10.2. Third Level Maintenance shall, at a minimum, consist of:
 - 9.9.10.2.1. A detailed Maintenance and lifecycle financial model.
 - 9.9.10.2.2. Undefined and irregular corrective Maintenance based on advanced System diagnostics.
 - 9.9.10.2.3. Modular replacement, with the need for advanced Software or hardware configuration.
 - 9.9.10.2.4. System configuration changes to accommodate infrastructure upgrades and layout changes.
 - 9.9.10.2.5. The Contractor shall provide training on the entire EAS which shall include all systems for both Engineering and Maintenance.
 - 9.9.10.2.6. The training shall cover aspects of the System Design enough for the Engineering and Maintenance to manage the System over its Design life.
 - 9.9.10.2.7. Operators' requirements shall be covered fully in the training process to ensure correct operation of the System, this training shall be provided by the System OEM.
 - 9.9.10.2.8. Maintenance training contents shall include:
 - 9.9.10.2.8.1. System operation and data communications.
 - 9.9.10.2.8.2. Diagnostic Tools provided with the System and Test Plant and Materials to fault find.
 - 9.9.10.2.8.3. System Failure modes.
 - 9.9.10.2.8.4. Configuration of the System.
 - 9.9.10.2.9. The Contractor (with direct support from the OEM) shall ensure that the transition of Maintenance responsibilities from the Contractor and the OEM to the Employer and/or Engineer (commencing 90 working days prior to the expiry of the Contractor's total Maintenance period) shall be effortless, that there shall be sufficient training of the Employer and/or Engineer personnel. The Contractor shall further ensure that all documentation, policies, procedures and the like relating to the successful continuation of Maintenance, by the Employer and/or

Engineer, is transparently and effectively handed over to the Employer and/or Engineer.

9.9.11. **FOURTH LEVEL MAINTENANCE**

- 9.9.11.1. The Contractor and the OEM (under management of the Contractor and for whom the Contractor shall ensure availability and compliance), shall perform Fourth Level Maintenance for each Section that has been tested, commissioned and handed over to the Employer and/or Engineer from the date of interim hand over to the Completion Date thereafter for 730 calendar days commencing on the Completion Date for the whole of the Works until the Employer and/or Engineer issuance of the Performance Certificate thereafter the OEM shall take over Maintenance (under supervision from the Employer and/or Engineer).
- 9.9.11.2. Fourth Level Maintenance shall, at a minimum, consist of:
- 9.9.11.2.1. System upgrades.
- 9.9.11.2.2. Changes to the System's core Software.
- 9.9.11.2.3. Component level corrective Maintenance.
- 9.9.11.3. The Contractor shall ensure that the OEM contractually commits to having representation, and providing all necessary Maintenance and/or support, in South Africa for a minimum period of at 240 calendar months post the Contractor's Maintenance, Warranty and Defects Liability period.

9.10. **WARRANTIES**

- 9.10.1. The Contractor shall, take interim Warranty responsibility and liability for each Section of that has been tested, commissioned and handed over to the Employer and/or Engineer from the date of interim hand over to the Completion Date.
- 9.10.2. The Contractor's full Warranty responsibility and liability period shall be 730 calendar days commencing on the Completion Date for the whole of the Works until the Employer and/or Engineer issuance of the Performance Certificate.
- 9.10.3. Warranties shall, for all EAS and Telecommunications related Works, at a minimum, be valid and cover:
- 9.10.3.1. Replacement of all faulty Plant and Materials, Components and labour for all Maintenance Levels described elsewhere in this document.
- 9.10.3.2. Tracking and tracing and correcting of any Software faults
- 9.10.4. Failures caused by the environmental and infrastructure conditions as specified throughout the RFP including, but not limited to:

9.10.4.1. Any Plant and Materials or Components damaged due to exposure to extreme direct sunlight and elevated temperatures.

9.10.4.2. Any Plant and Materials or Components damaged due to continuous exposure to high humidity.

9.11. **PROTECTION OF THE ENVIRONMENT**

9.11.1. The Contractor shall take all necessary measures to:

9.11.1.1. protect the environment (both on and off the Site(s));

9.11.1.2. comply with the environmental impact statement for the Works (if any); and

9.11.1.3. limit damage and nuisance to people and property resulting from pollution, noise and other results of the Contractor's operations and/ or activities.

9.11.2. The Contractor shall ensure that emissions, surface discharges, effluent and any other pollutants from the Contractor's activities shall exceed neither the values indicated in the Employer's Requirements nor those prescribed by applicable Laws.

9.12. **TEMPORARY UTILITIES**

9.12.1. The Contractor shall, be responsible for the provision and costs of all temporary utilities, including electricity, gas, telecommunications, water and any other services the Contractor may require for the execution of the Works.

10. **PAYMENT**

10.1. **ADVANCE PAYMENT**

10.1.1. The Contractor shall ensure that the Advance Payment Guarantee is valid and enforceable until the advance payment has been repaid, but its amount may be progressively reduced by the amount repaid by the Contractor as stated in the Payment Certificates.

10.1.2.

10.1.3. If the terms of the Advance Payment Guarantee specify its expiry date, and the advance payment has not been repaid by the date 28 (twenty eight) calendar days before the expiry date:

10.1.4. the Contractor shall extend the validity of this guarantee until the advance payment has been repaid;

10.1.5. the Contractor shall immediately submit evidence of this extension to the Employer, with a copy to the Engineer; and

10.1.6. if the Employer does not receive this evidence 7 (seven) calendar days before the expiry date of this guarantee, the Employer shall be entitled to Claim.

10.1.7. The Employer shall make an advance payment, as an interest-free loan for mobilisation and design. The amount of the advance payment and the currencies in which it is to be paid shall be as stated in the Contract.

10.2. **ISSUE OF INTERIM PAYMENT CERTIFICATE**

10.2.1. No amount will be certified or paid to the Contractor until:

10.2.1.1. the Employer has received the Performance Security in the form, and issued by an entity, in accordance with this Contract; and

10.2.1.2. the Contractor has appointed the Contractor's Representative in accordance with this Contract.

10.2.2. **The Interim Payment Certificate**

10.2.2.1. The Engineer shall, within 28 calendar days after receiving a Statement and supporting documents, issue an Interim Payment Certificate to the Employer, with a copy to the Contractor:

10.2.2.1.1. stating the amount which the Engineer fairly considers to be due; and

10.2.2.1.2. including any additions and/or deductions which have become due under this Contract or otherwise,

10.2.2.2. with detailed supporting particulars (which shall identify any difference between a certified amount and the corresponding amount in the Statement and give the reasons for such difference).

10.2.3. **Withholding (amounts in) an Interim Payment Certificate**

10.2.3.1. Before the issue of the Taking-Over Certificate for the Works, the Engineer may withhold an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificate (if any) stated in the Employers Requirements. In this event, the Engineer shall give a Notice, in writing, to the Contractor accordingly.

10.2.3.1.1. An Interim Payment Certificate shall not be withheld for any other reason, although:

10.2.3.1.1.1. if anything supplied or work done by the Contractor is not in accordance with this Contract, the estimated cost of rectification or replacement may be withheld until rectification or replacement has been completed;

10.2.3.1.1.2. if the Contractor was or is failing to perform any work, service or obligation in accordance with this Contract, the value of this work or obligation may be withheld until the work or obligation has been performed. In this event, the

Engineer shall promptly give a Notice to the Contractor describing the failure and with detailed supporting particulars of the value withheld; and/or

- 10.2.3.1.1.3. if the Engineer finds any significant error or discrepancy in the Statement or supporting documents, the amount of the Interim Payment Certificate may take account of the extent to which this error or discrepancy has prevented or prejudiced proper investigation of the amounts in the Statement until such error or discrepancy is corrected in a subsequent Statement.
- 10.2.3.2. For each amount so withheld, in the supporting particulars for the Interim Payment Certificate the Engineer shall detail his/her calculation of the amount and state the reasons for it being withheld.
- 10.2.4. Correction or modification
 - 10.2.4.1. The Engineer may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Engineer's acceptance, approval, consent or Notice of No-objection to any Contractor's Document or to any part on the Works.
 - 10.2.4.2. If the Contractor considers that an Interim Payment Certificate does not include any amounts to which the Contractor is entitled, these amounts shall be identified in the next Statement (the "identified amounts" in this paragraph). The Engineer shall then make any correction or modification that should properly be made in the next Payment Certificate. Thereafter, to the extent that:
 - 10.2.4.2.1. the Contractor is not satisfied that this next Payment Certificate includes the identified amounts; and
 - 10.2.4.2.2. the identified amounts do not concern a matter for which the Engineer is already carrying out his/her duties under this Contract.
 - 10.2.4.3. the Contractor may, by giving a written Notice refer this matter to the Engineer and for the purposes of this Contract the date the Engineer receives this Notice shall be the date of commencement of the time limit for agreement this Contract.

10.3. **PAYMENT**

- 10.3.1. The Employer shall pay to the Contractor:
 - 10.3.1.1. the amount certified in each Payment Certificate within the period stated in the Contract after the Employer receives the Advance Payment Certificate;
 - 10.3.1.2. the amount certified in each Interim Payment Certificate issued under:
 - 10.3.1.2.1. Sub-Clause issue of Interim Payment Certificate , within the period stated in the Contract after the Engineer receives the Statement and supporting documents; or

- 10.3.1.2.2. Sub-Clause Issue of Final Payment Certificate, within the period stated in the Contract after the Employer receives the Final Payment Certificate; and
- 10.3.1.2.3. the amount certified in the Final Payment Certificate within the period stated in the Contract after the Employer receives the Final Payment Certificate.
- 10.3.2. Payment of all amounts shall be in the South African Rand (ZAR) and shall be made into the bank account, nominated by the Contractor, in the Republic of South Africa.

10.4. **STATEMENT AT COMPLETION**

- 10.4.1. Within 90 (ninety) calendar days after the Date of Completion of the Works, the Contractor shall submit to the Engineer a Statement at completion with supporting documents, in accordance with this Contract, showing:
 - 10.4.1.1. the value of all work done in accordance with this Contract up to the Date of Completion of the Works;
 - 10.4.1.2. any further sums which the Contractor considers to be due at the Date of Completion of the Works; and
 - 10.4.1.3. an estimate of any other amounts which the Contractor considers have or will become due after the Date of Completion of the Works, under this Contract. These estimated amounts shall be shown separately and shall include estimated amounts for:
 - 10.4.1.3.1. any matter referred to the DAAB under this Contract; and
 - 10.4.1.3.2. any matter for which a NOD has been given under this Contract.
- 10.4.2. The Engineer shall then issue an Interim Payment Certificate in accordance with this Contract.

10.5. **FINAL STATEMENT**

- 10.5.1. Submission by the Contractor of any Statement under the following provisions of this Sub-Clause shall not be delayed by reason of any referral under this Contract or any arbitration under this Contract.
- 10.5.2. **Draft Final Statement.**
 - 10.5.2.1. The Contractor shall, within 60 (sixty) calendar days after the issue of the Performance Certificate, submit to the Employer and/or Engineer a draft final Statement for consideration.
 - 10.5.2.2. This Statement shall:

- 10.5.2.2.1. be in the same form as Statements previously submitted under this Contract;
- 10.5.2.2.2. be submitted in one paper-original, one electronic copy and additional paper copies (if any) as stated in the Contract; and
- 10.5.2.2.3. show in detail, with supporting documents:
 - 10.5.2.2.3.1. the value of all work done in accordance with this Contract;
 - 10.5.2.2.3.2. any further sums which the Contractor considers to be due at the date of the issue of the Performance Certificate, under this Contract; and
 - 10.5.2.2.3.3. an estimate of any other amounts which the Contractor considers have or will become due after the issue of the Performance Certificate, under this Contract, including estimated amounts by reference to the matters described in the sub-paragraphs of Sub-Clause Statement at Completion. These estimated amounts shall be shown.
- 10.5.2.3. Except for any amount under sub-paragraph 10.5.2.2.3.3. above, if the Employer and/or Engineer disagrees with or cannot verify any part of the draft final Statement, the Employer and/or Engineer shall disapprove / reject such disregard and/or unverifiable amounts.
- 10.5.3. Agreed Final Statement
- 10.5.3.1. If there are no amounts under sub-paragraph 10.5.2.2.3.3. of Sub-Clause Draft Final Statement, the Contractor shall then prepare and submit to the Employer and/or Engineer the final Statement as agreed (the "Final Statement" in this Contract).
- 10.6. **DISCHARGE**
- 10.6.1. When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of such Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract.
- 10.6.2. This discharge may state that the total of the Statement is subject to any payment that may become due in respect of any Dispute for which a DAAB proceeding, or arbitration is in progress under Sub-Clause [Arbitration] and/or that it becomes effective after the Contractor has received:
- 10.6.3. full payment of the amount certified in the FPC.
- 10.6.4. If the Contractor fails to submit this discharge, the discharge shall be deemed to have been submitted and to have become effective when the conditions of this sub-clause have been fulfilled.

- 10.6.5. It is agreed that, within 28 calendar days after receiving the Final Statement and the discharge under this Sub-Clause, the Engineer shall issue a copy of the Final Payment Certificate to the Employer and Contractor.
- 10.6.6. The parties agree that if the Contractor fails to submit this discharge, the discharge shall be deemed to have been submitted and to have become effective when the conditions of the sub-paragraphs have been fulfilled.
- 10.6.7. A discharge under this Sub-Clause shall not affect either Party's liability or entitlement in respect of any Dispute for which a DAAB proceeding, or arbitration is in progress under Clause [Disputes and Arbitration].

10.7. **ISSUE OF FINAL PAYMENT CERTIFICATE**

- 10.7.1. Within 28 calendar days after receiving the Final Statement, and the discharge under this Contract, the Engineer shall issue to the Employer (with a copy to the Contractor), the Final Payment Certificate which shall state:
- 10.7.1.1. The amount which the Engineer fairly considers is finally due, including any additions and/or deductions which have become due under this Contract or otherwise; and
- 10.7.2. If the Contractor has not submitted a draft final Statement within the time specified under this Contract, the Employer and/or Engineer shall request the Contractor to do so. Thereafter, if the Contractor fails to submit a draft final Statement within a period of 28 calendar days, the Employer and/or Engineer shall issue the Final Payment Certificate for such an amount as the Employer and/or Engineer fairly considers to be due.

10.8. **CESSATION OF EMPLOYER'S LIABILITY**

- 10.8.1. The Employer and/or Engineer shall not be liable to the Contractor for any matter or thing unclear or in connection with this Contract or execution of the Works.

10.9. **FINANCIAL MANAGEMENT**

- 10.9.1.1. The Employer and/or Engineer may pay the Contractor a Mobilisation Allowance of an amount equal to 20% of the ICP as reflected under Payment Certificate 1.
- 10.9.1.2. Should the Contractor fail to achieve completion of Validation, to the absolute satisfaction of the Employer and/or Engineer for which the Key Date is fixed as the 180th calendar day after the Commencement Date, the Contractor shall, at a minimum, refund the Employer with the full Mobilisation Allowance amount plus daily compound interest (for which such interest shall be calculated, using the ruling historic Repo Rates as issued by the South African Reserve Bank, from the date on which the Contractor was paid the Mobilisation Allowance up to the calendar day on which the Contractor pays the Mobilisation Allowance back to the Employer). The Contractor's refund of the Mobilisation Allowance amount shall form part of the Employer's claim for Damages, and other costs,

from the Contractor (as described elsewhere through the Employers Requirements).

10.9.2. Retention

10.9.2.1. The Employer and/or Engineer shall, throughout the duration of this Contract and in addition to the Performance Bond/Security, withhold 10% of all amounts certified due and payable in all Payment Certificates in Retention.

10.9.2.2. Retention shall, at the Employer and/or Engineer's discretion, be placed in an interest-bearing bank account held by a South African bank whose primary place of business operations is in the Republic of South Africa. Bank charges and other administrative charges shall be offset against interest earned in the bank account.

10.9.2.3. Retention shall be held for the purposes stipulated in this Contract and the release of Retention, by the Employer and/or Engineer, shall (notwithstanding anything to the contrary in the Form of Contract) be as follows:

10.9.2.3.1. An amount equal to 50% of the total Retention held after issuance of the Employer signed Taking-Over Certificate (for the whole of the Works) whereby the Contractor shall issue a Statement (once the amount including interest is approved by the Employer and/or Engineer).

10.9.2.3.2. An amount equal to the balance of the Retention held after issuance of the Employer signed Performance Certificate (for the whole of the Works) for which the Contractor shall issue a Statement (once the amount including interest is approved by the Employer and/or Engineer).

10.9.3. Financial Management Plan ("FMP") and Schedule of Payment Milestones ("SPM")

10.9.3.1. The parties agree that the Contractor shall, as part of the proposed Contractor's Financial Management Plan ("FMP") always provide a comprehensive, unambiguous and transparent Schedule of Payment Milestones ("SPM") within which each Payment Milestone shall be linked to Major Milestones, Deliverables and Key Dates linked to the Approved Baseline Contract Programme/Approved Programme(s) Bid Programme.

10.9.3.2. It is agreed that the FMP and SPM shall be subject to scrutiny and approval by the Employer and/or Engineer during the negotiations stage after which the Final FMP shall be included as an Annexure to this Contract.

10.9.3.3. Payment Milestone 1 shall be the "Mobilisation Allowance" for an amount equal to 10% of the ICP as/under Payment Certificate 1. It is agreed that the criteria to be met by the Contractor for this Payment Milestone to be achieved shall, at a minimum, be; signature of this Contract by all parties, the Contractor's submission of all Performance Bonds/Securities, the Contractor's submission of

all Insurances, and the Contractor's establishment of a fully operational Project Office and achievement of the Commencement Date.

- 10.9.3.4. Payment Milestone 2 shall be "Completion of Validation" for an amount equal to 20% of the ICP as/under Payment Certificate 2 less amounts for the Mobilisation Allowance Payment Milestone and Retention. It is agreed that the criteria to be met, for this Payment Milestone to be achieved, shall be the Contractor's successful completion of Validation, to the absolute satisfaction of the Employer and/or Engineer for which the Key Date is fixed as the 180th calendar day after the Commencement Date.
- 10.9.3.5. Payment Milestones relating to the Employer and/or Engineer's advanced payments for Plant and Materials shall not be entertained since the Employer and/or Engineer shall not make any advanced payments for Plant and Materials. It is agreed that only the following Payment Milestones for Plant and Materials may be permitted:
 - 10.9.3.5.1. "Installation of Plant and Materials" for an amount equal to 50% of the Plant and Materials value less amounts for Retention. The criteria to be met by the Contractor for this Payment Milestone to be achieved, shall be that such Plant and Materials has been installed and approved by the Employer and/or Engineer in complete compliance and adherence with all requirements and specifications of the Employer's Requirements.
 - 10.9.3.5.2. "Successful Testing and Commissioning of Plant and Materials" for an amount equal to 50% of the Plant and Materials value less amounts for Retention. It is agreed that the criteria to be met, for this Payment Milestone to be achieved, shall be that such Plant and Materials has been installed, tested, commissioned and approved by the Employer and/or Engineer in complete compliance and adherence with all requirements and specifications of the Employers Requirements.
- 10.9.3.6. It is agreed that the Employer and/or Engineer's issuance of a Taking Over Certificate (for the whole of the Works) shall be a Payment Milestone. The value of this Milestone shall be equal to 50% of the total Retention held as the time of issuance of a Taking Over Certificate for the whole of the Works.
- 10.9.3.7. The parties specifically agree that the Employer and/or Engineer's issuance of a Performance Certificate (for the whole of the Works) shall be the Final Payment Milestone. The value of this Milestone shall be equal to the balance of Retention held plus any other amounts that may be due to the Contractor as at the time of issuance of a Performance Certificate for the whole of the Works.
- 10.9.3.8. It is further agreed that payment Milestones relating to the Employer's potential usage of the Employer's Project Contingency Allowance shall be dealt with separately on a case by case basis in the form of written instructions to be issued by the Employer as and when such need arises.
- 10.9.4. **Payment Certification, Invoicing and Payment**

- 10.9.4.1. The Contractor shall, at most, be entitled to issue one Statement (Claim for Payment Milestones achieved), on the second Friday of each calendar month, requesting the Employer and/or Engineer's review, Valuation and issuance of a Payment Certificate (Interim Payment Certificate "IPC" or the Final Payment Certificate "FPC").
- 10.9.4.2. IPCs may be issued by the Employer and/or Engineer for all Statements relating to all Payment Milestones with exception of the Final Payment Milestone.
- 10.9.4.3. Only an FPC may be issued by the Employer and/or Engineer for the Statement relating to the Final Payment Milestone once all conditions of Contract have been met to the full satisfaction of the Employer and/or Engineer and the Performance Certificate has been issued by the Employer and/or Engineer.
- 10.9.4.4. Each Statement shall attach all necessary unredacted supporting documentation (as requested and/or instructed by the Employer and/or Engineer) fully demonstrating that the requirements for the Employer and/or Engineer's issuance of a Valuation and Payment Certificate has been met in terms of the Employer and/or Engineer approved FMP and SPM for each Payment Milestone claimed.
- 10.9.4.5. The Contractor shall further include any additions and/or deductions which may become due, at the time of issuance of a Statement, under any post Contract signature Agreement or Determination as allowed for under the Contract.
- 10.9.4.6. The Employer and/or Engineer shall, within 56 calendar days of receiving the Statement, revert to the Contractor either totally rejecting the Contractor's Statement providing reasons, or rejecting the Contractor's Statement requesting correction and resubmission of the Statement by the Contractor for second review by the Employer and/or Engineer, or provide the related Valuation and Payment Certificate (which shall further include any deductions of amounts which the Employer and/or Engineer shall deem to be due/owed to the Employer and/or Engineer by the Contractor).
- 10.9.4.7. Issuance of a Payment Certificate by the Employer and/or Engineer (which authorises the Contractor to accordingly issue a valid Invoice) and the Employer and/or Engineer's payment of any Invoice raised shall not imply nor be deemed to imply the Employer and/or Engineer's acceptance of any part of the Works or any Section of the Works or the whole of the Works.
- 10.9.4.8. The Employer and/or Engineer issuance of a Payment Certificate shall never prejudice the Employer and/or Engineer's rights to reject any part of the Works or any Section of the Works or the whole of the Works which the Employer and/or Engineer shall deem not to be in accordance with the Contract.
- 10.9.4.9. The Employer and/or Engineer issuance of a Payment Certificate shall never prejudice the Employer and/or Engineer's rights to recover any amounts paid to the Contractor in respect of any part of the Works or any Section of the Works or the whole of the Works that is rejected by the Employer and/or Engineer.

- 10.9.4.10. All invoicing and payments made under the Contract shall be in accordance with the Employer and/or Engineer approved SPM and FMP unless otherwise instructed by the Employer and/or Engineer.
- 10.9.4.11. The Contractor shall, within 14 calendar days of receiving a Payment Certificate, issue and deliver an original valid Invoice (for the exact amount reflected on the Payment Certificate) and an original Statement of Account (reflecting all valid Invoices and Payments as at that date) to the Employer and/or Engineer.
- 10.9.4.12. The Employer and/or Engineer shall endeavour to pay any valid Invoice (duly issued, delivered, and received in accordance with the Contract) within 60 calendar days from the date of the Employer and/or Engineer's receipt of each valid Invoice from the Contractor. Failure by the Employer and/or Engineer to pay any duly issued and delivered valid Invoice, within this 60 calendar day period, shall attract a penalty of 0.025% of the value of each valid Invoice (excluding VAT) per delayed day (calculated on a simple and not compounded basis). The total of all penalties that may become applicable in terms of this provision, throughout the duration of the Contract, shall not exceed 1% of the ICP.
- 10.9.4.13. An additional penalty shall apply should the Employer and/or Engineer, for whatever reason, fail to effect payment of any valid Invoice (duly issued, delivered, and received in accordance with the Contract) within 90 calendar days from the date of the Employer and/or Engineer's receipt of each valid Invoice from the Contractor. Failure by the Employer and/or Engineer to pay any duly issued and delivered valid Invoice, within this 90 calendar day period, shall attract an additional penalty of 0.025% of the value of each valid Invoice (excluding VAT) per delayed day for the period between 60 calendar days and 90 calendar days (calculated on a simple and not compounded basis). The total of all penalties that may become applicable in terms of this provision, throughout the duration of the Contract, shall not exceed 1% of the ICP.
- 10.9.4.14. Should the Employer and/or Engineer for whatever reason fail to effect payment of any valid Invoice (duly issued, delivered, and received in accordance with the Contract) within 120 calendar days from the date of the Employer and/or Engineer's receipt of each valid Invoice from the Contractor, and the amount owed of any valid Invoice exceeds 10% of the TCP, the Contractor shall, subject to adherence of Notices and Claims requirements and any other provisions of the Contract, be entitled to suspend all further work in relation to the Contract and claim an Extension of Time ("EoT") with unredacted proven related costs as a result of such suspension. In this regard, the TCP shall be as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that a valid Notice is submitted in accordance with the Contract.

10.10. **FINANCIAL PERFORMANCE MANAGEMENT**

10.10.1. **PENALTIES**

10.10.1.1. The Employer and/or Engineer's shall recover the Penalty(s) applied, for each incident, from the Contractor through the Recovery Statement(s) which shall be included in a Payment Certificate(s) that is forthcoming from the date of the Employer and/or Engineer's decision to apply the Penalty or by any other means deemed necessary by the Employer and/or Engineer.

10.10.1.2. The Employer and/or Engineer's application of the Penalty(s) shall not relieve the Contractor of the Contractor's obligations and/or liabilities in terms of the Employers Requirements.

10.10.2. **WORKS SPECIFICATION**

10.10.2.1. The Contractor shall unequivocally commit to comprehensive and uncompromised execution of the Works through strict adherence to the Works Specification and the Employers Requirements and achievement of all Key Dates, within the specified Time for Completion for the whole of the Works.

10.10.2.2. Failure of the Contractor to meet any of these requirements at any time throughout the duration of this Contract shall give the Employer and/or Engineer an unprejudiced discretionary right to immediately terminate this Contract, without allowing the Contractor any period of rectification, and all costs, Damages, and a Penalty(s) related to such termination shall be borne by the Contractor.

10.10.3. **THE EMPLOYER'S ACCEPTANCE OF CONTRACTOR'S PROJECT DOCUMENTATION, REPORTS AND DESIGNS**

10.10.3.1. Failure of the Contractor to meet any document management, reporting and Design procedures and requirements at any time throughout the duration of this Contract, shall give the Employer an unprejudiced right to immediately apply penalties (as specified in the Employers Requirements) for each incident (from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).

10.10.4. **FAILURE IN THIS REGARD SHALL FURTHER MEAN**

10.10.4.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor.

- 10.10.4.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer, at the time that the Penalty is to be calculated for each incident.
- 10.10.5. Professional Personnel Registrations:
- 10.10.5.1. All personnel deployed on this Project, by the Contractor (including, but not limited to, personnel deployed by; the main Contractor, joint venture partners and/or consortium members and/or subcontractors and/or direct contractors and/or similar), shall be appropriately skilled and experienced (list to be attached for the main functions: Senior Project Manager, Senior Commercial Manager, Senior Controls Manager, Senior Quantity Surveyor, Senior Programmer/Scheduler, Senior Occupational Health and Safety Manager, Senior Environmental and Heritage Manager, Senior Quality Manager, Senior BEE, Senior Public Participation and Community Liaison Manager, Senior Skills Development and Training Manager, Senior Security and Vandalism Manager, Engineers Designers, Checkers, Testers, etc.) and shall have the requisite mandatory and professional; qualifications, certifications and registrations as required by all applicable legislation, regulations, bylaws and industry best practice.
- 10.10.5.2. This was an absolute requirement at the time of bidding and validity of such qualifications, certifications and registrations shall be maintained, on an uninterrupted basis, for the entire duration of this Contract.
- 10.10.5.3. Failure of the Contractor to meet any of these requirements at any time throughout the duration of this Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified in the Employers Requirements) for each incident (from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).
- 10.10.6. Failure in this regard shall further mean:
- 10.10.6.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor.
- 10.10.6.2. The Penalty, per incident, payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not

exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer, at the time that the Penalty is to be calculated for each incident.

- 10.10.6.3. The Employer may, solely at the Employer's discretion and without consequence or liability to the Employer, instruct the Contractor to remove any of the Contractor's personnel deployed throughout the duration of this Contract for any reason deemed appropriate by the Employer.
- 10.10.6.4. The Contractor shall immediately comply with this instruction and appoint suitable replacement personnel within 60 (sixty) calendar days of receiving such an instruction for which such replacement personnel shall first be approved in writing by the Employer.
- 10.10.6.5. Failure of the Contractor to meet any of these requirements at any time throughout the duration of this Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified in the Employers Requirements) for each incident (from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).
- 10.10.7. Failure in this regard shall further mean:
- 10.10.7.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor.
- 10.10.7.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer, at the time that the Penalty is to be calculated for each incident.
- 10.10.8. Professional Company Registrations:
- 10.10.8.1. All companies deployed on this Project, by the Contractor (including, but not limited to; the main Contractor, joint venture partners and/or consortium members and/or subcontractors and/or direct contractors and/or similar), shall be appropriately skilled and experienced and shall have the requisite mandatory and professional; qualifications, certifications and registrations as required by all applicable legislation, regulations, bylaws and industry best practice.

- 10.10.8.2. This was an absolute requirement at the time of bidding and validity of such qualifications, certifications and registrations shall be maintained, on an uninterrupted basis, for the entire duration of this Contract.
- 10.10.8.3. Failure of the Contractor to meet any of these requirements at any time throughout the duration of this Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified throughout the Employers Requirements) for each incident (from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).
- 10.10.9. Failure in this regard shall further mean:
- 10.10.9.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor.
- 10.10.9.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer, at the time that the Penalty is to be calculated for each incident.
- 10.10.9.3. The Employer may, solely at the Employer's discretion and without consequence or liability to the Employer, instruct the Contractor to remove any of the Contractor's companies deployed throughout the duration of this Contract for any reason deemed appropriate by the Employer.
- 10.10.9.4. The Contractor shall immediately comply with this instruction and appoint suitable replacement companies within 60 (sixty) calendar days of receiving such an instruction for which such replacement companies shall first be approved in writing by the Employer and/or Engineer.
- 10.10.9.5. Failure of the Contractor to meet any of these requirements at any time throughout the duration of this Contract shall give the Employer and/or Engineer an unprejudiced right to immediately apply penalties (as specified throughout the Employers Requirements) for each incident (from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer and/or Engineer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).

- 10.10.10. Failure in this regard shall further mean:
- 10.10.10.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor.
- 10.10.10.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.
- 10.10.11. Tax Compliance:
- 10.10.11.1. Failure of the Contractor to meet any Tax Compliance Requirements at any time throughout the duration of this Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified throughout the Employers Requirements) for each incident (from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).
- 10.10.12. Failure in this regard shall further mean:
- 10.10.12.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor.
- 10.10.12.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer, at the time that the Penalty is to be calculated for each incident.
- 10.10.13. B-BBEE Compliance:

- 10.10.13.1. Failure of the Contractor to meet any B-BBEE Compliance Requirements at any time throughout the duration of this Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified throughout the Employers Requirements) for each incident (from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).
- 10.10.14. Failure in this regard shall further mean:
- 10.10.14.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor.
- 10.10.14.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer, at the time that the Penalty is to be calculated for each incident.
- 10.10.15. CSD Compliance:
- 10.10.15.1. Failure of the Contractor to meet any CSD Compliance Requirements at any time throughout the duration of the Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified throughout the Employers Requirements) for each incident (from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).
- 10.10.16. Failure in this regard shall further mean:
- 10.10.16.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor.
- 10.10.16.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of

the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer, at the time that the Penalty is to be calculated for each incident.

10.10.17. CIDB Compliance:

10.10.17.1. Failure of the Contractor to meet any CIDB Compliance Requirements at any time throughout the duration of the Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified throughout the Employers Requirements) for each incident (from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).

10.10.18. Failure in this regard shall further mean:

10.10.18.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor.

10.10.18.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the as reflected in the latest Payment Certificate issued by the Employer, at the time that the Penalty is to be calculated for each incident.

11. **DELIVERABLES**

11.1. **WORKS SPECIFICATION**

11.1.1. The Contractor shall unequivocally commit to comprehensive and uncompromised execution of the Works through strict adherence to the Works Specification and achievement of all Key Dates, within the specified Time for Completion for the whole of the Works. Failure of the Contractor to meet any of the Employers Requirements at any time throughout the duration of this Contract shall give the Employer an unprejudiced discretionary right to immediately terminate this Contract, without allowing the Contractor any period of rectification, and all costs, damages and penalties related to such termination shall be borne by the Contractor.

11.1.2. The Contractor shall submit all reports, Designs and/or other Project documentation, for all Works (as stated throughout the Employers Requirements or as instructed in writing by the Employer and/or Engineer), to

the Employer and/or Engineer for acceptance and approval by the Employer and/or Engineer before any commencement and execution of the Works.

- 11.1.3. Each completed Section of the Works shall be tested, commissioned and handed over to the Employer and/or Engineer, as soon as possible for interim operational purposes, for which such hand over shall be signed and accepted by the Employer and/or Engineer. Notwithstanding this interim Sectional completion, final Tests on Completion, Commissioning, Completion and Taking Over of the whole of the Works by the Employer and/or Engineer shall be done by the Completion Date.

11.2. **DELIVERY OF THE WORKS**

- 11.2.1. The Contractor undertakes to deliver the Works on time, within the budget and with precise coordination of all tasks to achieve a high standard of quality that is approved and acceptable by the Employer and/or Engineer.
- 11.2.2. The Contractor's execution of the Project will follow a well-defined and founded methodology throughout the whole lifecycle of the Project to prevent:
 - 11.2.2.1. Programme slippages.
 - 11.2.2.2. Cost slippages.
 - 11.2.2.3. Misunderstanding and gaps in communication within the Project and stakeholders.
 - 11.2.2.4. Waste of capacity in respect to human resources.
 - 11.2.2.5. Waste of Plant and Materials.
- 11.2.3. The Contractor shall plan all Works in a manner that ensures minimal interruption to normal train services and any other services rendered by the Employer and/or Engineer.
- 11.2.4. The Contractor's execution of the Works may start simultaneously for the whole of the Works (or in Sections) only after Validation of the EAS is completed to the satisfaction of the Employer and/or Engineer and confirmed in writing. Should the Contractor commence any other Works prior to the completion of Validation, such Works shall be deemed to have been undertaken by the Contractor at the Contractor's own peril and cost (for which such cost may not be reimbursed by the Employer if the Contract is terminated).
- 11.2.5. The Works shall be executed as per prioritization of sequencing of the delivery Works as stipulated in the Employers Requirements unless otherwise agreed to in writing with the Employer and/or Engineer.

11.3. **WORKS DELIVERY METHOD STATEMENTS**

- 11.3.1. The Contractor shall provide comprehensive method statements on how all aspects of the Planning, Design, Supply, Construction, Installation, Testing, Commissioning and Maintenance of the Works shall be delivered by the Contractor, in strict compliance and adherence with the RFP. The method statements to be provided include, but are not limited to:
 - 11.3.1.1. General.
 - 11.3.1.2. Management and Implementation.
 - 11.3.1.3. Project Programme and Time Management.
 - 11.3.1.4. Interface Management.
 - 11.3.1.5. Key Personnel Requirements.
 - 11.3.1.6. Project Office Co-location and Resourcing.
 - 11.3.1.7. Document Management.
 - 11.3.1.8. Reporting.
 - 11.3.1.9. Project Meetings.
 - 11.3.1.10. Occupational Health and Safety Management.
 - 11.3.1.11. Environmental and Heritage Management
 - 11.3.1.12. Quality Management.
 - 11.3.1.13. Temporary Works, Site(s) Services and Construction Constraints.
 - 11.3.1.14. Reporting of Faults and Failures.
 - 11.3.1.15. Occupations.
 - 11.3.1.16. Operational Readiness.
 - 11.3.1.17. Training and Technology Transfer.
 - 11.3.1.18. Inspections, Interim Tests, Tests on Completion, Commissioning, Completion, Taking Over and Defects After Taking Over.
 - 11.3.1.19. Decommissioning.
 - 11.3.1.20. Spares, Maintenance and Life Cycle Cost ("LCC") Replacement Plan and Financial Model.
 - 11.3.1.21. Project Exit Strategy

- 11.3.1.22. Any other method statements as required to clearly demonstrated how the Works shall be delivered.
- 11.3.2. General Technical Requirements
- 11.3.3. Systems descriptions:
 - 11.3.3.1. The Contractor shall submit a detailed description of all systems and sub-systems that the Contractor shall provide as part of the Works.
 - 11.3.3.2. Such description shall include a description of all systems, sub-systems, Plant and Materials that shall be delivered as part of the Works.
 - 11.3.3.3. The systems descriptions shall, where applicable, for each System, sub- System and Plant and Materials describe the diagnostic features of the System, sub-System and Plant and Materials together with the data that shall be transmitted to the Maintenance server.
- 11.3.4. Theft and Vandalism method statement:
- 11.3.5. The Contractor shall submit a detailed method statement on all measures, techniques, and Installation rules the Contractor shall implement toward addressing the Theft and Vandalism concerns and requirements stated throughout the RFP to suitably and adequately protect and deliver the Works.
- 11.4. **ENVIRONMENTAL AND HERITAGE:**
 - 11.4.1. The Contractor is responsible for all Environmental and Heritage matters on the Project.
 - 11.4.2. The Contractor's Environmental and Heritage Management shall, at a minimum, comply with all standards, specifications, regulations and procedures as defined throughout the Employers Requirements and all legislation, regulations, and by-laws of South Africa.
- 11.5. **REFERENCES**
 - 11.5.1. The Contractor shall submit detailed case studies for the offered EAS, subsystems and Plant and Materials being in operation during the last 5 years in suburban projects and situated preferably in subtropical coastal areas together with associated verifiable client references and contact details.
- 11.6. **MAINTENANCE AND LIFE CYCLE COST ("LCC") REPLACEMENT PLAN AND FINANCIAL MODEL:**
 - 11.6.1.1. The Contractor shall submit the estimated detailed, all-inclusive; Planned and Preventative Maintenance and LCC Replacement Plan and Financial Model for the whole of the Works.

- 11.6.1.2. The Planned and Preventative Maintenance and LCC Replacement Plan and Financial Model shall adhere OEM requirements and specifications, proven local best practice and proven international best practice.
- 11.6.1.3. The Financial Model shall be based on a useable life of 20 years for all Plant and Materials further transparently showing all detailed calculations and assumptions.
- 11.6.1.4. The Financial Model shall include Equipment price increases based on the Consumer Price Index ("CPI") estimations for the next 20 years, also taking into consideration any foreign exchange factors.
- 11.6.1.5. The calculations shall further be based on the detailed theoretical RAMS calculations done by the Contractor.
- 11.6.1.6. The strategy shall include resource requirements for maintaining the Works. Resource requirements shall show number of technical workers, Engineering technicians and technologists needed to carry out effective; planned Maintenance, preventative Maintenance and Life Cycle replacements whilst minimising disruption to PRASA operations.
- 11.7. **METHOD STATEMENT:**
- 11.7.1. The Contractor shall submit a high-level implementation, Testing and Commissioning method statement.
- 11.7.2. The method statement shall include details regarding Installation methods, FAT, SAT and final Testing and Commissioning, indicating which activities shall be conducted under Occupation-between-trains conditions and which shall require total Occupation.
- 11.8. **EQUIPMENT LIFE CYCLE:**
- 11.8.1. The Contractor shall submit the following information for each System, sub-System and Plant and Material type that the Contractor shall implement:
- 11.8.2. The date at which the product was released.
- 11.8.3. The anticipated date at which the product shall be withdrawn from sale, but support shall continue to be supplied.
- 11.8.4. The anticipated date that product support shall be withdrawn, i.e., Spare shall no longer be available and technical support is no longer provided.
- 11.9. **CERTIFICATES:**

11.9.1. The Contractor shall submit all necessary Equipment certification, showing compliance with the standards in the GTR and MTR, with detailed relevant documentation (Safety and Performance standards, etc.).

11.10. **RAMS CALCULATIONS:**

11.10.1. The Contractor shall submit detailed theoretical RAMS calculations for the Telecommunication systems and sub-systems.

11.10.2. The Contractor shall provide the predicted mean time to failure and the mean time to repair of the Equipment.

11.10.3. Where insufficient historical dates are available, the Contractor shall state the methods used to determine the reliability performance.

11.11. **POWER CONSUMPTION CALCULATIONS:**

11.11.1. The Contractor shall submit detailed theoretical power consumption calculations for:

11.11.1.1. The Telecoms CTCC systems

11.11.1.2. The Telecoms systems as it shall be implemented at Rosburgh station.

11.11.1.3. Maintenance and Life Cycle Cost ("LCC") Replacement Plan and Financial Model:

11.11.1.3.1. The Contractor shall submit the estimated detailed, all-inclusive; Planned and Preventative Maintenance and LCC Replacement Plan and Financial Model for the whole of the Works.

11.11.1.3.2. The Planned and Preventative Maintenance and LCC Replacement Plan and Financial Model shall adhere OEM requirements and specifications, proven local best practice and proven international best practice.

11.11.1.3.3. The Financial Model shall be based on a useable life of 20 years for all Plant and Materials further transparently showing all detailed calculations and assumptions.

11.11.1.3.4. The Financial Model shall include Equipment price increases based on the Consumer Price Index ("CPI") estimations for the next 20 years, also taking into consideration any foreign exchange factors.

11.11.1.3.5. The calculations shall further be based on the detailed theoretical RAMS calculations done by the Contractor.

11.11.1.3.6. The strategy shall include resource requirements for maintaining the Works. Resource requirements shall show number of technical workers, Engineering technicians and technologists needed to carry out effective; planned

Maintenance, preventative Maintenance and Life Cycle replacements whilst minimising disruption to PRASA operations.

