



**Engineering, Procurement and Construction (EPC)
Agreement (Part –II)
Revision-I**

For

**“COMPREHENSIVE SIGNALLING AND TELECOMMUNICATION
WORKS FOR PROVISION OF AUTOMATIC BLOCK SIGNALLING
SYSTEM IN CHINNAGANJAM (CJM)-TSUNDURU (TSR) SECTION OF
VIJAYAWADA DIVISION IN SOUTH CENTRAL RAILWAY”**

On

Engineering, Procurement and Construction (EPC) Mode

**Office of the Dy. Chief Signal & Telecom Engineer /
Projects
Vijayawada Division
South Central Railway**

January - 2026

TABLE OF CONTENTS

	Contents	Page No.
Part I	Preliminary	
	Recitals	
1	Definitions and Interpretation	13
1.1	Definitions	13
1.2	Interpretation	15
1.3	Measurements and Arithmetic Conventions	15
1.4	Priority of Agreements and Errors / Discrepancies	16
{1.5	Joint and Several Liability}	
Part II	Scope of the Project	17
2	Scope of the Project	18
2.1	Scope of the Project	18
3	Obligations of the Contractor	19
3.1	Obligations of the Contractor	19
3.2	Obligations Relating to Sub-contracts and Any Other Agreements	20
3.3	Employment of Foreign Nationals	21
3.4	Contractor's Personnel	21
3.5	Advertisement on Railway Project	22
3.6	Contractor's Care of the Works	22
3.7	Electricity, Water and Other Services	22
3.8	Unforeseeable Difficulties	22
3.9	Training of Authority's Personnel	23
3.10	Safety at Work Site	23
4	Obligations of the Authority	24
4.1	Obligations of the Authority	24
4.2	Maintenance and Operation of the Existing Facilities	25
4.3	Environmental and Forest Clearances	25
4.4	Machinery and Equipment	25
4.5	Electricity Transmission Lines	25

	Contents	Page No.
4.6	Disconnection for Modification of Existing Signalling and Telecommunication Works	26
4.7	Provision of Power Blocks and Traffic Blocks	26
5	Representations and Warranties	27
5.1	Representations and Warranties of the Contractor	27
5.2	Representations and Warranties of the Authority	28
5.3	Disclosure	29
6	Disclaimer	30
6.1	Disclaimer	30
Part III	Construction	31
7	Performance Security	32
7.1	Performance Security	32
7.2	Extension of Performance Security	33
7.3	Appropriation of Performance Security	33
7.4	Release of Performance Security	33
7.5	Retention Money	33
8	Right of Way	35
8.1	The Site	35
8.2	Handing over of the Project Site	35
8.3	Damages for Delay in Handing Over the Site	36
8.4	Site to be Free from Encumbrances	37
8.5	Protection of Site from Encroachments	37
8.6	Special / Temporary Right of Way	37
8.7	Access to the Authority and the Authority's Engineer	37
8.8	Geological and Archaeological Finds	38
9	Utilities and Trees	39
9.1	Existing Utilities and Roads	39
9.2	Shifting of Obstructing Utilities	39
9.3	New Utilities	39
9.4	Felling of Trees	40
10	Design and Construction of the Railway Project	41

	Contents	Page No.
10.1	Obligations prior to commencement of Works	41
10.2	Design and Drawings	42
10.3	Construction of the Railway Project	46
10.4	Extension of time for completion	47
10.5	Incomplete Works	48
10.6	Equipment specific Maintenance Manual	48
11	Quality Assurance, Monitoring and Supervision	49
11.1	Quality of Materials and workmanship	49
11.2	Quality control system	49
11.3	Methodology	49
11.4	Inspection and technical audit by the Authority	50
11.5	External technical audit	50
11.6	Inspection of construction records	50
11.7	Monthly progress reports	50
11.8	Inspection	50
11.9	Samples	51
11.10	Tests	51
11.11	Examination of work before covering up	51
11.12	Rejection	52
11.13	Remedial work	52
11.14	Delays during construction	53
11.15	Quality control records and Documents	53
11.16	Video recording	53
11.17	Suspension of unsafe Construction Works	53
12	Completion Certificate	55
12.1	Tests on completion	55
12.2	Provisional Certificate	55
12.3	Completion of Part-2 Punch List items	56
12.4	Completion Certificate	56
12.5	Rescheduling of Tests	57
12.6	Delayed authorisation	57
13	Change of Scope	58
13.1	Change of Scope	58

	Contents	Page No.
13.2	Procedure for Change of Scope	59
13.3	Payment for Change of Scope	60
13.4	Restrictions on Change of Scope	60
13.5	Power of the Authority to undertake works	61
14	Traffic Regulation	62
14.1	Traffic regulation by the Contractor	62
15	Defects Liability	63
15.1	Defects Liability Period	63
15.2	Remedy and rectification of Defects and deficiencies	63
15.3	Cost of remedying Defects	63
15.4	Contractor's failure to rectify Defects	64
15.5	Contractor to search cause	64
15.6	Extension of Defects Liability Period	64
16	Authority's Engineer	65
16.1	Appointment of the Authority's Engineer	65
16.2	Duties and functions of the Authority's Engineer	65
16.3	Authorised signatories	66
16.4	Instructions of the Authority's Engineer	66
16.5	Determination by the Authority's Engineer	66
16.6	Remuneration of the Authority's Engineer	66
16.7	Replacement of the Authority's Engineer	66
16.8	Interim arrangement	66
PART-IV	FINANCIAL CONVENANTS	
17	Payments	69
17.1	Contract Price	69
17.2	Advance Payment	69
17.3	Procedure for estimating the payment for the Works	70
17.4	Stage Payment Statement for Works	71
17.5	Stage Payment for Works	71
17.6	Payment of Damages	72
17.7	Time of payment and interest	72
17.8	Price adjustment for the Works	73
17.9	Restrictions on price adjustment	80