11.12. **EMPLOYER'S TAKE OVER**

11.12.1.1. **TAKING OVER THE WORKS AND SECTIONS**

- 11.12.1.1.1. Test on completion, Commissioning and Taking Over shall be done according to the procedure described in the Employers Requirements, the General Technical Requirements (GTRs) and the Main Technical References (MTR) or as otherwise instructed in writing by Employer and/or Engineer throughout the duration of this Contract.
- 11.12.1.1.2. After (Sectional) Completion, the Contractor shall, at a minimum arrange a Taking Over inspection to allow the Employer and/or Engineer certification of (Sectional) Completion subject to a Defects list or as otherwise instructed in writing by the Employer and/or Engineer.
- 11.12.1.1.3. The Employer and/or Engineer may use the following Sections of the Works before Completion of the whole of the Works is certified which does not constitute Taking Over by the Employer and/or Engineer:
- 11.12.1.1.3.1. After each Section is commissioned and is handed back to the Employer and/or Engineer to continue their train operations in the interim until issuance of the Performance Certificate;
- 11.12.1.1.3.2. Any inspections done to allow the Employer and/or Engineer's use of commissioned Sections of the Works are done to aid prompt correction of Defects and should not be confused with Taking Over procedures.
- 11.12.1.1.4. The Contractor shall without hesitation, ensure that Employer and/or Engineer has a full, accurate and unredacted dossier of all Project information (including but not limited to As Built documents and drawings) that represent the status of the completed Works, in all formats requested by Employer.
- 11.12.1.1.5. Except as stated in this Contract, the Works may be taken over by the Employer and/or Engineer when:
- 11.12.1.1.5.1. the Works have been completed in accordance with this Contract, including the passing of the Tests on Completion and except as is allowed in sub-paragraph 10.1.7.1 below;
- 11.12.1.1.5.2. the Employer and/or Engineer has given (or is deemed to have given) a Notice of No - objection to the As - Built records submitted this Contract;
- 11.12.1.1.5.3. the Employer and/or Engineer has given (or is deemed to have given) a Notice of No - objection to the provisional O&M Manuals for the Works submitted under this Contract;

- 11.12.1.1.5.4. the Contractor has carried out the training (if any) as described under this Contract; and
- 11.12.1.1.5.5. a Taking-Over Certificate for the Works has been issued.
- 11.12.1.1.6. The Contractor may apply for a Taking-Over Certificate by giving a Notice, in writing, to the Engineer not more than 90 (ninety) calendar days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contractor shall apply for a Taking-Over Certificate for each Section.
- 11.12.1.1.7. If any Part of the Works is taken over under this Contract, the remaining Works or Section shall not be taken over until the conditions described in this Contract have been fulfilled.
- 11.12.1.1.8. The Employer and/or Engineer shall, within 90 (ninety) calendar days after receiving the Contractor's Notice, in writing, either:
- 11.12.1.1.8.1. issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with this Contract, except for any minor outstanding work and defects (as listed in the Taking-Over Certificate) which will not substantially affect the safe use of the Works or Section for their intended purpose (either until or whilst this work is completed, and these defects are remedied); or
- 11.12.1.1.8.2. reject the application by giving a Notice, in writing, to the Contractor, with reasons. This Notice shall specify the work required to be done, the defects required to be remedied and/or the documents required to be submitted by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work, remedy such defects and/or submit such documents before giving a further Notice, in writing, under this Sub-Clause.
- 11.12.1.1.9. If the Employer and/or Engineer does not issue the Taking-Over Certificate or reject the Contractor's application within this period of 90 (ninety) calendar days, and if the conditions described in this Contract have been fulfilled, the Works or Section shall be deemed to have been completed in accordance with this Contract on the 14th day after the Employer and/or Engineer receives the Contractor's Notice of application and the Taking-Over Certificate shall be deemed to have been issued.
- 11.12.1.2. **TAKING OVER PARTS**
- 11.12.1.2.1. The Employer and/or Engineer may, at the sole discretion of the Employer and/or Engineer, issue a Taking-Over Certificate for any part of the Permanent Works.
- 11.12.1.2.2. The Employer and/or Engineer shall not use any part of the Works (other than as a temporary and/or interim measure, which is either specified in the Employer's Requirements or with the prior agreement of the Contractor) unless

and until the Employer and/or Engineer has issued a Taking-Over Certificate for this part, or the Employer requires this part to fulfil the Employer's normal business operational requirements. Where the Employer does use any part of the Works before the Taking-Over Certificate is issued the Contractor shall give a Notice to the Employer and/or Engineer identifying such part and describing such use, and:

- 11.12.1.2.2.1. that Part shall be deemed to have been taken over by the Employer and/or Engineer as from the date on which it is used;
- 11.12.1.2.2.2. The Contractor shall cease to be liable for the care of such Part as from this date, when responsibility shall pass to the Employer and/or Engineer; and
- 11.12.1.2.2.3. the Employer and/or Engineer shall immediately issue a Taking-Over Certificate for this Part, and any outstanding work to be completed (including Tests on Completion) and/or defects to be remedied shall be listed in this certificate.
- 11.12.1.2.3. After the Employer and/or Engineer has issued a Taking-Over Certificate for a Part, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out the outstanding work (including Tests on Completion) and/or remedial work for any defects listed in the certificate. The Contractor shall carry out these works as soon as practicable and, in any case, before the expiry date of the relevant DNP.
- 11.12.1.2.4. If the Employer and/or Engineer issues a Taking-Over Certificate for any part of the Works, or if the Employer and/or Engineer is deemed to have taken over a Part under sub-paragraph (a) above, for any period of delay after the date under sub-paragraph (a) above, the Delay Damages for completion of the remainder of the Works shall be reduced. Similarly, the Delay Damages for the remainder of the Section (if any) in which this Part is included shall also be reduced. This reduction shall be calculated as the proportion which the value of the Part (except the value of any outstanding works and/or defects to be remedied) bears to the value of the Works or Section (as the case may be) as a whole.
- 11.12.1.2.5. The Employer and/or Engineer shall proceed under this Contract to agree or determine this reduction (and the date the Employer and/or Engineer receives the Contractor's Notice under this Sub-Clause shall be the date of commencement of the time limit for agreement under this Contract. The provisions of this paragraph shall only apply to the daily rate of Delay Damages and shall not affect the maximum amount of these damages.

11.12.1.3. **INTERFERENCE WITH TESTS ON COMPLETION**

11.12.1.3.1. **SURFACES REQUIRING REINSTATEMENT**

- 11.12.1.3.1.1. Except as otherwise stated in the Taking-Over Certificate, a certificate for a Section or Part of the Works shall not be deemed to certify completion of any ground or other surfaces requiring reinstatement.

11.12.2. **DEFECTS AFTER TAKING OVER**

11.12.2.1. **COMPLETION OF OUTSTANDING WORK AND REMEDYING DEFECTS**

- 11.12.2.1.1. Each completed Section of the Works shall be tested, commissioned and handed over to the Employer and/or Engineer, as soon as possible for interim operational purposes, for which such interim hand over shall be signed and accepted by the Employer and/or Engineer.
- 11.12.2.1.2. Notwithstanding this interim Sectional completion, final Tests on Completion, Commissioning, Completion and Taking Over of the whole of the Works by the Employer and/or Engineer shall be done by the Completion Date for the whole of the Works.
- 11.12.2.1.3. After (Sectional) Completion, the Contractor shall, at a minimum arrange a Taking Over inspection to allow the Employer and/or Engineer certification of (Sectional) Completion subject to a Defects list or as otherwise instructed in writing by the Employer and/or Engineer.
- 11.12.3. The Contractor shall, at the Contractor cost and regardless of the extent of this requirement, take full Maintenance, Warranty and Defects Liability responsibility for the whole of the Works until the Employer's and/or Engineer's issues the Performance Certificate.
- 11.12.4. In addition, the Contractor shall, at the Contractors cost and regardless of the extent of this requirement, take interim Maintenance, Warranty and Defects Liability responsibility for each Section of the Works that has been tested, commissioned and handed over to the Employer and/or Engineer from the date of interim hand over to the Completion Date(s) for each Section.
- 11.12.4.1.1. In order that the Works and Contractor's Documents, and each Section and/or Part, shall be in the condition required by this Contract (fair wear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable thereafter, the Contractor shall:
- 11.12.4.1.1.1. complete any work which is outstanding on the relevant Date of Completion, within the time(s) stated in the Taking-Over Certificate or such other stated time as is instructed by the Employer and/or Engineer; and
- 11.12.4.1.1.2. execute all work required to remedy defects or damage, of which a Notice, in writing, is given to the Contractor by (or on behalf of the Employer on or before the expiry date of the DNP for the Works or Section or Part (as the case may be).
- 11.12.4.1.2. If a defect appears or damage occurs during the relevant DNP, a Notice shall be given to the Contractor accordingly, by (or on behalf of the Employer. Promptly thereafter:

- 11.12.4.1.2.1. the Contractor and the Employer's Personnel shall jointly inspect the defect or damage;
- 11.12.4.1.2.2. the Contractor shall then prepare and submit a proposal for necessary remedial work; and
- 11.12.4.1.2.3. the second, third and fourth paragraphs of Sub-Clause Defects and Rejection shall apply.

11.12.4.2. **COSTS OF REMEDYING DEFECTS**

- 11.12.4.2.1. All work under sub-paragraph (b) of Sub-Clause Completion of Outstanding Work and Remedying Defects shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:
 - 11.12.4.2.1.1. the design of the Works, other than a part of the design for which the Employer is responsible (if any);
 - 11.12.4.2.1.2. Plant and Materials or workmanship not being in accordance with this Contract;
 - 11.12.4.2.1.3. improper operation or maintenance which was attributable to matters for which the Contractor is responsible (under this Contract); or
 - 11.12.4.2.1.4. failure by the Contractor to comply with any other obligation under this Contract.
- 11.12.4.2.2. If the Contractor considers that the work is attributable to any other cause, the Contractor shall promptly give a Notice, in writing to the Employer and/or Engineer and the Employer and/or Engineer shall proceed under this Contract to agree or determine the cause (and, for the purpose of this Contract, the date of this Notice shall be the date of commencement of the time limit or agreement under this Contract). If it is agreed or determined that the work is attributable to a cause other than those listed above, Sub-Clause Variation by Instruction shall apply as if such work had been instructed by the Employer and/or Engineer.

11.12.4.3. **EXTENSION OF DEFECTS NOTIFICATION PERIOD**

- 11.12.4.3.1. The Employer and/or Engineer shall be entitled to an extension of the DNP for the Works, or a Section or a Part:
 - 11.12.4.3.1.1. if and to the extent that the Works, Section, Part or a major item of Plant and Materials (as the case may be, and after taking over) cannot be used to the intended purpose(s) by reason of a defect or damage which is attributable to any of the matters under this Contract; and
 - 11.12.4.3.1.2. subject to Sub-Clause Claims and/or EOT.
- 11.12.4.3.2. However, a DNP shall not be extended by more than a period of 3 (three) years after the expiry of the DNP stated in this Contract.

11.12.4.3.3. If delivery and/or erection of Plant and Materials was suspended under Sub-Clause Employers Suspension, other than where the cause of such suspension is the responsibility of the Contractor, the Contractor's obligations under this Clause shall apply to any defects or damage occurring more than 3 (three) years after the DNP for the Works, of which the Plant and Materials form part, would otherwise have expired.

11.12.4.4. **FAILURE TO REMEDY DEFECTS**

11.12.4.4.1. If the remedying of any defect or damage under this Contract is unduly delayed by the Contractor, a date may be fixed by (or on behalf of) the Employer and/or Engineer, on or by which the defect or damage is to be remedied. A Notice, in writing, of this fixed date shall be given to the Contractor by the Employer and/or Engineer, which Notice shall allow the Contractor stated time (taking due regard of all relevant circumstances) to remedy the defect or damage.

11.12.4.4.2. If the Contractor fails to remedy the defect or damage by the date stated in this Notice and this remedial work was to be executed at the cost of the Contractor under this Contract, the Employer and/or Engineer may (at the Employer and/or Engineer's sole discretion):

11.12.4.4.2.1. Carry out the work or have the work carried out by others (including any retesting), in the manner required under this Contract and at the Contractor's cost, but the Contractor shall have no responsibility for this work. The Employer shall be entitled subject to this Contract to payment by the Contractor of the costs reasonably incurred by the Employer in remedying the defect or damage;

11.12.4.4.2.2. accept the damaged or defective work, in which case the Employer shall be entitled subject to this Contract to:

11.12.4.4.2.2.1. payment of Performance Damages by the Contractor in full satisfaction of this failure; or

11.12.4.4.2.2.2. if there is no Schedule of Performance Guarantees under this Contract, or no applicable Performance Damages, a reduction in the TCP. The reduction shall be in full satisfaction of this failure only and shall be in the amount as shall be appropriate to cover the reduced value to the Employer as a result of this failure;

11.12.4.4.2.2.3. require the Employer and/or Engineer to treat any part of the Works which cannot be used for its intended purpose(s) under this Contract by reason of this failure as an omission, as if such omission had been instructed under this Contract; or

11.12.4.4.2.2.4. terminate this Contract as a whole with immediate effect if the defect or damage deprives the Employer of substantially the whole benefit of the Works. The Employer shall then be entitled subject to under this Contract to recover from the Contractor all sums paid for the Works, plus financing charges and any costs incurred in dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

- 11.12.4.4.2.3. The exercise of discretion by the Employer and/or Engineer under the paragraph shall be without prejudice to any other rights the Employer may have, under this Contract or otherwise.

11.12.4.5. **REMEDYING OF DEFECTIVE WORK ON SITE**

- 11.12.4.5.1. If, during the DNP, the Contractor considers that any defect or damage in any Plant and Materials cannot be remedied expeditiously on the Site(s) the Contractor shall with 14 (fourteen) calendar days give a Notice, in writing, with reasons, to the Employer and/or Engineer requesting consent to remove the defective or damaged Plant and Materials off the Site(s) for the purposes of repair. This Notice shall clearly identify each item of defective or damaged Plant and Materials, and shall give details of:
- 11.12.4.5.1.1. the defect or damage to be repaired;
- 11.12.4.5.1.2. the place to which defective or damaged Plant and Materials is to be taken for repair;
- 11.12.4.5.1.3. the transportation to be used (and insurance cover for such transportation);
- 11.12.4.5.1.4. the proposed inspections and testing off the Site(s);
- 11.12.4.5.1.5. the planned duration required before the repaired Plant and Materials shall be returned to the Site(s); and
- 11.12.4.5.1.6. the planned duration for reinstallation and retesting of the repaired Plant and Materials.
- 11.12.4.5.2. The Contractor shall also provide any further details that the Employer and/or Engineer may reasonably require.
- 11.12.4.5.3. When the Employer and/or Engineer gives approval (which approval shall not relieve the Contractor from any obligation or responsibility under this Clause), the Contractor may remove from the Site(s) such items of Plant and Materials as are defective or damaged. As a condition of this approval, the Employer and/or Engineer may require the Contractor to increase the amount of the Performance Security by the full replacement cost of the defective or damaged Plant and Materials.

11.12.4.6. **FURTHER TESTS AFFECTS REMEDYING DEFECTS**

- 11.12.4.6.1. Within 7 (seven) calendar days of completion of the work of remedying of any defect or damage, the Contractor shall give a Notice, in writing, to the Employer and/or Engineer describing the remedied Works, Section, Part and/or Plant and Materials and the proposed repeated tests (under this Contract).

- 11.12.4.6.2. Within 90 (ninety) calendar days after receiving the Contractor's Notice, the Employer and/or Engineer shall give a Notice to the Contractor either:
- 11.12.4.6.2.1. agreeing with such proposed testing; or instructing the repeated tests that are necessary to demonstrate.
- 11.12.4.6.2.2. that the remedied Works, Section, Part and/or Plant and Materials comply with this Contract.
- 11.12.4.6.3. If the Contractor fails to give such a Notice within the 7 (seven) calendar days, the Employer and/or Engineer may give a Notice, in writing, to the Contractor, within 90 (ninety) calendar days after the defect or damage is remedied, instructing the repeated tests that are necessary to demonstrate that the remedied Works, Section, Part and/or Plant and Materials comply with this Contract.
- 11.12.4.6.4. All repeated tests under this Sub-Clause shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Contractor under this Contract, for the cost of the remedial work.

11.13. **AS-BUILT RECORDS**

- 11.13.1. The Contractor shall prepare, and keep up-to-date, a complete set of "As-Built" records of the execution of the Works, showing the exact As-Built locations, sizes and details of the work as executed by the Contractor. The format, referencing system, system of electronic storage and other relevant details of the As-Built records shall be as stated in the Employer's Requirements (if not stated, as approved by the Employer and/or Engineer). These records shall be kept on the Site(s) and shall be used exclusively for the purposes of this Contract.
- 11.13.2. The Contractor shall submit to the Employer and/or Engineer under this Contract]:
- 11.13.2.1. the As-Built records for the Works or Section (as the case may be) before the commencement of the Tests on Completion; and
- 11.13.2.2. updated As-Built records to the extent that any work is executed by the Contractor:
- 11.13.2.2.1. during and/or after the Tests on Completion, before the issue of any Taking-Over Certificate under this Contract ; and
- 11.13.2.2.2. after Taking Over under this Contract before the issue of the Performance Certificate.
- 11.13.3. The number of copies of As-Built records to be submitted by the Contractor as stipulated under this Contract.

11.14. **OPERATION AND MAINTENANCE MANUALS**

- 11.14.1. The Contractor shall prepare and keep up to date, a complete set of operation and maintenance manuals for the Works (the "O&M Manuals" in these Conditions). The format and other relevant details of the O&M Manuals shall be as stated in the Employer's Requirements and, in any case, these manuals shall:
- 11.14.1.1. be in sufficient detail for the Employer and/or Engineer to:
- 11.14.1.1.1. operate, maintain and adjust the Works to ensure that the performance of the Works, Section and/or Plant and Materials (as the case may be) continues to comply with the performance criteria specified in the Employer's Requirements and the Schedule of Performance Guarantees; and
- 11.14.1.1.2. operate, maintain, dismantle, reassemble, adjust and repair the Plant and Materials; and
- 11.14.1.1.3. include an inventory of spare parts required for the Employer and/or Engineer's future operation and maintenance of the Plant and Materials.
- 11.14.2. Before commencement of the Tests on Completion, the Contractor shall submit provisional O&M Manuals for the Works or Section (as the case may be) to the Employer and/or Engineer under this Contract.
- 11.14.3. If during the Tests on Completion any error or defect is found in the provisional O&M Manuals, the Contractor shall promptly rectify the error or defect at the Contractor's risk and cost.
- 11.14.4. Before the issue of any Taking-Over Certificate under this Contract, the final O&M Manuals shall be submitted to the Employer and/or Engineer for approval.

12. **PERFORMANCE AND WITHHOLDING OF PERFORMANCE**

12.1. **THE ENGINEER**

12.1.1. **ENGINEER'S DETERMINATION**

- 12.1.1.1. The Engineer shall make a fair determination of the matter or Claim, in accordance with this Contract, taking due regard of all relevant circumstances.
- 12.1.1.2. In endeavouring to be within the time limit for determination under Sub-Clause Time limits, the Engineer shall give a Notice to both Parties of his/her determination. This Notice shall state that it is a "Notice of the Engineer's Determination" and shall describe the determination in detail with reasons and detailed supporting particulars.

12.1.2. **TIME LIMITS**

- 12.1.2.1. The Engineer shall give the Notice of agreement, if agreement is achieved, within 42 days or within such other time limit as may be determined by the Engineer (the "time limit for agreement" in these Conditions), after:
- 12.1.2.1.1. in the case of a matter to be agreed or determined (not a Claim), the date of commencement of the time limit for agreement as stated in the applicable Sub-Clause of these Conditions.
- 12.1.2.1.2. in the case of a Claim under Sub-Clause Claims, the date the Engineer receives a Notice under the said clause from the claiming Party; or
- 12.1.2.1.3. in the case of a Claim under sub-paragraph (a) or (b) of Sub-Clause [Claims], the date the Engineer receives:
- 12.1.2.1.3.1. a fully detailed Claim under Sub-Clause [Fully Detailed Claim]; or in the case of a Claim under Sub-Clause [Claims of continuing effect], an interim or final fully detailed Claim (as the case may be).
- 12.1.2.1.3.2. The Engineer shall give the Notice of his/her determination within 42 days or within such other time limit as may be determined by the Engineer (the "time limit for determination" in these Conditions), after the date corresponding to his/her obligation to proceed under the last paragraph of Sub-Clause [Consultation to reach agreement].
- 12.1.2.1.4. If the Engineer does not give the Notice of agreement or determination within the relevant time limit:
- 12.1.2.1.4.1. in the case of a Claim, the Engineer shall be deemed to have given a determination rejecting the Claim; or
- 12.1.2.1.4.2. in the case of a matter to be agreed or determined, the matter shall be deemed to be a Dispute which may be referred by either Party to the DAAB for its decision under Sub-Clause Obtaining DAAB's Decision] subject to filing of a NOD (and Sub-Clause [Dissatisfaction with Engineer's determination]
- 12.1.3. **EFFECT OF THE AGREEMENT OR DETERMINATION**
- 12.1.3.1. Each agreement or determination shall be binding on both Parties (and shall be complied with by the Engineer) unless and until corrected under this Sub-Clause or, in the case of a determination, it is revised under Clause 21 [Disputes and Arbitration].
- 12.1.3.2. An agreement or determination concerns the payment of an amount from one Party to the other Party, the Employer shall include deduction of such an amount in a Payment Certificate to be determined by the Engineer.

- 12.1.3.3. An agreement or determination concerns the payment of an amount from one Party to the other Party, the Contractor shall include such an amount in a Payment Certificate to be determined by the Engineer.
- 12.1.3.4. If, within 14 days after giving or receiving the Engineer's Notice of agreement or determination, error of a typographical or clerical or arithmetical nature is found:
 - 12.1.3.4.1. by the Engineer: then he/she shall immediately advise the Parties; accordingly, or
 - 12.1.3.4.2. by a Party: then that Party shall give a Notice to the Engineer, stating that it is given under this Sub-Clause and clearly identifying the error. If the Engineer does not agree there was an error, he/she shall within 14 days advise the Parties accordingly.
- 12.1.3.5. The Engineer shall within 14 days of finding the error or receiving a Notice under sub-paragraph 3.7.5.2.2 above (as the case may be), give a Notice to both Parties of the corrected agreement or determination. Thereafter, the corrected agreement or determination shall be treated as the agreement or determination for the purpose of these Conditions.
- 12.1.4. **DISSATISFACTION WITH ENGINEER'S DETERMINATION**
 - 12.1.4.1. If either Party is dissatisfied with a determination of the Engineer:
 - 12.1.4.1.1. the dissatisfied Party shall give a NOD to the other Party, with a copy to the Engineer.
 - 12.1.4.1.2. this NOD shall state that it is a "Notice of Dissatisfaction with the Engineer's Determination" and shall set out the reason(s) for dissatisfaction.
 - 12.1.4.1.3. this NOD shall be given within 28 days after receiving the Engineer's Notice of the determination under Sub-Clause [Engineer's Determination] or, if applicable, his/her Notice of the corrected determination under Sub-Clause 3.7.4 [Effect of the agreement or determination] (or, in the case of a deemed determination rejecting the Claim, within 28 days after the time limit for determination under Sub-Clause [Time limits] has expired); and
 - 12.1.4.1.4. thereafter, either Party may proceed under Sub-Clause [Obtaining DAAB's Decision].
 - 12.1.4.2. If no NOD is given by either Party within the period of 28 days stated in sub-paragraph 3.7.6.1.3 above, the determination of the Engineer shall be deemed to have been accepted by both Parties and shall be final and binding on them.
 - 12.1.4.3. If the dissatisfied Party is dissatisfied with only part(s) of the Engineer's determination:
 - 12.1.4.3.1. this part(s) shall be clearly identified in the NOD.

- 12.1.4.3.2. this part(s), and any other parts of the determination that are affected by such part(s) or rely on such part(s) for completeness, shall be deemed to be severable from the remainder of the determination; and
- 12.1.4.3.3. the remainder of the determination shall become final and binding on both Parties as if the NOD had not been given.
- 12.1.4.4. In the event that a Party fails to comply with an agreement of the Parties under this Sub-Clause or a final and binding determination of the Engineer, the other Party may, without prejudice to any other rights it may have, refer the failure itself directly to arbitration under Sub-Clause [Arbitration] in which case the first and the third paragraphs of Sub-Clause [Failure to Comply with DAAB's Decision] shall apply to such reference in the same manner as these paragraphs apply to a final and binding decision of the DAAB.

12.1.5. **MEETINGS**

- 12.1.5.1. The Employer and/or Engineer or the Contractor's Representative may require the other to attend meetings to discuss arrangements for future work and/or other matters in connection with execution of the Works. The Employer's other contractors, the personnel of legally constituted public authorities and/or private utility companies, and/or Subcontractors may attend any such meeting, if requested by the Employer and/or Engineer or the Contractor's Representative.
- 12.1.5.2. The Engineer shall keep a record of each meeting and supply copies of the record to those attending and to the Employer. At any such meeting, and in the record, responsibilities for any actions to be taken shall be in accordance with this Contract.

13. **PENALTIES**

13.1. **DELAY DAMAGES**

- 13.1.1. The Contractor shall unequivocally commit to comprehensive and uncompromised execution of the Works through strict adherence to the Employer's Requirements, and achievement of all Major Milestones, Deliverables Key Dates, within the specified Time(s) for Completion for the; Design and Construction portion of the Works (excluding the full Maintenance, Warranty and Defects Liability period), and the Time for Completion for the whole of the Works (including the full Maintenance, Warranty and Defects Liability period).
- 13.1.2. Failure of the Contractor to meet any of these requirements at any time throughout the duration of the Contract shall give the Employer an unprejudiced discretionary right to immediately terminate the Contract, without allowing the Contractor any period of rectification, and all costs damages and penalties related to such termination shall be borne by the Contractor.

- 13.1.3. If the Contractor fails to comply with Sub-Clause [Time for Completion], the Employer shall be entitled subject to Sub-Clause [Claims For Payment and/or EOT] to payment of Delay Damages and Penalties by the Contractor for this default at a minimum. Delay Damages shall be the amount stated in the Employer's Requirements, which shall be paid for every day which shall elapse between the relevant Time for Completion and the relevant Date of Completion of the Works or Section. The total amount due under this Sub-Clause shall not exceed the maximum amount of Delay Damages (if any) stated in the Employer's Requirements, this Contract and the RFP.
- 13.1.4. These Delay Damages shall be the only damages due from the Contractor for the Contractor's failure to comply with Sub-Clause [Time for Completion], other than in the event of termination under Sub-Clause [Termination for Contractor's Default] before completion of the Works. These Delay Damages shall not relieve the Contractor from the obligation to complete the Works, or from any other duties, obligations or responsibilities which the Contractor may have under or in connection with the Employer's Requirements.
- 13.1.5. This Sub-Clause shall not limit the Contractor's liability for Delay Damages and Penalties in any case of fraud, gross negligence, deliberate default, abandonment or reckless misconduct by the Contractor.
- 13.1.6. Major Milestones, Deliverables and Key Dates:
- 13.1.6.1. If the Contractor fails to achieve any Major Milestone(s) and/or meet any Deliverable(s) on any Key Date(s) per the Approved Baseline Contract Programme/Approved Programme (as referenced elsewhere in the Employer's Requirements) the Contractor shall pay Delay Damages, Penalties and any other costs, to the Employer for this default.
- 13.1.6.2. The Delay Damages, per incident, shall be payable for each elapsed calendar day calculated from the calendar date on which a Key Date falls as per the Approved Baseline Contract Programme/Approved Programme (as referenced elsewhere in the Employer's Requirements) to the actual date on which the related Major Milestone is achieved and Deliverables met or the planned delayed date on which the related Major Milestone may be achieved, and Deliverables met (the later of the 2 dates).
- 13.1.6.3. Elapsed calendar days shall include the calendar day on which a Key Date falls as per the Approved Baseline Contract Programme/Approved Programme (as referenced elsewhere in the Employer's Requirements) to the actual calendar day on which the related Major Milestone is achieved and Deliverables met or the planned delayed date on which the related Major Milestone may be achieved, and Deliverables met.
- 13.1.6.4. The minimum Delay Damages payable shall be calculated at 0.1% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 20.000% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the

latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.

14. **PERFORMANCE MANAGEMENT**

14.1. **APPOINTMENT OF THE ENGINEER**

- 14.1.1. The Employer shall act as the Engineer or may appoint the Engineer (any juristic person), who shall carry out the duties assigned to the Engineer in this Contract.

14.2. **ENGINEER'S DUTIES AND AUTHORITY**

- 14.2.1. The Engineer shall be vested with all the authority necessary to act as the Engineer under this Contract. If the Engineer is a juristic person, a natural person employed by the Engineer shall be appointed and authorised to act on behalf of the Engineer under this Contract.
- 14.2.2. The Engineer (or, if a juristic person, the natural person appointed to act on its behalf) shall:
- 14.2.2.1. have suitable qualifications, experience, and competencies, as determined by the Employer, to act as the Engineer under this Contract; and
- 14.2.2.2. be fluent in the ruling language of this Contract.
- 14.2.3. Where the Engineer is a juristic person, the Engineer shall give a Notice, within 28 (twenty eight) days of first becoming aware or ought to have become aware, to the Parties of the natural person (or any replacement) appointed and authorised to act on its behalf. The authority shall not take effect until this Notice has been received by both Parties. The Engineer shall similarly give a Notice, within 28 (twenty-eight) days of first becoming aware or ought to have become aware of any revocation of such authority.
- 14.2.4. The Engineer shall have no authority to amend this Contract or, except as otherwise stated in these Conditions and approved in writing by the Employer, to relieve either Party of any duty, obligation or responsibility under or in connection with this Contract.
- 14.2.5. The Engineer may exercise the authority attributable to the Engineer as specified in or necessarily to be implied from this Contract and approved in writing by the Employer. There shall always be a requirement for the Engineer to obtain the Employer's written approval before the Engineer exercises any of his/her authority under this Contract.
- 14.2.6. Any acceptance, agreement, approval, check, certificate, comment, consent, disapproval, examination, inspection, instruction, Notice, No-objection, record(s) of meeting, permission, proposal, record, reply, report, request, Review, test, valuation, or similar act (including the absence of any such act) by

the Employer and/or Engineer, the Employer's and/or Engineer's Representative or any assistant shall not relieve the Contractor from any duty, obligation or responsibility the Contractor has under or in connection with this Contract.

14.3. **DELEGATION TO THE ENGINEER**

14.3.1. The Engineer may from time to time, subject to sub-clause 3.2.3 above, assign duties and delegate authority to assistants, and may also revoke such assignment or delegation, by giving a Notice to the Parties, describing the assigned duties and the delegated authority of each assistant. The assignment, delegation or revocation shall not take effect until this Notice has been received by both Parties. However, the Engineer shall not delegate the authority to:

14.3.1.1. act under sub-clause [Agreement or Determination]; and/or

14.3.1.2. issue a Notice to Correct under sub-clause [Notice to Correct].

14.3.2. Assistants shall be suitably qualified natural persons, who are experienced and competent to carry out these duties and exercise this authority, and who are fluent in the language of this Contract. Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorised to issue instructions to the Contractor to the extent defined by the Engineer's Notice of delegation under this Sub-Clause, subject to the written approval of the Employer.

14.3.3. Any act by an assistant, in accordance with the Engineer's Notice of delegation, shall have the same effect as though the act had been an act of the Engineer. However, if the Contractor questions any instruction or Notice given by an assistant, the Contractor may by giving a Notice refer the matter to the Engineer for a response.

14.4. **ENGINEER'S INSTRUCTIONS**

14.4.1. The Engineer may issue to the Contractor (at any time) instructions which may be necessary for the execution of the Works, all in accordance with this Contract. The Contractor shall only take instructions from the Employer and/or Engineer, or from the Employer's Representative and/or the Engineer's Representative (if appointed) or an assistant to whom the appropriate authority to give instruction has been delegated under Sub-Clause [Delegation by the Engineer].

14.4.2. The Contractor shall comply with the instructions given by the Employer and/or Engineer or the Employer's Representative and/or the Engineer's Representative (if appointed) or delegated assistant, on any matter related to this Contract.

14.4.3. If an instruction given by the Employer and/or Engineer or the Employer's Representative and/or the Engineer's Representative (if appointed) or delegated

assistant states that it constitutes a Variation, Sub-Clause [Variation by Instruction] shall apply.

- 14.4.4. If an instruction given by the Employer and/or Engineer or the Employer's Representative and/or the Engineer's Representative (if appointed) or delegated assistant does not constitute a Variation, and the Contractor considers that the instruction does not comply with applicable Laws or will reduce the safety of the Works or is technically impossible, the Contractor shall immediately, and before commencing any work related to the instruction, give a Notice to the Engineer with reasons. The Engineer shall respond, within a period determined by the Engineer, after receiving this Notice, by giving a Notice confirming, reversing or varying the instruction and the Contractor shall comply with and be bound by the terms of the Engineer's response.

14.5. **REPLACEMENT OF THE ENGINEER**

- 14.5.1. If the Employer intends to replace the Engineer, the Employer shall, not less than 42 days before the intended date of replacement, inform the Contractor of the name, address and relevant experience of the intended replacement Engineer.
- 14.5.2. If the Engineer is unable to act as a result of death, illness, disability or resignation (or, in the case of an entity, the Engineer becomes unable or unwilling to carry out any of its duties, other than for a cause attributable to the Employer) the Employer shall be entitled to immediately appoint a replacement by informing the Contractor with reasons and the name, address and relevant experience of the replacement. This appointment shall be treated as a temporary appointment unless otherwise determined by the Employer.

14.6. **AGREEMENT OR DETERMINATION**

- 14.6.1. When carrying out his/her duties under this Sub-Clause, the Engineer shall be deemed to act for the Employer.
- 14.6.2. Whenever these Conditions provide that the Engineer shall proceed under this Sub-Clause to agree or determine any matter or Claim, the following procedure shall apply:
- 14.6.2.1. Consultation to reach agreement.
- 14.6.2.2. The Engineer shall consult with both Parties jointly and/or separately and shall encourage discussion between the Parties in an endeavour to reach agreement. The Engineer shall commence such consultation promptly to allow adequate time to endeavour to comply with the time limit for agreement under Sub-Clause [Time limits]. Unless otherwise proposed by the Engineer and agreed by both Parties, the Engineer shall provide both Parties with a record of the consultation.
- 14.6.2.3. If agreement is achieved within the time limit for agreement under Sub-Clause [Time limits] the Engineer shall give a Notice to both Parties of the agreement,

which agreement shall be signed by both Parties. This Notice shall, without prejudice to the Employer, state that it is a "Notice of the Parties' Agreement" and shall include a copy of agreement.

14.6.3. If:

14.6.3.1. no agreement is achieved within the time limit for agreement under Sub-Clause [Time limits]; or

14.6.3.2. both Parties advise the Engineer that no agreement can be achieved within this time limit whichever is the earlier, the Engineer shall give a Notice to the Parties accordingly and shall immediately proceed under Sub-Clause [Engineer's Determination].

14.7. **REPORTING**

14.7.1. **PROGRESS REPORTS**

14.7.1.1. The Contractor shall collect and distribute performance information, including status reports, progress measurements and forecasts. The performance reporting process shall involve the periodic collection and analysis of baseline versus actual data to understand and communicate the Project progress and performance as well to forecast the Project results.

14.7.1.2. The Contractor shall, without contest, provide any and all reports and unredacted detailed supporting information as may be requested from the Employer throughout the duration of this Contract. All reporting shall therefore continue until the Performance Certificate has been issued by the Employer or until otherwise instructed by the Employer.

14.7.1.3. Unless otherwise stated throughout the Employers Requirements, all Final and/or Close-out Reports shall be issued 75 (seventy five) calendar days prior to the Completion Date for the whole of the Works.

14.7.1.4. The minimum reporting requirements are:

14.7.1.4.1. **Project Initiation Report:**

14.7.1.4.1.1. The Contractor shall prepare and submit a Project Initiation Report no later than 15 (fifteen) working calendar days after the Commencement Date.

14.7.1.5. In this regard, if the Contractor fails to submit a suitable Project Initiation Report in compliance with the Employers Requirements:

14.7.1.5.1. The Penalty shall be payable for each elapsed calendar day calculated from the date on which the report is due to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed

calendar days shall include the calendar day the report is due to the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.

- 14.7.1.5.1.1. The Penalty payable shall be calculated at 0.050% of the TCP multiplied by the number of elapsed calendar days but shall not exceed 5.000% of the TCP. The TCP that will be used for the calculation of the Penalty, for each incident, will be as reflected in the latest Payment Certificate issued by the Employer, at the time that the Penalty is to be calculated for each incident.
- 14.7.1.5.2. Weekly Dashboard Reports:
- 14.7.1.5.2.1. The Contractor shall prepare high-level Weekly Dashboard Reports and submit same to the Employer.
- 14.7.1.5.2.2. The 1st Weekly Dashboard Report shall be issued on the 1st Thursday of the calendar month after the calendar month in which the Commencement Date falls thereafter every 1st Thursday of the month after the month in which the 1st report is due.
- 14.7.1.5.2.3. In this regard, if the Contractor fails to submit suitable Weekly Dashboard Reports in compliance with the Employers Requirements:
- 14.7.1.5.2.3.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date on which a report is due to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day the report is due to the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.
- 14.7.1.5.2.3.2. The Penalty payable shall be calculated at 0.050% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 5.000% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.
- 14.7.1.5.2.4. The Weekly Dashboard Report shall, at a minimum, contain the following information:
- 14.7.1.5.2.4.1. Level 4 Project Programme review showing two separate bars for each task i.e., the primary bar reflects the current forecast dates and the secondary bar the latest Accepted/Approved Programme.

- 14.7.1.5.2.4.2. 4-Week Look-ahead Programme showing two separate bars for each task i.e., the primary bar reflects the current forecast dates and the secondary bar the latest Accepted/Approved Programme.
- 14.7.1.5.2.4.3. A Manpower Histogram reflecting actual, forecasted and planned activities.
- 14.7.1.5.2.4.4. S-curves - reflecting the actual percentage complete versus the planned percentage for the overall Contract.
- 14.7.1.5.2.4.5. Financial status.
- 14.7.1.5.2.4.6. Charts and descriptions of progress, including each stage of Design, documents, procurement, manufacture, delivery to Site(s), Construction, erection, Testing and Commissioning.
- 14.7.1.5.2.4.7. Records of personnel and Equipment utilised for the past week.
- 14.7.1.5.2.4.8. Quality assurance documents, Test results and certificates of Materials.
- 14.7.1.5.2.4.9. Notices (Employer's Claims), Notices (Contractor's Claims) and Variations.
- 14.7.1.5.2.4.10. Safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations.
- 14.7.1.5.2.4.11. Risks and Issues with details of any events or circumstances which may jeopardise the completion in accordance with this Contract, and the measures being (or to be) adopted to overcome delays.
- 14.7.1.5.3. Monthly Progress Reports:
- 14.7.1.5.3.1. The Contractor shall prepare detailed Monthly Progress Reports and submit same to the Employer on the 2nd Thursday of each calendar month.
- 14.7.1.5.3.2. The 1st Monthly Progress Report shall be issued on the 2nd Thursday of the calendar month after the calendar month in which the Commencement Date falls thereafter the 2nd Thursday of the month after the month in which the 1st report is due. In this regard, if the Contractor fails to submit suitable Monthly Progress Reports in compliance with the Employers Requirements:
- 14.7.1.5.3.2.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date on which a report is due to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day the report is due to the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.

- 14.7.1.5.3.2.2. The Penalty payable shall be calculated at 0.050% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 5.000% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.
- 14.7.1.5.3.3. The Monthly Progress Report shall, at a minimum, contain the following information:
 - 14.7.1.5.3.3.1. Executive Summary:
 - 14.7.1.5.3.3.1.1. Introduction.
 - 14.7.1.5.3.3.1.2. Purpose of this Document.
 - 14.7.1.5.3.3.1.3. Issue Status of this Document.
 - 14.7.1.5.3.3.1.4. Validation of this Document.
 - 14.7.1.5.3.3.2. Project Data:
 - 14.7.1.5.3.3.2.1. Project Description.
 - 14.7.1.5.3.3.2.2. Project Location.
 - 14.7.1.5.3.3.2.3. Project Team.
 - 14.7.1.5.3.3.3. Executive Progress:
 - 14.7.1.5.3.3.3.1. Overall Project Health Chart.
 - 14.7.1.5.3.3.3.2. Table of Approved Project Change Requests and Variation Orders.
 - 14.7.1.5.3.3.3.3. Incident Reports (Environmental / Heritage / Occupational Health and Safety).
 - 14.7.1.5.3.3.3.4. Table of Claims and/or Notices Issued by Contractor and The Employer.
 - 14.7.1.5.3.3.3.5. Approved Programme Summary and Chart Analysis (Major Milestones, Deliverables and Key Dates).
 - 14.7.1.5.3.3.3.6. Earned Value Analysis.
 - 14.7.1.5.3.3.3.7. Quality Assurance and Management Summary.
 - 14.7.1.5.3.3.3.8. B-BBEE, and Training Target Compliance.
 - 14.7.1.5.3.3.3.9. Critical Risks, Issues and Lessons Learnt Review.

- 14.7.1.5.3.3.3.10. Key Decisions and/or Approvals Required from the Employer.
- 14.7.1.5.3.3.4. Comprehensive Progress:
 - 14.7.1.5.3.3.4.1. Detailed Project Health Status.
 - 14.7.1.5.3.3.4.2. Detailed Approved Programme Progress Review (Major Milestones, Deliverables and Key Dates, Tasks, Activities, Interdependencies and Critical Path Analysis).
 - 14.7.1.5.3.3.4.3. Detailed Financial Cost Report (Bid Price versus current approved Contract Price, Payment Milestones Claimed vs Payment Milestones Approved, Invoices Issued versus Payments Received etc.).
 - 14.7.1.5.3.3.4.4. Detailed Quality Assurance and Management Report.
 - 14.7.1.5.3.3.4.5. Detailed B-BBEE, and Training Target Compliance Report.
 - 14.7.1.5.3.3.4.6. Detailed Risks, Issues and Lessons Learnt Review.
 - 14.7.1.5.3.3.4.7. Detailed Schedule of Claims and Notices issued by Contractor and the Employer.
- 14.7.1.5.3.3.5. Annexures:
 - 14.7.1.5.3.3.5.1. Annexure A – Updated Approved Programme.
 - 14.7.1.5.3.3.5.2. Annexure B – Copies of Project Change Requests and Variation Orders submitted in the current reporting period.
 - 14.7.1.5.3.3.5.3. Annexure C – Copy of Environmental Control Officer (“ECO”) Agent Monthly Audit Report.
 - 14.7.1.5.3.3.5.4. Annexure D – Copy of OHS Agent Monthly Audit Report.
 - 14.7.1.5.3.3.5.5. Annexure E – Copies of Claims and/or Notices issued by Contractor and the Employer in the current reporting period.
 - 14.7.1.5.3.3.5.6. Annexure F – Updated Versions of Risks, Issues and Lessons Learnt Registers.
- 14.7.1.5.3.3.6. Notwithstanding the above, each Monthly Progress Report shall further include:
 - 14.7.1.5.3.3.6.1. Charts and detailed descriptions of progress, including each stage of Design, the Contractor's documents, procurement, manufacture, delivery to Site(s), Construction, erection, Testing and Commissioning.