	Contents	Page No.
17.10	Final Payment Statement	81
17.11	Discharge	81
17.12	Final Payment Certificate	81
17.13	Change in law	82
17.14	Correction of Interim Payment Certificates	82
17.15	Authority's claims	82
17.16	Bonus for early completion	82
18	Insurance	83
18.1	Insurance for Works	83
18.2	Notices to the Authority	84
18.3	Evidence of Insurance Cover	84
18.4	Remedy for failure to insure	84
18.5	Waiver of subrogation	84
18.6	Contractor's waiver	84
18.7	Cross liabilities	85
18.8	Accident or injury to workmen	85
18.9	Insurance against accident to workmen	85
18.10	Application of insurance proceeds	85
18.11	Compliance with policy conditions	85
PART-V	FORCE MAJEURE AND TERMINATION	
19	Force Majeure	87
19.1	Force Majeure	87
19.2	Non-Political Event	87
19.3	Indirect Political Event	87
19.4	Political Event	88
19.5	Duty to report Force Majeure Event	88
19.6	Effect of Force Majeure Event on the Agreement	89
19.7	Termination Notice for Force Majeure Event	89
19.8	Termination Payment for Force Majeure Event	90
19.9	Dispute resolution	90
19.10	Excuse from performance of obligations	90
20	Suspension of Contractor's Rights	91
20.1	Suspension upon Contractor Default	91
20.2	Authority to act on behalf of Contractor	91

	Contents	Page No.
20.3	Revocation of Suspension	91
20.4	Termination	91
21	Termination	92
21.1	Termination for Contractor Default	92
21.2	Termination for Authority Default	93
21.3	Right of Authority to Determine the Contract	94
21.4	Requirements after Termination	94
21.5	Valuation of Unpaid Works	95
21.6	Termination Payment	95
21.7	Other rights and obligations of the Parties	96
21.8	Survival of rights	96
PART-VI	OTHER PROVISIONS	97
22	Assignment and Charges	98
22.1	Restrictions on assignment and charges	98
22.2	Hypothecation of Materials or Plant	98
23	Liability and Indemnity	99
23.1	General indemnity	99
23.2	Indemnity by the Contractor	99
23.3	Notice and contest of claims	100
23.4	Defence of claims	100
23.5	No consequential claims	101
23.6	Survival on Termination	101
24	Dispute Resolution	102
24.1	Conciliation of Disputes	102
24.2	Dispute Adjudication Board	102
24.3	Standing Arbitral Tribunal	104
25	Miscellaneous	107
25.1	Governing law and jurisdiction	107
25.2	Waiver of immunity	107
25.3	Delayed payments	107
25.4	Waiver	107
25.5	Liability for review of Documents and Drawings	107

	Contents		Page No.
25.6	Exclusion of implied warranties etc.		108
25.7	Survival		108
25.8	Entire Agreement		108
25.9	Severability		108
25.10	No partnership		108
25.11	Third Parties		109
25.12	Successors and assigns		109
25.13	Notices		109
25.14	Language		109
25.15	Counterparts		109
25.16	Confidentiality		109
25.17	Copyright and Intellectual Property rights		109
25.18	Limitation of Liability		110
26	Definitions		
26.1	Definitions		111
	Schedules		
A	Site of the Project		
1	The Site		120
Annex	I	Site	121
Annex	II	Dates for Providing Right of Way	122
Annex	III	Plan and Profile	123
Annex	IV	Environmental and Forest Clearances	124
B	Development of the Railway Project		125
Annex	I	Description of the Railway Project	126
C	Project Facilities		133
1	Project Facilities		133
D	Specifications and Standards		134
1	Construction		134
2	Design Standards		134
3	Latest Version		134

	Contents		Page No.
4	Terms Used in Manuals		134
5	Absence of Specific Provisions		134
6	Alternative Specifications and Standards		135
Annex	I	Specifications and Standards for Construction	136
Annex	II	Time Schedule for Review of Drawings by the Authority	137
E	Applicable Permits		139
1	Applicable Permits		139
F	Form of Bank Guarantee		140
Annex	I	Form of Guarantee for Performance Security	140
Annex	II	Form of Guarantee for Withdrawal of Retention Money	143
Annex	III	Form of Guarantee for Advance Payment	146
G	Contract Price Weightages		149
G1	Kavach Alterations		153
H	Drawings		159
1	Drawings		160
Annex	I	List of Drawings	160
I	Project Completion Schedule		
1	Project Completion Schedule		162
2	Project Milestone-I		162
3	Project Milestone-II		162
4	Project Milestone-III		162
5	Project Milestone-IV		162
6	Project Milestone-V		162
7	Extension of Time		162
8	Summary of Milestones		163
J	Tests on Completion		164
1	Schedule for Tests		164
2	Tests		164
3	Agency for Conducting Tests		164
4	Completion Certificate		164

	Contents	Page No.
K	Provisional Certificate / Completion Certificate	
1	Provisional Certificate	166
2	Completion Certificate	167
L	Selection of Authority's Engineer	
1	Selection of Authority's Engineer	168
2	Terms of Reference	168
Annex	I Duties and Responsibilities of Authority's Engineer	169
M	Forms of Payment Statements	
1	Stage Payment Statement for Works	174
2	Contractor's Claim for Damages	174
N	Insurance	
1	Insurance During Construction Period	175
2	Insurance for Contractor's Defects Liability	175
3	Insurance Against Injury to Persons and Damage to Property	175
4	Insurance to be in Joint Names	175
O	Provision of Traffic Blocks and Power Blocks	176
P	Machinery and Equipment	177
	Appendices	179
I	List of Bid Specific Clauses	180
A	Clauses with Non-numerical Footnotes	180
B	Clauses with Curly {} Brackets	180
C	Clauses with Blank Spaces	180

PART I

PRELIMINARY

ENGINEERING, PROCUREMENT AND CONSTRUCTION AGREEMENT

THIS AGREEMENT is entered into on this the _____ day of _____, 20_____.

BETWEEN

1. The President of India, represented by the Ministry of Railways, Chief Signal & Telecom Engineer/Projects-III, Vijayawada Division, South Central Railway, Vijayawada, and having its principal offices at Railway Mixed High School, First Floor, Opp. Running Room, Vijayawada - 520001 (hereinafter referred to as the “**Authority**” which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) of One Part;

AND

2. {_____} means the selected bidder having its registered office at _____, (hereinafter referred to as the “**Contractor**” which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns) of the Other Part.

WHEREAS:

- (A) The Authority has the responsibility to develop, operate and maintain the Indian Railways in the territorial jurisdiction of the South-Central Railway zone.
- (B) The Authority had resolved to undertake the work of “**Comprehensive Signalling and Telecommunication Works for Provision of Automatic Block Signalling System in Chinnaganjam (CJM)-Tsunduru (TSR) Section of Vijayawada Division in South Central Railway**” on Engineering, Procurement, Construction (“EPC”) basis in accordance with the terms and conditions to be set forth in an agreement to be entered into.
- (C) The Authority had prescribed the Technical and Financial terms and conditions, and invited Request for Participation (RFP) No. **B-SG-P-E-09-CJM-TSR-25-26 dated 08.01.2026** from the bidders for undertaking the Project.
- (D) After evaluation of the bids received, the Authority had accepted the bid of the selected bidder and issued its Letter of Acceptance No.(hereinafter called the “**LOA**”) to the selected bidder for undertaking the work of “**Comprehensive Signalling and Telecommunication Works for Provision of Automatic Block Signalling System in Chinnaganjam (CJM)-Tsunduru (TSR) Section of Vijayawada Division in South Central Railway**” at the Contract Price specified hereinafter, requiring the selected bidder to inter alia:
 - (i) deliver to the Authority a legal opinion from the legal counsel of the selected bidder with respect to the authority of the selected bidder to enter into this Agreement and the enforceability of the provisions thereof, within 10 (ten) days of the date of issue of LOA; and
 - (ii) execute this Agreement within 60 (Sixty) days of the date of issue of LOA.
- (E) The Contractor has fulfilled the requirements specified in Recital (D) above;

Now, therefore, in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the sufficiency and adequacy of which is hereby acknowledged, the Authority hereby covenants to pay the Contractor, in consideration of the obligations specified herein, the Contract Price or such other sum as may become payable under the provisions of the Agreement at the times and in the manner specified by the Agreement and intending to be legally bound hereby, the Parties agree as follows:

ARTICLE 1
DEFINITIONS AND INTERPRETATION

1.1 Definitions

The words and expressions beginning with capital letters and defined in this Agreement (including those in Article 26) shall, unless the context otherwise requires, have the meaning ascribed thereto herein, and the words and expressions defined in the Schedules and used therein shall have the meaning ascribed thereto in the Schedules.

1.2 Interpretation

1.2.1 In this Agreement, unless the context otherwise requires,

- (a) references to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;
- (b) references to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted;
- (c) references to a “**person**” and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;
- (d) the table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement;
- (e) the words “**include**” and “**including**” are to be construed without limitation and shall be deemed to be followed by “without limitation” or “but not limited to” whether or not they are followed by such phrases;
- (f) references to “**construction**” or “**building**” include, unless the context otherwise requires, survey and investigation, design, developing, engineering, procurement, supply of plant, materials, equipment, labour, delivery, transportation, installation, processing, fabrication, testing, and commissioning of the Railway Project, including maintenance during the Construction Period, removing of defects, if any, and other activities incidental to the construction and “construct” or “build” shall be construed accordingly;
- (g) references to “**development**” include, unless the context otherwise requires, construction, renovation, refurbishing, augmentation, up-gradation and other activities incidental thereto during the Construction Period, and “develop” shall be construed accordingly;