- 14.7.1.5.3.3.6.2. Photographs showing the status of manufacture and of progress on the Site(s).
- 14.7.1.5.3.3.6.3. For the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of commencement of manufacture, Contractor inspections and factory acceptance tests, shipment and arrival on Site(s).
- 14.7.1.5.3.3.6.4. Detailed records of the Contractor's Personnel, Plant and Materials deployed on the Project including detailed Site(s) diaries.
- 14.7.1.5.3.3.6.5. Copies of all quality assurance documents, Test results and certificates of Materials.
- 14.7.1.5.3.4. Annual Progress Reports:
- 14.7.1.5.3.4.1. The Contractor shall prepare detailed Annual Progress Reports and submit same to the Employer. The 1st Annual Progress Report shall be issued on the 365th calendar day from the Commencement Date thereafter every 365 calendar days from the date on which the 1st report is due. In this regard, if the Contractor fails to submit suitable Annual Progress Reports in compliance with the Employers Requirements:
- 14.7.1.5.3.4.1.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date on which a report is due to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day the report is due to the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.
- 14.7.1.5.3.4.2. The Penalty payable shall be calculated at 0.050% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 5.000% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.
- 14.7.1.5.3.4.3. The Annual Progress Report shall, at a minimum, contain an abstract of work performed during the previous year.
- 14.7.1.5.3.5. B-BBEE and New Preferential Procurement Compliance Reports:
- 14.7.1.5.3.5.1. The Contractor shall prepare and submit detailed B-BBEE and New Preferential Procurement Compliance Reports to the Employer further attaching full copies of all unredacted subcontracts, employment contracts and purchase contracts (including unredacted invoices and corresponding proofs of payment etc.) proving actual B-BBEE and Preferential Procurement achievements measured against the B-BBEE and Preferential Procurement Targets and Performance

Scorecard. These reports shall further provide substantiating reasons as to why such achievement failed to meet the B-BBEE and Preferential Procurement Targets.

- 14.7.1.5.3.5.2. B-BBEE and Preferential Procurement Compliance Reports shall be audited by an Independent Auditor registered with the South African Institute of Chartered Accountants ("SAICA"). The Independent Auditor shall issue an Independent B-BBEE and Preferential Procurement Audit Report which shall include a clear statement as to whether "the Contractor failed to meet the B-BBEE and Preferential Procurement Targets" or "the Contractor has met the B-BBEE and Preferential Procurement Targets". Cost of Independent Auditor's services shall be borne by the Contractor.
- 14.7.1.5.3.5.3. The 1st B-BBEE and Preferential Procurement Compliance Reports shall be issued 150 (one hundred and fifty) calendar days after the Commencement Date thereafter every 150 (one hundred and fifty) calendar days from the date on which the 1st report is due. In this regard, if the Contractor fails to submit suitable B-BBEE and Preferential Procurement Compliance Reports in compliance with the Employers Requirements:
 - 14.7.1.5.3.5.3.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date on which a report is due to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day the report is due to the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.
 - 14.7.1.5.3.5.3.2. The Penalty payable shall be calculated at 0.075% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 7.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.
- 14.7.1.5.3.5.4. B-BBEE and Preferential Procurement Targets and Performance Measurement shall be finalised and agreed between the Employer and/or Engineer and the Contractor during Contract negotiations thereafter included in this Contract as the B-BBEE and Preferential Procurement Targets and Performance Measurement Scorecard.
- 14.7.1.5.3.6. B-BBEE and New Preferential Procurement Targets:
 - 14.7.1.5.3.6.1. The minimum Penalty(s) for the Contractor failing to transparently meet BBEE and New Preferential Procurement Targets in compliance with the RFP and Contract, is as follows:

- 14.7.1.5.3.6.2. If the Contractor fails to ensure and transparently prove that 5% (five percent) of the total B-BBEE and New Preferential Procurement Target is met and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 300 (three hundred) calendar days from the Commencement Date, the Employer and/or Engineer shall, unilaterally and without notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 5% (five percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 300 (three hundred) calendar days from the Commencement Date;
- 14.7.1.5.3.6.3. If the Contractor fails to ensure and transparently prove that 10% (ten percent) of the total B-BBEE and New Preferential Procurement Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 450 (four hundred and fifty) calendar days from the Commencement Date, the Employer and/or Engineer shall, unilaterally and without notice to the Contractor, apply a Penalty equal to 100% (one hundred percent) of the total shortfall value. The total shortfall value shall be calculated as 10% (ten percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 450 (four hundred and fifty) calendar days from the Commencement Date;
- 14.7.1.5.3.6.4. If the Contractor fails to ensure and transparently prove that 45% (forty-five) of the total B-BBEE and New Preferential Procurement Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 600 (six hundred) calendar days from the Commencement Date, the Employer and/or Engineer shall, unilaterally and without notice to the Contractor, apply a Penalty equal to 100% (one hundred percent) of the total shortfall value. The total shortfall value shall be calculated as 45% (forty five percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 600 (six hundred) calendar days from the Commencement Date;
- 14.7.1.5.3.6.5. If the Contractor fails to ensure and transparently prove that 80% (eighty percent) of the total B-BBEE and New Preferential Procurement Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 750 (seven hundred and fifty) calendar days from the Commencement Date, the Employer shall, unilaterally and without notice to the Contractor, apply a Penalty equal to 100% (one hundred percent) of the total shortfall value. The total shortfall value shall be calculated as 80% (eighty percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 750 (seven hundred and fifty) calendar days from the Commencement Date;
- 14.7.1.5.3.6.6. If the Contractor fails to ensure and transparently prove that 95% (ninety five percent) of the total B-BBEE and New Preferential Procurement Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 900 (nine hundred) calendar days from the Commencement Date, the Employer and/or Engineer shall,

unilaterally and without notice to the Contractor, apply a Penalty equal to 100% of the total shortfall value. The total shortfall value shall be calculated as 95% (ninety five percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 900 (nine hundred) calendar days from the Commencement Date; and

- 14.7.1.5.3.6.7. If the Contractor fails to ensure and transparently prove that 100% (one hundred percent) of the total B-BBEE and New Preferential Procurement Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 1050 (one thousand and fifty) calendar days from the Commencement Date, the Employer and/or Engineer shall, unilaterally and without notice to the Contractor, apply a Penalty equal to 100% (one hundred percent) of the total shortfall value. The total shortfall value shall be calculated as 100% (one hundred percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 1050 (one thousand and fifty) calendar days from the Commencement Date.

14.7.1.5.3.7. NIP Programme Compliance Reports:

- 14.7.1.5.3.7.1. The Contractor shall prepare detailed National Industrial Participation ("NIP") Programme Compliance Reports and submit same to the Employer and/or Engineer.
- 14.7.1.5.3.7.2. The 1st National Industrial Participation ("NIP") Programme Compliance Report shall be issued 150 (one hundred and fifty) calendar days after the Commencement Date thereafter every 150 (one hundred and fifty) calendar days from the date on which the 1st report is due. In this regard, if the Contractor fails to submit suitable National Industrial Participation ("NIP") Programme Compliance Reports in compliance with the Employers Requirements:
- 14.7.1.5.3.7.3. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date on which a report is due to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day the report is due to the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.
- 14.7.1.5.3.7.4. The Penalty payable shall be calculated at 0.075% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 7.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.

14.7.1.5.3.8. National Industrial Participation ("NIP") Programme Targets:

- 14.7.1.5.3.8.1. The minimum Penalty(s) for the Contractor failing to transparently meet National Industrial Participation ("NIP") Programme Targets in compliance with the RFP and Contract, is as follows:
- 14.7.1.5.3.8.2. If the Contractor fails to ensure and transparently prove that 5% of the total National Industrial Participation ("NIP") Programme Target is met and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 300 calendar days from the Commencement Date, the Employer and/or Engineer shall, unilaterally and without notice to the Contractor, apply a Penalty equal to 100% (one hundred percent) of the total shortfall value. The total shortfall value shall be calculated as 5% (five percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 300 (three hundred) calendar days from the Commencement Date.
- 14.7.1.5.3.8.3. If the Contractor fails to ensure and transparently prove that 10% (ten percent) of the total National Industrial Participation ("NIP") Programme Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 450 (four hundred and fifty) calendar days from the Commencement Date, the Employer and/or Engineer shall, unilaterally and without notice to the Contractor, apply a Penalty equal to 100% (one hundred percent) of the total shortfall value. The total shortfall value shall be calculated as 10% (ten percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 450 (four hundred and fifty) calendar days from the Commencement Date.
- 14.7.1.5.3.8.4. If the Contractor fails to ensure and transparently prove that 45% (fifty-five) of the total National Industrial Participation ("NIP") Programme Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 600 (six hundred) calendar days from the Commencement Date, the Employer shall, unilaterally and without notice to the Contractor, apply a Penalty equal to 100% (one hundred percent) of the total shortfall value. The total shortfall value shall be calculated as 45% (forty five percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 600 (six hundred) calendar days from the Commencement Date.
- 14.7.1.5.3.8.5. If the Contractor fails to ensure and transparently prove that 80% (eight percent) of the total National Industrial Participation ("NIP") Programme Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 750 (seven hundred and fifty) calendar days from the Commencement Date, the Employer and/or Engineer shall, unilaterally and without notice to the Contractor, apply a Penalty equal to 100% (one hundred percent) of the total shortfall value. The total shortfall value shall be calculated as 80% (eighty percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 750 (seven hundred and fifty) calendar days from the Commencement Date.

- 14.7.1.5.3.8.6. If the Contractor fails to ensure and transparently prove that 95%(ninety five percent) of the total National Industrial Participation ("NIP") Programme Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 900 (nine hundred) calendar days from the Commencement Date, the Employer and/or Engineer shall, unilaterally and without notice to the Contractor, apply a Penalty equal to 100% (one hundred percent) of the total shortfall value. The total shortfall value shall be calculated as 95% (ninety five percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 900 (nine hundred) calendar days from the Commencement Date.
- 14.7.1.5.3.8.7. If the Contractor fails to ensure and transparently prove that 100% (one hundred percent) of the total National Industrial Participation ("NIP") Programme Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 1050 calendar days from the Commencement Date, the Employer and/or Engineer shall, unilaterally and without notice to the Contractor, apply a Penalty equal to 100% (one hundred percent) of the total shortfall value. The total shortfall value shall be calculated as 100% (one hundred percent) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 1050 (one thousand and fifty) calendar days from the Commencement Date.
- 14.7.1.5.3.9. Training Compliance Reports:
- 14.7.1.5.3.9.1. The Contractor shall submit detailed Training Compliance Reports to the Employer further attaching full copies of all unredacted subcontracts, employment contracts and purchase contracts (including unredacted invoices and corresponding proofs of payment etc.) proving actual Training achievements measured against the Training Targets and Performance Scorecard. These reports shall further provide substantiating reasons as to why such achievement failed to meet the Training Targets.
- 14.7.1.5.3.9.2. The Training Compliance Reports shall be audited by an Independent Auditor who is registered with the South African Institute of Chartered Accountants ("SAICA"). The Independent Auditor shall issue an Independent Training Audit Report which shall include a clear statement as to whether "the Contractor failed to meet the Training Targets" or "the Contractor has met the Training Targets". The cost of the Independent Auditor's services shall be borne by the Contractor.
- 14.7.1.5.3.9.3. The 1st Training Compliance Reports shall be issued 150 (one hundred and fifty) calendar days after the Commencement Date thereafter every 150 (one hundred and fifty) calendar days from the date on which the 1st report is due. In this regard, if the Contractor fails to submit suitable Training Compliance Reports in compliance with the Employers Requirements.
- 14.7.1.5.3.9.4. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date on which a report is due to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or

Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day the report is due to the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.

- 14.7.1.5.3.9.5. The Penalty payable shall be calculated at 0.075% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 7.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.
- 14.7.1.5.3.9.6. Training Targets and Performance Measurement shall be finalised and agreed between the Employer and the Contractor during Contract negotiations thereafter or any other time as instructed by the Employer and/or Engineer thereby included in this Contract, by reference, as the Training Targets and Performance Measurement Scorecard.
- 14.7.1.5.3.10. Spares, Maintenance and Life Cycle Cost ("LCC") Replacement Reports:
 - 14.7.1.5.3.10.1. The Contractor shall submit detailed Spares, Maintenance and Life Cycle Cost ("LCC") Replacement Reports to the Employer. The Contractor shall further attach full copies of all unredacted subcontracts, employment contracts and purchase contracts (including unredacted invoices and corresponding proofs of payment etc.) proving actual Spares, Maintenance and Life Cycle Replacements measured against the Employer approved Spares, Maintenance and Life Cycle Cost Replacement Plan and Financial Model. These reports shall further provide substantiating reasons as to why such achievement failed to meet the Spares, Maintenance and Life Cycle Cost Replacement Plan and Financial Model Targets.
 - 14.7.1.5.3.10.2. The 1st Spares, Maintenance and Life Cycle Cost ("LCC") Replacement Report shall be issued 150 (one hundred and fifty) calendar days after the first Section that has been tested, commissioned and handed over to the Employer thereafter every 150 (one hundred and fifty) calendar days until completion of the full Maintenance, Warranty and Defects Liability responsibility period.
 - 14.7.1.5.3.10.3. The final Spares, Maintenance and Life Cycle Cost ("LCC") Replacement Report shall be issued 75 (seventy five) calendar days prior to completion of the full Maintenance, Warranty and Defects Liability responsibility period. In this regard, if the Contractor fails to submit suitable Spares, Maintenance and Life Cycle Cost ("LCC") Replacement Reports in compliance with the Employers Requirements:
 - 14.7.1.5.3.10.3.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date on which a report is due to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the

Contractor. Elapsed calendar days shall include the calendar day the report is due to the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.

- 14.7.1.5.3.10.3.2. The Penalty payable shall be calculated at 0.075% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 7.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.

14.8. **COMPLIANCE TARGETS**

14.8.1. B-BBEE and New Preferential Procurement Targets:

- 14.8.1.1. The minimum Penalty(s) for the Contractor failing to transparently meet B-BBEE and New Preferential Procurement Targets in compliance with the Employers Requirements, is as follows:

14.8.1.1.1. If the Contractor fails to ensure and transparently prove that 5% (five percent) of the total B-BBEE and New Preferential Procurement Target is met and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 300 (three hundred) calendar days from the Commencement Date, the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 5% (five) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 300 (three hundred) calendar days from the Commencement Date.

14.8.1.1.2. If the Contractor fails to ensure and transparently prove that 10% (ten) of the total B-BBEE and New Preferential Procurement Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 450 (four hundred and fifty) calendar days from the Commencement Date the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 10% (ten) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 450 (four hundred and fifty) calendar days from the Commencement Date.

14.8.1.1.3. If the Contractor fails to ensure and transparently prove that 45% (forty five) of the total B-BBEE and New Preferential Procurement Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 600 (six hundred) calendar days from the Commencement Date, the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 45% (forty

five) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 600 (six hundred) calendar days from the Commencement Date.

- 14.8.1.1.4. If the Contractor fails to ensure and transparently prove that 80% (eighty) of the total B-BBEE and New Preferential Procurement Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 750 (seven hundred and fifty) calendar days from the Commencement Date, the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 80% (eighty) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 750 (seven hundred and fifty) calendar days from the Commencement Date.
- 14.8.1.1.5. If the Contractor fails to ensure and transparently prove that 95% (ninety five) of the total B-BBEE and New Preferential Procurement Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 900 (nine hundred) calendar days from the Commencement Date, the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 95% (ninety five) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 900 (nine hundred) calendar days from the Commencement Date.
- 14.8.1.1.6. If the Contractor fails to ensure and transparently prove that 100% (one hundred) of the total B-BBEE and New Preferential Procurement Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 1050 (one thousand and fifty) calendar days from the Commencement Date, the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 100% (one hundred) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 1050 (one thousand and fifty) calendar days from the Commencement Date.
- 14.8.2. National Industrial Participation ("NIP") Programme Targets:
- 14.8.2.1. The minimum Penalty(s) for the Contractor failing to transparently meet National Industrial Participation ("NIP") Programme Targets in compliance with the Employers Requirements, is as follows:
- 14.8.2.1.1. If the Contractor fails to ensure and transparently prove that 5% (five) of the total National Industrial Participation ("NIP") Programme Target is met and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 300 (three hundred) calendar days from the Commencement Date, the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall

value. The total shortfall value shall be calculated as 5% (five) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 300 (three hundred) calendar days from the Commencement Date.

- 14.8.2.1.2. If the Contractor fails to ensure and transparently prove that 10% (ten) of the total National Industrial Participation ("NIP") Programme Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 450 (four hundred and fifty) calendar days from the Commencement Date, the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 10% (ten) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 450 (four hundred and fifty) calendar days from the Commencement Date.
- 14.8.2.1.3. If the Contractor fails to ensure and transparently prove that 45% (forty five) of the total National Industrial Participation ("NIP") Programme Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 600 (six hundred) calendar days from the Commencement Date, the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 45% (forty five) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 600 (six hundred) calendar days from the Commencement Date.
- 14.8.2.1.4. If the Contractor fails to ensure and transparently prove that 80% (eighty) of the total National Industrial Participation ("NIP") Programme Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 750 (seven hundred and fifty) calendar days from the Commencement Date, the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 80% (eighty) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 750 (seven hundred and fifty) calendar days from the Commencement Date.
- 14.8.2.1.5. If the Contractor fails to ensure and transparently prove that 95% (ninety five) of the total National Industrial Participation ("NIP") Programme Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 900 (nine hundred) calendar days from the Commencement Date, the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 95% (ninety five) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 900 (nine hundred) calendar days from the Commencement Date.

- 14.8.2.1.6. If the Contractor fails to ensure and transparently prove that 100% (one hundred) of the total National Industrial Participation ("NIP") Programme Target is met, cumulatively, and paid to relevant joint venture partners, consortium members, subcontractors, employees and suppliers as at 1050 (one thousand and fifty) calendar days from the Commencement Date, the Employer shall, unilaterally and without Notice to the Contractor, apply a Penalty equal to 100% (one hundred) of the total shortfall value. The total shortfall value shall be calculated as 100% (one hundred) of the total target minus total actual money paid to the relevant subcontractors, employees and suppliers as at 1050 (one thousand and fifty) calendar days from the Commencement Date.
- 14.8.3. Project Meetings:
- 14.8.3.1. The Contractor shall attend Project meetings as instructed by the Employer and/or Engineer or convened by the Employer and/or Engineer.
- 14.8.3.2. Meeting venues, agendas and attendees shall first be approved by the Employer and/or Engineer prior to issuance.
- 14.8.3.3. Secretariat requirements for each meeting shall be as instructed by the Employer and/or Engineer for each type of meeting and minutes of each meeting shall be approved by the Employer and/or Engineer prior to issuance of the list of attendees.
- 14.8.4. Monthly Project Management:
- 14.8.4.1. Monthly Project Management Meetings shall be held between the Contractor, the Employer and/or Engineer and other Project Stakeholders. The primary purpose of these meetings shall be the Contractor's provision of detailed Project progress and Contract performance updates to the Employer and/or Engineer as well as to raise key matters which require direction and/or approval from the Employer and/or Engineer Project leadership and management team(s).
- 14.8.4.2. Such meetings may therefore include discussions on all aspects included under Monthly Progress Reports and all other contractual matters.
- 14.8.5. Monthly Technical Management and Coordination:
- 14.8.5.1. Monthly Technical Management and Coordination Meetings shall be held between the Contractor, the Employer and/or Engineer and other Project Stakeholders. The primary purpose of these meetings shall be to coordinate and address technical matters which requires the Employer and/or Engineer direction and or approval at the Monthly Progress Meetings.
- 14.8.6. Ad-hoc/Other:

- 14.8.6.1. Ad-hoc and/or Other Meetings shall be held between the Contractor, the Employer and/or Engineer and other Project Stakeholders on an as and when required basis.
- 14.8.6.2. Such meetings may address specific issues or problems relating to the delivery of the Works. Meetings of a specialist nature shall be convened at times and locations upon approval by the Employer and/or Engineer. Records of these meetings shall be submitted to the Employer and/or Engineer, by the Employer and/or Engineer approved chairperson of a meeting, within 10 working days of the meeting or as otherwise instructed by the Employer and/or Engineer.
- 14.8.7. **THE EMPLOYER AND/OR ENGINEER'S ACCEPTANCE OF CONTRACTORS PROJECT DOCUMENTATION, REPORTS AND DESIGN**
- 14.8.7.1. Failure of the Contractor to meet any document management, reporting and Design procedures and requirements at any time throughout the duration of this Contract, shall give the Employer and/or Engineer an unprejudiced right to immediately apply penalties (as specified throughout the Employers Requirements) for each incident (from the date that the Employer and/or Engineer decides is the date on which the incident commenced until the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor).
- 14.8.7.2. The Contractor shall uncompromisingly submit all reports, Designs and/or other Project documentation, for all Works (as stated throughout the Employers Requirements or as otherwise instructed in writing by the Employer and/or Engineer), to the Employer and/or Engineer for acceptance and approval by the Employer and/or Engineer before any procurement and Installation of the Works.
- 14.8.7.3. The Contractor shall uncompromisingly correct, re-check and re-submit any portions of the Contractor's reports, Designs and/or other Project documentation that do not comply with the Employers Requirements (and instructions issued in writing by the Employer and/or Engineer) until unequivocal compliance is achieved to the absolute satisfaction of the Employer and/or Engineer. The Employer and/or Engineer need not give any exhaustive details as to why the Employer and/or Engineer does not accept the Contractors reports, Designs and/or other Project documentation or portions thereof.
- 14.8.7.4. Despite any checks done by the Employer and/or Engineer, it remains the Contractor's responsibility to check his/her reports, Designs and/or other Project documentation and ensure unequivocal compliance with the Employers Requirements or as otherwise instructed in writing by the Employer and/or Engineer. For all the Designs, the Contractor shall provide proof of certification by a professional in terms of the South African Engineering Act and any other South African professional body as required in terms of South African legislation, regulations and by-laws.

- 14.8.7.5. The Employer and/or Engineer shall have the right to reject any and/or all of the Contractors reports, Designs and/or other Project documentation should such reports, Designs and/or other Project documentation not uncompromisingly and unequivocally comply with the Employers Requirements (and instructions issued in writing by the Employer and/or Engineer) to the absolute satisfaction of the Employer and/or Engineer. The Employer and/or Engineer shall not, under any circumstance nor in any manner whatsoever, be held liable for any costs, delays or any other impacts (Material or otherwise) resulting from such rejection(s).

14.9. **MANAGEMENT AND IMPLEMENTATION METHODOLOGY**

- 14.9.1. The Contractor shall, at a minimum, provide the following comprehensive Management and Implementation Methodology, for which detailed; organisation, strategy, policies, procedures, sequencing, Construction and Maintenance processes that the Contractor shall put in place, in accordance with the Project Management Body of Knowledge ("PMBOK® Guide") for; planning, execution, scheduling, controlling and supervision of the delivery of Works, is required. The methodology shall include the following:

14.9.1.1. **Project Management:**

- 14.9.1.1.1. Organisation Chart
- 14.9.1.1.2. Contract Management and Reporting Responsibilities
- 14.9.1.1.3. Roles and Responsibilities Matrix
- 14.9.1.1.4. Interdependency and Integration
- 14.9.1.1.5. Document Management

14.9.1.2. **Human Resources:**

- 14.9.1.2.1. Identification and Planning
- 14.9.1.2.2. In-house or Acquisition
- 14.9.1.2.3. Training and Development
- 14.9.1.2.4. Management and Control

14.9.1.3. **Procurement:**

- 14.9.1.3.1. Subcontractor(s) Procurement, Contracting and Management
- 14.9.1.3.2. Plant and Materials Supplier(s) Procurement, Contracting and Management
- 14.9.1.3.3. B-BBEE Target Achievement and Compliance Matrix

14.9.1.3.4.

14.9.1.4. Communications and Stakeholder Engagement:

14.9.1.4.1. Planning

14.9.1.4.2. Protocols

14.9.1.4.3. Information distribution

14.9.1.4.4. Performance reporting

14.9.1.4.5. Stakeholder management (identification and relationship management)

14.9.1.5. Project Programme:

14.9.1.5.1. Identification and definition of Major Milestones, Deliverables and Key Dates

14.9.1.5.2. Identification and definition of Work Breakdown Structure (“WBS”)

14.9.1.5.3. Identification and definition of tasks and activities including resource and duration estimation.

14.9.1.5.4. Sequencing of tasks and activities including resource and duration estimation.

14.9.1.5.5. Programme Development and Progress Reporting

14.9.1.5.6. Programme Change/Update Control

14.9.1.6. Project Cost Control:

14.9.1.6.1. Resource Planning

14.9.1.6.2. Cost Estimating, Budgeting and Control

14.9.1.6.3. Payment Milestone Schedule linked to/extracted from the Contractors Proposal (Bid Programme), thereafter the Contract Programme(s).

14.9.1.7. Project Quality Management:

14.9.1.7.1. Planning

14.9.1.7.2. Assurance

14.9.1.7.3. Control

14.9.1.8. Occupational Health, Safety and Security (“OHS”):

- 14.9.1.8.1. Site(s)
- 14.9.1.8.2. Project Team
- 14.9.1.8.3. Public and Third Parties
- 14.9.1.9. Environmental and Heritage:
- 14.9.1.9.1. Air and Dust Control
- 14.9.1.9.2. Noise Pollution Prevention
- 14.9.1.9.3. Flora and Fauna Protection
- 14.9.1.9.4. Sustainable Construction Practice
- 14.9.1.9.5. Stormwater Management
- 14.9.1.9.6. Waste Management
- 14.9.1.10. Risks, Issues and Lessons Learnt:
- 14.9.1.10.1. Risks management Planning and identification, analysis (qualitative and quantitative), response (action) Planning, monitoring and control.
- 14.9.1.10.2. Issues management Planning and identification, analysis (qualitative and quantitative), response (action) Planning, monitoring and control.
- 14.9.1.10.3. Lessons Learnt identification, analysis (qualitative and quantitative) and logging.
- 14.9.1.11. Construction Technology and Methodology:
- 14.9.1.11.1. Project Signage
- 14.9.1.11.2. Site(s) Logistics
- 14.9.1.11.3. Local Authority(s) Management, Coordination and Compliance
- 14.9.1.11.4. Step by Step Construction Method Statements linked to sequencing of tasks and activities in the Approved Baseline Contract Programme/Approved Programme
- 14.9.1.11.5. Interim Inspections, Tests and Commissioning (strategy, approach, deliverables)
- 14.9.1.11.6. Sectional Interim hand over to the Employer

- 14.9.1.11.7. Final Inspections, Tests on Completion, Commissioning, Completion (strategy, approach, deliverables)
- 14.9.1.11.8. Provision of As-built Information
- 14.9.1.11.9. Decommissioning
- 14.9.1.11.10. The Employer's Acceptance of Works
- 14.9.1.11.11. Taking Over, Maintenance, Warranties and Defects Liability After the Employer Taking Over (strategy, approach, deliverables)
- 14.9.1.11.12. Project Close-out
- 14.9.2. The above-mentioned Implementation Methodology and Management Plans shall be finalised and agreed between the Employer and/or Engineer and the Contractor during Contract negotiations or any other time as instructed by the Employer and/or Engineer and thereby included in the Contract as the Approved Project Charter/Project Execution Plan/ Project Management Procedure Handbook.
- 14.10. **INTERFACE MANAGEMENT**
- 14.10.1. The Contractor shall be a strong power that forces all parties involved in the Planning, Design, Supply, Construction, Installation, Testing, Commissioning to consider problems outside of their area of responsibility.
- 14.10.2. The experience of Project of this nature and magnitude shows that only an institution equipped with high power and authority can mediate between interface partners. Only under supervision of such institution can solutions that meet the requirements of the Employer's Requirements be created.
- 14.10.3. Interface management shall be the responsibility of the Contractor and unsolved interface problems shall lead to the consumption of more work, more time and more money for an extraordinary complex Project like this.
- 14.10.4. This interface work, by the Contractor shall ensure that information and clarifications required for the integration and co-ordination of Planning, Design, Supply, Construction, Installation, Testing, Commissioning activities between all parties concerned are identified, detailed and clarified in due time.
- 14.10.5. The Contractor shall bear the responsibility for establishing an effective Interface Management procedure and take full risk for all interfaces required for successful delivery of the Works (including, but not limited to, interfaces with TFR) including all consequential and/or related delays.
- 14.10.6.
- 14.10.7. The Contractor shall appoint an Interface Management director in his area of responsibility who leads an Interface Management group. The Interface

Management group shall, at a minimum, consist of joint venture partners and/or consortium members and/or subcontractors. The responsibilities of the Interface Management director and his group shall be the following, at a minimum:

- 14.10.7.1. Establishment and update of the Interface Management Plan and Interface Identification Log.
- 14.10.7.2. Assisting the System Engineers and Designers in identifying the interfaces.
- 14.10.7.3. Detection of interfaces not identified by System Engineers and Designers.
- 14.10.7.4. Registration of all interfaces in an Interface Identification Log.
- 14.10.7.5. Establishment and updating of an Interface Matrix.

14.11. **DOCUMENT MANAGEMENT**

- 14.11.1. The Contractor shall strictly adhere to document management procedures and requirements stated throughout the Employers Requirements and the RFP. In particular, the Contractor shall, or unless otherwise instructed in writing by the Employer, only use full Microsoft Office suite and Adobe (PDF) Software to produce and issue/submit all Project documentation (other than the Project Programme and drawings). The Project Programme shall be issued in Microsoft Project and Adobe (PDF) formats and drawings shall be issued in DGN, DWG and Adobe (PDF) formats.
- 14.11.2. All Project documentation shall follow strict certification, date stamping and version control and shall be issued with transmittal notes clearly identifying the sender, receiver, contents and purpose of the submission. The Contractor shall implement proper Software configuration management, including version control and CRC numbers for all Software data and configuration files. The Contractor shall submit the relevant configuration management records to the Employer with every submission of Software data or configuration files.
- 14.11.3. All formats of all Project documentation, as prepared by any Project team member, shall first be approved by the Employer prior to transmission to the rest of the Project team and stakeholders. The Contractor shall, unless otherwise instructed in writing by the Employer, submit all Project documentation to the Employer as follows:
 - 14.11.3.1. 1 Electronic copy by email.
 - 14.11.3.2. 2 Bound paper copies by hand.
 - 14.11.3.3. 2 Electronic copies on compact disk/memory stick.
- 14.11.4. All Project documentation shall bear the logo of the Employer either at the extreme top right or above, any other logos (depending of positioning in headers or drawing blocks etc.). Other logos may be added subject to approval by the

Employer. The following Project documentation naming conventions shall always be adhered to by the Project team:

14.11.5. With regard to Project Documentation:

14.11.5.1. All General Project Documentation: “yyyymmdd-PRASA-National EAS D&C-[Insert Document Title]-(Version Control)”

14.11.5.2. The above translates to the following examples; “20210101-PRASA- National EAS D&C-Project Naming Conventions-(Rev00)” in which case the next version of the same document shall for instance read: “20210102-PRASA-National EAS D&C-Project Naming Conventions-(Rev01)” and so forth until a final version is reached which shall for instance read “20210103-PRASA-National EAS D&C-Project Naming Conventions-(Final)”

14.11.5.3. One shall not leave any spaces between the dashes else this shall negatively affect chronological e-filing sequences.

14.11.5.4. All GP Specific Project Documentation: “yyyymmdd-PRASA-National-GP EAS D&C[Insert Document Title]- (Version Control)”

14.11.5.5. All KZN Specific Project Documentation: “yyyymmdd-PRASA-National-KZNEAS EASD&C-[Insert Document Title]- (Version Control)

14.11.5.6. All WC Specific Project Documentation: “yyyymmdd-PRASA-National-WC EAS D&C-[Insert Document Title]- (Version Control)

14.11.6. With regard to Email and Other Correspondence:

14.11.6.1. All Titles: “PRASA-National EAS D&C-[Insert Subject Title]”

14.11.6.2. The above translates to the following example; “PRASA-National EAS D&C-Project Naming Conventions”.

14.11.6.3. One shall not leave any space between the dash else this shall negatively affect chronological e-filing sequences.

14.11.6.4. However, if one is attaching a document in an email for discussion etc., then the Email Title should be the Document Title of the attached which shall be in accordance with Project Documentation naming convention example; “20210101-PRASA-National EAS D&C-Project Naming Conventions-(Rev00)”

14.11.6.5. All contract documentation and other key documents containing signature shall be held in hard copy by the Employer and/or the Engineer and the Contractor, respectively. Project Team members shall hold and/or file all Project documents in accordance with the Employer’s document management systems.

14.11.7. The Contractor shall keep at all times, on the Site, a copy of:

- 14.11.7.1. This Contract.
- 14.11.7.2. The records under this Contract.
- 14.11.7.3. The publications (if any) named in the Employer's Requirements.
- 14.11.7.4. The Contractor's Documents; and
- 14.11.7.5. Variations, Notices, and other communications given under this Contract.
- 14.11.8. The Employer's Personnel and the Engineer's Personnel shall have right of access to all these documents during all normal working hours, or as otherwise instructed to the Contractor.

15. **ACCESS**

15.1. **RIGHT OF ACCESS TO THE SITE**

- 15.1.1. The Employer through the Engineer shall, at the Employer's discretion, give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in this Contract or as otherwise determined by the Engineer. The right and possession may not be exclusive to the Contractor. If, under this Contract, the Employer is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Employer shall do so in the time and manner stated in the Employer's Requirements or as otherwise determined by the Engineer. However, the Employer may withhold any such right or possession until the Performance Security, and any other documents or submissions requested from the Contractor, has been received.
- 15.1.2. If no such time is stated in this Contract, the Employer shall give the Contractor right of access to, and possession of, those parts of the Site within such times as may be determined by the Engineer.
- 15.1.3. If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Employer to give any such right or possession within such time, the Contractor shall not be entitled to make any claims (including, but not limited to, Claims for Extension of Time or Claims for Payment or any Damages).
- 15.1.4. If, under this Contract, the Employer is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such Contractor's Documents to the Engineer in the time and manner stated in the Employer's Requirements or in the time and manner stipulated by the Engineer.
- 15.1.5. The Contractor shall be deemed to have obtained all necessary information as to the risks, contingencies, and other circumstances, which may influence or affect the works and the Contractor's pricing. To the same extent, the Contractor shall be deemed to have inspected and examined the Site(s) and the

surroundings, and other available information, and to have been satisfied before bidding and signing this contract, as to all relevant matters, including without limitation to the following:

- 15.1.5.1. The form and nature of the site, including sub-surface conditions.
- 15.1.5.2. The hydrological. Climatic, heritage and environmental conditions and requirements.
- 15.1.5.3. The extent and nature of the Works including, but not limited to, all necessary requirements and solutions that the Contractor shall have to meet, and respectively provide, for the Contractor's achievement of successful execution and completion of the Works, the Project and this Contract (including remedying of any Defects).
- 15.1.5.4. The Laws, procedures, and labour practices of South Africa.
- 15.1.5.5. The Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water, and other services.
- 15.1.5.6. The Contractor's requirements for capturing the required geographic map data ("Geodata"), including all resources, material, and equipment.
- 15.1.5.7. The extent and nature of all Works including, but not limited to, all necessary requirements and solutions that the Contractor shall have to meet to protect the Site(s) and the Works by preventing theft, vandalism, illegal encroachment and/or illegal occupation, and respectively provide, for the Contractor's achievement of successful execution and completion of the Works, the Project and this Contract (including remedying of any defects).
- 15.1.5.8. Once the Employer has handed over the Site(s) to the Contractor, the Contractor shall at its own cost and regardless of the extent of this requirement, be responsible for removing and keeping all unauthorised persons, illegal encroachers and illegal occupants of the Site(s), if any, for the duration of this Contract. The Contractor shall use any legal means, including legal processes, necessary to meet this requirement by further making all the necessary allowances for the resolution of all related issues in all the Contractor's Programmes.
- 15.1.5.9. The Contractor shall at its own cost and regardless of the extent of this requirement, be responsible for the protection of the Site(s) and the whole of the Works for the duration of this Contract. The Contractor shall use any legal means necessary to meet this requirement by further making all necessary allowances for resolution of all related issues in all the Contractor's Programmes.
- 15.1.5.10. Authorised persons on the Site(s) shall be limited to the Contractor's personnel, the Employer's personnel and the Engineer's personnel and to any other

personnel notified to the Contractor, by the Employer or the Engineer, as the authorised personnel of the Contractor's other contractors on the Site(s).

- 15.1.5.11. The parties agree that as the Site(s) of the Employer shall be under the control and possession of the Contractor, the Contractor shall at its own cost and regardless of the extent of this requirement, be responsible for preventing all theft and vandalism of the whole the Works for the duration of this Contract, including the full maintenance, Warranty and defects liability period.
- 15.1.5.12. The Contractor shall use any legal means necessary to meet this requirement and shall, at a minimum, implement all requisite measures to detect, defer, delay, and prevent any attempted theft and vandalism on the Site(s).
- 15.1.5.13. The Contractor shall take full responsibility and accept all liability in respect of any vandalised The Employer or Engineer or Project assets that form part of this Contract and/or Project and/or Works.
- 15.1.5.14. The Contractor shall further ensure that any stolen or vandalised assets are reinstated to standards approved by the Employer or the Engineer within the timeframes stipulated by the Employer or Engineer and at the Contractor's cost regardless of the number of incidents that may occur throughout the duration of this Contract and for each and every incident that occurs.
- 15.1.5.15. The Contractor shall, at the minimum, implement measures described throughout this Contract and the RFP for which such implementation shall not, in any manner whatsoever, relieve the Contractor of the Contractor's responsibility to implement additional measures to prevent theft and vandalism of the whole of the Works for the duration of this Contract.
- 15.1.5.16. The Contractor acknowledges that during bidding stage, submitted a detailed method statement describing all the measures, techniques, and installation rules it intends to implement addressing all theft and vandalism matters that could affect delivery of the Works and the Project in its entirety. That being the case, the Contractor hereby undertakes that it will protect the Site(s) from any form of theft and/or vandalism.
- 15.1.5.17. The Contractor hereby acknowledges that it has, during bidding stage, submitted an Environmental and Heritage Management, which at a minimum, comply with all standards, specifications, regulations and procedures as defined through the RFP and all legislation, regulations, and by-laws of South Africa. In the circumstances, the Contractor hereby undertaking that it shall be responsible for all Environmental and Heritage matters on the Project and on the Site(s).
- 15.1.5.18. The Contractor hereby acknowledges that the Employer has during bidding stage, disclosed to all Contractors, that in some instances access to the Site(s) is through third party property(s). Therefore, in order for the Contractor to access these Site(s), the Contractor shall obtain letter of introduction (being a letter that

introduces the Contractor to a third party) from the Engineer as may be required to enter any third-party property for purposes of delivering the Works.

- 15.1.5.19. The Contractor shall ensure that no third-party property shall be entered, nor any Works executed prior to granting of the required approval and/or wayleaves.
- 15.1.5.20. The Contractor shall be responsible to apply and pay for all required permits and/or wayleaves.
- 15.1.5.21. The Contractor shall ensure that steps are taken to ensure that unauthorised persons or livestock do not obtain passage through fences temporarily damaged when executing the Works.
- 15.1.5.22. The Contractor shall, at its own cost, make good any damage to third party property, resultant from the execution of the Works.
- 15.1.5.23. The Contractor shall proactively keep third-party property owners informed about any changes to the scheduling of the Works should they be affected.

15.2. **CONTRACTOR'S OPERATIONS ON SITE(S)**

- 15.2.1. The Contractor shall confine the Contractor's operations to the Site(s), and to any additional areas which may be obtained by the Contractor and acknowledged by the Engineer as working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site(s) and these additional areas, and to keep them off adjacent land.
- 15.2.2. At all times, the Contractor shall keep the Site(s) free from all unnecessary obstruction and shall properly store or remove from the Site(s) any Contractor's Equipment under this Contract and/or surplus materials. The Contractor shall promptly clear away and remove from the Site(s) any wreckage, rubbish, hazardous waste and Temporary Works which are no longer required.
- 15.2.3. Promptly after the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site(s) and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish, hazardous waste and Temporary Works. The Contractor shall leave that part of the Site(s) and the Works in a clean and safe condition. However, the Contractor may retain at locations on the Site(s) agreed with the Engineer, during the DNP, such Goods as are required for the Contractor to fulfil obligations under this Contract.

15.3. **TEMPORARY WORKS, SITE(S) SERVICES AND CONSTRUCTION CONSTRAINTS**

- 15.3.1. The Employer and/or Engineer Site(s) entry and security control, permits, Site(s) regulations and restrictions on Site(s) use are that:

- 15.3.1.1. The Employer and/or Engineer may allow access to Site(s), on request, after:
 - 15.3.1.1.1. The Contractor has requested access from the Employer and/or Engineer.
 - 15.3.1.1.2. The Contractor has made all safety, health, environment, quality and any other appointments required to proceed with Site(s) activities.
 - 15.3.1.1.3. The Contractor has provided the safety case as accepted by the relevant Parties.
 - 15.3.1.1.4. The Employer and/or Engineer has issued a Site(s) Access Certificate
- 15.3.1.2. The Contractor shall be given access to the various Sites at the Employer and/or Engineer's discretion therefore as considered necessary by the Employer and/or Engineer.
- 15.3.1.3. The Contractor shall comply with the following requirements of the Employer and/or Engineer:
 - 15.3.1.3.1. Accurate and transparent reporting of faults and failures
 - 15.3.1.3.2. Adherence to Occupation requirements
 - 15.3.1.3.3. Proactive and effective Safety risk management
 - 15.3.1.3.4. Suitable environmental and heritage constraints compliance, control and management
- 15.3.1.4. Access to any third-party property:
 - 15.3.1.4.1. The Contractor shall obtain a letter of introduction from the Employer and/or Engineer as may be required to enter any third-party property required to deliver the Works.
 - 15.3.1.4.2. The Contractor shall ensure that no third-party property is entered, nor any Works executed prior to granting of the required permits and/or wayleaves.
 - 15.3.1.4.3. The Contractor shall be responsible to apply and pay for all required permits and/or wayleaves.
 - 15.3.1.4.4. The Contractor shall ensure steps taken to ensure that unauthorised persons or livestock do not obtain passage through fences temporarily damaged when executing the Works.
 - 15.3.1.4.5. The Contractor shall, at the cost of the Contractor, make good any damage to third party, resultant from the execution of the Works.

- 15.3.1.4.6. Third party property owners shall be kept informed, proactively by the Contractor, about any changes to the scheduling of the Works should they be affected.
- 15.3.1.5. People restrictions on Site(s), hours of work, conduct and records:
 - 15.3.1.5.1. The Contractor shall comply with the following hours of work on the Site(s):
 - 15.3.1.5.1.1. Normal working hours on Site(s) means the hours of work, as determined by a wage regulating measure or statutory enactment for any trade or activity, in respect of which the basic minimum rate of pay is applicable and excludes all time for which a higher rate of pay is obligatory. Where no wage regulating measure is in force, the normal hours shall be 07h00 to 17h00 Mondays to Fridays, including statutory meal breaks etc.
 - 15.3.1.5.1.2. The Contractor shall confine his work to normal working hours except when work outside these hours is:
 - 15.3.1.5.1.2.1. Specifically provided for in this Contract
 - 15.3.1.5.1.2.2. Permitted by the Employer and/or Engineer at the Contractor's request.
 - 15.3.1.5.1.2.3. Instructed in writing by the Employer and/or Engineer.
 - 15.3.1.5.2. Acceptance Testing and Commissioning may occur during undefined hours, and may include weekends, public holidays and night work, solely at the discretion of the Employer and/or Engineer and in accordance with the Employer and/or Engineer's requirements.
 - 15.3.1.5.3. When the Contractor proposes to work outside normal working hours, the Contractor shall apply to the Employer and/or Engineer at least 21 working days in advance. The Employer and/or Engineer may, at the Employer's and/or the Engineer's discretion, not unnecessarily withhold permission however such permission is subject to such conditions as the Employer and/or Engineer may impose on the Contractor to protect The Employer's interests. Such permission may further be withdrawn by the Employer and/or Engineer at any time and without consequence and liability to the Employer. The Contractor is not entitled to any claim for additional payment or time arising from either the Employer's and/or the Engineer's refusal to permit such work or the granting of such permission or withdrawal of permission by the Employer and/or Engineer.
 - 15.3.1.5.4. Cooperating with, obtaining acceptance of and checking the work of others:
 - 15.3.1.5.4.1. The Contractor shall inspect the work of others with which the Works interfaces, with support from the Employer and/or Engineer, to ensure compliance with the Employer's Requirements.
- 15.3.2. Contractor's Plant and Materials.

- 15.3.2.1. The Contractor shall Supply all Plant and Materials necessary to provide the Works.
- 15.3.2.2. The Contractor shall promptly replace or repair any faulty Plant and Materials to ensure delivery of the Works.
- 15.3.2.3. Existing services, including cable and pipe trenches:
 - 15.3.2.3.1. The Contractor shall verify the boundaries of the Rail servitude.
 - 15.3.2.3.2. The Contractor shall locate existing services before commencing work on Site(s).
 - 15.3.2.3.3. Where the Contractor encounters existing services, he shall take extreme care not to damage them. The Contractor shall, at the cost of the Contractor, repair any such damage caused through the delivery of the Works.
 - 15.3.2.3.4. The Contractor shall contact all relevant stakeholders and authorities, with assistance from the Employer and/or Engineer, to co-ordinate all Site(s) activities.
- 15.3.3. Hook ups to existing Installations:
 - 15.3.3.1. The Contractor shall promptly notify the Employer and/or Engineer in writing if any suspected discrepancies with As-built information are noted.
 - 15.3.3.2. The Contractor shall only implement changes as per red and yellow working drawings approved by the Employer and/or Engineer.
 - 15.3.3.3. The Contractor shall, in accordance with timeframes specified in writing by the Employer and/or Engineer, submit proper Occupation plans for the Employer and/or Engineer to arrange Occupations for Work.
 - 15.3.3.4. The Contractor shall ensure prevention of faults as far as possible.
 - 15.3.3.5. The Contractor shall promptly and transparently notify the Employer and/or Engineer of any faults and failures immediately upon becoming aware of such faults and failures further providing the rectification plan to correct the faults and failures.
- 15.3.4. Construction Trains:
 - 15.3.4.1. Should the Contractor use Construction trains (e.g., for the Installation of new sleepers), the Contractor shall apply the relevant RSR guidance Notice "Construction Train Safety Permits" regarding Construction train safety permits.
- 15.3.5. Temporary Construction Level-Crossings:

- 15.3.5.1. The Contractor shall obtain all necessary approvals from the RSR for all temporary Construction level crossings required for the Project, as per South African National Standard ("SANS") 3000-2-2-1.

15.4. **RIGHT OF ACCESS AFTER TAKING OVER**

- 15.4.1. Until the date 28 (twenty eight) calendar days after issue of the Performance Certificate, the Contractor shall have the right of access to all parts of the Works and to records of the operation, maintenance and performance of the Works, except as may be inconsistent with the Employer and/or Engineer's security restrictions.
- 15.4.2. Whenever the Contractor intends to access any part of the Works or such records during the relevant DNP:
 - 15.4.2.1. the Contractor shall request access by giving a Notice, in writing, to the Employer and/or Engineer, describing the parts of the Works and/or records to be accessed, the reasons for such access, and the Contractor's preferred date for access. This Notice shall be given in stated time in advance,
 - 15.4.2.2. within 90 (ninety) calendar days after receiving the Contractor's Notice, the Employer and/or Engineer shall give a Notice, in writing, to the Contractor either:
 - 15.4.2.2.1. stating the Employer and/or Engineer's approval to the Contractor's request; or
 - 15.4.2.2.2. proposing reasonable alternative date(s), with reasons.

16. **INSPECTION**

16.1. **QUALITY MANAGEMENT AND COMPLIANCE VERIFICATION SYSTEMS**

- 16.1.1. The Contractor's Quality Management System ("QMS") shall, at a minimum, comply with all standards, specifications, regulations and procedures as defined in the Employer's Requirements.
- 16.1.2. The Contractor shall submit his QMS documents to the Employer for acceptance as part of the Programme. The documents shall include details of:
 - 16.1.2.1.1. Quality Plan for the Works.
 - 16.1.2.1.2. Quality policy.
 - 16.1.2.1.3. Index of procedure to be used.
 - 16.1.2.1.4. Document register.
 - 16.1.2.1.5. Schedule of internal and external audits for the Works.

- 16.1.2.2. The Contractor shall develop and maintain a comprehensive register of documents that are generated on this Contract including all quality related documents. The Contractor, in consultation with the Engineer, shall indicate those documents to be submitted for information, review and approval and the Contractor shall indicate such requirements in this register of documents. The register shall further indicate the dates of issue of the documents by the Contractor to the Employer and/or Engineer for review or approval including the Contractor's requested period for reply. All documents shall first be approved by the Employer and/or Engineer prior to such documents being used by the Contractor.
- 16.1.2.3. The Contractor shall submit a detailed Test and Inspection Plan to the Engineer for approval before manufacturing and Installation starts. The Contractor's Test and Inspection Plan shall include detailed witness points and hold points for critical activities.
- 16.1.2.4. The Quality Plan means the Contractor's statement, which outlines strategy, methodology, resources allocation, quality assurance and quality control co-ordination activities to ensure that the works meet the standards stated in the Employer's Requirements and the RFP. This shall include a description of the Contractor's Test and Inspection activities, and Check/Test sheets.
- 16.1.2.5. The Contractor shall prepare and implement a QM System to demonstrate compliance with the requirements of this Contract including but not limited to the Employer's Requirements and the RFP and any other instruction issued by the Employer and/or Engineer and for which such QM System shall be approved by the Engineer. The QM System shall be specifically prepared for the Works and submitted to the Engineer within 28 calendar days of the Commencement Date. Thereafter, whenever the QM System is updated or revised, a copy shall, within 7 calendar days, be submitted to the Engineer for approval within a period determined by the Engineer.
- 16.1.2.6. The QM System shall be in accordance with the details stated in the Employer's Requirements and the RFP and any other instruction issued by the Employer and/or Engineer (if any) and shall include the Contractor's procedures:
- 16.1.2.6.1. to ensure that all Notices and other communications under Sub-Clause [Notices and Other Communications] Contractor's Documents As-Built records, QM Manuals, and contemporary records can be traced, with full certainty, to the Works, Plant and Materials, Goods, work, workmanship or test(s) to which they relate; to ensure proper coordination and management of interfaces between the stages of execution of the Works, and between Subcontractors; and for the submission of Contractor's Documents to the Engineer for review and approval.
- 16.1.2.7. The Engineer may Review the QM System and may give a Notice, in writing, to the Contractor stating the extent to which it does not comply with this Contract. Within 14 calendar days after receiving this Notice, the Contractor shall revise the QM System to rectify such non-compliance.

- 16.1.2.8. The Engineer may, at any time, give a Notice, in writing, to the Contractor stating the extent to which the Contractor is failing to correctly implement the QM System to the Contractor's activities under this Contract. After receiving this Notice, the Contractor shall immediately remedy such failure.
- 16.1.2.9. The Contractor shall carry out internal audits of the QM System regularly, and at least once every 3 (three) months from the Commencement Date. The Contractor shall submit to the Engineer a report listing the results of each internal audit within 7 (seven) calendar days of completion. Each report shall include, where appropriate, the proposed measures to improve and/or rectify the QM System and/or its implementation for approval by the Engineer.
- 16.1.2.10. If the Contractor is required by the Contractor's quality assurance certification to be subject to external audit, the Contractor shall immediately give a Notice, in writing, to the Engineer describing any failing(s) identified in any external audit. If the Contractor is a JV or a Consortium, this obligation shall apply to each member of the JV or Consortium.
- 16.1.3. Compliance Verification System
- 16.1.3.1. The Contractor shall prepare and implement a Compliance Verification System to demonstrate that the design, Plant and Materials, the Employer-Supplied Plant and Materials (if any), work and workmanship comply in all respects with this Contract. The Compliance Verification System shall be in accordance with the details stated in the Employer's Requirements and RFP at a minimum and shall include, but not limited to, a method for reporting the results of all inspections and tests carried out by the Contractor. In the event that any inspection or test identifies a non-compliance with this Contract, the Defects and Rejection provisions of this Contract shall apply.
- 16.1.3.2. The Contractor shall prepare and submit to the Engineer a complete set of compliance verification documentation for the Works or Section (as the case may be), fully compiled and collated in the manner described in the Employer's Requirements or, if not so described, in a manner to be determined by the Engineer.
- 16.1.4. General provision
- 16.1.4.1. Compliance with the QM System and/or Compliance Verification System shall not relieve the Contractor from any duty, obligation or responsibility under or in connection with this Contract, the Employer's Requirements and the RFP.
- 16.2. **PHYSICAL INSPECTION**
- 16.2.1. The Employer's Personnel shall, during all the normal working hours stated in the Employers Requirements and at all other stated times:
- 16.2.1.1. have full access to all parts of the Site(s) and to all places from which natural Materials are being obtained;

- 16.2.1.2. during production, manufacture and construction (at the Site(s) and elsewhere), be entitled to:
 - 16.2.1.2.1. examine, inspect, measure and test (to the extent stated in the Employer's Requirements) the Plant and Materials and workmanship,
 - 16.2.1.2.2. check the progress and production of manufacture of Plant and Materials, and
 - 16.2.1.2.3. make records (including photographs and/or video recordings); and
 - 16.2.1.2.4. carry out other duties and inspections, as specified in t the Employer's Requirements.
- 16.2.2. The Contractor shall give the Employer and/or Engineer's Personnel full opportunity to carry out these activities, including providing safe access, facilities, permissions and safety equipment.
- 16.2.3. The Contractor shall give a Notice to the Employer and/or Engineer whenever any Plant and Materials or Work is ready for inspection, and before it is to be covered up, put out of sight, or packaged for storage or transport.
- 16.2.4. If the Contractor fails to give a Notice in accordance with this Contract, the Contractor shall, if and when required by the Employer and/or Engineer, uncover the work and thereafter reinstate and make good, all at the Contractor's risk and cost.
- 16.3. **EMPLOYER'S SUSPENSION**
 - 16.3.1. The Employer and/or Engineer may at any time instruct the Contractor to suspend progress of part or all of the Works, which instruction shall state the date and cause of the suspension.
 - 16.3.2. During such suspension, the Contractor shall protect, store and secure such part or all of the Works (as the case may be) against any deterioration, loss or damage.
- 16.4. **CONSEQUENCES OF EMPLOYER'S SUSPENSION**
 - 16.4.1. The Contractor shall not be entitled to EOT, or to payment of the Cost incurred, in making good:
 - 16.4.1.1. the consequences of the Contractor's faulty or defective design, workmanship, Plant and Materials; and/or
 - 16.4.1.2. any deterioration, loss or damage caused by the Contractor's failure to protect, store or secure in accordance with this Contract.

16.5. **PAYMENT FOR PLANT AND MATERIALS AFTER THE EMPLOYER'S SUSPENSION**

- 16.5.1. The Contractor shall, subject to the approval in writing by the Employer and/or Engineer (acting on written instruction from the Employer) be entitled to payment of the value (as at the date of suspension instructed under this Contract) of Plant and Materials which have not been delivered to Site(s) and accepted in writing by the Employer and/or Engineer (acting on written instruction from the Employer), if:
- 16.5.1.1. the work on Plant, or delivery of Plant and Materials, has been suspended for more than 365 (three hundred and sixty five) calendar days and
- 16.5.1.2. the Plant and Materials were proven to be scheduled, in accordance with the Programme, to have been completed and delivered to the Site(s) during the suspension period; and
- 16.5.1.3. the Contractor provides the Employer and/or Engineer with reasonable evidence that the Plant and Materials comply with this Contract; and
- 16.5.1.4. the Contractor has marked the Plant and Materials as the Employer's property in accordance with the Employer and/or Engineer's instructions.

16.6. **PROLONGED SUSPENSION**

- 16.6.1. If the suspension under this Contract has continued for more than 730 (seven hundred and thirty) calendar days, the Contractor shall give a Notice, in writing, to the Employer and/or Engineer requesting permission and approval to proceed.
- 16.6.2. If the Employer and/or Engineer does not give a Notice under this Contract within 90 (ninety) calendar days after receiving the Contractor's Notice, the Contractor shall either:
- 16.6.2.1. agree to a further suspension, in which case the Parties may agree on the EOT and/or proven cost excluding Profit (if the Contractor incurs Cost), and/or payment for suspended Plant and Materials, arising from the total period of the further suspension; or, if the Parties fail to reach agreement under this Clause.
- 16.6.2.2. after giving a (second) Notice, in writing, to the Employer and/or Engineer, treat the suspension as an omission of the affected part of the Works with immediate effect including release from any further obligation to protect, store and secure under this Contract. If the suspension affects the whole of the Works, the Contractor may give a Notice of termination under this Contract.

16.7. **RESUMPTION OF WORK**

- 16.7.1. The Contractor shall resume work as soon as practicable after receiving a Notice, in writing, from the Employer and/or Engineer to proceed with the suspended work.
- 16.7.2. At the time stated in this Notice (if not stated, immediately after the Contractor receives this Notice), the Contractor and the Employer and/or Engineer shall jointly examine the Works and the Plant and Materials affected by the suspension.
- 16.7.3. The Employer and/or Engineer shall record any deterioration, loss, damage or defect in the Works or Plant and Materials which has occurred during the suspension and shall provide this record to the Contractor. The Contractor shall, at the Contractors cost, promptly make good all such deterioration, loss, damage or defect so that the Works, when completed, shall comply with the Contract.
- 16.8. **INSPECTIONS, INTERIM TESTS, TESTS ON COMPLETION, COMMISSIONING, COMPLETION, TAKING OVER AND DEFECTS AFTER TAKING OVER**
- 16.8.1. Materials, samples, facilities, logistics and amenities required for; inspections, interim tests, Tests on Completion, Commissioning, Completion and Taking Over:
- 16.8.1.1. The Contractor shall, for all the Employer and/or Engineer's representatives (minimum 15 personnel or at any given instance as instructed by the Employer and/or Engineer) and at the Contractor's cost, uncompromisingly provide all unlimited; Plant and Materials, facilities, samples, Equipment, travel (air and rail and road), accommodation, meals, incidentals, unfettered office and internet access and any other means required for the Employer and/or Engineer to attend and/or perform any local and international; inspections, Validation, Factory Acceptance Testing ("FAT"), Site Acceptance Testing ("SAT"), Tests on Completion, Commissioning, Completion and Taking Over of the Works by the Employer and/or Engineer (in Sections thereafter the whole of the Works).
- 16.8.2. **Commissioning and Taking Over procedures:**
- 16.8.2.1. Tests on Completion, Commissioning and Taking Over shall be done according to the procedures described in the GTRs and MTR or as otherwise instructed in writing by the Employer and/or Engineer throughout the duration of this Contract.
- 16.8.2.2. After (Sectional) Completion, the Contractor shall, at a minimum, arrange a Taking Over inspection to allow the Employer and/or Engineer certification of (Sectional) Completion subject to a Defects list or as otherwise instructed in writing by the Employer and/or Engineer.
- 16.8.2.3. The Contractor shall, without hesitation, ensure that the Employer and/or Engineer has a full, accurate and unredacted dossier of all Project information

(including but not limited to As-Built documents and drawings) that represent the status of the completed Works, in all formats requested by the Employer and/or Engineer.

16.8.3. Work to be done by the Completion Date:

16.8.3.1. On or before the date of completion of a Section of the Works and then the Completion Date of the whole of the Works, the Contractor shall do all things necessary to ensure that the Section of the Works and the whole of the Works respectively is delivered to the absolute satisfaction of the Employer and/or Engineer, including the work listed below shall be done by completion of each Sectional thereafter comprehensively combined by the Completion Date.

16.8.3.2. The Employer and/or Engineer shall not certify Completion until the whole of the Works, including all the work listed below, is completed to the absolute satisfaction of the Employer and/or Engineer and free of all Defects which shall, in the Employer and/or Engineer's opinion, prevent the Employer and/or Engineer and other Project beneficiaries from using the Works:

No	Item of work	To be completed when
1	As-built drawings, quality records, and other documentation as requested by the Employer and/or Engineer	By the date of completion of each Section thereafter a combined submission by the Completion Date
2	Spares and Test Equipment	Before the first Commissioning Occupation
3	Final Testing and Commissioning	See Testing and Commissioning requirements and programming constraints in the GTRs and MTR
4	Correction of all Defects notified by the end of the Contractor's post Commissioning performance Testing	Within 30 days from the end of the Contractor's post Commissioning Performance Testing and holistically by the Completion Date

16.8.4. Use of the Works before Completion has been certified:

16.8.4.1. The Employer and/or Engineer may use the following Sections of the Works before Completion is certified which does not constitute Taking Over by the Employer and/or Engineer:

16.8.4.1.1. After each Section is commissioned and is handed back to the Employer and/or Engineer to continue their train operations in the interim until issuance of Performance Certificate.

- 16.8.4.1.2. Any inspections done to allow the Employer and/or Engineer's use of commissioned Sections of the Works are done to aid prompt correction of Defects and should not be confused with Taking Over procedures.
- 16.8.5. Performance tests:
- 16.8.5.1. Directly after Commissioning a Section and before Performance can be certified, the Contractor shall monitor and provide records to prove fault-free performance of the System for a continuous period of at least 48 hours.
- 16.8.5.2. Reliability, availability and safety performance tests shall be required for the duration of this Contract.
- 16.8.5.3. The Contractor shall have permanent technical representation, on a 24/7 hour basis, in the CTCCs for a period of one month after the Commissioning of each control area. The function of the technical representative(s) shall, at a minimum, be to:
- 16.8.5.3.1. Assist the Employer and/or Engineer's operating personnel with operating of the new System(s), providing ad hoc on-the-job Training and support when needed.
- 16.8.5.3.2. Perform System Maintenance, fault finding and System support.
- 16.8.5.3.3. Assist the Employer and/or Engineer's technical personnel with System Maintenance, fault finding and System support, providing ad hoc on-the job Training and support when needed.
- 16.8.5.3.4. Monitor System performance, recommending corrective actions to the Employer and/or Engineer's Maintenance personnel or the Contractor to correct System non-performance.
- 16.8.5.4. Access given by the Employer and/or Engineer for correction of Defects:
- 16.8.5.4.1. The Contractor shall comply with all constraints and procedures stated as requested throughout the Employers Requirements or as otherwise instructed in writing by the Employer and/or Engineer and where the Employer and/or Engineer arranges access for the Contractor after Completion.
- 16.9. **SPARES, MAINTENANCE AND LIFE CYCLE COST ("LCC") REPLACEMENT PLAN AND FINANCIAL MODEL**
- 16.9.1. The Contractor shall prepare and submit the estimated detailed, all-inclusive; Planned and Preventative Maintenance and LCC Replacement Plan and Financial Model for the whole of the Works including all requirements for Spares for approval by the Employer and/or Engineer.
- 16.9.2. The Planned and Preventative Maintenance and LCC Replacement Plan and Financial Model shall adhere to OEM requirements and specifications, proven local best practice and proven international best practice.

- 16.9.3. The Financial Model shall be based on a useable life of 10 years for all Plant and Materials further transparently showing all detailed calculations and assumptions.
- 16.9.4. The Financial Model shall include Plant and Materials and Equipment price increases based on the Consumer Price Index ("CPI") estimations for the next 10 years, also taking into consideration any foreign exchange factors.
- 16.9.5. The strategy shall include resource, Plant and Materials requirements for maintaining the Works. Resource requirements shall show number of technical workers, engineering technicians and technologists needed to carry out effective; planned Maintenance, preventative Maintenance and Life Cycle replacements whilst minimising disruption to the Employer and/or Engineer operations.
- 16.9.6. The Contractor shall include the following minimum provision for Plant and Materials Spares, subject to final approval from the Employer and/or Engineer:
 - 16.9.6.1. Item 1 – Replacement due to Theft and Vandalism for each year up to a maximum of 730 calendar days from the Completion Date for the whole of the Works.
 - 16.9.6.2. Item 2 – Indoor and outdoor most likely to be required for each year up to a maximum of 730 calendar days from the Completion Date for the whole of the Works.
 - 16.9.6.3. Item 3 – 5% of the total value of Plant and Equipment for each year up to a maximum of 730 calendar days from the Completion Date for the whole of the Works.
- 16.9.7. The Contractor shall implement the Employer and/or Engineer's approved Planned and Preventative Maintenance and LCC Replacement Plan and Financial Model which shall include, but not be limited to, provision of all maintenance systems, Plant and Materials and Tools required to maintain the EAS in its entirety.
- 16.9.8. The Contractor shall provide the Employer and/or Engineer with all maintenance systems, Plant and Materials and Tools 6 calendar months prior to the end of the Maintenance, Warranty and Defects Liability period (for the whole of the Works) and ensure the Employer and/or Engineer can take over Maintenance of the EAS in its entirety upon expiry of the Contractor's Maintenance, Warranty and Defects Liability period.
- 16.9.9. The Contractor shall for each Commercial Off the Shelf ("COTS") product, indicate the lifecycle management including:
 - 16.9.9.1. Procurement process.

- 16.9.9.2. Quality Management.
- 16.9.9.3. Obsolescence monitoring.
- 16.9.9.4. RAMSS aspects of COTS in the proposed architecture.

17. **WARRANTIES AND INDEMNITIES**

17.1. **SECURITY**

17.1.1. **BID BOND/SECURITY**

- 17.1.1.1. The Contractor shall maintain an irrevocable and unconditional payment- on-demand Bid Bond/Security to the value of R4,000,000.00 (Four Million Rand) which was submitted with the Contractor's Proposal. This Bid Bond/Security shall remain valid for 365 calendar days after the submission of the Contractor's Proposal.
- 17.1.1.2. The Employer shall, at the Employers discretion and without substantiation, call upon the Bid Bond/Security if:
 - 17.1.1.2.1. The Contractor, without the Employer's written agreement, withdraws the Contractor's Proposal after the latest time specified for the submission of the Contractor's Proposal and before the expiry of the validity of the Proposal; and/or
 - 17.1.1.2.2. The Contractor refuses to accept any correction of errors in the Contractor's Proposal in accordance with any Conditions of Invitation and/or Instructions to the Contractor; and/or
 - 17.1.1.2.3. The Employer awards this Contract to the Contractor and the Contractor fails to comply with any Conditions of this Contract; and/or
 - 17.1.1.2.4. The Employer awards this Contract to the Contractor and the Contractor fails to perform any obligations and/or liabilities and/or comply with this Contract; and/or
 - 17.1.1.2.5. The Employer, in the Employer's opinion, is entitled to amounts recoverable from the Contractor for any reason whatsoever.
- 17.1.1.3. The Employer's calling upon of the Bid Bond/Security shall not, in any manner whatsoever, prejudice the Employer's rights nor limit in respect of the Employer claiming Damages or any other costs from the Contractor.
- 17.1.1.4. The Bid Bond/Security shall be provided by a South African bank whose primary place of business operations is in the Republic of South Africa.
- 17.1.1.5. The Bid Bond/Security template with which the Contractor shall comply is annexed to this Contract.

17.1.2. **PERFORMANCE BOND/SECURITY**

- 17.1.2.1. The Contractor shall obtain and maintain (at the Contractor's cost) an irrevocable and unconditional original payment-on-demand Performance Bond/Security equal to 10% of the Bid Price and which shall remain valid for 365 calendar days after the Contractor's planned date of receipt of the Performance Certificate (for the whole of the Works) from the Employer. If the terms of the Performance Bond/Security specify an expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date, 60 (sixty) calendar days before the expiry date, the Contractor shall extend the validity of the Performance Bond/Security until the issue of the Performance Security by the Employer and/or Engineer.
- 17.1.2.2. The Contractor shall, within 14 calendar days of receiving a notification of award of the Contract, submit an irrevocable and unconditional original payment-on-demand Performance Bond/Security equal to 10% of the ICP and which shall remain valid for 365 calendar days after the Contractor's planned date of receipt of the Performance Certificate (for the whole of the Works) from the Employer and/or Engineer.
- 17.1.2.3. The Performance Bond/Security equal to 10% of the ICP shall, immediately upon compliant submission of the original by the Contractor to the Employer, replace the Performance Bond/Security that is equal to 10% of the Contractor's Proposal Price.
- 17.1.2.4. The Contractor shall thereafter ensure that the Performance Bond/Security is always equal to 10% of the TCP and that the Performance Bond/Security remains valid for 365 calendar days after the planned date of issuance of the Performance Certificate by the Employer or for 365 calendar days after the actual date of issuance of the Performance Certificate by the Employer (the later of the 2 dates).
- 17.1.2.5. In order to facilitate and ensure that the Performance Bond/Security is always equal to 10% of the TCP, the Contractor shall at a minimum, submit an original updated Performance Bond/Security to the Employer every 300 calendar days from the Commencement Date. The Contractor shall use the TCP as reflected in the latest Payment Certificate issued by the Employer, at the time that an updated Performance Bond/Security is due, to calculate the value of the updated Performance Bond/Security that shall be provided.
- 17.1.2.6. The Employer shall, at its own discretion and without substantiation, call upon the Performance Bond/Security if:
- 17.1.2.6.1. The Employer after having awarded this Contract to the Contractor, the Contractor fails to achieve completion of Validation to the absolute satisfaction of the Employer for which the Key Date is fixed as the 548th calendar day after the Commencement Date; and/or

- 17.1.2.6.2. The Contractor, in the Employer's opinion, fails to comply with any Condition(s) of this Contract; and/or
- 17.1.2.6.3. The Contractor, in the Employer's opinion, fails to perform any obligations and/or liabilities and/or comply with this Contract; and/or
- 17.1.2.6.4. The Employer, in the Employer's opinion, is entitled to amounts recoverable from the Contractor for any reason whatsoever.
- 17.1.2.7. The Employer's calling upon of the Performance Bond/Security shall not, in any manner whatsoever, prejudice the Employer's rights nor limits in respect of claiming penalties, delay Damages and/or any other Damages and/or any other costs regardless of the limits set for such penalties and Damages (regardless of the reason for the Employer's calling upon the Performance Bond/Security).
- 17.1.2.8. The Performance Bond/Security shall be provided by a South African Bank whose primary place of business operations is in the Republic of South Africa.
- 17.1.2.9. The Performance Bond/Security template with which the Contractor shall comply is annexed to this Contract.
- 17.1.3. **CLAIMS UNDER THE PERFORMANCE SECURITY**
- 17.1.3.1. The Employer shall not make a claim under the Performance Security, except for amounts to which the Employer is entitled, as stated elsewhere in this Contract and in the event of:
- 17.1.3.1.1. failure by the Contractor to extend the validity of the Performance Security, as described in this Contract, in which event the Employer may claim the full amount (or, in the case of previous reduction(s), the full remaining amount) of the Performance Security;
- 17.1.3.1.2. failure by the Contractor to pay the Employer an amount due, as agreed or determined or decided under any Clause of this Contract within 42 days after the date of the agreement or determination or decision or arbitral award (as the case may be);
- 17.1.3.1.3. failure by the Contractor to remedy any default under this Contract within 42 days or other time as determined by the Employer and/or Engineer;
- 17.1.3.1.4. circumstances which entitle the Employer to terminate this Contract under any Clause of this Contract irrespective of whether a Notice of termination has been given; or
- 17.1.3.1.5. if under any Clause of this Contract the Contractor removes any defective or damaged Plant and Materials from the Site, failure by the Contractor to repair such Plant and Materials, return it to the Site, reinstall it and retest it by the date of expiry of the relevant duration stated in the Contractor's Notice (or other date determined by the Employer and/or Engineer).

17.2. **MAINTENANCE, WARRANTY AND DEFECTS LIABILITY PERIOD**

- 17.2.1. The Contractor will maintain the EAS in its entirety as per the Planned and Preventative Maintenance and LCC Replacement Plan and Financial Model developed by the Contractor and approved by the Employer and/or Engineer.
- 17.2.2. All maintenance work will, at a minimum, comply with all standards, specifications, regulations and procedures as defined throughout the Employer's Requirements.
- 17.2.3. The Contractor's duties will, at a minimum, be to perform:
- 17.2.3.1. Routine preventive maintenance.
- 17.2.3.2. Corrective preventive maintenance.
- 17.2.3.3. System breakdown repairs.
- 17.2.3.4. Any other works, activities and resources required to maintain the EAS in its entirety and meet any other requirements and specifications as requested throughout the Employer's Requirements or as otherwise instructed in writing by the Employer and/or Engineer.
- 17.2.3.5. The Contractor will submit to the Employer and/or Engineer for approval, a detailed process for the initiation, execution, capturing and reporting of System maintenance.
- 17.2.3.6. The Contractor will not sign out the System or any subsystem thereof without the permission of the Employer and/or Engineer.
- 17.2.3.7. The Contractor will not change any password without the approval of the Employer and/or Engineer.
- 17.2.3.8. When necessary, to perform work under total occupation conditions the Contractor will apply for and take occupation on the System or any subsystem thereof before work execution start.
- 17.2.3.9. The Contractor will be subpoenaed to testify as a witness at inquiries should the need arise.
- 17.2.3.10. The Contractor will be requested to attend Regional safety meetings and production meetings.
- 17.2.3.11. Under no circumstances will any alteration(s) to the System be allowed without the necessary approval to do so.

- 17.2.3.12. The Contractor will fully comply with the maintenance requirements as described in the Maintenance procedure. The Contractor shall submit an annual routine maintenance strategy.
- 17.2.3.13. The Contractor shall keep record of all maintenance performed and shall submit such records to the Employer and/or Engineer monthly.
- 17.2.3.14. The Contractor will at all-time work safe and ensure that a safe System is available for train operations during the execution of the work.
- 17.2.3.15. The Contractor will perform all the necessary functional tests on completion of the work. On completion of such a task, a test certificate will be submitted to the Employer and/or Engineer.
- 17.2.3.16. Corrective maintenance will be initiated by the possibility of a potential failure or damage to the assets. The desired function of the Plant and Materials and Equipment is not yet affected, and corrective actions will be prioritised and scheduled accordingly.
- 17.2.3.17. The Contractor shall report any potential failures and damage(s) to the Employer and/or Engineer with a schedule for the corrective maintenance to be completed.
- 17.2.3.18. The Contractor shall provide a monthly report regarding corrective maintenance cost.
- 17.2.3.19. The Contractor shall provide a yearly accumulative report regarding corrective maintenance cost.
- 17.2.3.20. With a functional failure, the desired function of the Plant and Materials and Equipment is affected. The Plant and Materials and Equipment might still be available but at a lower performance standard or, it might have suffered a total loss of function and is no longer available for use.
- 17.2.3.21. All functional System breakdowns will be repaired within 2 hours.
- 17.2.3.22. Repairing of functional System breakdowns take preference over construction activities. the Employer and/or Engineer will not be held liable for any Project delays caused by System breakdown repairs.
- 17.2.3.23. Failures that cannot be corrected in the time specified must be escalated to the Employer's Signal Manager.
- 17.2.3.24. The Contractor will provide the Signal Manager with a weekly standby list.
- 17.2.3.25. The Contractor will provide the Signal Manager with a 24-hour report for incidents that had an impact on the train service (Delays and Cancellations) as and when requested by the Signal Manager. A template for the format of the 24-hour report should be obtained from the Signal Manager.

- 17.2.3.26. The Contractor will provide a weekly report to the Employer and/or Engineer indicating the root causes of failures, the failure mode that occurred as a result, repair action and replacement part(s) to rectify.
- 17.2.3.27. The Contractor will provide a monthly report containing the following information:
- 17.2.3.27.1. Reliability for the month and year to date.
- 17.2.3.27.2. Availability for the month and year to date.
- 17.2.3.27.3. The Mean Time to Repair ("MTTR") for the month and year to date.
- 17.2.3.27.4. The Mean Time Between Failures ("MTBF") for the month and year to date.
- 17.2.3.27.5. Average Response Time for the month and year to date.
- 17.2.3.27.6. The Contractor will guarantee an availability of 99% of the overall System, at each individual EAS control area.
- 17.2.3.27.7. The penalty will, at a minimum, be levied on a quarterly basis over 3 months, not on an annual or contract basis.
- 17.2.3.27.8. The onus shall rest on the Contractor to submit the necessary motivation to the Employer and/or Engineer for its consideration and decision for downtime periods, which the Contractor considers to have been caused by factors outside his/her control, and which should not be included in the calculations.
- 17.2.3.27.9. Actual damaged or faulty Plant and Materials shall be presented by the Contractor as proof to the Employer and/or Engineer.
- 17.2.3.27.10. Should emergency repairs have to extend past normal working hours, the Contractor will remove or repair the Plant and Materials and submit the faulty Plant and Materials, to the Employer and/or Engineer, as the case may be.
- 17.2.3.27.11. Where breakages or faults are caused by factors outside the Contractor's control, he/she will immediately report the incident to the Employer and/or Engineer in writing, giving a full list of the details/persons involved.
- 17.2.3.27.12. The Contractor will not commission a new section if the previous section(s) are not stable and performing according to the specified requirements.

17.3. **INDEMNITIES BY CONTRACTOR**

- 17.3.1. The Contractor shall indemnify and hold harmless the Employer, the Employer's Personnel, and their respective agents, against and from all third party claims, damages, losses and expenses (including legal fees and expenses) in respect of:

- 17.3.1.1. bodily injury, sickness, disease or death of any person whatsoever arising out of or in the course of or by reason of the Contractor's execution of the Works, unless attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents; and
- 17.3.1.2. damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss:
 - 17.3.1.2.1. arises out of or in the course of or by reason of the Contractor's execution of the Works, and
 - 17.3.1.2.2. is attributable to any negligence, wilful act or breach of this Contract by the Contractor, the Contractor's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.
- 17.3.2. The Contractor shall also indemnify and hold harmless the Employer against all acts, errors or omissions by the Contractor in carrying out the Contractor's design obligations that result in the Works (or Section or Part or major item of Plant and Materials, if any), when completed, not being fit for the purpose(s) for which they are intended under this Contract.
- 17.4. **INDEMNITIES BY EMPLOYER**
 - 17.4.1. The Employer shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all third party claims, damages, losses and expenses (including legal fees and expenses) in respect of:
 - 17.4.1.1. bodily injury, sickness, disease or death, or loss of or damage to any property other than the Works, which is attributable to any negligence, wilful act or breach of this Contract by the Employer, the Employer's Personnel, or any of their respective agents; and
 - 17.4.1.2. damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss arises out of any event described under sub-paragraphs of Sub-Clause Liability for Care of the Works.
- 17.5. **SHARED INDEMNITIES**
 - 17.5.1. The Contractor's liability to indemnify the Employer, under Sub-Clause Indemnities by Contractor and/or under Sub-Clause Intellectual and Industrial Property Rights, shall be reduced proportionately to the extent that any event described under sub-paragraphs of Sub-Clause Liability for Care of the Works may have contributed to the said damage, loss or injury.
 - 17.5.2. Similarly, the Employer's liability to indemnify the Contractor, under Sub-Clause Indemnities by Employer and/or under Sub-Clause Intellectual and Industrial Property Rights, shall be reduced proportionately to the extent that any event

for which the Contractor is responsible under Sub-Clause Responsibility for Care of the Works may have contributed to the said damage, loss or injury.

17.6. **INSURANCE**

- 17.6.1. Without limiting either Party's obligations or responsibilities under this Contract, the Contractor shall effect and maintain all insurances for which the Contractor is responsible with insurers and in terms, both of which shall be subject to approval by the Employer and/or Engineer. These terms shall be consistent with terms (if any) agreed by both Parties before the date of the Letter of Acceptance.
- 17.6.2. The insurances required to be provided under this Clause are the minimum required by the Employer and/or Engineer, and the Contractor may, at the Contractor's own cost and subject to the Employer and/or Engineers prior approval, add such other insurances that the Contractor may deem prudent.
- 17.6.3. Whenever required by the Employer and/or Engineer, the Contractor shall produce the insurance policies which the Contractor is required to effect under this Contract. As each premium is paid, the Contractor shall submit either a copy of each receipt of payment to the Employer (with a copy to the Engineer), or confirmation from the insurers that the premium has been paid.
- 17.6.4. If the Contractor fails to effect and keep in force any of the insurances required under Sub-Clause Insurances to be provided by Contractor then, and in any such case, the Employer and/or Engineer may effect and keep in force such insurances and pay any premium as may be necessary and recover the same from the Contractor from time to time by deducting the amount(s) so paid from any moneys due to the Contractor or otherwise recover the same as a debt from the Contractor. The provisions of Clause the Employer's and Contractor's Claims shall not apply to this Sub-Clause.
- 17.6.5. If either the Contractor or the Employer and/or Engineer fails to comply with any condition of the insurances effected under this Contract, the Party so failing to comply shall indemnify the other Party against all direct losses and claims (including legal fees and expenses) arising from such failure.
- 17.6.6. The Contractor shall also be responsible for the following:
- 17.6.6.1. notifying the insurers of any changes in the nature, extent or Programme for the execution of the Works; and
- 17.6.6.2. the adequacy and validity of the insurances in accordance with this Contract at all times during the performance of this Contract.
- 17.6.7. The permitted deductible limits allowed in any policy shall not exceed the amounts stated in the Employers Requirements (if not stated, the amounts agreed with the Employer and/or Engineer).

- 17.6.8. Where there is a shared liability, the loss shall be borne by each Party in proportion to each Party's liability, provided the non-recovery from insurers has not been caused by a breach of this Clause by the Contractor or the Employer and/or Engineer. In the event that non-recovery from insurers has been caused by such a breach, the defaulting Party shall bear the loss suffered.
- 17.6.9. **INSURANCE TO BE PROVIDED BY THE CONTRACTOR**
- 17.6.9.1. The Contractor shall provide the following insurances:
- 17.6.9.1.1. **The Works**
- 17.6.9.1.1.1. The Contractor shall insure and keep insured in the joint names of the Contractor and the Employer and/or Engineer from the Commencement Date until the date of the issue of the Taking-Over Certificate for the Works:
- 17.6.9.1.1.1.1. the Works and Contractor's Documents, together with Plant and Materials for incorporation in the Works, for their full replacement value. The insurance cover shall extend to include loss and damage of any part of the Works as a consequence of failure of elements effectively designed or constructed with defective material or workmanship; and
- 17.6.9.1.1.1.2. an additional amount of fifteen percent (15%) of such replacement value (or such other amount as may be specified in the Employers Requirements) to cover any additional costs incidental to the rectification of loss or damage, including professional fees and the cost of demolition and removal of debris.
- 17.6.9.1.1.2. The insurance cover shall cover the Employer and/or Engineer and the Contractor against all loss or damage from whatever cause arising until the issue of the Taking-Over Certificate for the Works. Thereafter, the insurance shall continue until the date of the issue of the Performance Certificate in respect of any incomplete work for loss or damage arising from any cause occurring before the date of the issue of the Taking-Over Certificate for the Works, and for any loss or damage occasional by the Contractor in the course of any operation carried out by the Contractor for the purpose of complying with the Contractor's obligations under this Contract.
- 17.6.9.1.1.3. However, the insurance cover provided by the Contractor for the Works may exclude any of the following:
- 17.6.9.1.1.3.1. the cost of making good any part of the Works which is defective (including defective material and workmanship) or otherwise does not comply with this Contract, provided that it does not exclude the cost of making good any loss or damage to any other part of the Works attributable to such defect or non-compliance;
- 17.6.9.1.1.3.2. indirect or consequential loss or damage including any reductions in the Accepted Contract Amount for delay;

- 17.6.9.1.1.3.3. wear and tear, shortages and pilferages; and
- 17.6.9.1.1.3.4. unless otherwise stated in the Employers Requirements, the risks arising from Exceptional Events.
- 17.6.9.1.2. Goods
- 17.6.9.1.2.1. The Contractor shall insure, in the joint names of the Contractor and the Employer and/or Engineer, the Goods and other things brought to Site(s) by the Contractor to the extent specified and/or amount stated in the Employers Requirements (if not specified or stated, for their full replacement value including delivery to Site(s)).
- 17.6.9.1.2.2. The Contractor shall maintain this insurance from the time the Goods are delivered to the Site(s) until they are no longer required for the Works.
- 17.6.9.1.3. Liability for breach of professional duty
- 17.6.9.1.3.1. To the extent that the Contractor is responsible for the design of part of the Permanent Works under this Contract, by the Contractor. The Contractor shall provide the following insurances:
 - 17.6.9.1.3.1.1. The Works and/or any other design under this Contract, and consistent with the indemnities specified in Clause Care of the Works and Indemnities:
 - 17.6.9.1.3.1.1.1. the Contractor shall effect and maintain professional indemnity insurance against liability arising out of any act, error or omission by the Contractor in carrying out the Contractor's design obligations in an amount not less than that stated in the Employers Requirements (if not stated, the amount agreed with the Employer); and
 - 17.6.9.1.3.1.1.2. if stated in the Employers Requirements, such professional indemnity insurance shall also indemnify the Contractor against liability arising out of any act, error or omission by the Contractor in carrying out the Contractor's design obligations under this Contract that results in the Works (or Section or Part of major item of Plant, if any), when completed, not being fit for the purpose(s) for which they are intended under Sub-Clause Contractor's General Obligations.
 - 17.6.9.1.3.1.1.3. The Contractor shall maintain this insurance for the period specified in the Employers Requirements.
- 17.6.9.1.4. Injury to persons and damage to property
- 17.6.9.1.4.1. The Contractor shall insure, in the joint names of the Contractor and the Employer, against liabilities for death or injury to any person, or loss of and/or damage to any property (other than the Works) arising out of the performance of this Contract and occurring before the issue of the Performance Certificate, other than loss or damage caused by an Exceptional Event.