- (h) any reference to any period of time shall mean a reference to that according to Indian standard time;
- (i) any reference to day shall mean a reference to a calendar day;
- (j) reference to a “**business day**” shall be construed as reference to a day (other than a Sunday) on which banks in the State are generally open for business;
- (k) any reference to month shall mean a reference to a calendar month as per the Gregorian calendar;
- (l) references to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as may be extended pursuant to this Agreement;
- (m) any reference to any period commencing “**from**” a specified day or date and “**till**” or “**until**” a specified day or date shall include both such days or dates; provided that if the last day of any period computed under this Agreement is not a business day, then the period shall run until the end of the next business day;
- (n) the words importing singular shall include plural and vice versa;
- (o) references to any gender shall include the other and the neutral gender;
- (p) “**lakh**” means a hundred thousand (100,000) and “**crore**” means ten million (10,000,000);
- (q) “**indebtedness**” shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;
- (r) references to the “**winding-up**”, “**dissolution**”, “**insolvency**”, or “**reorganization**” of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganization, dissolution, arrangement, protection or relief of debtors;
- (s) save and except as otherwise provided in this Agreement, any reference, at any time, to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this Sub-clause(s) shall not operate so as to increase liabilities or obligations of the Authority hereunder or pursuant hereto in any manner whatsoever;
- (t) any agreement, consent, approval, authorization, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or the Authority Engineer shall be valid and effective only if it is in writing under the hand of a duly authorized representative of such Party or the Authority Engineer, as the case may be, in this behalf and not otherwise;

- (u) the Schedules and Recitals to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;
 - (v) references to Recitals, Articles, Clauses, Sub-clauses, Provisos or Schedules in this Agreement shall, except where the context otherwise requires, mean references to Recitals, Articles, Clauses, Sub-clauses, Provisos and Schedules of or to this Agreement; reference to an Annex shall, subject to anything to the contrary specified therein, be construed as a reference to an Annex to the Schedule in which such reference occurs; and reference to a Paragraph shall, subject to anything to the contrary specified therein, be construed as a reference to a Paragraph of the Schedule or Annex, as the case may be, in which such reference appears;
 - (w) the damages payable by either Party to the other of them, as set forth in this Agreement, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the “**Damages**”); and
 - (x) time shall be of the essence in the performance of the Parties’ respective obligations. If any time period specified herein is extended for the reasons specified in the Agreement, such extended time shall also be of the essence.
- 1.2.2 Unless expressly provided otherwise in this Agreement, any Documentation required to be provided or furnished by the Contractor to the Authority shall be provided free of cost and in three copies, and if the Authority is required to return any such Documentation with its comments and/or approval, it shall be entitled to retain two copies thereof.
- 1.2.3 The rule of construction, if any, that a contract should be interpreted against the parties responsible for the drafting and preparation thereof, shall not apply.
- 1.2.4 Any word or expression used in this Agreement shall, unless otherwise defined or construed in this Agreement, bear its ordinary English meaning and, for these purposes, the General Clauses Act, 1897 shall not apply.

1.3 Measurements and Arithmetic Conventions

All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down.

1.4 Priority of Agreements and Errors / Discrepancies

- 1.4.1 This Agreement, and all other agreements and documents forming part of or referred to in this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof or referred to herein shall, in the event of any conflict between them, be in the following order:
- (a) this EPC Agreement; and
 - (b) all other agreements and documents forming part hereof or referred to herein,
i.e. this Agreement at (a) above shall prevail over the agreements and documents at (b).

- 1.4.2 Subject to the provisions of Clause 1.4.1, in case of ambiguities or discrepancies within this Agreement, the following shall apply:
- (a) between two or more Clauses of this Agreement, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in other Clauses;
 - (b) between the Clauses of this Agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail;
 - (c) between any two Schedules, the Schedule relevant to the issue shall prevail;
 - (d) between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;
 - (e) between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail; and
 - (f) between any value written in numerals and that in words, the latter shall prevail.

1.5 Joint and Several Liability

- 1.5.1 If the Contractor has formed a Consortium / Joint Venture of two or more persons for implementing the Project:
- (a) these persons shall, without prejudice to the provisions of this Agreement, be deemed to be jointly and severally liable to the Authority for the performance of the Agreement; and
 - (b) the Contractor shall ensure that no change in the composition of the Consortium/Joint Venture is effected without the prior consent of the Authority.
- 1.5.2 Without prejudice to the joint and several liability of all the members of the Consortium / Joint Venture, the Lead Member shall represent all the members of the Consortium / Joint Venture and shall at all times be liable and responsible for discharging the functions and obligations of the Contractor. The Contractor shall ensure that each member of the Consortium / Joint Venture shall be bound by any decision, communication, notice, action or inaction of the Lead Member on any matter related to this Agreement and the Authority shall be entitled to rely upon any such action, decision or communication of the Lead Member. The Authority shall have the right to release payments solely to the Lead Member and shall not in any manner be responsible or liable for the *inter se* allocation of payments among members of the {Consortium / Joint Venture}.

PART II

SCOPE OF THE PROJECT

ARTICLE 2
SCOPE OF THE PROJECT

2.1 Scope of the Project

Under this Agreement, the scope of the Project (the “**Scope of the Project**”) shall mean and include:

- a. Construction of the Railway Project on the Site set forth in Schedule-A and as specified in Schedule-B together with provision of Project Facilities as specified in Schedule-C, and in conformity with the Specifications and Standards set forth in Schedule-D, **with Contractor’s own Material Supplies including, all Signalling, Telecom and OHE / PSI / Electrification / Lighting, building materials as per laid down specifications.**
- b. **Mainline Sleepers and Rails, except those covered in Clause 2.1(a) above shall be supplied by the Authority free of cost.**
- c. Performance and fulfilment of all other obligations of the Contractor in accordance with the provisions of this Agreement and matters incidental thereto or necessary for the performance of any or all of the obligations of the Contractor under this Agreement.