- 17.6.9.1.4.2. The insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor and the Employer as separate insurers.
- 17.6.9.1.4.3. Such insurance shall be effected before the Contractor begins any work on the Site(s) and shall remain in force until the issue of the Performance Certificate and shall be for not less than the amount stated in the Employers Requirements (if not stated, the amount agreed and approved with the Employer).
- 17.6.9.1.5. Injury to employees
- 17.6.9.1.5.1. The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising out of the execution of the Works in respect of injury, sickness, disease or death of any person employed by the Contractor or any of the Contractor's other personnel.
- 17.6.9.1.5.2. The Employer and the Engineer shall also be indemnified under the policy of insurance, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer and/or of the Employer's Personnel.
- 17.6.9.1.5.3. The insurance shall be maintained in full force and effect during the whole time that the Contractor's Personnel are assisting in the execution of the Works. For any person employed by a Subcontractor, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for the Subcontractor's compliance with this Sub-Clause.
- 17.6.9.1.6. Other insurances required by Laws and by local practice
- 17.6.9.1.6.1. The Contractor shall provide all other insurances required by the Laws of the countries where (any part of) the Works are being carried out, at the Contractor's own cost.
- 17.6.9.1.6.2. Other insurances required by local practice (if any) shall be detailed in the Employers Requirements and the Contractor shall provide such insurances in compliance with the details given, at the Contractor's own cost.

17.7. **EMPLOYER'S AND CONTRACTOR'S CLAIMS**

17.7.1. **CLAIMS**

- 17.7.1.1. A Claim may arise:
- 17.7.1.1.1. if the Employer and/or Engineer considers that the Employer and/or Engineer is entitled to any additional payment from the Contractor (or reduction in the Approved Contract Amount) and/ or to an extension of the DNP;
- 17.7.1.1.2. if the Contractor considers that the Contractor is entitled to any additional payment from the Employer and/or to EOT; or

- 17.7.1.1.3. if either Party considers that he/she is entitled to another entitlement or relief against the other Party. Such other entitlement or relief may be of any kind whatsoever (including in connection with any certificate, determination, instruction, Notice, opinion or valuation of the Engineer) except to the extent that it involves any entitlement referred to in sub-paragraphs (a) and/or (b) above.
- 17.7.1.2. In the case of a Claim under sub-paragraph (a) or (b) above, Sub-Clause Claims For Payment and/or EOT shall apply.
- 17.7.1.3. In the case of a Claim under sub-paragraph (c) above, where the other Party and/or the Engineer has disagreed with the requested entitlement or relief (or is deemed to have disagreed if he/she does not respond within a stated time), a Dispute shall not be deemed to have arisen, but the claiming Party may by giving a Notice, in writing, refer the Claim to the Employer and/or Engineer and Sub-Clause Agreement or Determination shall apply. This Notice shall be given as soon as practicable after the claiming Party becomes aware of the disagreement (or deemed disagreement) and shall include details of the claiming Party's case and the other Party's and/or the Engineer's disagreement (or deemed disagreement).
- 17.7.2. **CLAIMS FOR PAYMENT OF EOT**
- 17.7.2.1. If either Party considers that he/she is entitled to any additional payment by the other Party (or, in the case of the Employer, a reduction in the Approved Contract Amount) and/or to EOT (in the case of the Contractor) or an extension of the DNP (in the case of the Employer) under any Clause of this Contract or otherwise in connection with this Contract, the following Claim procedure shall apply:
- 17.7.2.1.1. **Notice of Claim**
- 17.7.2.1.1.1. The claiming Party shall give a Notice, in writing, to the Engineer, describing the event or circumstance giving rise to the cost, loss, delay or extension of DNP for which the Claim is made as soon as practicable, and no later than 28 calendar days after the claiming Party became aware, or should have become aware, of the event or circumstance (the "Notice of Claim" in this Contract).
- 17.7.2.1.1.2. If the claiming Party fails to give a Notice of Claim within this period of 28 calendar days, the claiming Party shall not be entitled to any additional payment, the Approved Contract Amount shall not be reduced (in the case of the Employer as the claiming Party), the Time for Completion (in the case of the Contractor as the claiming Party) or the DNP (in the case of the Employer as the claiming Party) shall not be extended, and the other Party shall be discharged from any liability in connection with the event or circumstance giving rise to the Claim.
- 17.7.2.1.2. **Engineer's initial response**

- 17.7.2.1.2.1. If the Engineer considers that the claiming Party has failed to give the Notice of Claim within the period of 28 calendar days under Sub-Clause Notice of Claim, the Engineer shall, within 14 calendar days after receiving the Notice of Claim, give a Notice, in writing, to the claiming Party accordingly (with reasons).
- 17.7.2.1.2.2. If the Engineer does not give such a Notice within this period of 14 calendar days, the Notice of Claim shall be deemed to be a valid Notice. If the other Party disagrees with such deemed valid Notice of Claim, the other Party shall give a Notice, in writing, to the Engineer which shall include details of the disagreement.
- 17.7.2.1.2.3. Thereafter, the agreement or determination of the Claim under Sub-Clause Agreement or determination of the Claim shall include a review by the Engineer of such disagreement.
- 17.7.2.1.2.4. If the claiming Party receives a Notice from the Engineer under this Sub-Clause and disagrees with the Engineer or considers there are circumstances which justify late submission of the Notice of Claim, the claiming Party shall include in its fully detailed Claim under Sub-Clause Fully detailed claim] details of such disagreement or why such late submission is justified (as the case may be).
- 17.7.2.1.3. Contemporary records
- 17.7.2.1.3.1. In this Sub-Clause, "contemporary records" means records that are prepared or generated at the same time, or immediately after, the event or circumstance giving rise to the Claim. The claiming Party shall keep such contemporary records as may be necessary to substantiate the Claim.
- 17.7.2.1.3.2. Without admitting the Employer's liability, the Engineer may monitor the Contractor's contemporary records and/or instruct the Contractor to keep additional contemporary records. The Contractor shall permit the Employer and/or Engineer to inspect all these records during normal working hours (or at other times agreed by the Contractor) and shall if instructed submit copies to the Employer and/or Engineer. Such monitoring, inspection or instruction (if any) by the Employer and/or Engineer shall not imply acceptance of the accuracy or completeness of the Contractor's contemporary records.
- 17.7.2.1.4. Fully detailed Claim
- 17.7.2.1.4.1. In this Sub-Clause, "fully detailed Claim" means a submission which includes:
- 17.7.2.1.4.1.1. a detailed description of the event or circumstance giving rise to the Claim;
- 17.7.2.1.4.1.2. a statement of this Contractual and/or other legal basics of the Claim;
- 17.7.2.1.4.1.3. all contemporary records on which the claiming Party relies; and
- 17.7.2.1.4.1.4. detailed supporting particulars of the amount of additional payment claimed (or amount of reduction of the Approved Contract Amount in the case of the

Employer as the claiming Party), and/or EOT claimed (in the case of the Contractor) or extension of the DNP claimed (in the case of the Employer).

17.7.2.1.4.2. Within either:

17.7.2.1.4.2.1. 84 calendar days after the claiming Party became aware, or should have become aware, of the event and/or circumstance giving rise to the Claim, or such other period (if any) as may be proposed by the claiming Party and agreed by the Engineer the claiming Party shall submit to the Engineer a fully detailed Claim.

17.7.2.1.4.2.2. If within this time limit the claiming Party fails to submit the statement under subparagraph (b) above, the Notice of Claim shall be deemed to have lapsed, it shall no longer be considered as a valid Notice, and the Engineer shall, within 14 calendar days after this time limit has expired, give a Notice, in writing, to the claiming Party accordingly.

17.7.2.1.4.2.3. If the Engineer does not give such a Notice within this period of 14 calendar days, the Notice of Claim shall be deemed to be a valid Notice. If the other Party disagrees with such deemed valid Notice of Claim the other Party shall give a Notice to the Engineer which shall include details of the disagreement. Thereafter, the agreement or determination of the Claim under Sub-Clause Agreement or determination of the Claim shall include a review by the Employer and/or Engineer of such disagreement.

17.7.2.1.4.2.4. If the claiming Party receives a Notice from the Engineer under this Sub-Clause and if the claiming Party disagrees with such Notice or considers there are circumstances which justify late submission of the statement under subparagraph (b) above, the fully detailed claim shall include details of the claiming Party's disagreement or why such late submission is justified (as the case may be). If the event or circumstance giving rise to the Claim has a continuing effect, Sub-Clause Claims of continuing effect shall apply.

17.7.2.1.5. Agreement or determination of the Claim

17.7.2.1.5.1. After receiving a fully detailed Claim under Sub-Clause Fully detailed Claim, or an interim or final fully detailed Claim (as the case may be) under Sub-Clause Claims of continuing effect, the Engineer shall proceed under Sub-Clause Agreement or Determination, to agree or determine:

17.7.2.1.5.1.1. the additional payment (if any) to which the claiming Party is entitled or the reduction of the Approved Contract Amount (in the case of the Employer as the claiming Party); and/or

17.7.2.1.5.1.2. the extension (if any) of the Time for Completion (before or after its expiry) under Sub-Clause Extension of Time for Completion (in the case of the Contractor as the claiming Party), or the extension (if any) of the DNP (before its expiry) under Sub-Clause Extension of Defects Notification Period (in the case of the Employer as the claiming Party),

to which the claiming Party is entitled under this Contract.

- 17.7.2.1.5.2. If the Engineer has given a Notice, in writing, under Sub-Clause Engineer's initial response and/or under Sub-Clause Fully detailed Claim, the Claim shall nevertheless be agreed or determined in accordance with this Sub-Clause. The agreement or determination of the Claim shall include whether or not the Notice of Claim shall be treated as a valid Notice taking account of the details (if any) included in the fully detailed claim of the claiming Party's disagreement with such Notice(s) or why late submission is justified (as the case may be). The circumstances which may be taken into account (but shall not be binding) may include:
 - 17.7.2.1.5.2.1. whether or to what extent the other Party would be prejudiced by acceptance of the late submission;
 - 17.7.2.1.5.2.2. in the case of the time limit under Sub-Clause Notice of Claim, any evidence of the other Party's prior knowledge of the event or circumstance giving rise to the Claim, which the claiming Party may include its supporting particulars; and/or
 - 17.7.2.1.5.2.3. in the case of the time limit under Sub-Clause [Fully detailed Claim], any evidence of the other Party's prior knowledge of this Contractual and/or other legal basis of the Claim, which the claiming Party may include in its supporting particulars.
- 17.7.2.1.5.3. If, having received the fully detailed Claim under Sub-Clause [Fully detailed Claim], or in the case of a Claim under Sub-Clause [Claims of continuing effect] an interim or final fully detailed Claim (as the case may be), the Engineer requires necessary additional particulars:
 - 17.7.2.1.5.3.1. he/she shall promptly give a Notice to the claiming Party, describing the additional particulars and the reasons for requiring them.
 - 17.7.2.1.5.3.2. he/she shall nevertheless give his/her response on this Contractual or other legal basis of the Claim, by giving a Notice, in writing, to the claiming Party, within the time limit for agreement under Sub-Clause [Time limits];
 - 17.7.2.1.5.3.3. as soon as practicable after receiving the Notice under sub-paragraph (i) above, the claiming Party shall submit the additional particulars; and
 - 17.7.2.1.5.3.4. the Engineer shall then proceed under Sub-Clause [Agreement or Determination] to agree or determine the matters under sub-paragraphs (a) and/or (b) above (and, for the purpose of Sub-Clause [Time limits], the date the Engineer receives the additional particulars from the claiming Party shall be the date of commencement of the time limit for agreement under this Contract).
- 17.7.2.1.6. Claims of continuing effect
 - 17.7.2.1.6.1. If the event or circumstance giving rise to a Claim under this Sub-Clause has a continuing effect:

- 17.7.2.1.6.1.1. the fully detailed Claim submitted under this Sub-Clause shall be considered as interim;
- 17.7.2.1.6.1.2. in respect of this first interim fully detailed Claim, the Engineer shall give his/her response on this Contractual or other legal basis of the Claim, by giving a Notice to the claiming Party, within the time limit for agreement under Sub-Clause Time limits;
- 17.7.2.1.6.1.3. after submitting the first interim fully detailed Claim the claiming Party shall submit further interim fully detailed Claims at monthly intervals, giving the accumulated amount of additional payment claimed (or the reduction of this Contract Price, in the case of the Employer as the claiming Party), and/or extension of time claimed (in the case of the Contractor as the claiming Party) or extension of the DNP (in the case of the Employer as the claiming Party); and
- 17.7.2.1.6.1.4. the claiming Party shall submit a final fully detailed Claim within 28 calendar days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the claiming Party and approved by the Employer and/or Engineer. This final fully detailed claim shall give the total amount of additional payment claimed (or the reduction of the Approved Contract Amount, in the case of the Employer as the claiming Party) and/or extension of time claimed (in the case of the Contractor as the claiming Party) or extension of the DNP (in the case of the Employer as the claiming Party).
- 17.7.2.1.7. General requirements
- 17.7.2.1.7.1. After receiving the Notice of Claim, and under the Claim is agreed or determined under Sub-Clause [Agreement or determination of the Claim], in each Payment Certificate the Engineer shall include such amounts for any Claim as have been reasonably substantiated as due to the claiming Party under the relevant provision of this Contract. The Employer shall only be entitled to claim any payment from the Contractor and/or to extend the DNP or set off against or make any deduction from any amount due to the Contractor, by complying with this Sub-Clause.
- 17.7.2.1.7.2. The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to the Claim. If the claiming Party fails to comply with this or any other Sub-Clause in relation to the Claim, any additional payment and/or any EOT (in the case of the Contractor as the claiming Party) or extension of the DNP (in the case of the Employer as the claiming Party), shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the Claim by the Engineer.

18. CONTRACTORS PERSONNEL

18.1. PERSONNEL

- 18.1.1. The Contractor's Personnel (including Key Personnel, if any) shall always be appropriately qualified, skilled, experienced and competent in their respective trades or occupations.
- 18.1.2. The Contractor shall always provide competent suitably qualified personnel to survey and lay out the Works and perform construction as required by the Employers Requirements. The Contractor shall at all times maintain good discipline and order of the Site(s).
- 18.1.3. The Employer and/or Engineer may require the Contractor to remove (or cause to be removed) any person employed on the Site(s) or Works, including, but not limited to, the Contractor's Representative and Key Personnel (if any), who:
- 18.1.3.1. persists in any misconduct or lack of care;
- 18.1.3.2. carries out duties incompetently or negligently; fails to comply with any provision of this Contract;
- 18.1.3.3. persists in any conduct which is prejudicial to safety, health, or the protection of the environment;
- 18.1.3.4. is found, based on reasonable evidence, to have engaged in corrupt, fraudulent, collusive or coercive practice;
- 18.1.3.5. has been recruited from the Employer's Personnel in breach of this Contract; or
- 18.1.3.6. for any reason as deemed appropriate by the Employer and/or Engineer.
- 18.1.4. If appropriate, the Contractor shall then promptly appoint (or cause to be appointed) a suitable replacement in terms of this Contract.
- 18.2. **KEY PERSONNEL**
- 18.2.1. The Contractor shall appoint the natural persons named in the Employers Requirements to the positions of Key Personnel. If not so named, or if an appointed person fails to act in the relevant position of Key Personnel, the Contractor shall submit to the Employer and/or Engineer for written approval the name and particulars of another person the Contractor proposes to appoint to such position. If approval is withheld or subsequently revoked, the Contractor shall similarly submit the name and particulars of a suitable replacement for such position. Any changes in personnel shall be at the risk and cost to the Contractor.
- 18.2.2. If the Employer and/or Engineer does not respond after receiving any such submission, by giving a Notice, in writing, stating his/her objection to the appointment of such person (or replacement) with reasons, the Employer and/or Engineer shall not be deemed to have given his/her approval.

- 18.2.3. The Contractor shall not, without the Employer and/or Engineer's prior written approval, revoke the appointment of any of the Key Personnel or appoint a replacement (unless the person is unable to act as a result of death, illness, disability or resignation, . The appointment of a replacement shall be treated as a temporary appointment until the Employer and/or Engineer gives his/her written approval to this replacement, or another replacement is appointed, under this Contract. Any costs pursuant to the appointment of a replacement shall be for the Contractor.
- 18.2.4. All Key Personnel shall, at all times, be based at the Site(s) (or, where Works are being executed off the Site(s), at the location of the Works) for the whole time that the Works are being executed. If any of the Key Personnel is to be temporarily absent during execution of the Works, a suitable replacement shall, at all times, be temporarily appointed, subject to the Employer and/or Engineer's prior written approval.
- 18.2.5. All Key Personnel shall be fluent in the language of English and/or Afrikaans.
- 18.2.6. The Contractor shall provide all necessary personnel required by Contractor for the Contractor's successful delivery of the Works in accordance with this Contract. All personnel to be deployed on the Project shall be detailed under the relevant Sections of the Management and Implementation Methodology.
- 18.2.7. The Contractor's Project office and key personnel, all of whom shall have enough knowledge and experience on all aspects of the Works and shall be fully conversant with current railway practices in South Africa, shall be stationed in Gauteng, KwaZulu Natal and/or Western Cape, South Africa, depending on their specific role in the Project.
- 18.2.8. The Contractor shall employ full-time a railway-signalling Engineer registered with the Engineering Council of South Africa ("ECSA") as a professional engineer or professional technologist, all of whom shall be fully conversant with current railway practices in South Africa and always readily available for delivery of the Works when required.
- 18.2.9. The Contractor shall have suitably qualified supervision staff in charge of the Works. All such supervision staff shall be in direct full-time employment of the main Contractor and/or Joint Venture partners and/or Consortium members and/or Subcontractors.
- 18.2.10. Any member and/or representative of the Employer and/or Engineer, who may be associated with the Works, is responsible for inspection and acceptance Testing/checking only shall not be required to render any other assistance to the Contractor unless otherwise instructed in writing by the Employer and/or Engineer.
- 18.2.11. The Contractor shall, at all times, have an effective and efficient organisational structure in place to deliver the Works and provide the following key resources,

at a minimum, further providing signed and verifiable logbooks for each resource as part of the Contract:

18.2.12. General:

- 18.2.12.1. 1 Senior Project Manager with experience exceeding 10 years on similar Projects.
- 18.2.12.2. 1 Senior Commercial Manager with experience exceeding 5 years on similar Projects.
- 18.2.12.3. 1 Senior Controls Manager with experience exceeding 5 years on similar Projects.
- 18.2.12.4. 1 Senior Quantity Surveyor with experience exceeding 5 years on similar Projects.
- 18.2.12.5. 1 Senior Programmer/Scheduler with experience exceeding 5 years on similar Projects.
- 18.2.12.6. 1 Senior Occupational Health and Safety Manager with experience exceeding 5 years on similar Projects.
- 18.2.12.7. 1 Senior Quality Manager with experience exceeding 5 years on similar Projects.
- 18.2.12.8. 1 BEE with experience exceeding 5 years on similar Projects.
- 18.2.12.9. 1 Skills Development and Training Manager with experience exceeding 5 years on similar Projects.

18.2.13. Signalling:

18.2.13.1. Design:

- 18.2.13.1.1. 1 Senior Signalling Designers with experience exceeding 5 years on similar Projects.
- 18.2.13.1.2. 3 Signalling Designers with experience exceeding 3 years on similar Projects.
- 18.2.13.1.3. 1 Signalling Checker with experience exceeding 3 years on similar Projects.
- 18.2.13.1.4. 1 External Signalling Checker with experience exceeding 3 years on similar Projects.

18.2.13.2. Installation:

- 18.2.13.2.1. 1 Project Engineer with experience exceeding 5 years on similar Projects.

- 18.2.13.2.2. 3 Installers with experience exceeding 3 years on similar Projects.
- 18.2.13.3. Testing:
- 18.2.13.3.1. 3 Testers in Charge with experience exceeding 5 years on similar Projects.
- 18.2.13.3.2. 6 Senior Testers with experience exceeding 5 years on similar Projects.
- 18.2.13.3.3. 9 Testers with experience exceeding 3 years on similar Projects.
- 18.2.13.3.4. Validation:
- 18.2.13.3.4.1. 1 Senior Signalling Engineer with overall experience exceeding 10 years, which includes Validation experience of at least 5 years, on similar Projects.
- 18.2.13.3.5. All personnel and/or companies as the case may be, deployed on this Project, by the Contractor (including, but not limited to, personnel deployed by; the main Contractor, joint venture partners and/or consortium members and/or subcontractors and/or direct contractors and/or similar), shall always be appropriately skilled and experienced (list to be attached for the main functions: Project Manager, Commercial Manager, Controls Manager, Quantity Surveyor, Project Scheduler, Document Controller, Designers, Checkers, Testers, etc.) and shall have the requisite mandatory and professional; qualifications, certifications and registrations as required by all applicable legislation, regulations, bylaws and industry best practice. Validity of qualifications, certifications and registrations shall be maintained, on an uninterrupted basis, for the entire duration of the Contract.
- 18.2.13.3.6. The Employer and/or Engineer may, solely at the Employer's and/or Engineer's discretion and without consequence or liability to the Employer, instruct the Contractor to remove any of the Contractor's personnel deployed throughout the duration of the Contract for any reason deemed appropriate by the Employer. The Contractor shall immediately comply with this instruction and appoint suitable replacement personnel within 60 calendar days of receiving such an instruction for which such replacement personnel shall first be approved in writing by the Employer and/or Engineer.
- 18.2.13.3.7. Failure of the Contractor to meet any of these requirements at any time throughout the duration of the Contract shall give the Employer and/or Engineer an unprejudiced right to immediately apply penalties (as specified in the Employer's Requirements, this Contract and the RFP) for each incident (from the date that the Employer and/or Engineer decides is the date on which the incident commenced until the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor).

18.3. **SUBCONTRACTORS**

- 18.3.1. The Contractor shall not subcontract:
- 18.3.1.1. works with a total accumulated value greater than the percentage of the ICP nor the TCP; or
- 18.3.1.2. any part of the Works for which subcontracting and/or the choice of subcontractor is not approved by the Employer and/or Engineer.
- 18.3.2. The Contractor shall be responsible for the work of all Subcontractors, for managing and coordinating all the Subcontractors' works, and for the acts or defaults of any Subcontractor, any Subcontractor's agents or employees, as if they were the acts or defaults of the Contractor.
- 18.3.3. The Contractor shall obtain the Employer and/or Engineer's prior approval to all proposed Subcontractors, except:
- 18.3.3.1. a subcontract for which the Subcontractor is named in this Contract.
- 18.3.4. The Contractor is required to obtain the Employer and/or Engineer's approval for all proposed Subcontractors. The Contractor shall submit the name, address, detailed particulars (including, but not limited to, shareholding certificates, audited financial statements, contact details, tax compliance status pin, BBEE Certificate issued by a SANAS approved agency) and relevant experience of such Subcontractor and the work intended to be subcontracted to the Employer and/or Engineer and further information which the Employer and/or Engineer may require to approve or reject such Subcontractor.
- 18.3.5. The Contractor shall give a Notice to the Employer and/or Engineer not less than 28 calendar days before the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site.
- 18.4. **NOMINATED SUBCONTRACTORS**
- 18.4.1. In this Sub-Clause, "nominated Subcontractor" means a Subcontractor named as such in the Employer's Requirements or whom the Employer and/or Engineer, under this Contract and by written instruction, instructs and approves the Contractor to employ as a Subcontractor.
- 18.4.2. The Employer
- 18.4.3. Payments to nominated Subcontractors.
- 18.4.3.1. The Contractor shall pay to the nominated Subcontractor the amounts due in accordance with the subcontract. These amounts plus other charges shall be included in the ICP and TCP.
- 18.4.4. Evidence of Payments

- 18.4.4.1. Before issuing a Payment Certificate which includes an amount payable to a nominated Subcontractor, the Employer and/or Engineer may request the Contractor to supply all unredacted evidence that the nominated Subcontractor has received all amounts due in accordance with any Payment Certificates, less applicable deductions as approved in writing by the Employer and/or Engineer.
- 18.4.4.2. Failure by the Contractor to pay the nominated Subcontractor any amounts due to the nominated Subcontractor as described above, shall entitle the Employer (at the Employer's sole discretion) to pay, directly to the nominated Subcontractor, part or all of such amounts previously certified (less applicable deductions) as are due to the nominated Subcontractor.
- 18.4.4.3. Thereafter, the Engineer shall give a Notice to the Contractor stating the amount paid directly to the nominated Subcontractor by the Employer and, in the next IPC after this Notice, shall include this amount as a deduction.

18.5. **CO-OPERATION**

- 18.5.1. The Contractor shall, as specified in the Employer's Requirements or as instructed by the Employer and/or Engineer, co-operate with and allow appropriate opportunities for carrying out work by:
- 18.5.1.1. the Employer's and/or the Engineer's Personnel.
- 18.5.1.2. any other contractors employed by the Employer and/or Engineer; and
- 18.5.1.3. the personnel of any legally constituted public authorities and private utility companies,
- 18.5.2. who may be employed in the carrying out, on or near the Site(s), of any work not included in this Contract. Such appropriate opportunities may include the use of Contractor's Equipment, Temporary Works, access arrangements which are the responsibility of the Contractor, and/or other Contractor's facilities or services on the Site(s).
- 18.5.3. The Contractor shall be responsible for the Contractor's construction activities on the Site(s) and shall use all reasonable endeavours to co-ordinate these activities with those of other contractors to the extent (if any) specified in the Employer's Requirements or as instructed by the Engineer.

18.6. **CONTRACTOR'S RECORDS**

- 18.6.1. The Contractor shall always maintain in a safe place at the Site(s) one record copy of all Drawings, Specifications, Addenda, change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications and any other documents and records stipulated in the Employers Requirements, in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will always be available to the Employer and/or

Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to the Employer and/or Engineer in formats, with details and in manners determined and approved by the Employer and/or Engineer.

- 18.6.2. Unless otherwise proposed by the Contractor and agreed and approved to by the Employer and/or Engineer, in each progress report under Sub-Clause Progress Reports, the Contractor shall further include records of:
 - 18.6.2.1. occupations and actual working hours of each class of the Contractor's Personnel, including detailed, verifiable and signed site diaries and logs;
 - 18.6.2.2. the type and actual working hours of each of the Contractor's Plant and Materials;
 - 18.6.2.3. the types of Temporary Works used;
 - 18.6.2.4. the types of Plant and Materials installed in the Permanent Works; and the quantities and types of Plant and Materials used for each work activity shown in the Programme, at each work location and for each day of work.
- 18.6.3. The Contractor shall keep record of all maintenance performed and shall submit such records to the Employer and/or Engineer monthly in formats with details and manners determined and approved by the Employer and/or Engineer.

18.7. **DISORDERLY CONDUCT**

- 18.7.1.1. The Contractor shall at all times take all necessary precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site(s).

19. **STATUTORY AND EMPLOYMENT COMPLIANCE BY CONTRACTOR**

19.1. **CONTRACTOR'S DOCUMENTS**

- 19.1.1. The Contractor's Documents shall comprise the documents:
 - 19.1.1.1. specified in the Employer's Requirements;
 - 19.1.1.2. required to satisfy all permits, permissions, licenses and other regulatory approvals which are the Contractor's responsibility under this Contract.

19.2. **PREPARATION BY CONTRACTOR**

- 19.2.1. Unless otherwise stated in the Employer's Requirements, the Contractor's Documents shall be written in the language for communications, being English.

- 19.2.2. The Contractor shall prepare all Contractor's Documents, and any other documents necessary to complete and implement the design during execution of the Works and to instruct the Contractor's Personnel. The Employer and/or Engineer's Personnel shall have the right to inspect the preparation of all these documents (including any investigation, modelling and testing), wherever they are being prepared.
- 19.3. **REVIEW BY ENGINEER**
- 19.3.1. Under this Contract:
- 19.3.1.1. "Review Period" means the period not exceeding 21 calendar days, or as otherwise stated in the Employer's Requirements, or within a period defined at the discretion of the Employer and/or Engineer, calculated from the date on which the Engineer receives a Contractor's Document and a Contractor's Notice;
- 19.3.1.2. "Contractor's Document" excludes any of the Contractor's Documents which are not specified in the Employer's Requirements or under this Contract as being required to be submitted for Review, but includes all documents on which a specified Contractor's Document relies for completeness; and
- 19.3.1.3. "Contractor's Notice" means the Notice which shall state that the relevant Contractor's Document is considered by the Contractor to be ready for Review under this Contract and for use, and that it complies with the Employer and/or Engineer's Requirements and these Conditions, or the extent to which it does not do so.
- 19.3.2. If the Employer's Requirements or these Conditions specify that a Contractor's Document is to be submitted to the Employer and/or Engineer for Review, it shall be submitted accordingly, together with a Contractor's Notice.
- 19.3.3. The Employer and/or Engineer shall, within the Review Period, give a Notice to the Contractor:
- 19.3.3.1. of No-objection (which may include comments concerning minor matters which will not substantially affect the Works); or
- 19.3.3.2. that the Contractor's Document fails (to the extent stated) to comply with the Employer's Requirements and/or this Contract, with reasons.
- 19.3.3.3. If the Employer and/or Engineer instructs that further Contractor's Documents are required to demonstrate that the Contractor's design complies with this Contract, the Contractor shall prepare and submit them promptly to the Engineer at the Contractor's cost.
- 19.3.3.4. If the Employer and/or Engineer gives a Notice under sub-paragraph (b) above, the Contractor shall:

- 19.3.3.4.1. revise the Contractor's Document;
- 19.3.3.4.2. resubmit it to the Employer and/or Engineer for Review in accordance with this Contract; and
- 19.3.3.4.3. not be entitled to EOT for any delay caused by any such revision and resubmission and/or by subsequent Review by the Employer and/or Engineer.
- 19.3.3.5. If the Employer incurs additional costs as a result of such resubmission and subsequent Review, the Employer shall be entitled subject to this Contract to payment by the Contractor of the costs incurred.

19.4. **CONSTRUCTION**

- 19.4.1. Except for Contractor's Documents under this Contract, for each part of the Works requiring Contractor's Documents to be submitted for Review:
 - 19.4.1.1. construction of such a part shall not commence until a Notice of No-objection is given by the Employer and/or Engineer for all the Contractor's Documents which are relevant to its design and execution;
 - 19.4.1.2. construction of such a part shall be in accordance with these Contractor's Documents; and
 - 19.4.1.3. the Contractor may, upon written pre-approval from the Employer and/or Engineer, modify any design or Contractor's Documents which have previously been submitted for Review, by giving a Notice to the Engineer with reasons. If the Contractor has commenced construction of the part of the Works to which such design or Contractor's documents are relevant:
 - 19.4.1.3.1. work on this part shall be suspended at the Contractor's cost and expense;
 - 19.4.1.3.2. work on this part shall not resume until a Notice of No-objection is given, in writing, by the Employer and/or Engineer for the revised documents.

19.5. **CONTRACTOR'S UNDERTAKING**

- 19.5.1. The Contractor undertakes that the design, the Contractor's Documents, the execution of the Works and the completed Works will be in accordance with:
 - 19.5.1.1. the Laws of the Republic of South Africa; and
 - 19.5.1.2. the documents forming this Contract, as altered or modified by instructions issued in writing by the Employer and/or Engineer.

19.6. **TECHNICAL STANDARDS AND REGULATIONS**

- 19.6.1. The Contractor's Documents, the execution of the Works and the completed Works (including defects remedied by the Contractor) shall comply with the

Republic of South Africa's technical standards, building, construction and environmental Laws, Laws applicable to the product being produced from the Works, and other standards specified in the Employer's Requirements, applicable to the Works, or defined by applicable Laws.

- 19.6.2. All these technical or other standards and Laws shall, in respect of the Works, and each Section and Part, be those in force when the Works or Section or Part are taken over under this Contract].
- 19.6.3. References in this Contract to published standards shall be understood to be references to the edition applicable on the Base Date, unless stated otherwise. If changed or new applicable standards come into force in the Republic of South Africa alter the Base Date, the Contractor shall promptly give a Notice to the Engineer and (if requested by the Employer and/or Engineer) submit proposals for compliance. To the extent that:
 - 19.6.3.1. the Employer and/or Engineer considers that compliance is required, and such compliance requires change(s) to the execution of the Works; and
 - 19.6.3.2. the Contractor's proposals for compliance constitutes a Variation; then the Employer and/or Engineer shall initiate a Variation in accordance with this Contract.

19.7. **USE OF EXISTING INFORMATION**

- 19.7.1. Existing information, approved Designs and As-Built drawings relevant to some of the Works shall, at the discretion of the Employer and/or Engineer, be supplied to the Contractor in PDF, TIFF or DWG Software format, for updating and to aid the Contractor with Planning and Design development.
- 19.7.2. The Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances, which may influence or affect the Works and the Contractor's pricing. In addition, as part of the Contractor's proposal and the delivery of the Works, the Contractor shall be deemed to have inspected and examined the information provided, and to have been satisfied before submitting the Contractor's Proposal as to all relevant matters.
- 19.7.3. The Contractor shall verify the accuracy of all existing As-Built drawings, notify the Employer and/or Engineer of any discrepancies and rectify all discrepancies, as part of the Works, to ensure that the version of As-Built drawings to be issued by the Contractor, as part of the Works, are accurate.
- 19.7.4. Any and all plans and designs developed and to be provided by the Employer shall at all times remain the property of the Employer.

19.8. **PROJECT OFFICE CO-LOCATION AND RESOURCING**

- 19.8.1. The Contractor shall, at the Contractor's Project offices (at each of the Regions being GP, KZN and WC) and at the Contractor's cost, provide; safe, private,

confidential, fully operational and functional offices for the Employer and all other Employer representatives to use on an ongoing basis throughout the duration of this Contract.

- 19.8.2. The Contractor shall, at the Contractor's cost, provide the Employer with 5 ultra-high specification laptops with accessories (best available at the time of procurement) for which the final choice and instruction shall be made and granted by the Employer, respectively. The Contractor shall always ensure that each laptop is always provided with the latest available and fully licensed Software (at a minimum; Microsoft Windows Operating System, best antivirus, full Microsoft Office suite, Microsoft Project, Adobe Professional (PDF) and AutoCAD/similar and any other Software used by the Contractor and required by the Employer for the Delivery of the Works as requested).
- 19.8.3. Ownership of all laptops (including Software and accessories) and PPE shall pass to the Employer immediately upon receipt of each laptop (and accompanying accessories) and PPE.
- 19.8.4. Ownership of all other office; Furniture, Equipment, stationery and consumables shall pass to the Employer at the Completion Date or at a date of Suspension or Termination of this Contract (regardless of whether PRASA or the Contractor suspends or terminates this Contract).
- 19.8.5. The Contractor shall, at each of the Sites (GP, KZN and WC), at the Contractor's cost, always make, 4 double cab 4x4 bakkies (or similar) and any other vehicle(s) and other means required to travel to the local Site(s), and for any other purpose of this Project, available to the Employer.
- 19.8.6. The Contractor shall, for all the Employer representatives (minimum 7 personnel or at any given instance as instructed by the Employer) and at the Contractor's cost, uncompromisingly provide all unlimited; Materials, facilities, samples, Equipment, travel (air and rail and road), accommodation, meals, incidentals, unfettered access and any other means required for the Employer to attend and/or perform any local and international; rail-related conferences/workshops, knowledge sharing events, skills development events, inspections, Validation, Plant and Materials reviews, Technology reviews and Training. In this regard, allowance for international events shall, at a minimum, be made for:
 - 19.8.6.1. All related Training.
 - 19.8.6.2. All related Validation.
 - 19.8.6.3. EAS All Factory Acceptance Tests.
- 19.8.7. The Contractor shall always make any measuring Tools and Equipment, required to perform quality inspections, tests, Commissioning etc., and for any other purpose of this Project, available to the Employer and/or Engineer.

19.9. **HEALTH AND SAFETY OBLIGATIONS**

19.9.1. The Contractor shall:

19.9.1.1. comply with all applicable health and safety regulations and Laws, and the Employer's safety rules, regulations and guidelines entirely at the Contractor's own cost;

19.9.1.2. comply with all applicable health and safety obligations specified in this Contract.

19.9.1.3. comply with all directives issued by the Contractor's health and safety officer (appointed under this Contract);

19.9.1.4. take care of the health and safety of all persons entitled to be on the Site(s) and other places (if any) where the Works are being executed.

19.9.1.5. keep the Site(s), Works (and the other places (if any) where the Works are being executed) clear of unnecessary obstruction so as to avoid danger to these persons.

19.9.1.6. provide fencing, lighting, safe access, guarding, and watching of:

19.9.1.6.1. the Works, until the Works are taken over under this Contract; and

19.9.1.6.2. any part of the Works where the Contractor is executing outstanding works or remedying any defects during the DNP; and

19.9.1.7. provide any Temporary Works (including roadways, footways, guards, and fences) which may be necessary because of the executions of the Works, for the use and protection of the public and of owners and occupiers of adjacent land and property.

19.9.2. Within 21 calendar days of the Commencement Date and before commencing any construction on the Site(s), the Contractor shall submit to the Engineer for information a health and safety manual which has been specifically prepared for the Works, the Site(s) and other places (if any) where the Contractor intends to execute the Works. This manual shall be in addition to any other similar document required under applicable health and safety regulations and Laws.

19.9.3. The health and safety manual shall set out all the health and safety requirements:

19.9.3.1. specified in the Employer's Requirements;

19.9.3.2. that comply with all the Contractor's health and safety obligations under this Contract; and

- 19.9.3.3. that are necessary to effect and maintain a healthy and safe working environment for all persons entitled to be on the Site(s) and other places (if any including, but not limited to, the Project offices and Site(s) offices) where the Works are being executed.
- 19.9.4. This manual shall be revised as necessary by the Contractor or the Contractor's health and safety officer, or at the request of the Engineer. Each revision of the manual shall, within 21 calendar days of the Engineer's request, be submitted to the Engineer.
- 19.9.5. In addition to the reporting requirement of this Contract, the Contractor shall submit to the Engineer details of any accident as soon as practicable after its occurrence and, in the case of an accident causing serious injury or death, shall inform the Engineer immediately.
- 19.9.6. The Contractor shall, as specified in the Employer's Requirements and as the Engineer may require, maintain unredacted records and make reports (in compliance with the applicable health and safety regulations and Laws) concerning the health and safety of persons and any damage to property.
- 19.9.7. The Contractor shall be responsible for all Occupational Health and Safety ("OHS") matters on the Project for the entire duration of this Contract, therefore including Maintenance, Warranty and Defects Liability period.
- 19.9.8. The Contractor shall implement an OHS Management Plan ("OHS Plan") that complies with the Health and Safety specifications as stated in the Employers Requirements.
- 19.9.9. **PERSONAL PROTECTIVE EQUIPMENT ("PPE")**
- 19.9.9.1. The wearing of specified Personal Protective Equipment ("PPE") shall be compulsory whilst on or near railway lines and/or service roads.
- 19.9.9.2. The PPE requirements for personnel working on or near the railway lines or service roads shall always, at a minimum, be as follows:
- 19.9.9.2.1. Reflective vests shall be required for all personnel in the vicinity of a railway line or service road and Equipment Room;
- 19.9.9.2.2. Safety boots shall be required for all personnel on Site(s);
- 19.9.9.2.3. Hard hats shall be required when there is a danger of falling objects or close to overhead work;
- 19.9.9.2.4. Overalls shall be required for all installation personnel;
- 19.9.9.2.5. Face masks;

19.9.9.2.6. Other requirements prescribed by law.

19.9.10. **USE OF VEHICLES**

19.9.10.1. The Contractor shall always comply with the relevant legislation and ordinances including, but not limited to, all the traffic signs and speed limits on service roads;

19.9.10.2. Vehicles' main head lights and taillights are always switched on.

19.9.11. **HIGH VOLTAGE ELECTRICAL EQUIPMENT**

19.9.11.1. It is recorded that the Site(s) may have "live" Electrical overhead wires or underground cables and there is danger of contact with such wires or piercing underground Electrical cable during excavations, as such the Contractor and its personnel must exercise absolute care when working on the Site(s).

19.9.11.2. The Contractor and its personnel shall ensure that when doing installations or working in the vicinity of high voltage Equipment, it takes all the necessary precautionary measures to safeguard all personnel against injury.

19.9.11.3. The Contractor and its personnel shall always, as precautionary measures, consider all Equipment as "live", notwithstanding any safety measures in the System to reduce induced stray voltages to a safe level.