ARTICLE 3
OBLIGATIONS OF THE CONTRACTOR

3.1 Obligations of the Contractor

- 3.1.1 Subject to and on the terms and conditions of this Agreement, the Contractor shall undertake the survey, investigation, design, engineering, procurement, and construction of the Railway Project and observe, fulfil, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 3.1.2 The Contractor shall comply with all Applicable Laws and Applicable Permits (including renewals as required) in the performance of its obligations under this Agreement.
- 3.1.3 Save and except as otherwise provided in this Agreement or Applicable Laws, as the case may be, the Contractor shall, in discharge of all its obligations under this Agreement, conform with and adhere to Good Industry Practice at all times.
- 3.1.4 The Contractor shall remedy any and all loss or damage to the Railway Project, occurring on or after the Appointed Date and until the date of Provisional Certificate, with respect to the Works completed prior to the issuance of the Provisional Certificate and / or Completion Certificate, with respect to the Works referred to in the Punch List, at its own cost, save and except to the extent that any such loss or damage shall have arisen from any default of the Authority or on account of a Force Majeure Event in which case the provisions of Article 19 shall apply.
- 3.1.5 The Contractor shall remedy any and all loss or damage to the Railway Project during the Defects Liability Period at its own cost, to the extent that such loss or damage shall have arisen out of the reasons specified in Clause 15.3.
- 3.1.6 The Contractor shall, at its own cost and expense, in addition to and not in derogation of its obligations elsewhere set out in this Agreement:
 - (a) make, or cause to be made, necessary applications to the relevant Government Instrumentalities with such particulars and details as may be required for obtaining Applicable Permits set forth in Schedule-E and obtain and keep in force and effect such Applicable Permits in conformity with Applicable Laws;
 - (b) procure, as required, the appropriate proprietary rights, licences, agreements and permissions for Materials, methods, processes, know-how and systems used or incorporated into the Railway Project;
 - (c) make reasonable efforts to maintain harmony and good industrial relations among the personnel employed by it or its Sub-contractors in connection with the performance of its obligations under this Agreement;
 - (d) ensure that its Sub-contractors comply with all Applicable Permits and Applicable Laws in the performance by them of any of the Contractor's obligations under this Agreement;

- (e) always act in a manner consistent with the provisions of this Agreement and not cause or fail to do any act, deed or thing, whether intentionally or otherwise, which may in any manner be in violation of any of the provisions of this Agreement;
 - (f) support, cooperate with and facilitate the Authority in the implementation and operation of the Project in accordance with the provisions of this Agreement;
 - (g) ensure that the Contractor and its Sub-contractors comply with the safety and welfare measures for labour in accordance with Applicable Laws and Good Industry Practice;
 - (h) keep, on the Site, a copy of this Agreement, publications named in this Agreement, the Drawings, Documents relating to the Project, Change of Scope Orders and other communications sent under this Agreement, and provide access to all these documents at all reasonable times to the Authority Engineer and its authorised personnel;
 - (i) cooperate with other contractors employed by the Authority and with personnel of any other public authority; and
 - (j) not interfere unnecessarily or improperly with the convenience of the public, or the access to and use and occupation of all the existing facilities within the Right of Way, irrespective of whether they are public or in the possession of the Authority or of others.
 - (k) to provide reasoned comments on any information relating to the contractor's activities under or pursuant to the agreement, which the Authority may publish.
- 3.1.7 The Contractor shall undertake all necessary superintendence to plan, arrange, direct, manage, inspect and test the Works.

3.2 Obligations Relating to Sub-contracts and Any Other Agreements

- 3.2.1 The Contractor shall not sub-contract the Works comprising more than 70% (seventy per cent) of the Contract Price and shall carry out Works for at least 30% (thirty per cent) of the total Contract Price directly under its own supervision and through its own personnel. The Parties expressly agree that for the purposes of computing the value of sub-contracts under this Clause 3.2.1, the Contract Price shall exclude any sub-contract for the procurement of goods and equipment like signalling and telecommunication, Power supply equipment. The Parties agree that all obligations and liabilities under this Agreement for the entire Railway Project shall at all time remain with the Contractor. {The Parties agree that the obligations of the Contractor to carry out Works equal to at least 30% (thirty per cent) of the Contract Price shall be discharged solely by the Lead Member.}[§]
- 3.2.2 In the event any sub-contract for Works, or the aggregate of such sub-contracts with any Sub-contractor, exceeds 5% (five per cent) of the Contract Price, the Contractor shall communicate the name and particulars, including the relevant experience of the sub-contractor, to the Authority prior to entering into any such sub-contract. Provided, however, that in any event the Contractor shall communicate the name and particulars to the Authority for any sub-contract including the relevant experience prior to entering into any such sub-contract. The Authority shall examine the particulars

[§] May be deleted if the Contractor is not a Consortium / Joint Venture

of the sub-contractor from the national security and public interest perspective and may require the Contractor, no later than 15 (fifteen) business days from the date of receiving the communication from the Contractor, not to proceed with the sub-contract, and the Contractor shall comply therewith and shall have no claim whatsoever on this account.

- 3.2.3 Without prejudice to the provisions of Clause 3.2.2, in the event any sub-contract referred to in Clause 3.2.2 relates to a sub-contractor who has, over the preceding 3 (three) financial years and the current financial year, not undertaken at least one work of a similar nature with a contract value exceeding 40% (forty per cent) of the value of the sub-contract to be awarded hereunder and received payments in respect thereof for an amount equal to at least 80% (eighty per cent) of such contract, the Authority may, no later than 15 (fifteen) business days from the date of receiving the communication from the Contractor, require the Contractor not to proceed with such sub-contract, and the Contractor shall comply therewith.
- 3.2.4 It is expressly agreed that the Contractor shall, at all times, be responsible and liable for all its obligations under this Agreement notwithstanding anything contained in the agreements with its Sub-contractors or any other agreement that may be entered into by the Contractor, and no default under any such agreement shall excuse the Contractor from its obligations or liability hereunder.
- 3.2.5 Notwithstanding anything to the contrary contained in this Agreement, the Contractor agrees and acknowledges that it will not assign any work to any contractor / sub-contractor from a country which shares a land border with India unless such contractor / sub-contractor is registered with the competent Authority. Contractor will ensure that such Contractor / sub-contractor fulfils all requirements in this regard and is eligible to be considered (evidence of valid registration by the competent authority is enclosed). The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT), India.

3.3 Employment of Foreign Nationals

The Contractor acknowledges, agrees and undertakes that employment of foreign personnel by the Contractor and / or its Sub-contractors and their sub-contractors shall be subject to grant of requisite regulatory permits and approvals including employment / residential visas and work permits, if any required, and the obligation to apply for and obtain the same shall and will always be of the Contractor. Notwithstanding anything to the contrary contained in this Agreement, refusal of or inability to obtain any such permits and approvals by the Contractor or any of its Sub-contractors or their sub-contractors shall not constitute Force Majeure Event, and shall not in any manner excuse the Contractor from the performance and discharge of its obligations and liabilities under this Agreement.

3.4 Contractor's Personnel

- 3.4.1 The Contractor shall ensure and procure that the personnel engaged by it or by its Sub-contractors for performance of its obligations under this Agreement are at all times appropriately qualified, skilled and experienced in their respective functions including in conformity with Applicable Laws including the Indian Railway General and Subsidiary Rules, the Indian Electricity Rules, and Good Industry Practice.

- 3.4.2 The Authority Engineer may, for reasons to be specified in writing, direct the Contractor to remove any member of the Contractor's or Sub-contractor's personnel from the Railway Project. Provided, any such direction issued by the Authority Engineer shall specify the reasons for the removal of such person.
- 3.4.3 The Contractor shall, on receiving a direction from the Authority Engineer under the provisions of Clause 3.4.2, ensure and procure the removal of such person or persons from the Railway Project with immediate effect. The Contractor shall further ensure that such persons have no further connection with the Railway Project.
- 3.4.4 The Contractor shall be responsible for the Security of the Work Site and for keeping the unauthorized persons off the Site.

3.5 Advertisement on Railway Project

The Contractor shall not use the Railway Project or any part thereof in any manner for branding or advertising purposes including for advertising any commercial product or services or companies.

3.6 Contractor's Care of the Works

The Contractor shall bear full risk in and take full responsibility for the care of Works, and of Materials, goods and equipment for incorporation therein, on and from the Appointed Date and until the date of Provisional Certificate, with respect to the Works completed prior to the issuance of the Provisional Certificate and / or Completion Certificate, with respect to the Works referred to in the Punch List, save and except to the extent that any such loss or damage shall have arisen from any default or neglect of the Authority.

3.7 Electricity, Water and Other Services

The Contractor shall be responsible for procuring of all power, water and other services that it may require for the Railway Project.

3.8 Unforeseeable Difficulties

Except as otherwise specified in the Agreement:

- (a) the Contractor accepts complete responsibility for having foreseen all difficulties and costs of successfully completing the Works;
- (b) the Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs; and
- (c) the Scheduled Completion Date shall not be adjusted to take account of any unforeseen difficulties or costs.

For the purposes of this Clause, unforeseeable difficulties include physical conditions like man-made or natural physical conditions including sub-surface and hydrological conditions which the Contractor encounters at the Site during execution of the Works.

3.9 Training of Authority's Personnel

3.9.1 The Contractor shall provide and complete the training to the personnel of the Authority in diagnostic, trouble shooting, repairing, operation and maintenance of the signalling and telecommunication equipment. Total training shall not be less than 150 man days. The contractor shall train railway personnel on various equipment such as MSDAC, UFSBI, IPS, Data-logger, Telecom Equipment, OFC, Video Surveillance Equipment and any other equipment deployed in the project. The Training shall be imparted by OEM's at a location mutually agreed by Authority Engineer and Contractor. The training shall be completed before the issuance of the Provisional Certificate / Completion Certificate. Before the issue of any handing-over certificate, the final O & M Manuals, wherever required, shall be submitted by the contractor to the Authority Engineer.

3.9.2 Deleted

3.10 Safety at Work Site

The Contractor and its sub-contractors shall follow the safety instructions and take all safety measures for workmen and vehicles plying in the work area in accordance with Applicable Laws, Good Industry Practice and the provisions of this Agreement.