19.9.11.4. Before work commences, the Contractor shall make all personnel aware of the danger of "live" Electrical wires and cables as well as induced stray voltages from AC electrification into Signalling cables and Equipment.

19.9.12. **TRACKSIDE WORK**

19.9.12.1. Should the Contractor arrive at any Site(s), including Equipment Rooms and substations, the Contractor shall inform the Train Control Operator ("TCO") of his/her presence. The Contractor shall also accurately record the date, time and his/her activities daily in the Equipment Maintenance book.

19.9.12.2. Should the Contractor enter a CTCC or train control office, the Contractor shall identify all applicable personnel to the Section Manager in charge and state the purpose of his visit and enter the details of and reason for the Contractor's visit in the CTCC or train control office logbook and signs the entry.

19.9.12.3. Before the Contractor leaves the Site(s) or CTCC or train control office, the Contractor shall report all intended movements to the Section Manager in charge and record all movements in the office logbook and signs the exit.

19.9.13. **PROTECTION OF THE PUBLIC**

19.9.13.1. The Contractor shall ensure that restricted access is in place at all Construction Site(s) and Site(s) Camps.

19.10. **SECURITY**

- 19.10.1. The Contractor shall provide security guards on Site(s) for all personnel, Equipment, Plant and Materials, and the Employer and/or Engineer's representatives performing their duties for the duration of this Contract.
- 19.10.2. The deployment of security personnel shall be arranged in consultation with the Employer and/or Engineer, and subject to the Employer's Requirements.
- 19.10.3. The Contractor shall liaise with the Contractor's security personnel so that they are always aware of the Contractor's security arrangements on Site(s) and supply all personnel with clearly identifiable clothing clearly marked with Project and Contractor details.
- 19.10.4. The Contractor shall supply all personnel with identification card containing the personnel's photo and identity number and status of employment with the Contractor. All personnel shall always carry this document whenever they are on Site(s). The Contractor shall ensure that persons no longer in the Contractor's employ, do not have those identification cards in their possession. The identification cards of such personnel shall be handed back to the Contractor and recorded in the personnel register, which shall at all times be up to date.
- 19.10.5. Persons with criminal convictions shall not be employed on Site(s).
- 19.10.6. The Contractor shall ensure that no person is hired or paid on Site(s).
- 19.10.7. The Contractor shall ensure that all vehicles on Site(s) shall have the Contractor's name clearly marked in a conspicuous position.
- 19.10.8. All Contractor's personnel shall undergo a security briefing before they are allowed on Site(s).
- 19.10.9. The Contractor's OHS Plan shall include a detailed method statement on how security matters shall be managed on the Site(s).
- 19.10.10. All the Contractor's Site(s) personnel shall attend the Employer's and /or Contractors OHS safety induction courses before commencement of any Works on any Site(s). The duration of each course is anticipated to be a maximum of 8 hours during normal working hours.
- 19.10.11. Blasting shall not be allowed on the Site(s).
- 19.10.12. **THE CONTRACTOR SHALL AT A MINIMUM, COMPLY WITH THE FOLLOWING ACTS**
- 19.10.12.1. The Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993). The Contractor shall produce proof of registration and good standing with

the Compensation Commissioner in terms of the Act from the bidding stage until take-over of the Project by the Employer.

- 19.10.12.2. The Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended and Regulations issued in terms thereof or un-repealed regulations issued in terms of the former Act No. 6 of 1983.
- 19.10.12.3. The Explosives Act No. 26 of 1956 (as amended). The Contractor, where applicable, shall furnish the Project Manager with copies of the permits authorising the Contractor to establish an explosives magazine on or near the Site(s).
- 19.10.12.4. Occupational Health and Safety Act 85 of 1993 registration of the Site(s) on behalf of the Employer shall be done by the Contractor, in consultation with the Employer.
- 19.10.12.5. The Employer's and/or Engineer's safety representative shall attend all Site(s) safety meetings called in terms of the Occupational Health and Safety Act 85 of 1993. The Contractor shall promptly submit copies of the minutes of these meetings to the Employer and/or Engineer. The safety meetings shall be monitored by the Contractor to identify any action required to rectify problems or corrective actions.
- 19.10.12.6. The storage of all flammable materials shall require attention and management.
- 19.10.12.7. Exceptional care shall be required when welding, flame-cutting or other fire-hazard operations occur, and the Contractor shall provide suitable firefighting Equipment at close hand to those operations.
- 19.10.12.8. The Contractor shall report all accidents in writing to the Employer and/or Engineer. Any accidents resulting in the death of or injury to any person in the working areas shall be reported within 24 hours of its occurrence and any other accident shall be reported within 48 hours of its occurrence.
- 19.10.12.9. Telephone numbers of emergency services, including the local firefighting service, shall be posted conspicuously in the Contractor's Site(s) office near the telephone.
- 19.10.12.10. The Contractor shall provide suitable shoring of cable tranches.
- 19.10.12.11. The Contractor shall provide the required services to clean and sanitise the Site(s) from hazards, including, but not limited to, raw sewerage, litter, hinderances, obstructions, as and when required for the purpose of performing the Works.
- 19.10.12.12. The Contractor shall provide additional protection Equipment and clothing for all personnel required for working in areas where environmental and health issues exist.

19.11. **THEFT AND VANDALISM**

- 19.11.1. The parties agree that as the Site(s) of the Employer shall be under the control and possession of the Contractor, the Contractor shall at its own cost and regardless of the extent of this requirement, be responsible for preventing all theft and vandalism of the whole the Works for the duration of this Contract, including the full maintenance, Warranty and defects liability period.
- 19.11.2. The Contractor shall use any legal means necessary to meet this requirement and shall, at a minimum, implement all requisite measures to detect, defer, delay and prevent any attempted theft and vandalism on the Site(s).
- 19.11.3. The Contractor shall take full responsibility and accept all liability in respect of any vandalised Employer or Project assets that form part of this Contract and/or Project and/or Works.
- 19.11.4. The Contractor shall further ensure that any stolen or vandalised assets are reinstated to standards approved by the Employer within timeframes stipulated by the Employer and at the Contractor's cost regardless of the number of incidents that may occur throughout the duration of this Contract and for each and every incident that occurs.
- 19.11.5. The Contractor shall, at the minimum, implement measures described throughout the RFP for which such implementation shall not, in any manner whatsoever, relieve the Contractor of the Contractor's responsibility to implement additional measures to prevent theft and vandalism of the whole of the Works for the duration of this Contract.
- 19.11.6. The Contractor acknowledges that during the bidding stage, it submitted a detailed method statement describing all the measures, techniques, and installation rules it intends to implement addressing all theft and vandalism matters that could affect delivery of the Works and the Project in its entirety. That being the case, the Contractor hereby undertakes that it will protect the Site(s) from any form of theft and/or vandalism.

19.12. **ARCHAEOLOGICAL AND GEOLOGICAL FINDINGS**

- 19.12.1. All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site(s) shall be placed under the care and authority of the Employer and/or Engineer. The Contractor shall take all reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.
- 19.12.2. The Contractor shall, as soon as practicable after discovery of any such finding, give a Notice to the Engineer in good time to give the Engineer opportunity to promptly inspect and/or investigate the finding before it is disturbed. This Notice shall describe the finding and the Engineer shall issue instructions for dealing with it.

- 19.12.3. Should the Engineer fail to timeously deal with the findings as notified, the Contractor shall be entitled to escalate the delay for an EOT.

19.13. **TRAINING**

- 19.13.1. The Contractor shall carry out training of employees of the Employer and/or Engineer (and/or other personnel identified in the Employer's Requirements) in the operation and maintenance of the Works, and any other aspect of the Works, to the extent specified in the Employer's Requirements.

- 19.13.2. If the Employer's Requirements specify training which is to be carried out before taking over, the Works shall not be considered to be completed for the purposes of taking over under this Contract until this training has been completed in accordance with the Employer's Requirements.

- 19.13.3. The timing of the training shall be as stated in the Employer's Requirements (if not stated, as approved by the Employer and/or Engineer). The Contractor shall provide qualified and experienced training staff, training facilities and all training materials as necessary and/or as stated in the Employer's Requirements.

19.14. **REGISTRATIONS**

19.14.1. **PROFESSIONAL COMPANY REGISTRATIONS**

- 19.14.1.1. All companies deployed on this Project, by the Contractor (including, but not limited to; the main Contractor, Joint Venture partners and/or Consortium Members and/or Subcontractors and/or direct contractors and/or similar), shall be appropriately skilled and experienced and shall have the requisite mandatory and professional; qualifications, certifications and registrations as required by all applicable legislation, regulations, bylaws and industry best practice. This is an absolute requirement at the time of bidding and validity of such qualifications, certifications and registrations shall be maintained, on an uninterrupted basis, for the entire duration of this Contract. Failure of the Contractor to meet any of these requirements at any time throughout the duration of this Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified throughout the RFP, The Employer's Requirements and this Contract) for each incident (from the date that the Employer decides is the date on which the incident commenced until the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).

- 19.14.1.2. The Employer may, solely at the Employer's discretion and without consequence or liability to the Employer, instruct the Contractor to remove any of the Contractor's companies deployed throughout the duration of this Contract for any reason deemed appropriate by the Employer. The Contractor shall immediately comply with this instruction and appoint suitable replacement companies within 60 calendar days of receiving such an instruction for which such replacement companies shall first be approved in writing by the Employer. Failure of the Contractor to meet any of these requirements at any time

throughout the duration of this Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified throughout the RFP, the Employer's Requirements and under this Contract) for each incident (from the date that the Employer decides is the date on which the incident commenced until the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).

19.14.2. **ADDITIONAL TAX COMPLIANCE REQUIREMENTS**

19.14.2.1. Joint Ventures and Consortium Contractors are eligible to submit Bids provided that:

19.14.2.1.1. Every member of the Joint Venture/Consortium has a valid Tax Pin issued by SARS.

19.14.2.1.2. Joint Ventures and Consortium Contractors are eligible to get paid provided that:

19.14.2.1.2.1. A Joint Venture/Consortium VAT number is provided prior to the issuance of the Contractor's first invoice or if agreed to in writing by the Employer then at the latest prior to issuance of the Contractor's fourth invoice.

19.14.2.1.3. The Contractor shall, on an uninterrupted basis, maintain the Contractor's compliant Tax Status and Clearance as was submitted as part of the Contractor's Bid for the duration of this Contract. The Contractor shall further provide any proof and supporting documents of compliant Tax Clearance immediately upon receipt of a request from the Employer for the Contractor to do so. Failure of the Contractor to meet any of these requirements at any time throughout the duration of this Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified throughout the Employers Requirements) for each incident (from the date that the Employer decides is the date on which the incident commenced until the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).

19.14.2.1.4. The Contractor shall, on an uninterrupted basis, comply with all South African and International Tax laws, regulations and compliance requirements stated throughout the Employers Requirements. The Contractor shall further provide any proof and unredacted supporting documents proving compliance as specified throughout the Employers Requirements or immediately upon receipt of a request from the Employer for the Contractor to do so. Failure of the Contractor to meet any of these requirements at any time throughout the duration of this Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified throughout the Employers Requirements) for each incident (from the date that the Employer decides is the date on which the incident commenced until the date on which the Employer confirms, in writing, that the Employer is completely satisfied that the incident is completely resolved by the Contractor).

19.14.3. **ADDITIONAL B-BBEE COMPLIANCE REQUIREMENTS**

- 19.14.3.1. The Contractor shall, on an uninterrupted basis, maintain the Contractor's compliant B-BBEE Certification Level as was submitted as part of the Contractor's Proposal for the duration of the Contract. The Contractor shall further provide any proof and supporting documents of the B-BBEE Certification Level immediately upon receipt of a request from the Employer for the Contractor to do so. Failure of the Contractor to meet any of these B-BBEE Compliance Requirements at any time throughout the duration of the Contract shall give the Employer an unprejudiced right to immediately apply penalties (as specified in the Employer's Requirements, this Contract and the RFP) for each incident (from the date that the Employer and/or Engineer decides is the date on which the incident commenced to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor).
- 19.14.3.2. The Contractor shall further, on an uninterrupted basis, comply with all B-BBEE laws, regulations and compliance requirements stated in the Employer's Requirements, this Contract and the RFP. The Contractor shall further provide any proof and unredacted supporting documents proving compliance as specified in the Employer's Requirements, this Contract and the RFP or immediately upon receipt of a request from the Employer and/or Engineer. Failure of the Contractor to meet any of these B-BBEE Compliance Requirements at any time throughout the duration of the Contract shall give the Employer and/or Engineer an unprejudiced right to immediately apply penalties (as specified in the Employer's Requirements, this Contract and the RFP) for each incident (from the date that the Employer and/or Engineer decides is the date on which the incident commenced to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor). Failure in this regard shall further mean:
- 19.14.3.2.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer and/or Engineer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.
- 19.14.3.2.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.

19.14.4. **ADDITIONAL CSD COMPLIANCE REQUIREMENTS**

- 19.14.4.1. The Contractor shall, on an uninterrupted basis and for the duration of the Contract, maintain a compliant CSD Registration Status as was submitted as part of the Contractor's Proposal. The Contractor shall further provide any proof and supporting documents of compliant CSD Registration immediately upon receipt of a request from the Employer and/or Engineer. Failure of the Contractor to meet any of these CSD Compliance Requirements at any time throughout the duration of the Contract shall give the Employer and/or Engineer an unprejudiced right to immediately apply penalties (as specified in the Employer's Requirements, this Contract and the RFP) for each incident (from the date that the Employer decides is the date on which the incident commenced to the date on which the Employer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor). Failure in this regard shall further mean:
- 19.14.4.1.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer and/or Engineer decides is the date on which the incident commenced to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.
- 19.14.4.1.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the TCP as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.
- 19.14.5. **ADDITIONAL CIDB COMPLIANCE REQUIREMENTS**
- 19.14.5.1. The Contractor shall always confirm to have acquainted itself with the following acts, regulations and standards referred to in the Employer's Requirements, this Contract and the RFP, together with any gazetted amendments thereto, as they are essential for acquiring basics of Construction and management requirements:
- 19.14.5.1.1. The Construction Industry Development Board ("CIDB") Act No. 38 of 2000 and the regulations in terms of the CIDB Act 38 of 2000, Government Notice No. 692 of 9 June 2004, as amended.
- 19.14.5.1.2. The Contractor shall always maintain registration and confirm that it is registered with the CIDB, in a grading Designation equal to or higher than a grading Designation of 9EP. The Contractor shall, at the request of the Employer and/or Engineer, provide proof of a valid grading Designation of 9EP as issued by the

CIDB. Where the Contractor is a Joint Venture (incorporated or unincorporated) or a Consortium:

- 19.14.5.1.2.1. If unincorporated, every member of the Joint Venture/Consortium shall, for the duration of the Contract, have a valid registration with the CIDB and the lead Joint Venture partner/Consortium member shall, for the duration of the Contract, have a valid grading Designation of 9EP as issued by the CIDB;
- 19.14.5.1.2.2. If incorporated, the joint venture shall at the time of bidding have, and provide proof of, a valid combined Bidder grading Designation of 9EP as issued by the CIDB
- 19.14.5.1.2.3. The combined grading Designation calculated in accordance with the Construction Industry Development laws and regulations shall, for the duration of the Contract, equal to or be higher than a grading Designation determined in accordance with the Contract Price for a 9EP class of Construction work determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development laws and regulations.
- 19.14.5.1.3. The Contractor shall, on an uninterrupted basis, maintain a compliant CIDB grading Designation as was submitted as part of the Contractor's Proposal, and ensure that all of the Contractor's sub-contractors are compliant with their requisite CIDB grading Designations for their respective value of Works to be delivered, for the duration of the Contract. The Contractor shall further provide any proof and supporting documents of the CIDB grading Designation immediately upon receipt of a request from the Employer and/or Engineer. Failure of the Contractor to meet any of these CIDB Compliance Requirements at any time throughout the duration of the Contract shall give the Employer and/or Engineer an unprejudiced right to immediately apply penalties (as specified in the Employer's Requirements, this Contract and the RFP) for each incident (from the date that the Employer and/or Engineer decides is the date on which the incident commenced to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor). Failure in this regard shall further mean:
 - 19.14.5.1.3.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer and/or Engineer decides is the date on which the incident commenced to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.
 - 19.14.5.1.3.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty,

for each incident, will be the as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.

19.14.6. **ADDITIONAL PPPF-2022 COMPLIANCE REQUIREMENTS**

- 19.14.6.1.1. The Contractor shall, at no additional cost to the Employer, adhere to all related legislation (as amended from time to time) and any further instructions and targets that the Employer and/or Engineer may instruct the Contractor to comply with (on behalf of the Employer or on behalf of any other organ of the South African Government) throughout the duration of the Contract.
- 19.14.6.1.2. The Contractor shall follow the link <http://www.thedtic.gov.za> and go to the section titled “Sectors and Service” for more information on all minimum requirements related to B-BBEE and New Preferential Procurement laws and regulations that will apply for this Project. The Employer and/or Engineer does not accept any liability for provision of this link since the Contractor shall satisfy itself that all information is attained from the DTIC and any other relevant organ of the South African Government when preparing the Bidder Contractor’s Bid Proposal.
- 19.14.6.1.3. The Contractor shall, on an uninterrupted basis, comply with all Preferential Procurement laws, regulations and compliance requirements stated in the Employer’s Requirements. The Contractor shall further provide any proof and unredacted supporting documents proving compliance as specified throughout the Employer’s Requirements, this Contract and the RFP or immediately upon receipt of a request from the Employer and/or Engineer for the Contractor to do so. Failure of the Contractor to meet any of these requirements at any time throughout the duration of the Contract shall give the Employer and/or Engineer an unprejudiced right to immediately apply penalties (as specified in the Employer’s Requirements, this Contract and the RFP) for each incident (from the date that the Employer and/or Engineer decides is the date on which the incident commenced until the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor). Failure in this regard shall mean:
- 19.14.6.1.3.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer and/or Engineer decides is the date on which the incident commenced to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.

- 19.14.6.1.3.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.
- 19.14.6.1.3.3. The Contractor shall, on an uninterrupted basis, do all legal things necessary and comply with all Local Community Involvement compliance requirements stated in the Employer's Requirements. This shall include taking full responsibility of ensuring all necessary Local Community Involvement initiatives are fulfilled, and targets met, to ensure successful delivery of the Project and the whole of the Works for the entire duration of the Contract. The Contractor shall further provide any proof and unredacted supporting documents proving compliance as specified in the Employer's Requirements, this Contract and the RFP or immediately upon receipt of a request from the Employer and/or Engineer for the Contractor to do so. Failure of the Contractor to meet any of these requirements at any time throughout the duration of the Contract shall give the Employer and/or Engineer an unprejudiced right to immediately apply penalties (as specified in the Employer's Requirements) for each incident (from the date that the Employer and/or Engineer decides is the date on which the incident commenced until the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor). Failure in this regard shall mean:
- 19.14.6.1.3.3.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer and/or Engineer decides is the date on which the incident commenced to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.
- 19.14.6.1.3.3.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.

19.14.7. **ADDITIONAL NIP COMPLIANCE REQUIREMENTS**

- 19.14.7.1.1. The Contractor shall, at no additional cost to the Employer and/or Engineer, adhere to all related legislation (as amended from time to time) and any further instructions and targets that the Employer and/or Engineer may instruct the

Contractor to comply with (on behalf of the Employer or on behalf of any other organ of the South African Government) throughout the duration of the Contract.

- 19.14.7.1.2. The Contractor shall follow the link <http://www.thedtic.gov.za> and go to the section titled “Sectors and Service” for more information on all minimum requirements related to NIP that will apply for this Project. The Employer and/or Engineer does not accept any liability for provision of this link since the Contractor shall satisfy itself that all information is attained from the DTIC and any other relevant organ of the South African Government when preparing the Contractor’s Bid Proposal.
- 19.14.7.1.3. The Contractor shall, on an uninterrupted basis, comply with all National Industrial Participation (“NIP”) Programme and compliance requirements stated throughout the Employer’s Requirements. The Contractor shall further provide any proof and unredacted supporting documents proving compliance as specified throughout the Employer’s Requirements or immediately upon receipt of a request from the Employer and/or Engineer for the Contractor to do so. Failure of the Contractor to meet any of these requirements at any time throughout the duration of the Contract shall give the Contractor Employer and/or Engineer an unprejudiced right to immediately apply penalties (as specified throughout the Employer’s Requirements) for each incident (from the date that the Employer and/or Engineer decides is the date on which the incident commenced until the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Failure in this regard shall mean:
- 19.14.7.1.3.1. The Penalty, per incident, shall be payable for each elapsed calendar day calculated from the date that the Employer and/or Engineer decides is the date on which the incident commenced to the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor. Elapsed calendar days shall include the calendar day on which the incident commenced and the calendar day on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor.
- 19.14.7.1.3.2. The Penalty payable shall be calculated at 0.025% of the TCP multiplied by the number of elapsed calendar days, per incident, but shall not exceed 2.500% of the TCP per incident. The TCP that will be used for the calculation of the Penalty, for each incident, will be the as reflected in the latest Payment Certificate issued by the Employer and/or Engineer, at the time that the Penalty is to be calculated for each incident.

19.15. **STAFF AND LABOUR**

19.15.1. **ENGAGEMENT OF STAFF AND LABOUR**

- 19.15.1.1. Except as otherwise stated in the Employers Requirements, the Contractor shall make arrangements for the engagement of all Contractor's Personnel, and for their payment, accommodation, feeding, transport and welfare.
- 19.15.1.2. The Employer may, solely at the Employer's discretion and without consequence or liability to the Employer, instruct the Contractor to remove any of the Contractor's personnel deployed throughout the duration of this Contract for any reason deemed appropriate by the Employer.
- 19.15.1.3. The Contractor shall immediately comply with this instruction and appoint suitable replacement personnel within 60 calendar days of receiving such an instruction for which such replacement personnel shall first be approved in writing by the Employer and/or Engineer.
- 19.15.1.4. Failure of the Contractor to meet any of these requirements at any time throughout the duration of this Contract shall give the Employer and/or Engineer an unprejudiced right to immediately apply penalties (as specified throughout this Contract and the Employers Requirements) for each incident (from the date that the Employer and/or Engineer decides is the date on which the incident commenced until the date on which the Employer and/or Engineer confirms, in writing, that the Employer and/or Engineer is completely satisfied that the incident is completely resolved by the Contractor).

19.15.2. **RATES OF WAGES AND CONDITIONS OF LABOUR**

- 19.15.2.1. The Contractor shall pay rates of wages, and observe conditions of labour, which comply with all applicable Laws and are not lower than those established for the trade or industry where the work is carried out.
- 19.15.2.2. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by the Employer whose trade or industry is similar to that of the Contractor.

19.15.3. **RECRUITMENT OF PERSONS**

- 19.15.3.1. The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst the Employer's Personnel.
- 19.15.3.2. Neither the Employer nor the Engineer shall recruit, or attempt to recruit, staff and labour from amongst the Contractor's Personnel.
- 19.15.3.3. The Contractor shall further, as part of the Contract, provide a detailed list of personnel envisaged to be utilised on the project together with each person's function/roles/responsibilities and the hours of utilisation for each resource, further providing hourly rates for each person linked to each function/role/responsibility and the hours of utilisation for each resource. Such hourly rates shall transparently demonstrate the calculation of each hourly rate

(i.e., proven cost plus overhead plus profit) using the Department of Public Service and Administration ("DPSA") method.

19.15.4. **LABOUR LAWS**

- 19.15.4.1. The Contractor shall comply with all the relevant labour Laws applicable to the Republic of South Africa to the Contractor's Personnel, including Laws relating to their employment (including wages and working hours), health, safety, welfare, immigration and emigration, and shall allow them all their legal rights. The Contractor shall require the Contractor's Personnel to obey all applicable Laws, including those concerning health and safety at work.
- 19.15.4.2. The Contractor shall give all Notices, in writing, required by and shall comply with all Laws and Regulations applicable to the performance of the Works. Except where otherwise expressly required by applicable Laws and Regulations, neither the Employer nor the Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- 19.15.4.3. If the Contractor performs any Work(s) knowing or having reason to know that is contrary to the Laws or Regulations, the Contractor shall bear all Claims, costs, losses, Penalties and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work(s).
- 19.15.4.4. Changes in Laws or Regulations not known at the time of opening Bids having an effect on the cost or time of performance of the Work may be the subject of an adjustment in Contract Price or Contract Times. Should this event occur, the Contractor shall submit a detailed impact statement and motivation (including, but not limited to, detailed substantiation of the causes and effects and proof of actions taken by the Contractor to mitigate and/or minimise any loss) together with a detailed cost for consideration by the Employer and/or Engineer and for which the outcome of the consideration shall be at the sole discretion of the Employer and /or Engineer.
- 19.15.4.5. The Contractor shall, at no additional cost to the Employer, adhere to all related legislation (as amended from time to time) and any further instructions and targets that the Employer and/or Engineer may instruct the Contractor to comply with (on behalf of the Employer or on behalf of any other organ of the South African Government) throughout the duration of this Contract.

19.15.5. **WORKING HOURS**

- 19.15.5.1. No work shall be carried out on the Site(s) on locally recognised days of rest, or outside the normal working hours stated in this Contract, unless:
- 19.15.5.1.1. otherwise stated in this Contract;
- 19.15.5.1.2. the Employer and/or Engineer gives prior written approval; or

- 19.15.5.1.3. the work is unavoidable or necessary, for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately give a Notice to the Employer and/or Engineer with reasons and describing the work required and the Contractor has obtained the Employer and/or Engineer's prior written approval.
- 19.15.5.2. The Contractor shall comply with the following hours of work on Site(s):
- 19.15.5.2.1. Normal working hours on Site(s) means the hours of work, as determined by a wage regulating measure or statutory enactment for any trade or activity, in respect of which the basic minimum rate of pay is applicable and excludes all time for which a higher rate of pay is obligatory. Where no wage regulating measure is in force, the normal hours of work shall be 07h00 to 17h00 Mondays to Fridays, including statutory meal breaks.
- 19.15.5.2.2. The Contractor shall confine his work to normal working hours except when work outside these hours is:
- 19.15.5.2.2.1. Specifically provided for in this Contract;
- 19.15.5.2.2.2. Permitted, in writing, by the Employer and/or Engineer at the Contractor's request
- 19.15.5.2.2.3. Acceptance Testing and Commissioning may occur during undefined hours, and may include weekends, public holidays and night work, solely at the discretion of the Employer and/or Engineer and in accordance with Employer's Requirements.
- 19.15.5.3. In instances where the Contractor proposes to work outside normal working hours, the Contractor shall apply, in writing, to the Employer and/or Engineer at least 21 working days in advance, unless in the case of the work being unavoidable for the protection of life or property or for the safety of the Works. The Employer and/or Engineer's written approval is subject to such conditions as the Employer and/or Engineer may impose on the Contractor to protect the Employer and/or Engineer's interests. Such approval may be withdrawn by the Employer and/or Engineer at any time and without consequence and liability to the Employer and/or Engineer. The Contractor is not entitled to any claim for additional payment or time arising from either the Employer and/or Engineer's refusal to approve such work or granting of such approval or withdrawal of the approval by the Employer and/or Engineer.
- 19.15.6. **FACILITIES FOR STAFF AND LABOUR**
- 19.15.6.1. Except as otherwise stated in the Employer's Requirements, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel.

19.15.6.2. If such accommodation and facilities are to be located on the Site(s), except where the Employer has given the Contractor prior written permission, they shall be located within the areas identified in the Employer's Requirements. If any such accommodation or facilities are found elsewhere within the Site(s), the Contractor shall immediately remove them at the Contractor's risk and cost. The Contractor shall also provide facilities for the Employer and/or Engineers Personnel as stated in the Employer's Requirements.

19.15.6.3. The Contractor shall also provide facilities for the Employers Personnel and Engineers Personnel as stated in the Employers Requirements. In addition, the Contractor shall, for all Employer and/or Engineer's representatives (minimum 7 personnel or at any given instance as instructed by Employer and/or Engineer) and at the Contractor's cost, uncompromisingly provide all unlimited; Plant and Materials, facilities, samples, travel (air and rail and road), accommodation, meals, incidentals, unfettered access and any other means required for Employer and/or Engineer to attend and/or perform any local and international; inspections, Validation, Factory Acceptance Testing ("FAT"), Site Acceptance Testing ("SAT"), Tests on Completion, Commissioning, Completion and Taking Over of the Works by Employer (in Sections thereafter the whole of the Works).

19.15.7. **HEALTH AND SAFETY OF THE PERSONNEL**

19.15.7.1. The Contractor shall at all times take all necessary precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that:

19.15.7.1.1. medical staff, first aid facilities, sick bay, ambulance services and any other medical services stated in the Employer's Requirements are available at all times at the Site(s) and at any accommodation for the Contractor's and the Employer and/or Engineer's Personnel; and

19.15.7.1.2. suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

19.15.7.1.3. The Contractor shall appoint a health and safety officer at the Site(s), responsible for maintaining health, safety and protection against accidents. This officer shall:

19.15.7.1.3.1. be qualified, experienced and competent for this responsibility; and

19.15.7.1.3.2. have the authority to issue directives for the purpose of maintaining the health and safety of all personnel authorised to enter and/or work on the Site(s) and to take protective measures to prevent accidents.

19.15.7.2. Throughout the execution of the Works, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.

19.15.8. **CONTRACTOR'S SUPERINTENDENCE**

- 19.15.8.1. The Contractor (who is deemed to be an expert in the Works and the Project) shall supervise, inspect, and direct the Works competently and efficiently, devoting such attention thereto and applying such skills and experience as may be necessary to the Works in accordance with the Contract Documents. The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of management, design, construction, operations and maintenance to deliver the Works and the Project to the satisfaction of the Employer under the provisions of this Contract.
- 19.15.8.2. At all times during the progress of the Work, the Contractor shall assign a competent resident superintendent who shall not be replaced without prior written Notice and approval by the Employer and/or Engineer except under extraordinary circumstances. The superintendent will be the Contractor's representative at the Site(s) and shall have authority to act on behalf of the Contractor. All communications given to or received from the superintendent shall be binding on the Contractor.
- 19.15.8.3. From the Commencement Date until the issue of the Performance Certificate, the Contractor shall provide all necessary superintendence to plan, arrange, direct, manage, inspect, test and monitor the execution of the Works. Superintendence shall be given by a sufficient number of persons:
- 19.15.8.3.1. who are fluent in English; and
- 19.15.8.3.2. who have adequate knowledge of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents)
- 19.15.8.4. for the satisfactory and safe execution of the Works.

19.16. **OBLIGATIONS (ROYALTIES)**

- 19.16.1. Unless otherwise stated in the Employer's Requirements, the Contractor shall pay all royalties, rents, licence fees, and other payments for:
- 19.16.1.1. natural materials obtained from outside the Site(s); and
- 19.16.1.2. the disposal of material from demolitions and excavations and of other surplus material (whether natural or man-made), except to the extent that disposal areas within the Site(s) are specified in the Employer's Requirements.

19.17. **REPORTING OF FAULTS AND FAILURES**

- 19.17.1. The Contractor shall keep the Duty Manager in the CTCC informed of all Site(s) activities so that each may be contacted without delay in case of an emergency.
- 19.17.2. The Contractor shall keep the Employer and/or Engineer and the Duty Manager in the CTCC informed of the names of all personnel who are available to receive calls during specific periods.

19.18. **OCCUPATIONS**

- 19.18.1. Before the Contractor undertakes work involving Track crossings, the Occupation of the Track, dead orders or other interruption of the Employer's and/or TFR's services, the Contractor shall submit a request for an Occupation in writing to the Employer and/or Engineer.
- 19.18.2. The Contractor shall contact the Employer and/or Engineer the calendar day before the date of an Occupation to ascertain whether the Occupation is going ahead and whether the Occupation details have changed. The Employer and/or Engineer is at liberty to cancel or postpone any Occupation at any time and at the Employer's and/or the Engineer's sole discretion for which the Employer and/or Engineer shall not accept any liability therefore the Contractor shall accept all liability and consequence for such cancelation or postponement further absorbing any loss of time within the Approved Programme/Contract Programme
- 19.18.3. The Contractor shall provide the Employer and/or Engineer with a detailed Occupation plan for acceptance, showing details of:
- 19.18.3.1. All decommissioning activities.
- 19.18.3.2. All disciplines involved.
- 19.18.3.3. Hours of work.
- 19.18.3.4. All Equipment, personnel, Plant and Materials and other resources the Contractor plans to use on the Occupation.
- 19.18.3.5. Activities that have already been completed in preparation for the Occupation.
- 19.18.3.6. Activities that still needs to be completed in preparation for the Occupation.
- 19.18.3.7. Programme of work for the Occupation.
- 19.18.3.8. All portions of existing Installations that shall be affected by the Works, including a detailed method statement on what measures the Contractor shall implement to minimise the Occupation duration and how the existing Installations shall be protected/isolated from safety risks and disruption.
- 19.18.3.9. Submission of the Occupation plan serves as confirmation that the Contractor shall use the Occupation subject to approval in writing by the Employer and/or Engineer. Failure to submit an Occupation plan puts the Occupation at risk of being cancelled.
- 19.18.3.10. The Contractor shall provide qualified flagmen with detonators, radios and all other Equipment to protect trains where the Works affect safety of trains.

- 19.18.3.11. The Contractor shall provide protection to all personnel from the danger of passing trains.
- 19.18.3.12. Before disconnecting or working on any Plant and Materials and/or Equipment connected to a working System, the Contractor shall take a local Occupation. Cooperation with the operating staff is essential for safe working and for the efficient completion of work.
- 19.18.3.13. When an Occupation for work on an existing Installation takes longer than expected, the Contractor shall promptly notify the Employer and/or Engineer who then applies for an extended Occupation.
- 19.18.3.14. All safety precautions in the Employer's and/or TFR's Train Working Rules ("TWR") shall apply.
- 19.18.3.15. The Contractor shall provide all points clamps complete with padlocks, and signal crosses and blanking plates for the protection of trains.
- 19.19. **OPERATIONAL READINESS**
- 19.19.1. The Contractor shall conduct an operational readiness assessment before the Commissioning of each Section and implement required action to ensure operational readiness by the time of Commissioning.
- 19.19.2. The Contractor shall ensure operational readiness before Commissioning starts for each Section through at least the following activities:
 - 19.19.2.1. Change management.
 - 19.19.2.2. Operating procedure development.
 - 19.19.2.3. Maintenance strategy and procedure development.
 - 19.19.2.4. Training and Technology transfer.
- 19.19.3. The Contractor shall conduct change management sessions for PRASA Corporate, PRASA Rail, PRASA Tech, PRASA's Region Management, Train Traffic Control personnel, Train driver personnel, Technical personnel and all other effected parties, including third parties such as TFR and the RSR.
- 19.19.4. Various change management session is held to accommodate shift working and operational restrictions and requirements.
- 19.19.5. Change management shall be conducted in the form of a presentation, covering at least the following topics:
 - 19.19.5.1. Background on Project
 - 19.19.5.2. The benefits of the new System

- 19.19.5.3. Key changes
- 19.19.5.4. Project status and timelines
- 19.19.6. The Contractor shall submit the change management plan and relevant presentations and documentation to the Employer and/or Engineer for approval prior to implementation.
- 19.19.7. The Contractor shall update and resubmit the change management plan and relevant presentations and documentation as and when necessary and submit it to the Employer and/or Engineer for approval.
- 19.19.8. The Contractor shall review the Train Working Rules ("TWR"), all relevant operating procedures and local instructions and identify required changes.
- 19.19.8.1. Identified required changes are submitted to the Employer and/or Engineer for approval and updating of the TWS, relevant operating procedures and local instructions.
- 19.19.8.2. The TWS, relevant operating procedures and local instructions are updated prior to Commissioning of the first Section or prior to the Commissioning of a specific Section that the changes are relevant to.
- 19.19.8.3. Where it is not practical to update the TWS and/or operating procedures prior to Commissioning, the change can be addressed by means of a local instruction with prior written approval from the Employer and/or Engineer.
- 19.19.9. The Contractor shall review all relevant Maintenance strategies and Maintenance procedures and identify required changes and develop new Maintenance strategies and Maintenance procedures where required for new Technology implemented as part of the Project.
- 19.19.10. Identified required changes are submitted to the Employer and/or Engineer for approval and updating of the required Maintenance strategies and procedures.
- 19.19.11. The relevant Maintenance strategies and procedures are updated prior to Commissioning of the first Section or specific Sections where the changes are relevant.
- 19.19.12. The Maintenance strategies and procedures are updated in accordance to the approved Employer and/or Engineer format.
- 19.19.13. For each type of Plant and Materials to be installed as part of the Project, the Contractor shall produce Installation procedures document(s) containing:
 - 19.19.13.1. Detailed Installation methods.
 - 19.19.13.2. Detailed Testing procedures.

19.19.14. The Contractor shall for all systems, sub-systems and Plant and Materials installed as part of the Project define nomenclature and asset componentization structures according to the Employer and/or Engineer standards.

19.20. **TRAINING AND TECHNOLOGY TRANSFER**

19.20.1. The Contractor shall, for all the Employer's and the Engineer's representatives (minimum 8 personnel or at any given instance as instructed by the Employer and/or Engineer) and at the Contractor's cost, arrange detailed EAS technical training by an accredited training facility to be delivered within 6 (six) calendar months from the Completion Date.

19.20.2. The Contractor shall be responsible for the cost of the course, travel, accommodation and any other cost related to the attendance of the training.

19.20.3. The Contractor shall, at a minimum, provide all necessary Training (Theoretical, Practical, Technical and Operational), as instructed by the Employer and/or Engineer, for all the Employer's TCO's, Section Managers and Duty Managers in GP, KZN and WC as follows:

19.20.3.1. Various Training sessions conducted to accommodate shift working.

19.20.3.2. Traffic Control personnel working specific Sections are not trained more than 2 months prior to the Commissioning of that Section.

19.20.3.3. Traffic Control personnel Training consists of an operating procedure module and an Equipment module. The operating procedure module includes all changes to the operating procedures and rules. The Equipment module provides Training on how to operate the newly installed PTCS and associated Systems.

19.20.3.4. The Training includes a theoretical session as well as a practical session on the Training simulator.

19.20.3.5. Any other Training as instructed in writing by the Employer and/or Engineer.

19.20.4. The Contractor shall, at a minimum, provide all necessary Training (Theoretical, Practical, Technical and Operational), as instructed by the Employer and/or Engineer, for all the Employer and/or Engineer's and TFR Train Drivers, Section managers, Track Masters and other relevant train driver personnel in GP, KZN and WC:

19.20.4.1. Various Training sessions conducted to accommodate shift working.

19.20.4.2. Train driver personnel working specific Sections are not trained more than 2 months prior Commissioning of that Section.

- 19.20.4.3. Train Driver personnel Training consists of an operating procedure module including all changes to the operating procedures and rules.
- 19.20.4.4. The Training includes a theoretical session as well as a practical session on the Training simulator.
- 19.20.4.5. Any other Training as instructed in writing by the Employer and/or Engineer.
- 19.20.5. The Contractor shall, at a minimum, provide all necessary Training (Theoretical, Practical, Technical and Operational), as instructed by the Employer and/or Engineer, for all the Employer and/or Engineer's Maintenance personnel and associated managers in GP, KZN and WC as specified throughout the Employers Requirements:
 - 19.20.5.1. Various Training sessions for the different Training modules are conducted to accommodate the Employer and/or Engineer's operational constraints and requirements.
 - 19.20.5.2. Maintenance personnel working specific Sections are not trained more than 2 months prior to the Installation work for the specific discipline commencing in that Section.
 - 19.20.5.3. Training is provided for all and any proprietary Plant and Materials or new Technology installed as part of the Project.
 - 19.20.5.4. Different Training modules are provided for different level maintainers as per the developed Maintenance strategy.
 - 19.20.5.5. Training is focused on installation, maintenance, condition monitoring, fault finding and fault correction at the appropriate level as per the developed Maintenance strategy.
 - 19.20.5.6. Training is conducted for each individual Equipment type and new Technology installed as part of the project, as well as all sub-Systems and the EAS as a whole, including all interfaces.
 - 19.20.5.7. The Training includes a theoretical session, a practical session on the Training simulator or an actual Installation, as well as on the job Training during Construction, Testing and Commissioning.
 - 19.20.5.8. Courses include practical exposure to the actual Installations involved as well as the use of any Test Equipment supplied.
 - 19.20.5.9. Any other Training as instructed in writing by the Employer and/or Engineer.
- 19.20.6. The Contractor shall, at a minimum, provide Technical Refresher Training for all the Employer and/or Engineer's Maintenance personnel and associated managers as specified throughout the Employers Requirements:

- 19.20.6.1. Various Training sessions for the different Training modules are conducted to accommodate the Employer and/or Engineer's operational constraints and requirements.
- 19.20.6.2. Refresher training is provided 8 months prior to the end of the Maintenance, Warranty and Defects Liability period.
- 19.20.6.3. Training is provided for all and any proprietary Plant and Materials or new Technology installed as part of the Project.
- 19.20.6.4. Different Training modules are provided for different level maintainers as per the developed Maintenance strategy.
- 19.20.6.5. Training is focused on installation, maintenance, condition monitoring, fault finding and fault correction at the appropriate level as per the developed Maintenance strategy.
- 19.20.6.6. Training is conducted for each individual Equipment type and new Technology installed as part of the project, as well as all sub-Systems and the holistic EAS (including all interfaces).
- 19.20.6.7. The Training includes a theoretical session, a practical session on the Training simulator or an actual Installation, as well as at least 6 months on the job Training during the Maintenance, Warranty and Defects Liability period.
- 19.20.6.8. Courses include practical exposure to the actual Installations involved as well as the use of any Test Equipment supplied.
- 19.20.6.9. Any other Training as instructed in writing by the Employer and/or Engineer.
- 19.20.7. The Contractor shall train all relevant Employer and/or Engineer and TFR technical and operational trainers and provide the trainers with Training Material to continue Training activities after the Completion Date. The Contractor shall certify the trainer competent to conduct Training for a specified module. The Contractor repeats trainer Training up to 3 times for each module where required to ensure trainer competence.
- 19.20.8. The Contractor shall train at least 10 members of the Employer and/or Engineer's Project staff on the Installation, operation, Maintenance and fault finding of any proprietary Plant and Materials and new Technology including, but not limited to:
 - 19.20.8.1. Design checking staff before acceptance checking of plans.
 - 19.20.8.2. the Employer and/or Engineer's Site(s) representatives before Installation starts.
 - 19.20.8.3. 3 Persons doing acceptance Testing and Commissioning before Commissioning starts.