ARTICLE 4
OBLIGATIONS OF THE AUTHORITY

4.1 Obligations of the Authority

- 4.1.1 The Authority shall, at its own cost and expense, undertake, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 4.1.2 The Authority shall be responsible for the correctness of the Scope of the Project, Project Facilities, Specifications and Standards and the criteria for Testing of the completed Works.
- 4.1.3 The Authority shall, upon receiving the Performance Security under Clause 7.1.1, provide to the Contractor:
- (a) the Right of Way in accordance with the provisions of Clauses 8.2 and 8.3 on no less than 95% (ninety-five per cent) of core land length and 90% (ninety percent) of non-core land length of the total length of the Railway Project before appointed date;
 - (b) environmental and forest clearances are not required for this project; and
 - (c) Deleted.
- 4.1.4 In the event that (i) the Authority does not procure fulfilment of any or all of the obligations set forth in Clause 4.1.3 within the period specified in respect thereof, and (ii) the delay has not occurred as a result of breach of this Agreement by the Contractor or due to Force Majeure, the Authority shall pay to the Contractor Damages in a sum calculated in accordance with the provisions of Clause 8.3 of this Agreement and grant Time Extension in accordance with the provisions of Clause 10.4.
- 4.1.5 Notwithstanding anything to the contrary contained in this Agreement, the Parties expressly agree that the aggregate Damages payable by the Authority under Clauses 4.1.4, 4.4.3, 8.3 and 9.2 shall not exceed 5% (five per cent) of the Contract Price. For the avoidance of doubt, the Damages payable by the Authority under the aforesaid Clauses shall not be additive if they arise concurrently from more than one cause but relate to the same part of the Railway Project.
- 4.1.6 The Authority agrees to provide support to the Contractor and undertakes to observe, comply with and perform, subject to and in accordance with the provisions of this Agreement and Applicable Laws, the following:
- (a) upon written request from the Contractor, and subject to the Contractor complying with Applicable Laws, provide reasonable support to the Contractor in procuring Applicable Permits required from any Government Instrumentality for implementation of the Project;
 - (b) upon written request from the Contractor, provide reasonable assistance to the Contractor in obtaining access to all necessary infrastructure facilities and utilities, including water and electricity at rates and on terms no less favourable than those generally available to commercial customers receiving substantially equivalent services;
 - (c) procure that no barriers that would have a material adverse effect on Works are erected or placed on or about the Railway Project by any Government Instrumentality or persons claiming through or under it, except for reasons of Emergency, national security or law and order;

- (d) not do or omit to do any act, deed or thing which may in any manner is in violation of any of the provisions of this Agreement;
- (e) support, cooperate with and facilitate the Contractor in the implementation of the Project in accordance with the provisions of this Agreement; and
- (f) upon written request from the Contractor and subject to the provisions of Clause 3.3, provide reasonable assistance to the Contractor and any expatriate personnel of the Contractor or its Sub-contractors to obtain applicable visas and work permits for the purposes of discharge by the Contractor or its Sub-contractors of their obligations under this Agreement and the agreements with the Sub-contractors.

4.2 Maintenance and Operation of the Existing Facilities

The Authority shall undertake the maintenance of the facilities existing prior to the Appointed Date including railway lines, bridges, structures, electrical, signaling and communications works within the Right of Way.

4.3 Environmental and Forest Clearances

Environmental and forest clearances are not required for this project.

4.4 Machinery and Equipment

4.4.1 The Authority shall upon receiving a request from the Contractor, provide the machinery and equipment specified in Schedule-P on payment of hire charges at the monthly rates specified therein. The Parties agree that the monthly rate for each machine or equipment shall be inclusive of fuel and all other operating charges, which shall be converted into daily rates taking a month comprising 25 (twenty-five) working days. The Parties further agree that for each machinery or equipment:

- (a) The charges shall be payable for a day even if a machine or equipment is used for less than 8 (eight) hours, so long as it has been placed at the disposal of the Contractor and has not been withdrawn;
- (b) the daily rates shall be computed for a shift of 8 (eight) hours taken as one day. By way of illustration, if the machinery or equipment is used for 16 (sixteen) hours on any day, the charges payable shall be equal to twice the daily rate; and

4.4.2 The Contractor shall by notice of at least three weeks convey to the Authority the particulars of the machinery and equipment required for each day of the following one month.

4.4.3 Deleted

4.5 Electricity Transmission Lines

Deleted

4.6 Disconnection for Modification of Existing Signalling and Telecommunication Works

- 4.6.1 The Contractor shall on requirement of disconnection of a particular subsystem for modification in the existing signalling and telecommunication system at railway stations, level crossing gates and interlocked sections, inform the Authority Engineer by notice of at least one week of its readiness for commissioning and the Authority Engineer shall obtain the requisite approvals from the Authority for the required disconnections. All such work requiring disconnection of existing signalling systems shall be executed under supervision of Authority Engineer or his representative. The Parties expressly agree that in the event of any default in providing such disconnection, the Authority shall pay to the Contractor Damages at the rate of Rs.1,000/- (Rupees one thousand) per day. The Contractor shall ensure that there is no interruption / disturbance to operational circuits in such cases of modification of signalling and telecom systems.