- 19.20.9. The Contractor shall provide Training to at least 10 members of the Employer and/or Engineer's staff to do data Engineering and configuration changes including, but not limited to:
- 19.20.9.1. Trainee competences are evaluated through a formal assessment.
- 19.20.9.2. Competent trainees are certified as competent to do data Engineering and configuration changes.
- 19.20.10. All Training and courses shall be presented in English. Comprehensive student notes are prepared in English and issued to all course attendants.
- 19.20.11. The Contractor shall submit the Training concept, Training plan and Training Material to PRASA for approval before the commencement of Training.
- 19.20.12. The Contractor shall arrange for Technology transfer to the Employer and/or Engineer. The Contractor shall provide comprehensive Installation manuals, Maintenance manuals, operating manuals and Spares catalogues for all Plant and Materials, and for Test Equipment installed or used as part of the Contract and Project.
- 19.20.13. The Contractor shall submit at least 5 copies of complete sets of draft manuals in English to the Employer and/or Engineer for approval.
- 19.20.14. The Contractor shall submit at least 12 copies of complete sets of manuals in English to the Employer and/or Engineer in compliance with the approved Project Programme. In addition, the Contractor shall submit at least 12 copies stored on DVDs for all approved Manuals.
- 19.20.15. All Printouts shall be bound with hard covers and of detachable design. Convenience of detaching pages within the manuals shall be put into consideration. All Manuals shall adopt A4 size with double side printed pages except reference drawings that shall use A3 size with single side printed pages.
- 19.20.16. The Manuals shall be consistent in format, layout, identifiers and revisions approved in writing by the Employer and/or Engineer. A master index covering all individual manuals' versions shall be provided. The master index shall bear a unique number which shall be revised when an individual manual is updated.

20. **FORCE MAJEURE / UNFORESEEABLE PHYSICAL CONDITION**

20.1. **UNFORESEEABLE PHYSICAL CONDITIONS**

- 20.1.1. In this Contract, "physical conditions" means natural physical conditions and physical obstructions (natural or man-made) and pollutants, which the Contractor encounters at the Site(s) during execution of the Works, including

sub-surface and hydrological conditions but excluding climatic conditions at the Site(s) and the effects of those climatic conditions.

20.1.2. If the Contractor encounters physical conditions which the Contractor considers to have been Unforeseeable and that will have an adverse effect on the progress of the execution of the Works, the following procedure shall apply.

20.1.3. Contractor's Notice

20.1.3.1. After discovery of such physical conditions, the Contractor shall give a Notice to the Engineer, which shall:

20.1.3.1.1. be given as soon as practicable and in good time to give the Engineer opportunity to inspect and investigate the physical conditions promptly and before they are disturbed;

20.1.3.1.2. describe the physical conditions, so that they can be inspected and/ or investigated promptly by the Engineer;

20.1.3.1.3. set out the reasons why the Contractor considers the physical conditions to be Unforeseeable; and

20.1.3.1.4. describe the manner in which the physical conditions will have an adverse effect on the progress of the execution of the Works.

20.1.3.2. Engineer's inspection and investigation

20.1.3.2.1. The Engineer shall inspect and investigate the physical conditions within 21 calendar days, or longer period determined by the Engineer, after receiving the Contractor's Notice.

20.1.3.2.2. The Contractor shall continue execution of the Works, using such proper and reasonable measures as are appropriate for the physical conditions and to enable the Engineer to inspect and investigate them.

20.1.3.3. Engineer's instructions

20.1.3.3.1. The Contractor shall comply with any instructions which the Engineer may give for dealing with the physical conditions.

20.1.3.4. Delay

20.1.3.4.1. If and to the extent that the Contractor suffers a delay(s) due to these physical conditions, the Contractor shall, having complied with the provisions of this Contract, be entitled to claim EOT only.

20.1.3.5. Agreement or Determination of Delay

- 20.1.3.5.1. The Agreement or Determination by the Engineer, under this Contract, of any Claim under this Contract shall include consideration of whether and (if so) to what extent the physical conditions were Unforeseeable.
- 20.1.3.5.2. The Engineer may also review whether other physical conditions in similar parts of the Works (if any) were more favourable than could reasonably have been foreseen.
- 20.1.3.5.3. The Engineer may take account of any evidence of the physical conditions foreseen by the Contractor, which the Contractor may include in the supporting particulars for the EOT Claim under this Contract, but the Engineer shall not be bound by any such evidence.

20.2. **EXCEPTIONAL EVENTS**

20.2.1. **EXCEPTIONAL EVENTS**

- 20.2.1.1. "Exceptional Event" means an event or circumstance which:
 - 20.2.1.1.1. is beyond a Party's control;
 - 20.2.1.1.2. the Party could not reasonably have provided against before entering into this Contract;
 - 20.2.1.1.3. having arisen, such, Party could not reasonably have avoided or overcome; and
 - 20.2.1.1.4. is not substantially attributable to the other Party.
- 20.2.1.2. An Exceptional Event may comprise but is not limited to any of the following events or circumstances provided that conditions (i) to (iv) above are satisfied:
 - 20.2.1.2.1. Epidemics and/or pandemics;
 - 20.2.1.2.2. war, hostilities (whether war be declared or not), invasion, act of foreign enemies;
 - 20.2.1.2.3. rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war;
 - 20.2.1.2.4. riot, commotion or disorder by persons other than the Contractor's Personnel and other employees of the Contractor and Subcontractors;
 - 20.2.1.2.5. strike or lockout not solely involving the Contractor's Personnel and other employees of the Contractor and Subcontractors;
 - 20.2.1.2.6. encountering munitions of war, explosive materials, poisoning radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity; or

20.2.1.2.7. natural catastrophes such as earthquake, tsunami, volcanic activity hurricane or typhoon.

20.2.2. **NOTICE OF EXCEPTIONAL EVENT**

20.2.2.1. If a Party is or will be prevented from performing any obligations under this Contract due to an Exceptional Event (the "affected Party" in this Clause), then the affected Party shall give a Notice, in writing, to the other Party of such an Exceptional Event, and shall specify the obligations, the performance of which is or will be prevented (the "prevented obligations" in this Clause).

20.2.2.2. This Notice shall be given within 14 calendar days after the affected Party became aware, or should have become aware, of the Exceptional Event, and the affected Party shall then be excused performance of the prevented obligations from the date such performance is prevented by the Exceptional Event.

20.2.2.3. If this Notice is received by the other Party after the period of 14 days, the affected Party shall be excused performance of the prevented obligations only from the date on which this Notice is received by the other Party.

20.2.2.4. Thereafter, the affected Party shall be excused performance of the prevented obligations for so long as such Exceptional Event prevents the affected Party from performing them. Other than performance of the prevented obligations, the affected Party shall not be excused performance of all other obligations under this Contract.

20.2.2.5. However, the obligations of either Party to make payments due to the other Party under this Contract shall not be excused by an Exceptional Event.

20.2.3. **DUTY TO MINIMIZE DELAY**

20.2.3.1. Each Party shall at all times use all reasonable endeavours to minimize any delay in the performance of this Contract as a result of an Exceptional Event.

20.2.3.2. If the Exceptional Event has a continuing effect, the affected Party shall give further Notices, in writing, describing the effect every 28 calendar days after giving the first Notice under this Contract.

20.2.3.3. The affected Party shall immediately give a Notice, in writing, to the other Party when the affected Party ceases to be affected by the Exceptional Event. If the affected Party fails to do so, the other Party may give a Notice to the affected party stating that the other Party considers that the affected Party's performance is no longer prevented by the Exceptional Event, with reasons.

20.2.4. **CONSEQUENCES OF AN EXCEPTIONAL EVENT**

20.2.4.1. Where the Contractor is the affected Party and suffers delay and/or incurs Cost by reason of the Exceptional Event of which he/she gave a Notice, in writing,

under Sub-Clause Notice of an Exceptional Event, the Contractor shall be entitled subject under this Contract to:

20.2.4.1.1. EOT

21. **MISCELLANEOUS MATTERS**

21.1. **SETTING OUT**

21.1.1. The Contractor shall set out the Works in relation to the Employers Requirements, the RFP, as stated elsewhere under this Contract or as otherwise instructed by the Employer and/or Engineer to achieve successful completion of the Works to the satisfaction of the Employer.

21.1.2. Accuracy

21.1.2.1. The Contractor shall, at the Contractors risk:

21.1.2.1.1. verify the accuracy of all these items of reference before they are used for the Works.

21.1.2.1.2. promptly deliver the results of each verification to the Engineer.

21.1.2.1.3. rectify any error in the positions, levels, dimensions, or alignment of the Works; and

21.1.2.1.4. be responsible for the correct positioning of all parts of the Works.

21.1.3. Errors

21.1.3.1. If the Contractor finds an error in any items of reference, the Contractor shall, within 28 calendar days of becoming aware or ought to have become aware, give a written Notice to the Engineer describing the error in detail for Agreement or Determination by the Engineer.

21.1.4. Agreement or Determination of rectification measures, delay and/or Cost

21.1.4.1. After receiving a Notice from the Contractor under this Contract, the Engineer shall proceed to agree or determine:

21.1.4.1.1. whether or not there is an error in the items of reference.

21.1.4.1.2. whether or not (taking account of cost and time) an experienced contractor exercising due care would have discovered such error.

21.1.4.1.3. when examining the Site(s) and the Employer's Requirements; or

21.1.4.1.4. when scrutinizing the Employer's Requirements under this Contract], if the items of reference are specified in the Employer's Requirements and the

Contractor's Notice is given after the expiry of the period stated in this Contract;
and

- 21.1.4.1.5. what measures (if any) the Contractor is required to take to rectify the error including the time within which the Contractor shall rectify the error.

21.2. **ASSIGNMENT**

- 21.2.1. The Contractor shall not be entitled to cede, transfer or make over any rights and/or duties in terms of this agreement to any third party.

- 21.2.2. The Contractor:

- 21.2.2.1. Shall not assign the whole or any part of this Contract without prior approval of the Employer, at the sole discretion of the Employer; and

- 21.2.2.2. Shall not, as security in favour of a bank or financial institution, or its financier assign its right to any moneys due, or to become due, under this Contract without prior approval of the Employer.

21.3. **ERRORS IN EMPLOYER'S REQUIREMENTS**

- 21.3.1. If the Employer or the Engineer becomes aware of an error or defect (whether of a technical nature or otherwise) in a document which was prepared by or on behalf of the Contractor for use in the execution of the Works, the Party (or the Engineer) shall promptly give a Notice of such error or defect to the other Party (or to the Parties). The Contractor shall then rectify the error or defect at the Contractor's risk and cost within the period stipulated by the Engineer.

21.4. **EMPLOYER'S USE OF CONTRACTORS DOCUMENTS (INTELLECTUAL AND INDUSTRIAL PROPERTY)**

- 21.4.1. The Contractor's Intellectual and Industrial Property shall, at a minimum, mean all of the Contractor's documents, designs, procedures, manuals, training Material, reports, patents, registered designs, copyrights, trademarks, trade names, trade secrets, technology, software and other intellectual or industrial property rights relating to the RFP, the Contract and the Employer's Requirements.

- 21.4.2. The Contractor shall be deemed, by signing this Contract, to transparently transfer ownership of the Contractor's Intellectual and Industrial Property to the Employer.

- 21.4.3. The Contractor shall be deemed, by signing the Contract, to transparently give the Employer full non-terminable transferable non-exclusive royalty-free ownership to copy, use and communicate the Contractor's Intellectual and Industrial Property including making and using modifications of them as required by the Employer. This ownership shall, at a minimum:

- 21.4.3.1. Apply throughout the duration of the Contract or the actual or the intended useful and/or working life (whichever is longer) of the relevant Sections of the Works and/or the whole of the Works (regardless of the Works being of a temporary or permanent nature);
- 21.4.3.2. Entitle any of the Employer's approved entity or person in proper possession of the relevant Section of the Works or the whole of the Works (regardless of the Works being of a temporary or permanent nature) to copy, use and communicate the Contractor's Intellectual and Industrial Property for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing Sections of the Works and/or the whole of the Works (regardless of the Works being of a temporary or permanent nature); and
- 21.4.3.3. In the case of the Contractor's Intellectual and Industrial Property, permit use of the Contractor's Intellectual and Industrial Property on any of the Employer's approved computer on and off the Site(s) and other places as envisaged by the Employer, including replacements of any computers supplied by the Contractor.
- 21.4.4. All Contract and Project documentation and data, including but not limited to; Designs, procedures, manuals, Training Material, reports and other documents produced as part of the Works under the Contract, shall immediately become the intellectual property of the Employer on acceptance/approval of the document by the Employer and/or Engineer, to be used, modified or distributed by the Employer in any way the Employer sees fit, not compromising the intellectual property rights or safety case of the EAS.
- 21.4.5. All software configuration files shall immediately become the intellectual property of the Employer on the date of Commissioning or the date of Payment (whichever comes first) of such software, to be used, modified or distributed by the Employer in any way the Employer sees fit.
- 21.4.6. The Contractor's Intellectual and Industrial Property made by (or on behalf of) the Contractor shall, at the Employer's discretion, be used, copied or communicated to the Employer's approved third Party by (or on behalf of) the Employer for purposes deemed necessary by the Employer.
- 21.4.7. Existing information, approved Designs and as-built drawings relevant to some of the Works may, at the discretion of the Employer, be supplied to the Contractor in PDF, TIFF or DWG Software format, for updating and to aid the Contractor with Planning and Design development.
- 21.4.8. The Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Works. In addition, as part of the Contractor's Proposal and the delivery of the Works), the Contractor shall be deemed to have inspected and examined the information provided, and to have been satisfied before submitting the Contractor's Proposal as to all matters relevant to the execution of the Works.

21.5. **CONTRACTOR'S USE OF EMPLOYER'S DOCUMENTS**

21.5.1. As between the Parties, the Employer shall retain the copyright and other intellectual property rights in the Employer's Requirements and other documents made by (or on behalf of) the Employer. The Contractor may, at the Contractor's cost, copy, use and communicate these documents for the purposes of the execution of the Works prescribed in this Contract only.

21.5.2. These documents (in whole or in part) shall not, without the Employer's prior approval, be copied, used, or communicated to a third party by the Contractor, except as necessary for the purposes of this Contract.

21.6. **CONFIDENTIALITY**

21.6.1. The Contractor shall disclose all such confidential and other information, in unredacted formats and any other format, as the Employer or Engineer may require in order to verify the Contractor's compliance with this Contract.

21.6.2. The Contractor shall treat all privileged information and documents forming this Contract and as part of the Project as confidential, except to the extent necessary to carry out the Contractor's obligations under this Contract. The Contractor shall not publish, permit to be published, or disclose any particulars of this Contract and the Project or any of the Employer's information in any trade or technical paper or elsewhere without the Employer's prior approval.

21.6.3. The Employer and the Engineer shall treat all information provided by the Contractor and marked "confidential", as confidential. The Employer and the Engineer shall not unreasonably disclose or permit to be disclosed any such information to third parties, except as may be necessary when exercising the Employer's rights under Sub-Clause [Termination for Contractor's Default] and any other purpose as deemed necessary by the Employer.

21.6.4. A Party's obligation of confidentiality under this Sub-Clause shall not apply where the information:

21.6.4.1. was already in that Party's possession without an obligation of confidentiality before receipt from the other Party.

21.6.4.2. becomes generally available to the public through no breach of these Conditions; or

21.6.4.3. Is lawfully obtained by the Party from a third party which is not bound by an obligation of confidentiality.

21.7. **COMPLIANCE WITH LAWS**

21.7.1. The Employer, the Engineer and the Contractor shall, in performing this Contract, comply with all applicable Laws.

21.7.2. Unless otherwise stated in the Employer's Requirements:

- 21.7.2.1. the Contractor shall have obtained (or shall obtain) the planning, zoning or building permit or similar permits, permissions, licences and/or approvals for the temporary and Permanent Works, and any other permits, permissions, licenses and/or approvals described in the Employer's Requirements and as required to successfully deliver the Project as having been (or being) obtained by the Contractor. The Contractor shall indemnify and hold the Employer harmless against and from the consequences of any delay or failure to do so.
- 21.7.2.2. the Contractor shall give all Notices, pay all taxes, duties, and fees, and obtain all other permits, permissions, licences and/or approvals, as required by the Laws in relation to the execution of the Works. The Contractor shall indemnify and hold the Employer harmless against and from the consequences of any failure to do so.
- 21.7.2.3. within the time(s) stated in the Employer's Requirements, or sooner, the Contractor shall provide such assistance and all documentation, as described in the Employer's Requirements or otherwise required by the Contractor, so as to allow the Contractor to obtain any permit, permission, licence or approval under sub-paragraph 1.13.1.1 above; and
- 21.7.2.4. the Contractor shall comply with all permits, permissions, licences and/ or approvals obtained by the Contractor under sub-paragraph 1.13.1.1 above.
- 21.7.3. If, having complied with sub-paragraph 1.13.1.3 above, the Employer suffers delay and/or incurs Cost as a result of the Contractor's delay or failure to obtain any permit, permission, licence or approval under sub-paragraph 1.13.1.1 above, the Employer shall be entitled to claim Delay Damages and any other damages.

21.8. **JOINT AND SEVERAL LIABILITY**

- 21.8.1. If the Contractor is a Joint Venture:
- 21.8.1.1. the members of the JV shall be jointly and severally liable to the Employer for the performance of the Contractor's obligations under this Contract.
- 21.8.1.2. the JV leader shall have authority to bind the Contractor and each member of the JV; and
- 21.8.1.3. neither the members nor (if known) the scope and parts of the Works to be carried out by each member nor the legal status of the JV shall be altered without the prior consent of the Employer (but such consent shall not relieve the altered JV from any liability under sub-paragraph 1.14.1.1 above.
- 21.8.2. If the Contractor is a Consortium:

- 21.8.2.1. the members of the Consortium shall be jointly and severally liable to the Employer for the performance of the Contractor's obligations under this Contract.
- 21.8.2.2. the Consortium leader shall have authority to bind the Contractor and each member of the Consortium; and
- 21.8.2.3. neither the members nor (if known) the scope and parts of the Works to be carried out by each member nor the legal status of the Consortium shall be altered without the prior consent of the Employer (but such consent shall not relieve the altered Consortium from any liability under sub-paragraph 1.14.1.1 above.

21.9. **LIMITATION OF LIABILITY**

- 21.9.1. Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with this Contract, other than under:
 - 21.9.1.1. Sub-Clause 8.8 [Delay Damages].
 - 21.9.1.2. sub-paragraph 13.3.1.2.3 of Sub-Clause 13.3.1 [Variation by Instruction].
 - 21.9.1.3. Sub-Clause 15.7 [Payment after Termination for The Employer's Convenience].
 - 21.9.1.4. Sub-Clause 16.4 [Payment after Termination by Contractor].
 - 21.9.1.5. Sub-Clause 17 .3 [Intellectual and Industrial Property Rights].
 - 21.9.1.6. the first paragraph of Sub-Clause 17.4 [Indemnities by Contractor] and
 - 21.9.1.7. Sub-Clause 17.5 [Indemnities by The Employer].
- 21.9.2. The total liability of the Contractor to the Employer under or in connection with this Contract, other than:
 - 21.9.2.1. under Sub-Clause 2.6 [The Employer-Supplied Materials and The Employer's Equipment]
 - 21.9.2.2. under Sub-Clause 4.19 [Temporary Utilities]
 - 21.9.2.3. under Sub-Clause 17.3 [Intellectual and Industrial Property Rights] and under the first paragraph of Sub-Clause 17.4 [Indemnities by Contractor] and may exceed the sum stated in this Contract or (if a sum is not so stated) the Accepted Contract Amount. This Sub-Clause shall not limit liability in any case of fraud, gross negligence, deliberate default, or reckless misconduct by the Contractor.

21.10. **INTELLECTUAL PROPERTY**

21.11. **ROYALTIES**

21.11.1. The Contractor shall pay all license fees and royalties and assume all costs incidental to the use in the performance of the Works or the incorporation in the Works of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others.

21.11.2. To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless the Employer and/or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incidental to the use in the performance of the Work or resulting from the incorporation in the Works of any invention, design, process, product, or device.

21.12. **GAINSHARE AND PAINSHARE MECHANISM**

21.12.1.1. The Contractor shall have a shared interest in the overall success of the Project.

21.12.1.2. The Employer may (at the Employer's discretion), subject to absolute transparency and provision of unredacted comprehensive information and proven costs from the Contractor, introduce sharing any savings relating to any cost items included in the TCP, on an equal basis with the Contractor (50% to the Employer and 50% to Contractor).

21.12.1.3. The Employer may (at the Employer's discretion) is, subject to absolute transparency and provision of unredacted comprehensive information and proven costs from the Contractor, introduce sharing any proven cost overruns relating to variations included in the TCP, on an equal basis with the Contractor (50% to the Employer and 50% to Contractor).

21.12.1.4. This mechanism, if introduced by the Employer, shall not apply to Suspension and/or Termination and/or similar of Sections of the Works and/or the whole of the Works and/or the Contract.

21.12.1.5. The Gainshare and Painshare mechanism having been discussed, finalised and agreed between the Employer and the Contractor during Contract negotiations (if at all) included in this Contract and the Employer reserves the right to further introduce this mechanism throughout the duration of the Contract (if at all) at the Employer's discretion.

21.12.1.6. Mention of this mechanism in the RFP and this contract does did not relieve the Contractor of the Contractor's obligation to successfully deliver the Works as stipulated in the Employer's Requirements, this Contract and the RFP to the complete satisfaction of the Employer.

21.13. **NOTICES AND OTHER COMMUNICATIONS**

- 21.13.1. Wherever these Conditions provide for the giving of a Notice (including a Notice of Dissatisfaction) or the issuing, providing, sending, submitting or transmitting of another type of communication (including acceptance, acknowledgement, advising, agreement, approval, certificate, Claim, consent, decision, determination, discharge, instruction, No-objection, record(s) of meeting, permission, proposal, record, reply, report, request, Review, Statement, statement, submission or any other similar type of communication), the Notice or other communication shall be in writing and:
- 21.13.1.1. Shall be:
- 21.13.1.1.1. A paper-original signed by the Contractor's Representative, the Engineer, or the authorised representative of the Employer (as the case may be); or
- 21.13.1.1.2. an electronic original generated from any of the systems of electronic transmission stated in the Contract (if not stated, system(s) acceptable to the Employer and the Engineer), where the electronic original is transmitted by the electronic address uniquely assigned to each of such authorised representatives, or both, as stated in these Conditions; and
- 21.13.1.1.3. If it is a Notice, it shall be identified as a Notice and reference the relevant clause(s) of this Contract in terms of which the Notice is issued. If it is another form of communication, it shall be identified as such and include reference to the provision(s) of this Contract under which it is issued.
- 21.13.1.2. Delivered by hand (against receipt), or sent by mail or courier (against receipt), or transmitted using any of the systems of electronic transmission under subparagraph 1.3.1.1.2 above; and
- 21.13.1.3. delivered, sent, or transmitted to the address for the recipient's communications as stated in this Contract or as otherwise instructed by the Engineer. However, if the recipient gives a Notice of another address, all Notices and other communications shall be delivered accordingly after the sender. Where these Conditions state that a Notice or NOD or other communication is to be delivered, given, issued, provided, sent, submitted or transmitted, it shall have effect when it is received (or deemed to have been received) at the recipient's current address under sub-paragraph (d) above. An electronically transmitted Notice or other communication is deemed to have been received on the day after transmission, provided no non-delivery notification was received by the sender. All Notices, and all other types of communication as referred to above, shall not be unreasonably withheld or delayed.
- 21.13.1.4. When a Notice or NOD or certificate is issued by a Party or the Engineer, the paper and/or electronic original shall be sent to the intended recipient and a copy shall be sent to the Engineer and the other Party, as the case may be. All other

communications shall be copied to the Parties and/or the Engineer as stated under these Conditions or elsewhere in this Contract.

- 21.13.1.5. Any Notice or NOD delivered between the period of 15 December and 15 January of the immediate following calendar year (both days inclusive) will be deemed to be delivered on 16 January of that immediate following calendar year.
- 21.13.1.6. Any Notice or NOD delivered between the period of 7 calendar days prior to Good Friday and 7 calendar days after Family Day (both days inclusive) will be deemed to have been delivered on the 8th calendar day after the same Family Day.
- 21.13.1.7. Any Notice or NOD delivered after 12H00 on a Friday or on a calendar day immediately prior to a South African Public Holiday will be deemed to have been delivered at 12H00 on the immediate next Working day.

22. **DISPUTES AND ARBITRATION**

22.1. **CONSTITUTION OF THE DISPUTE AVOIDANCE / ADJUDICATION BOARD (DAAB)**

- 22.1.1. Disputes shall be decided by a DAAB in accordance with Sub-Clause [Obtaining DAAB's Decision]. The Parties shall jointly appoint the member(s) of the DAAB within the time stated in the Employers Requirements (if not stated, 28 calendar days) after the date the Contractor receives the Letter of Acceptance.
- 22.1.2. The DAAB shall comprise, as stated in the Employers Requirements, either one suitably qualified member (the "sole member") or three suitably qualified members (the "members"). If the number is not so stated, and the Parties do not agree otherwise, the DAAB shall comprise three members.
- 22.1.3. The sole member or three members (as the case may be) shall be selected from those named in the list in the Employers Requirements, other than anyone who is unable or unwilling to accept appointment to the DAAB.
- 22.1.4. If the DAAB is to comprise three members, each Party shall select one member for the agreement of the other Party. The Parties shall consult both these members and shall approve on the third member, who shall be appointed to act as chairperson.
- 22.1.5. The DAAB shall be deemed to be constituted on the date that the Parties and the sole member or the three members (as the case may be) of the DAAB have all signed a DAAB Agreement.
- 22.1.6. The terms of the remuneration of either the sole member or each of the three members, including the remuneration of any expert whom the DAAB consults, shall be mutually agreed by the Parties when agreeing to the terms of the DAAB

Agreement. Each Party shall be responsible for paying one-half of this remuneration.

- 22.1.7. If at any time the Parties approve, they may appoint a suitably qualified person or persons to replace any one or more members of the DAAB. Unless the Parties agree and approve otherwise, a replacement DAAB member shall be appointed if a member declines to act or is unable to act as a result of death, illness, disability, resignation or termination of appointment. The replacement member shall be appointed in the same manner as the replaced member was required to have been selected or agreed, as described in this Sub-Clause.
- 22.1.8. The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Employer or the Contractor acting alone.
- 22.1.9. Unless otherwise approved by both Parties, the term of the DAAB (including the appointment of each member) shall expire either:
 - 22.1.9.1. on the date the discharge shall have become, or deemed to have become, effective under Sub-Clause [Discharge]; or
 - 22.1.9.2. 28 calendar days after the DAAB has given its decision on all Disputes, referred to it under Sub-Clause [Obtaining DAAB's Decision] before such discharge has become effective, whichever is later.
- 22.1.10. However, if this Contract is terminated under any Sub-Clause of this Contract or otherwise, the term of the DAAB (including the appointment of each member) shall expire 28 calendar days after:
 - 22.1.10.1. the DAAB has given its decision on all Disputes, which were referred to it (under Sub-Clause [Obtaining DAAB's Decision]) within 224 calendar days after the date of termination; or
 - 22.1.10.2. the date that the Parties reach a final agreement on all matters (including payment) in connection with the termination.

whichever is earlier.

22.2. **FAILURE TO APPOINT DAAB MEMBER(S)**

- 22.2.1. If any of the following conditions apply, namely:
 - 22.2.1.1. if the DAAB is to comprise a sole member, the Parties fail to agree the appointment of this member by the date stated in the first paragraph of Sub-Clause [Constitution of the DAAB]; or
 - 22.2.1.2. if the DAAB is to comprise three persons, and if by the date stated in the first paragraph of Sub-Clause [Constitution of the DAAB]:
 - 22.2.1.2.1. either Party fails to select a member (for agreement by the other Party);

- 22.2.1.2.2. either Party fails to agree a member selected by the other Party; and/or
- 22.2.1.2.3. the Parties fail to agree the appointment of the third member (to act as chairperson) of the DAAB.
- 22.2.1.3. the Parties fail to agree the appointment of a replacement within 42 calendar days after the date on which the sole member or one of the three members declines to act or is unable to act as a result of death, illness, disability, resignation, or termination of appointment; or
- 22.2.1.4. if, after the Parties have approved the appointment of the member(s) or replacement, such appointment cannot be effected because one Party refuses or fails to sign a DAAB Agreement with any such member or replacement (as the case may be) within 14 calendar days of the other Party's request to do so,
- 22.2.1.5. then the appointing entity or official named in the Employers Requirements shall, at the request of either or both Parties and after due consultation with both Parties, appoint the member(s) of the DAAB (who, in the case of sub-paragraph (d) above, shall be the agreed member(s) or replacement). This appointment shall be final and conclusive.
- 22.2.1.6. Thereafter, the Parties and the member(s) so appointed shall be deemed to have signed and be bound by a DAAB Agreement under which:
- 22.2.1.6.1. the monthly services fee and daily fee shall be as stated in the terms of the appointment; and
- 22.2.1.6.2. the law governing the DAAB Agreement shall be the governing law of this Contract defined in Sub-Clause [Law and Language].
- 22.2.1.7. Each Party shall be responsible for paying one-half of the remuneration of the appointing entity or official. If the Contractor pays the remuneration in full, the Contractor shall include one-half of the amount of such remuneration in a Statement and the Employer shall then pay the Contractor in accordance with this Contract. If the Employer pays the remuneration in full, the Engineer shall include one-half of the amount of such remuneration as a deduction under sub-paragraph (b) of Sub-Clause [The IPC].
- 22.3. **AVOIDANCE DISPUTES**
- 22.3.1. If the Parties so agree, they may jointly request (in writing, with a copy to the Engineer) the DAAB to provide assistance and/or informally discuss and attempt to resolve any issue or disagreement that may have arisen between them during the performance of this Contract. If the DAAB becomes aware of an issue or disagreement, it may invite the Parties to make such a joint request.
- 22.3.2. Such joint request may be made at any time, except during the period that the Engineer is carrying out his/her duties under Sub-Clause [Agreement or

Determination] on the matter at issue or in disagreement unless the Parties agree otherwise.

- 22.3.3. Such informal assistance may take place during any meeting, Site(s) visit or otherwise. However, unless the Parties agree and approve otherwise, both Parties shall be present at such discussions. The Parties are not bound to act on any advice given during such informal meetings, and the DAAB shall not be bound in any future Dispute resolution process or decision by any views or advice given during the informal assistance process, whether provided orally or in writing.

22.4. **OBTAINING DAAB'S DECISION**

- 22.4.1. If a Dispute arises between the Parties, then either Party may refer the Dispute to the DAAB for its decision (whether or not any informal discussions have been held under Sub-Clause [Avoidance of Disputes]) or the following provisions shall apply.

22.4.2. **Reference of a Dispute to the DAAB**

- 22.4.2.1. The reference of a Dispute to the DAAB (the "reference" in this Sub-Clause) shall:

- 22.4.2.1.1. if Sub-Clause [Agreement or Determination] applied to the subject matter of the Dispute, be made within 42 calendar days of giving or receiving (as the case may be) a NOD under Sub-Clause [Dissatisfaction with Engineer's determination]. Where the Dispute is not referred to the DAAB within this period of 42 calendar days, such NOD shall be deemed to have lapsed and no longer be valid;

- 22.4.2.1.2. state that it is given under this Sub-Clause;

- 22.4.2.1.3. set out the referring Party's case relating to the Dispute;

- 22.4.2.1.4. be in writing, with copies to the other Party and the Engineer; and

- 22.4.2.1.5. for a DAAB of three persons, be deemed to have been received by the DAAB on the date it is received by the chairperson of the DAAB.

- 22.4.2.2. The referral of a Dispute to the DAAB under this Sub-Clause shall, unless prohibited by law, be deemed to interrupt the running of any applicable statute of limitation or prescription period.

22.4.3. **The Parties' obligations after the reference**

- 22.4.3.1. Both Parties shall promptly make available to the DAAB all information, access to the Site(s), and appropriate facilities, as the DAAB may require for the purposes of making a decision on the Dispute.

- 22.4.3.2. Unless this Contract has already been abandoned or terminated, the Parties shall continue to perform their obligations in accordance with this Contract.
- 22.4.4. The DAAB's decision
- 22.4.4.1. The DAAB shall complete and give its decision within:
- 22.4.4.1.1. 84 calendar days after receiving the reference; or
- 22.4.4.1.2. such period as may be proposed by the DAAB and agreed and approved by both Parties.
- 22.4.4.2. However, if at the end of this period, the due date(s) for payment of any DAAB member's invoice(s) has passed but such invoice(s) remains unpaid, the DAAB shall not be obliged to give its decision until such outstanding invoice(s) have been paid in full, in which case the DAAB shall give its decision as soon as practicable after payment has been received.
- 22.4.4.3. The decision shall be given in writing to both Parties with a copy to the Engineer, shall be reasoned, and shall state that it is given under this Sub-Clause.
- 22.4.4.4. The decision shall be binding on both Parties, who shall promptly comply with it whether or not a Party gives a NOD with respect to such decision under this Sub-Clause. The Employer shall be responsible for the Engineer's compliance with the DAAB decision.
- 22.4.4.5. If the decision of the DAAB requires a payment of an amount by one Party to the other Party
- 22.4.4.5.1. subject to sub-paragraph (ii) below, this amount shall be immediately due and payable without any certification or Notice; and
- 22.4.4.5.2. the DAAB may (as part of the decision), at the request of a Party but only if there are reasonable grounds for the DAAB to believe that the payee will be unable to repay such amount in the event that the decision is reversed under Sub-Clause [Arbitration], require the payee to provide an appropriate security (at the DAAB's sole discretion) in respect of such amount.
- 22.4.4.6. The DAAB proceeding shall not be deemed to be an arbitration and the DAAB shall not act as arbitrator(s).
- 22.4.5. Dissatisfaction with DAAB's decision
- 22.4.5.1. If either Party is dissatisfied with the DAAB's decision:
- 22.4.5.1.1. such Party may give a NOD, in writing, to the other Party, with a copy to the DAAB and to the Engineer;

- 22.4.5.1.2. this NOD shall state that it is a "Notice of Dissatisfaction with the DAAB's Decision" and shall set out the matter in Dispute and the reason(s) for dissatisfaction; and
- 22.4.5.1.3. this NOD shall be given within 28 calendar days after receiving the DAAB's decision.
- 22.4.5.2. If the DAAB fails to give its decision within the period stated in Sub-Clause [The DAAB's decision], then either Party may, within 28 calendar days after this period has expired, give a NOD, in writing, to the other Party in accordance with sub-paragraphs (a) and (b) above.
- 22.4.5.3. Except as stated in the last paragraph of Sub-Clause [Dissatisfaction with Engineer's determination], in Sub-Clause [Failure to Comply with DAAB's Decision] and in Sub-Clause [No DAAB In Place], neither Party shall be entitled to commence arbitration of a Dispute unless a NOD, in writing, in respect of that Dispute has been given in accordance with this Sub-Clause.
- 22.4.5.4. If the DAAB has given its decision as to a matter in Dispute to both Parties, and no NOD under this Sub-Clause has been given by either Party within 28 calendar days after receiving the DAAB's decision, then the decision shall become final and binding on both Parties.
- 22.4.5.5. If the dissatisfied Party is dissatisfied with only part(s) of the DAAB's decision:
- 22.4.5.5.1. this part(s) shall be clearly identified in the NOD;
- 22.4.5.5.2. this part(s), and any other parts of the decision that are affected by such part(s) or rely on such part(s) for completeness, shall be deemed to be severable from the remainder of the decision; and
- 22.4.5.5.3. the remainder of the decision shall become final and binding on both Parties as if the NOD had not been given.

22.5. **AMICABLE SETTLEMENT**

- 22.5.1. Where a NOD has been given under Sub-Clause [Obtaining DAAB's Decision], both Parties shall attempt to settle the Dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, arbitration may be commenced on or after the twenty-eighth (28th) calendar day after the day on which this NOD was given, even if no attempt at amicable settlement has been made.

22.6. **ARBITRATION**

- 22.6.1. Unless settled amicably, and subject to Sub-Clause [Dissatisfaction with Engineer's determination], Sub-Clause [Dissatisfaction with DMB's decision], Sub-Clause [Failure to Comply with DAAB's Decision] and Sub-Clause [No DAAB In Place], any Dispute in respect of which the DAAB's decision (if any)

has not become final and binding shall be finally settled by international arbitration.

- 22.6.2. Unless otherwise agreed by both Parties:
 - 22.6.2.1. the Dispute shall be finally settled under the Rules of Arbitration of the Republic of South Africa;
 - 22.6.2.2. the Dispute shall be settled by one or three arbitrators appointed in accordance with these Rules; and
 - 22.6.2.3. the arbitration shall be conducted in the English.
- 22.6.3. The arbitrator(s) shall have full power to open up, review and revise any certificate, determination (other than a final and binding determination), instruction, opinion or valuation of the Engineer, and any decision of the DAAB (other than a final and binding decision) relevant to the Dispute. Nothing shall disqualify the Engineer from being called as a witness and giving evidence before the arbitrator(s) on any matter whatsoever relevant to the Dispute.
- 22.6.4. In any award dealing with costs of the arbitration, the arbitrator(s) may take account of the extent (if any) to which a Party failed to cooperate with the other Party in constituting a DAAB under Sub-Clause [Constitution of the DMB] and/or Sub-Clause [Failure to Appoint DMB Member(s)].
- 22.6.5. Neither Party shall be limited in the proceedings before the arbitrator(s) to the evidence nor did arguments previously put before the DAAB to obtain its decision, or to the reasons for dissatisfaction given in the Party's NOD under Sub-Clause [Obtaining DMB's Decision]. Any decision of the DAAB shall be admissible in evidence in the arbitration.
- 22.6.6. Arbitration may be commenced before or after completion of the Works. The obligations of the Parties, the Engineer and the DAAB shall not be altered by reason of any arbitration being conducted during the progress of the Works.
- 22.6.7. If an award requires a payment of an amount by one Party to the other Party, this amount shall be immediately due and payable without any further certification or Notice.

22.7. **FAILURE TO COMPLY WITH DAAB'S DECISION**

- 22.7.1. In the event that a Party fails to comply with any decision of the DAAB, whether binding or final and binding, then the other Party may, without prejudice to any other rights it may have, refer the failure itself directly to arbitration under Sub-Clause [Arbitration] in which case Sub-Clause [Obtaining DAAB's Decision] and Sub-Clause [Amicable Settlement] shall not apply to this reference.
- 22.7.2. The arbitral tribunal (constituted under Sub-Clause [Arbitration]) shall have the power, by way of summary or other expedited procedure, to order, whether by

an interim or provisional measure or an award (as may be appropriate under applicable law or otherwise), the enforcement of that decision.

22.7.3. In the case of a binding but not final decision of the DAAB, such interim or provisional measure or award shall be subject to the express reservation that the rights of the Parties as to the merits of the Dispute are reserved until they are resolved by an award.

22.7.4. Any interim or provisional measure or award enforcing a decision of the DAAB which has not been complied with, whether such decision is binding or final and binding, may also include an order or award of damages or other relief.

22.8. **NO DAAB IN PLACE**

22.8.1. If a Dispute arises between the Parties in connection with, or arising out of, this Contract or the execution of the Works and there is no DAAB in place (or no DAAB is being constituted), whether by reason of the expiry of the DAAB's appointment or otherwise:

22.8.2. Sub-Clause [Obtaining DAAB's Decision] and Sub-Clause [Amicable Settlement] shall not apply.

22.8.3. the Dispute may be referred by either Party directly to arbitration under Sub-Clause [Arbitration] without prejudice to any other rights the Party may have.

APPENDIX

General Conditions of Dispute Avoidance/Adjudication Agreement

1. Definitions

- 1.1. **"General Conditions of Dispute Avoidance/Adjudication Agreement" or "GCs"** means this document entitled "General Conditions of Dispute Avoidance/Adjudication Agreement", as published by FIDIC.
- 1.2. In the DAA Agreement (as defined below) and in the GCs, words and expressions which are not otherwise defined shall have the meanings assigned to them in this Contract (as defined in the DAA Agreement).
- 1.3. **"Dispute Avoidance/Adjudication Agreement" or "DAA Agreement"** means a tripartite agreement by and between:
 - 1.3.1. the Employer;
 - 1.3.2. the Contractor; and
 - 1.3.3. the DAAB Member who is defined in the DAA Agreement as being either:
 - 1.3.3.1. the sole member of the DAAB, or
 - 1.3.3.2. one of the three members (or the chairman) of the DAAB.
- 1.4. **"DAAB's Activities"** means the activities carried out by the DAAB in accordance with this Contract and the GCs, including all Informal Assistance, meetings (including meetings and/or discussions between the DAAB members in the case of a three-member DAAB), Site visits, hearings and decisions.
- 1.5. **"DAAB Rules"** means the document entitled "DAAB Procedural Rules" published by FIDIC which are annexed to, and form part of, the GCs.
- 1.6. **"Informal Assistance"** means the informal assistance given by the DAAB to the Parties when requested jointly by the Parties under Sub-Clause [Avoidance of Disputes] of the Conditions of Contract.
- 1.7. **"Term of the DAAB"** means the period starting on the Effective Date (as defined in Sub-Clause 2.1 below) and finishing on the date that the term of the DAAB expires in accordance with Sub-Clause 21.1 [Constitution of the DAAB] of the Conditions of Contract.
- 1.8. **"Notification"** means a Notice in writing given under the GCs, which shall be:
 - 1.8.1. a paper-original signed by the DAAB Member or the authorised representative of the Contractor or of the Employer (as the case may be); or

- 1.8.2. an electronic original generated from the system of electronic transmission agreed between the Parties and the DAAB, which electronic original is transmitted by the electronic address uniquely assigned to the DAAB Member or each such authorised representative (as the case may be);
- 1.9. delivered by hand (against receipt), or sent by mail or courier (against receipt), or transmitted using the system of electronic transmission under sub-paragraph (a)(ii) above; and
- 1.10. delivered, sent or transmitted to the address for the recipient's communications as stated in the DAA Agreement. However, if the recipient gives a Notification of another address, all Notifications shall be delivered accordingly after the sender receives such Notification.

2. **General Provisions**

- 2.1. The DAA Agreement shall take effect:
 - 2.1.1. in the case of a sole-member DAAB, on the date when the Employer, the Contractor and the DAAB Member have each signed (or, under this Contract, are deemed to have signed) the DAA Agreement; or
 - 2.1.2. in the case of a three-member DAAB, on the date when the Employer, the Contractor, the DAAB Member and the Other Members have each signed (or under this Contract are deemed to have signed) a DAA Agreement.
- (the "Effective Date" in the GCs).

- 2.2. Immediately after the Effective Date, either or both Parties shall give a Notification to the DAAB Member that the DAA Agreement has come into effect. If the DAAB Member does not receive such a Notice within 182 calendar days after entering into the DAA Agreement, it shall be void and ineffective.
- 2.3. The employment of the DAAB Member is a personal appointment. No assignment of or subcontracting or delegation of the DAAB Member's rights and/or obligations under the DAA Agreement is permitted.

3. **Warranties**

- 3.1. The DAAB Member warrants and agrees that he/she is and will remain at all times during the Term of the DAAB, impartial and independent of the Employer, the Contractor, the Employer's Personnel and the Contractor's Personnel (including in accordance with Sub-Clause 4.1 below).
- 3.2. If, after signing the DAA Agreement (or after he/she is deemed to have signed the DAA Agreement under this Contract), the DAAB Member becomes aware of any fact or circumstance which might:
 - 3.2.1. call into question his/her independence or impartiality; and/or

3.2.2. be, or appear to be, inconsistent with his/her warranty and agreement under Sub-Clause 3.1 above

the DAAB Member warrants and agrees that he/she shall immediately disclose this in writing to the Parties and the Other Members (if any).

3.3. When appointing the DAAB Member, each Party relies on the DAAB Member's representations that he/she is:

3.3.1. experienced and/or knowledgeable in the type of work which the Contractor is to carry out under this Contract;

3.3.2. experienced in the interpretation of construction and/or engineering contract documentation; and

3.3.3. fluent in the language for communications stated in this Contract Data (or the language as agreed between the Parties and the DAAB).

4. **Independence and Impartiality**

4.1. Further to Sub-Clauses 3.1 and 3.2 above, the DAAB Member shall:

4.1.1. have no financial interest in this Contract, or in the project of which the Works are part, except for payment under the DAA Agreement;

4.1.2. have no interest whatsoever (financial or otherwise) in the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel;

4.1.3. in the ten years before signing the DAA Agreement, not have been employed as a consultant or otherwise by the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel;

4.1.4. not previously have acted, and shall not act, in any judicial or arbitral capacity in relation to this Contract;

4.1.5. have disclosed in writing to the Employer, the Contractor and the Other Members (if any), before signing the DAA Agreement (or before he/she is deemed to have signed the DAA Agreement under this Contract) and to his/her best knowledge and recollection, any:

4.1.5.1. existing and/or past professional or personal relationships with any director, officer or employee of the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel (including as a dispute resolution practitioner on another project),

4.1.5.2. facts or circumstances which might call into question his/her independence or impartiality, and

- 4.1.5.3. previous involvement in the project of which this Contract forms part;
- 4.1.6. not, while a DAAB Member and for the Term of the DAAB:
 - 4.1.6.1. be employed as a consultant or otherwise by, and/or
 - 4.1.6.2. enter into discussions or make any agreement regarding future employment with the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel, except as may be agreed by the Employer, the Contractor and the Other Members (if any); and/or
- 4.1.7. not solicit, accept or receive (directly or indirectly) any gift, gratuity, commission or other thing of value from the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel, except for payment under the DAA Agreement.

5. **General Obligations of the DAAB Member**

- 5.1. The DAAB Member shall:
 - 5.1.1. comply with the GCs, the DAAB Rules and the Conditions of Contract that are relevant to the DAAB's Activities.
 - 5.1.2. not give advice to the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel concerning the conduct of this Contract, except as required to carry out the DAAB's Activities;
 - 5.1.3. ensure his/her availability during the Term of the DAAB (except in exceptional circumstances, in which case the DAAB Member shall give a Notification without delay to the Parties and the Other Members (if any) detailing the exceptional circumstances) for all meetings, Site visits, hearings and as is necessary to comply with sub-paragraph (a) above;
 - 5.1.4. become, and shall remain for the duration of the Term of the DAAB, knowledgeable about this Contract and informed about:
 - 5.1.4.1. the Parties' performance of this Contract;
 - 5.1.4.2. the Site and its surroundings; and
 - 5.1.4.3. progress of the Works (and of any other parts of the project of which this Contract forms part)
 - 5.1.5. including by visiting the Site(s), meeting with the Parties and by studying all documents received from either Party under Rule 4.3 of the DAAB Rules (which shall be maintained in a current working file, in hard-copy or electronic format at the DAAB Member's discretion); and
 - 5.1.6. be available to give Informal Assistance when requested jointly by the Parties.

6. **Obligations of the Parties**

- 6.1. Each Party shall comply with the GCs, the DAAB Rules and the Conditions of Contract that are relevant to the DAAB's Activities. The Employer and the Contractor shall be responsible for compliance with this provision by the Employer's Personnel and the Contractor's Personnel, respectively.
- 6.2. Each Party shall cooperate with the other Party in constituting the DAAB, under Sub-Clause [Constitution of the DAAB] and/or Sub-Clause [Failure to Appoint DAAB Member(s)] of the Conditions of Contract, without delay.
- 6.3. In connection with the DAAB's Activities, each Party shall:
 - 6.3.1. cooperate in good faith with the DAAB; and
 - 6.3.2. fulfil its duties, and exercise any right or entitlement, Contract, the GCs and the DAAB Rules and/or otherwise in the manner necessary to achieve the objectives under Rule 1 of the DAAB Rules.
- 6.4. The Parties, the Employer's Personnel and the Contractor's Personnel shall not request advice from or consultation with the DAAB Member regarding this Contract, except as required for the DAAB Member to carry out the DAAB's Activities.
- 6.5. At all times when interacting with the DAAB, each Party shall not compromise the DAAB's warranty of independence and impartiality under Sub-Clause 3.1 above.
- 6.6. In addition to providing documents under Rule 4.3 of the DAAB Rules, each Party shall ensure that the DAAB Member remains informed as is necessary to enable him/her to comply with sub-paragraph (d) of Sub-Clause 5.1 above.

7. **Confidentiality**

- 7.1. Subject to Sub-Clause 7.4 below, the DAAB Member shall treat the details of this Contract, all the DAAB's Activities and the documents provided under Rule 4.3 of the DAAB Rules as private and confidential and shall not publish or disclose them without the prior written consent and approval of the Parties and the Other Members (if any).
- 7.2. Subject to Sub-Clause 7.4 below, the Employer, the Contractor, the Employer's Personnel and the Contractor's Personnel shall treat the details of all the DAAB's Activities as private and confidential.
- 7.3. Each person's obligation of confidentiality under Sub-Clause 7.1 m Sub-Clause 7.2 above (as the case may be) shall not apply where the information:

- 7.3.1. was already in that person's possession without an obligation of confidentiality before receipt under the DAA Agreement;
- 7.3.2. becomes generally available to the public through no breach, of the GCs; or
- 7.3.3. is lawfully obtained by the person from a third party which is not bound by an obligation of confidentiality.
- 7.4. If a DAAB Member is replaced under this Contract, the Parties and/or the Other Members (if any) shall disclose details of this Contract, the documents provided under Rule 4.3 of the DAAB Rules and previous DAAB's Activities (including decisions, if any) to the replacement DAAB Member as is necessary in order to:
 - 7.4.1. enable the replacement DAAB Member to comply with sub-paragraph (d) of Sub-Clause 5.1 above; and
 - 7.4.2. ensure consistency in the manner in which the DAAB's Activities are conducted following such replacement.

8. The Parties' undertaking and indemnity

- 8.1. The Employer and the Contractor undertake to each other and to the DAAB Member that the DAAB Member shall not:
 - 8.1.1. be appointed as an arbitrator in any arbitration under this Contract;
 - 8.1.2. be called as a witness to give evidence concerning any Dispute in any arbitration under this Contract; or
 - 8.1.3. be liable for any claims for anything done or omitted in the discharge or purported discharge of the DAAB Member's functions, except in any case of fraud, gross negligence, deliberate default or reckless misconduct by him/her.
- 8.2. The Employer and the Contractor hereby jointly and severally indemnify and hold the DAAB Member harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any claim from which he/she is relieved from liability under Sub-Clause 8.1 above.

9. Fees and expenses

- 9.1. The DAAB Member shall be paid as follows, in the currency of the South African Rand named in the DAA Agreement:
 - 9.1.1. a monthly fee, which shall be a fixed fee as payment in full for:
 - 9.1.1.1. being available on 28 calendar days' Notice for all meetings, Site(s) visits and hearings under the DAAB Rules (and, in the event of a request under Rule 3.6 of the DAAB Rules, being available for an urgent meeting or Site visit);

- 9.1.1.2. becoming and remaining knowledgeable about this Contract, informed about the progress of the Works and maintaining a current working file of documents, in accordance with sub-paragraph (d) of Clause 5.1 above;
- 9.1.1.3. all office and overhead expenses including secretarial services, photocopying and office supplies incurred in connection with his/ her duties; and
- 9.1.1.4. all services performed hereunder except those referred to in sub- paragraphs (b) and (c) of this Clause.
- 9.1.2. This fee shall be paid monthly with effect from the last day of the month in which the Effective Date occurs until the end of the month in which the Term of the DAAB expires, or the DAAB Member declines to act or is unable to act as a result of death, illness, disability, resignation or termination of his/her DAA Agreement.
- 9.1.3. If no monthly fee is stated in the DAA Agreement, the matters described in sub-paragraphs (i) to (iv) above shall be deemed to be covered by the daily fee under sub-paragraph (b) below;
- 9.1.4. a daily fee, which shall be considered as payment in full for each day:
 - 9.1.4.1. or part of a day, up to a maximum of two days' travel time in each direction, for the journey between the DAAB Member's home and the Site, or another location of a meeting with the Parties and/or the Other Members (if any);
 - 9.1.4.2. spent on attending meetings and making Site visits in accordance with Rule 3 of the DAAB Rules, and writing reports in accordance with Rule 3.10 of the DAAB Rules;
 - 9.1.4.3. spent on giving Informal Assistance;
 - 9.1.4.4. spent on attending hearings (and, in case of a three-member DAAB, attending meeting(s) between the DAAB Members in accordance with sub-paragraph (a) of Rule 8.2 of the DAAB Rules, and communicating with the other Members), and preparing decisions; and
 - 9.1.4.5. spent in preparation for a hearing, and studying written documentation and arguments from the Parties submitted in accordance with sub-paragraph (c) of Rule 7.1 of the DAAB Rules;
- 9.1.5. all reasonable expenses, including necessary travel expenses (air fare in business class or equivalent, hotel and subsistence and other direct travel expenses, including visa charges) incurred in connection with the DAAB Member's duties, as well as the cost of telephone calls (and video conference calls, if any, and internet access), courier charges and faxes. The DAAB Member shall provide the Parties with a receipt for each item of expenses;

- 9.1.6. any taxes properly levied in the Country on payments made to the DAAB Member (unless a national or permanent resident of the Country) under this Sub-Clause 9.1.
- 9.2. Subject to Sub-Clause 9.3 below, the amounts of the DAAB Member's monthly fee and daily fee, under Sub-Clause 9.1 above, shall be as specified in the DAA Agreement signed (or, under this Contract, deemed to have been signed) by the Parties and the DAAB Member.
- 9.3. If the Parties and the DAAB Member have agreed all other terms of the DAA Agreement but fail to jointly agree the amount of the monthly fee or the daily fee in the DAA Agreement (the "non-agreed fee" in this Sub-Clause):
- 9.3.1. the DAA Agreement shall nevertheless be deemed to have been signed by the Parties and the DAAB Member, except that the fee proposed by the DAAB Member shall only temporarily apply;
- 9.3.2. either Party or the DAAB Member may apply to the appointing entity or official named in this Employers Requirements to set the amount of the non-agreed fee;
- 9.3.3. the appointing entity or official shall, as soon as practicable and in any case within 28 calendar days after receiving any such application, set the amount of the non-agreed fee, which amounts shall be reasonable taking due regard of the complexity of the Works, the experience and qualifications of the DAAB Member, and all other relevant circumstances;
- 9.3.4. once the appointing entity or official has set the amount of the non-agreed fee, this amount shall be final and conclusive, shall replace the fee under subparagraph (a) above, and shall be deemed to have applied from the Effective Date; and
- 9.3.5. thereafter, after giving credit to the Parties for all amounts previously paid in respect of the non-agreed fee, the balance (if any) due from the DAAB Member to the Parties or from the Parties to the DAAB Member, as the case may be, shall be paid.
- 9.4. The DAAB Member shall submit invoices for payment of the monthly fee and air fares quarterly in advance. Invoices for other expenses and for daily fees shall be submitted following the conclusion of a meeting, Site visit or hearing; and following the giving of a decision or an informal written note (under Rule 2.1 of the DAAB Rules). All invoices shall be accompanied by a brief description of the DAAB's Activities performed during the relevant period and shall be addressed to the Contractor.
- 9.5. The Contractor shall pay each of the DAAB Member's invoices in full within 28 calendar days after receiving each invoice. Thereafter, the Contractor shall apply to the Employer (in the Statements under this Contract) for reimbursement of one-half of the amounts of these invoices. The Employer shall then pay the Contractor in accordance with this Contract.

- 9.6. If the Contractor fails to pay to the DAAB Member the amount to which he/ she is entitled under the DAA Agreement within the period of 28 calendar days stated at Sub-Clause 9.5 above, the DAAB Member shall inform the Employer who shall promptly pay the amount due to the DAAB Member and any other amount which may be required to maintain the function of the DAAB.
- 9.7. Thereafter the Employer shall, by written request, be entitled to payment from the Contractor of:
- 9.7.1. all sums paid in excess of one-half of these amounts;
- 9.7.2. the reasonable costs of recovering these amounts from the Contractor; and
- 9.7.3. financing charges calculated at the rate specified in Sub-Clause [Delayed Payment) of this Contract.
- 9.8. The Employer shall be entitled to such payment from the Contractor without any requirement to comply with Sub-Clause [Claims For Payment and/ or EOT] of this Contract, and without prejudice to any other right or remedy.
- 9.9. If the DAAB Member does not receive payment of the amount due within 56 calendar days after submitting a valid invoice, the DAAB Member may:
- 9.9.1. not less than 7 calendar days after giving a Notification, in writing, to the Parties and the Other Members (if any), suspend his/her services until the payment is received; and/or
- 9.9.2. resign his/her appointment by giving a Notification, in writing, under Sub-Clause 10.1 below.
10. **Resignation and Termination**
- 10.1. The DAAB Member may resign at any time for any reason, by giving a Notification, in writing, of not less than 28 calendar days (or other period as may be agreed and approved by the Parties) to the Parties and to the Other Members (if any). During this period the Parties shall take the necessary steps to appoint, without delay, a replacement DAAB Member in accordance with Sub-Clause [Constitution of the OMB) of this Contract (and, if applicable, Sub-Clause [Failure to Appoint DAAB Member(s)) of this Contract).
- 10.2. On expiry of the period stated in Sub-Clause 10.1 above, the signing DAAB Member's DAA Agreement shall terminate with immediate effect. However (except if the DAAB Member is unable to act as a result of illness or disability) if, on the date of the DAAB Member's Notice under Sub-Clause 10.1 above, the DAAB is dealing with any Dispute under Sub-Clause [Obtaining DAAB's Decision] of this Contract, the DAAB Member's resignation shall not take effect and his/her DAA Agreement shall not terminate until after the DAAB has given all the corresponding decisions in accordance with this Contract.

- 10.3. At any time, the Parties may jointly terminate the DAA Agreement by giving a Notification, in writing, of not less than 42 calendar days to the DAAB Member.
- 10.4. If the DAAB Member fails, without justifiable excuse, to comply with Sub-Clause 5.1 above, the Parties may, without prejudice to their other rights or remedies, jointly terminate his/her DAA Agreement by giving a Notification, in writing, (by recorded delivery) to the DAAB Member. This Notice shall take effect when it is received by the DAAB Member.
- 10.5. If either Party fails, without justifiable excuse, to comply with Clause 6 above, the DAAB Member may, without prejudice to his/her other rights or remedies, terminate the DAA Agreement by giving a Notification, in writing, to the Parties. This Notice shall take effect when received by both Parties.
- 10.6. Any resignation or termination under this Clause shall be final and binding on the Parties and the DAAB Member. However, a Notice given under Sub-Clause 10.3 or 10.4 above by either the Employer or the Contractor, but not by both, shall be of no effect.
- 10.7. Subject to sub-paragraph (b) of Sub-Clause 11.5 below, in the event of resignation or termination under this Clause the DAAB Member shall nevertheless be entitled to payment of any fees and/or expenses under his/ her DAA Agreement that remain outstanding as of the date of termination of his/her DAA Agreement.
- 10.8. After resignation by the DAAB Member or termination of his/her DAA Agreement under this Clause, the DAAB Member shall:
- 10.8.1. remain bound by his/her obligation of confidentiality under Sub-Clause 7.1 above; and
- 10.8.2. return the original and all copies (inclusive of electronic copies) of any document in his/her possession to the Party who submitted such document in connection with the DAAB's Activities, at that Party's written request and cost.
- 10.9. Subject to any mandatory requirements under the governing law of the DAA Agreement, termination of the DAA Agreement under this Clause shall require no action of whatsoever kind by the Parties or the DAAB Member (as the case may be) other than as stated in this Clause.
11. **Challenge**
- 11.1. The Parties shall not object against the DAAB Member, except that either Party, or in the case of a three-member DAAB the Other Members jointly, shall be entitled to do so for an alleged lack of independence or impartiality or otherwise in which case Rule 10 Objection Procedure and Rule 11 Challenge Procedure of the DAAB Rules shall apply.

- 11.2. The decision issued under Rule 11 of the DAAB Rules (the "Decision on the Challenge" in the GCs) shall be final and conclusive.
- 11.3. At any time before the Decision on the Challenge is issued, the challenged DAAB Member may resign under Sub-Clause 10.1 above and, in such case, the challenging Party shall inform the Arbitration Foundation of Southern Africa (AFSA) International Chamber of Commerce (ICC). However, Sub-Clause 10.2 shall not apply to such resignation and the resigning DAAB Member's DAA Agreement shall terminate with immediate effect.
- 11.4. Unless the challenged DAAB Member has resigned, or his/her DAA Agreement has been terminated under Sub-Clause 10.3 above, the DAAB Member and the Other Members (if any) shall continue with the DAAB's Activities until the Decision on the Challenge is issued.
- 11.5. If the Decision on the Challenge is that the challenge is successful:
- 11.5.1. the challenged DAAB Member's appointment, and his/her DAA Agreement, shall be deemed to have been terminated with immediate effect on the date of the notification of the Decision on the Challenge by AFSA;
- 11.5.2. the challenged DAAB Member shall not be entitled to any fees or expenses under his/her DAA Agreement from the date of the notification of the Decision on the Challenge by ICC;
- 11.5.3. any decision under Sub-Clause [The DAABs decision] of this Contract, given by the DAAB:
- 11.5.3.1. after the challenge was referred under Rule 11 of the DAAB Rules; and
- 11.5.3.2. before the resignation (if any) of the challenged DAAB Member under Sub-Clause 11.3 above, or his/her DAAB Agreement is terminated under subparagraph (a) above or under Sub-Clause 10.3 above
- shall become void and ineffective. In the case of a sole-member DAAB, all other DAAB's Activities during this period shall also become void and ineffective. In the case of a three-member DAAB, all other DAAB's Activities during this period shall remain unaffected by the Decision on the Challenge except if there has been a challenge to all three members of the DAAB and such challenge is successful;
- 11.5.3.3. the successfully challenged DAAB Member shall be removed from the DAAB; and
- 11.5.3.4. the Parties shall, without delay, appoint a replacement DAAB Member in accordance with Sub-Clause 21.1 [Constitution of the DAAB] of the Conditions of Contract Agreement.

12. **Disputes under the DAA Agreement**

- 12.1. Any dispute arising out of or in connection with the DAA Agreement, or the breach, termination or invalidity thereof, shall be finally settled by arbitration under the Rules of Arbitration of the International Chamber of Commerce 2017 by one arbitrator appointed in accordance with these Rules of Arbitration, and Article 30 and the Expedited Procedure Rules at Appendix VI of these Rules of Arbitration shall apply.

Annex

DAAB PROCEDURAL RULES

Rule 1

1. Objectives

- 1.1. The objectives of these Rules are:
- 1.1.1. to facilitate the avoidance of Disputes that might otherwise arise between the Parties; and
- 1.1.2. to achieve the expeditious, efficient and cost-effective resolution of any Dispute that arises between the Parties.
- 1.2. These Rules shall be interpreted, the DAAB's Activities shall be conducted and the DAAB shall use its powers under this Contract and these Rules, in the manner necessary to achieve the above objectives.

Rule 2

2. Avoidance of Disputes

- 2.1. Where Sub-Clause [Avoidance of Disputes] of this Contract applies, the DAAB (in the case of a three-member DAAB, all three DAAB Members acting together) may give Informal Assistance during discussions at any meeting with the Parties (whether face-to-face or by telephone or by video conference) or at any Site(s) visit or by an informal written Notice to the Parties.

Rule 3

3. Meetings and Site visit

- 3.1. The purpose of meetings with the Parties and Site(s) visits by the DAAB is to enable the DAAB to:

- 3.1.1. become and remain informed about the matters described in sub-paragraphs (d)(i) to (d)(iii) of Sub-Clause 5.1 of the GCs;
- 3.1.2. become aware of, and remain informed about, any actual or potential issue or disagreement between the Parties; and
- 3.1.3. give Informal Assistance if and when jointly requested by the Parties.
- 3.2. As soon as practicable after the DAAB is appointed, the DAAB shall convene a face-to-face meeting with the Parties. At this meeting, the DAAB shall establish a schedule of planned meetings and Site(s) visits in consultation with the Parties, which schedule shall reflect the requirements of Rule 3.3 below and shall be subject to adjustment by the DAAB in consultation with the Parties.
- 3.3. The DAAB shall hold face-to-face meetings with the Parties, and/or visit the Site(s), at regular intervals and/or at the written request of either Party. The frequency of such meetings and/or Site(s) visits shall be:
 - 3.3.1. in all communications to and from the DAAB and the Parties (and, in the case of a three-member DAAB, between the DAAB Members);
 - 3.3.2. at intervals of not more than 140 calendar days unless otherwise agreed jointly by the Parties and the DAAB; and
 - 3.3.3. at intervals of not less than 70 calendar days, subject to Rules 3.5 and 3.6 below and except as required to conduct a hearing as described under Rule 7 below, unless otherwise agreed jointly by the Parties and the DAAB.
- 3.4. In addition to the face-to-face meetings referred to in Rules 3.2 and 3.3 above, the DAAB may also hold meetings with the Parties by telephone or video conference as agreed with the Parties (in which case each Party bears the risk of inter/adjusted or faulty telephone or video conference transmission and reception).
- 3.5. At times of critical construction events (which may include suspension of the Works or termination of this Contract), the DAAB shall visit the Site(s) at the written request of either Party. This request shall describe the critical construction event. If the DAAB becomes aware of an upcoming critical event, it may invite the Parties to make such a request.
- 3.6. Either Party may request an urgent meeting or Site(s) visit by the DAAB. This shall be a written request and shall give reasons for the urgency of the meeting or Site(s) visit. If the DAAB agrees that such a meeting or Site(s) visit is urgent, the DAAB Members shall use all reasonable endeavours to:
 - 3.6.1. hold a meeting with the Parties by telephone or video conference (as agreed with the Parties under Rule 3.4 above) within 3 calendar days after receiving the request; and

- 3.6.2. if requested and (having given the other Party opportunity at this meeting to respond to or oppose this request) the DAAB agrees that a Site(s) visit is necessary, visit the Site(s) within 14 calendar days after the date of this meeting.
- 3.7. The time of, and agenda for, each meeting and Site(s) visit shall be set by the DAAB in consultation with the Parties.
- 3.8. Each meeting and Site(s) visit shall be attended by the Employer, the Contractor and the Engineer.
- 3.9. Each meeting and Site(s) visit shall be coordinated by the Contractor in co-operation with the Employer and the Engineer. The Contractor shall ensure the provision of appropriate:
 - 3.9.1. personal safety equipment, security controls (if necessary) and site transport for each Site(s) visit;
 - 3.9.2. meeting room/conference facilities and secretarial and copying services for each face-to-face meeting; and
 - 3.9.3. telephone conference or video conference facilities for each meeting by telephone or video conference.
- 3.10. At the conclusion of each meeting and Site(s) visit and, if possible before leaving the venue of the face-to-face meeting or the Site(s) (as the case may be) but in any event within 7 calendar days, the DAAB shall prepare a report on its activities during the meeting or Site(s) visit and shall send copies of this report to the Parties and the Engineer.

Rule 4

4. Communications and Documentation

- 4.1. The language to be used:
 - 4.1.1. in all communications to and from the DAAB and the Parties (and, in the case of a three-member DAAB, between the DAAB Members);
 - 4.1.2. in all reports and decisions issued by the DAAB; and
 - 4.1.3. during all Site(s) visits, meetings and hearings relating to the DAAB's Activities.shall be the language of English.
- 4.2. All communications and/or documents sent between the DAAB and a Party shall simultaneously be copied to the other Party. In the case of a three-member DAAB, the sending Party shall send all communications and/ or documents to the chairman of the DAAB and simultaneously send copies of these communications and/or documents to the Other Members.

- 4.3. The Parties shall provide the DAAB with a copy of all documents which the DAAB may request, including:
 - 4.3.1. the documents forming this Contract;
 - 4.3.2. progress reports under Sub-Clause [Progress Reports] of this Contract;
 - 4.3.3. the initial Programme and each revised Programme under Sub-Clause (Programme) of this Contract;
 - 4.3.4. relevant instructions given by the Employer and/or Engineer, and Variations under Clause [Variation Procedure] of this Contract;
 - 4.3.5. Statements submitted by the Contractor, and all certificates issued by the Engineer under this Contract;
 - 4.3.6. Relevant Notices;
 - 4.3.7. relevant communications between the Parties and between either Party and the Engineer and any other document relevant to the performance of this Contract and/ or necessary to enable the DAAB to become and remain informed about the matters described in sub-paragraphs (d)(i) to (d)(iii) of Sub-Clause 5.1 of the GCs

Rule 5

5. Powers of the DAAB

- 5.1. In addition to the powers granted to the DAAB under this Contract, the General Conditions of the DAA Agreement and elsewhere in these Rules, the Parties empower the DAAB to:
 - 5.1.1. establish the procedure to be applied in making Site(s) visits and/or giving Informal Assistance;
 - 5.1.2. establish the procedure to be applied in giving decisions under this Contract;
 - 5.1.3. decide on the DAAB's own jurisdiction, and the scope of any Dispute referred to the DAAB;
 - 5.1.4. appoint one or more experts (including legal and technical expert(s), with the agreement and approval of the Parties;
 - 5.1.5. decide whether or not there shall be a hearing (or more than one hearing, if necessary) in respect of any Dispute referred to the DAAB;

- 5.1.6. conduct any meeting with the Parties and/or any hearing as the DAAB thinks fit, not being bound by any rules or procedures for the hearing other than those contained in this Contract and in these Rules;
- 5.1.7. take the initiative in ascertaining the facts and matters required for a DAAB decision;
- 5.1.8. make use of a DAAB Member's own specialist knowledge, if any;
- 5.1.9. decide on the payment of financing charges in accordance with this Contract;
- 5.1.10. open up, review and revise any certificate, decision, determination, instruction, opinion or valuation of (or acceptance, agreement, approval, consent, disapproval, No-objection, permission, or similar act by) the Engineer that is relevant to the Dispute; and
- 5.1.11. proceed with the DAAB's Activities in the absence of a Party who,
- 5.1.12. after receiving a Notification from the DAAB, fails to comply with Sub-Clause 6.3 of the GCs.
- 5.2. The DAAB shall have discretion to decide whether and to what extent any powers granted to the DAAB, under this Contract, the GCs and these Rules, may be exercised.

Rule 6

6. Disputes

- 6.1. If any Dispute is referred to the DAAB in accordance with Sub-Clause [Reference of a Dispute to the DMB] of this Contract, the DAAB shall proceed in accordance with Sub-Clause [Obtaining DAAB's Decision] of the Conditions of Contract and these DAAB Rules, or as otherwise agreed by the Parties in writing.
- 6.2. The DAAB shall act fairly and impartially between the Parties and, taking due regard of the period under Sub-Clause [The DAAB's decision] of the Conditions of Contract and other relevant circumstances, the DAAB shall:
 - 6.2.1. give each Party a reasonable opportunity (consistent with the expedited nature of the DAAB proceeding) of putting forward its case and responding to the other Party's case; and
 - 6.2.2. adopt a procedure in coming to its decision that is suitable to the Dispute, avoiding unnecessary delay and/or expense.

Rule 7

7. Hearings

- 7.1. In addition to the powers under Rule 5.1 above, and except as otherwise agreed in writing by the Parties, the DAAB shall have power to:
 - 7.1.1. decide on the date and place for any hearing, in consultation with the Parties;
 - 7.1.2. decide on the duration of any hearing;
 - 7.1.3. request that written documentation and arguments from the Parties be submitted to it prior to the hearing;
 - 7.1.4. adopt an inquisitorial procedure during any hearing;
 - 7.1.5. request the production of documents, and/or oral submissions by the Parties, at any hearing that the DAAB considers may assist in exercising the DAAB's power under sub-paragraph (g) of Rule 5.1 above;
 - 7.1.6. request the attendance of persons at any hearing that the DAAB considers may assist in exercising the DAAB's power under sub-paragraph (g) of Rule 5.1 above;
 - 7.1.7. refuse admission to any hearing, or audience at any hearing, to any persons other than representatives of the Employer, the Contractor and the Engineer;
 - 7.1.8. proceed in the absence of any party who the DAAB is satisfied received timely Notice of the hearing;
 - 7.1.9. adjourn any hearing as and when the DAAB considers further investigation by one Party or both Parties would benefit resolution of the Dispute, for such time as the investigation is carried out, and resume the hearing promptly thereafter.
- 7.2. The DAAB shall not express any opinions during any hearing concerning the merits of any arguments advanced by either Party in respect of the Dispute.
- 7.3. The DAAB shall not give any Informal Assistance during a hearing, but if the Parties request, in writing, Informal Assistance during any hearing:
 - 7.3.1. the hearing shall be adjourned for such time as the DAAB is giving Informal Assistance;
 - 7.3.2. if the hearing is so adjourned for longer than 2 calendar days, the period under Sub-Clause [The DAAB's decision] of this Contract shall be temporarily suspended until the date that the hearing is resumed; and
 - 7.3.3. the hearing shall be resumed promptly after the DAAB has given such Informal Assistance.

Rule 8

8. The DAAB's Decision

- 8.1. The DAAB shall make and give its decision within the time allowed under Sub-Clause [Obtaining DAAB's Decision] of this Contract, or other time as may be proposed by the DAAB and agreed by the Parties in writing.
- 8.2. In the case of a three-member DAAB:
 - 8.2.1. it shall meet in private (after the hearing, if any) in order to have discussions and to start preparation of its decision;
 - 8.2.2. the DAAB Members shall use all reasonable endeavours to reach a unanimous decision;
 - 8.2.3. if it is not possible for the DAAB Members to reach a unanimous decision, the applicable decision shall be made by a majority of the DAAB Members, who may require the minority DAAB Member to prepare a separate written report (with reasons and supporting particulars) which shall be issued to the Parties; and
 - 8.2.4. if a DAAB Member fails to:
 - 8.2.4.1. attend a hearing (if any) or a DAAB Members' meeting; or
 - 8.2.4.2. fulfil any required function (other than agreeing to a unanimous decision)
 - 8.2.5. The Other Members shall nevertheless proceed to make a decision, unless:
 - 8.2.5.1. such failure has been caused by exceptional circumstances, of which the Other Members and the Parties have received a Notification, in writing, from the DAAB Member;
 - 8.2.5.2. the DAAB Member has suspended his services under sub-paragraph (a) of Sub-Clause 9.7 of the GCs; or
 - 8.2.5.3. otherwise agreed by the Parties in writing.
- 8.3. If, after giving a decision, the DAAB finds (and, in the case of a three-member DAAB, they agree unanimously or by majority) that the decision contained any error:
 - 8.3.1. of a typographical or clerical nature; or
 - 8.3.2. of an arithmetical nature
- 8.4. If, within 14 calendar days of receiving a decision from the DAAB, either Party finds a typographical, clerical or arithmetical error in the decision, that Party may request, in writing, the DAAB to correct such error. This shall be a written request and shall clearly identify the error.

- 8.5. If, within 14 calendar days of receiving a decision from the DAAB, either Party believes that such decision contains an ambiguity, that Party may request clarification from the DAAB. This shall be a written request and shall clearly identify the ambiguity.
- 8.6. The DAAB shall respond to a request under Rule 8.4 or Rule 8.5 above within 14 calendar days of receiving the request. The DAAB may decline (at its sole discretion and with no requirement to give reasons) any request for clarification under Rule 8.5. If the DAAB agrees (in the case of a three-member DAAB they agree unanimously or by majority) that the decision did contain the error or ambiguity as described in the request, it may correct its decision by issuing an addendum to its original decision in writing to the Parties, in which case this addendum shall be issued together with the DAAB's response under this Rule.
- 8.7. If the DAAB issues an addendum to its original decision under Rule 8.3 or 8.6 above, such an addendum shall form part of the decision and the period stated in sub-paragraph (c) of Sub-Clause [Dissatisfaction with DAAB's decision] of this Contract shall be calculated from the date the Parties receive this addendum.

Rule 9

9. In the event of Termination of DAA Agreement

- 9.1. If, on the date of termination of a DAAB Member's DAA Agreement arising from resignation or termination under Clause 10 of the GCs, the DAAB is dealing with any Dispute under Sub-Clause [Obtaining DAAB's Decision] of this Contract:
- 9.1.1. the period under Sub-Clause [The DAAB's decision] of this Contract shall be temporarily suspended; and
- 9.1.2. when a replacement DAAB Member is appointed in accordance with Sub-Clause [Constitution of the DAAB] of this Contract, the full period under Sub-Clause [The DAAB's decision] of this Contract shall apply from the date of this replacement DAAB Member's appointment
- 9.2. In the case of a three-member DAAB and if one DAAB Member's DAA Agreement is terminated as a result of resignation or termination under Clause 10 of the GCs, the Other Members shall continue as members of the DAAB except that they shall not conduct any hearing or make any decision prior to the replacement of the DAAB Member unless otherwise agreed jointly by the Parties and the Other Members, in writing.

Rule 10

10. Objection Procedure

- 10.1. The following procedure shall apply to any objection against a DAAB Member:
 - 10.1.1. the objecting Party shall, within 7 calendar days of becoming aware of the facts and/or events giving rise to the objection, give a Notification, in writing, to the DAAB Member of its objection. This Notification shall:
 - 10.1.1.1. state that it is given under this Rule;
 - 10.1.1.2. state the reason(s) for the objection;
 - 10.1.1.3. substantiate the objection by setting out the facts, and describing the events, on which the objection is based, with supporting particulars; and
 - 10.1.1.4. be simultaneously copied to the other Party and the Other Members;
 - 10.2. within 7 calendar days after receiving a Notice in writing under sub-paragraph (a) above, the objected DAAB Member shall respond to the objecting Party. This response shall be simultaneously copied to the other Party and the Other Members. If no response is given by the DAAB Member within this period of 7 calendar days, the DAAB Member shall be deemed to have given a response denying the matters on which the objection is based;
 - 10.3. within 7 calendar days after receiving the objected DAAB Member's response under sub-paragraph (b) above (or, if there is no such response, after expiry of the period of 7 calendar days stated in sub-paragraph (b) above) the objecting Party may formally challenge a DAAB member in accordance with Rule 11 below;
 - 10.4. if the challenge is not referred within the period of 7 calendar days stated in sub-paragraph (c) above, the objecting Party shall be deemed to have agreed to the DAAB Member remaining on the DAAB and shall not be entitled to object and/or challenge him/her thereafter on the basis of any of the facts and/or evidence stated in the Notice given under sub-paragraph (a) above.

Rule 11

11. Objection Challenges

- 11.1. If and when the objecting Party challenges a DAAB Member, within 21 calendar days of learning of the facts upon which the challenge is based, the provisions of this Rule shall apply. Any challenge is to be decided and administered by the Arbitration Foundation of Southern Africa / International Chamber of Commerce (ICC) and administered by the ICC International Centre for ADR
- 11.2. The procedure for such challenge and information on associated charges to be paid are set out at <http://fidic.org> and <http://iccwbo.org>.

GLOSSARY

Notwithstanding any other requirements stated throughout this Contract, capitalised terms utilised throughout this Contract shall have the same meaning as ascribed thereto, unless the context indicates otherwise or the Employer and/or Engineer makes an executive decision on the meaning, and which shall have the same meaning as the terms and conditions to be expressed in this Contract. The meaning and context of all terms used throughout this Contract shall be binding and therefore it is the responsibility of the Contractor to clarify with the Employer the meaning and context of any terms used throughout this Contract.

<u>ABBREVIATION</u>	<u>DESCRIPTION</u>
APCL	Approved Programme Change Log
B-BBEE	Broad-Based Black Economic Empowerment
CFT	Commercial and Financial Requirements
CIDB	Construction Industry Development Board
CLO	Community Liaison Officer
CPC	Community Participation Consultant
CPI	Consumer Price Index
CSD	Central Supplier Database
CTCC	Centralised Train Control Centre
EAI	Electronic Authorisation Interlocking
EAS	Electronic Authorisation System
ECO	Environmental Control Officer
ECSA	Engineering Council of South Africa
EMC	Electromagnetic Compatibility
FAT	Factory Acceptance Testing
GP	Gauteng
GTR	General Technical Requirements
KZN	KwaZulu-Natal
LCC	Life Cycle Cost
MMI	Man-Machine Interfaces

OBT	Occupation-between-trains
OEM	Original Equipment Manufacturer
OHS	Occupational Health, Safety and Security
PIS	Passenger Information System
Plant and Materials	Includes, but shall not be limited to, all Plant, Materials, Furniture, Equipment, Tools, Spares, Software, Technology and Components to be provided by the Bidder to deliver the Project
PTR	Particular Technical Requirements
QMP	Quality Management Plan
QMS	Quality Management System
RFP	Request for Proposal

ABBREVIATION	DESCRIPTION
RSS	Railway Signalling System
SAICA	South African Institute of Chartered Accountants
SANS	South African National Standard
SARS	South African Revenue Service
SAT	Site Acceptance Testing
SAWS	South African Weather Service
TCO	Train Control Officer
TCO	Train Control Operator
TCS	Train Control System
TTMS	Train Traffic Management System
TWR	Train Working Rules
VDU	Visual Display Unit
WBS	Work Breakdown Structure
WBS	Work Breakdown Structure
WC	Western Cape

MINIMUM APPLICABLE REGULATIONS, STANDARDS, SPECIFICATIONS AND REGULATIONS

General

DOCUMENT NO.	DOCUMENT DESCRIPTION
South African Regulations	
	The Engineering Profession Act, 46 of 2000
	Occupational Health and Safety Act, 1993 (Act 85 of 1993)

	Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993)
	Explosives Act No 26 of 1956 (as amended)
	SATS Legal Succession Act (Act No.9 of 1989)
SANS	
SANS3000:1	Railway Safety Management - General
SANS3000:2-1	Technical requirements for Engineering and operational standards - General
SANS3000:2-2	Technical requirements for Engineering and operational standards – Track, civil and electrical infrastructure
SANS3000:2-2-1	Technical requirements for Engineering and operational standards – Track, civil and electrical infrastructure – Level Crossings
SANS3000:2-4	Technical requirements for Engineering and operational standards – Train authorization and control systems and Equipment
SANS3000:2-5	Technical requirements for Engineering and operational standards – Train operations management
SANS3000:2-6	Technical requirements for Engineering and operational standards – Interoperability, intermodal and utilities management
SANS3000:3	Railway occurrence management
SANS3000:4	Human factors management
SANS3000:5	Railway stations
PRASA/TFR	
	Asset Disposal Form
	Train Working Rules
	Rolling Stock specification
E7/1	Work on, over, under and or adjacent for railway lines and near high voltage Equipment.
CENELEC	
EN50121-1	Railway applications - Electromagnetic compatibility - Part 1: General
EN50121-2	Railway applications - Electromagnetic compatibility - Part 2: Emission of the whole railway System to the outside world
DOCUMENT NO.	DOCUMENT DESCRIPTION
EN 50126	Railway applications – Specification and demonstration of Reliability, Availability, Maintainability and Safety (“RAMS”)
EN50125-3	Railway applications – Environmental conditions for Equipment

EN61000-6-2	EMC: Immunity for industrial environments
IEC	
IEC 62128-1	Railway applications - Fixed installations - Electrical safety, earthing and the return circuit - Part 1: Protective provisions against electric shock
IEC 61000-4	Electromagnetic compatibility ("EMC") – Part 4-1 to 4-11: Testing and measurement techniques
ISO	
ISO 9001	Quality systems – model for quality assurance in design, development, production, installation and serving

Telecommunication

DOCUMENT NO.	DOCUMENT DESCRIPTION
CENELEC	
EN 50121-4:	Railway applications- Electromagnetic compatibility (EMC)- Signalling and Telecommunication
EN50128:	Railway applications – Software for railway control and protection systems
EN50129:	Railway applications - Safety related electronic systems for signalling
EN50159-1:	Railway applications – Signalling and communications – Safety-related communication in closed transmission systems
EN50159-2:	Railway applications – Signalling and communications – Safety-related communication in open transmission systems
IEC	
IEC 60068-2-64	Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance
IEC 60068-2-29	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock
IEC/TS 62443	Industrial communication Network – Network and System security
ISO/IEC 27000	Information Technology — Security techniques — Information security management systems