4.7 Provision of Power Blocks and Traffic Blocks

Not Applicable

ARTICLE 5
REPRESENTATIONS AND WARRANTIES

5.1 Representations and warranties of the Contractor

The Contractor represents and warrants to the Authority that:

- (a) it is duly organised and validly existing under the laws of India, and has full power and authority to execute and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
- (b) it has taken all necessary corporate and other actions under Applicable Laws to authorise the execution and delivery of this Agreement and to validly exercise its rights and perform its obligations under this Agreement;
- (c) this Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this Agreement will be legally valid, binding and enforceable obligations against it in accordance with the terms hereof;
- (d) it is subject to the laws of India, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising there under including any obligation, liability or responsibility hereunder;
- (e) the information furnished in the Bid and as updated on or before the date of this Agreement is true and accurate in all respects as on the date of this Agreement;
- (f) the execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of its memorandum and articles of association or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- (g) there are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the breach of this Agreement or which individually or in the aggregate may result in any material impairment of its ability to perform any of its obligations under this Agreement;
- (h) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;
- (i) it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a material adverse effect on its ability to perform its obligations under this Agreement;

- (j) no representation or warranty by it contained herein or in any other document furnished by it to the Authority or to any Government Instrumentality in relation to Applicable Permits contains or will contain any untrue or misleading statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading;
- (k) no sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the contract or entering into this Agreement or for influencing or attempting to influence any officer or employee of the Authority in connection therewith;
- (l) all information provided by the {selected bidder / members of the Consortium / Joint Venture} in response to the RFP or otherwise, is to the best of its knowledge and belief, true and accurate in all material respects; and
- (m) nothing contained in this Agreement shall create any contractual relationship or obligation between the Authority and any Sub-contractors, designers, consultants or agents of the Contractor.

5.2 Representations and Warranties of the Authority

The Authority represents and warrants to the Contractor that:

- (a) it has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated herein and that it has taken all actions necessary to execute this Agreement, exercise its rights and perform its obligations, under this Agreement;
- (b) it has taken all necessary actions under Applicable Laws to authorise the execution, delivery and performance of this Agreement;
- (c) it has the financial standing and capacity to perform its obligations under this Agreement;
- (d) this Agreement constitutes a legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- (e) it has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on the Authority's ability to perform its obligations under this Agreement;
- (f) it has complied with Applicable Laws in all material respects;
- (g) it has good and valid right to the Site and has the power and authority to grant the Right of Way in respect thereof to the Contractor; and
- (h) it shall have procured, as on the Appointed Date, Right of Way and environment clearances such that the Contractor can commence construction forthwith on 95% (ninety five per cent) of the core land length and 90% of non-core land length of the Railway Project.

5.3 Disclosure

In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Party of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any obligation of either Party under this Agreement.

ARTICLE 6
DISCLAIMER

6.1 Disclaimer

- 6.1.1 The Contractor acknowledges that prior to the execution of this Agreement, the Contractor has, after a complete and careful examination, made an independent evaluation of the Request for Proposal (RFP), Scope of the Project, Specifications and Standards, Site, local conditions, physical qualities of ground, subsoil and geology, traffic volumes, suitability and availability of access routes to the Site and all information provided by the Authority or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder. Save as provided in Clause 4.1.2 and Clause 5.2, the Authority makes no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumptions, statement or information provided by it and the Contractor confirms that it shall have no claim whatsoever against the Authority in this regard.
- 6.1.2 The Contractor acknowledges and hereby accepts to have satisfied itself as to the correctness and sufficiency of the Contract Price.
- 6.1.3 The Contractor acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Clause 6.1.1 above and hereby acknowledges and agrees that the Authority shall not be liable for the same in any manner whatsoever to the Contractor, or any person claiming through or under any of them, and shall not lead to any adjustment of Contract Price or Scheduled Completion Date.
- 6.1.4 The Parties agree that any mistake or error in or relating to any of the matters set forth in Clause 6.1.1 above shall not vitiate this Agreement, or render it voidable.
- 6.1.5 In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in Clause 6.1.1 above, that Party shall immediately notify the other Party, specifying the mistake or error.
- 6.1.6 Except as otherwise provided in this Agreement, all risks relating to the Project shall be borne by the Contractor; and the Authority shall not be liable in any manner for such risks or the consequences thereof.

PART III

CONSTRUCTION

ARTICLE 7
PERFORMANCE SECURITY

7.1 Performance Security

- 7.1.1 Contractor shall, for the performance of its obligations hereunder, provide to the Authority, within 30 (Thirty) days of issue of LOA, Performance security in the form of Insurance Surety Bond*/ account payee demand draft/ fixed deposit receipt from a commercial bank/ online payment in an acceptable form/ an irrevocable and unconditional Bank Guarantee (the “Performance Security”), for an amount equal to **5% (five percent)** of the Contract Price from a Bank in the form set forth in Annex- I/IA of Schedule-F

The Performance Security shall be valid until 60 (sixty) days of the expiry of the Defects Liability Period specified in Clause 15.1.1. Until such time the Performance Security is provided by the Contractor pursuant hereto and the same comes into effect, the Bid Security shall remain in force and effect, and upon such provision of the Performance Security, the Authority shall release the Bid Security to the Contractor. For the avoidance of doubt, the Parties expressly agree that the Contractor shall provide, no later than 30 (thirty) days prior to the expiry of the Performance Security for the Defects Liability Period specified in Clause 15.1.1, a Performance Security in respect of the extended Defects Liability Period, as specified in Clause 15.1.2, for an amount equal to 5% (three per cent) of the estimated cost of the Structures, Important Bridges, if any, comprising a new technology not currently in use in the Railways and the interlocking and telecom switching equipment as specified in Schedule B.

***Note (In case PG in for of Insurance Surety Bond):**

In case of extension of Date of Completion, selected bidder needs to submit extended Insurance Surety Bond/Fresh Insurance Surety Bond/fresh Performance Security, in any form as given above, before expiry of existing Insurance Surety Bond.

- 7.1.2 Notwithstanding anything to the contrary contained in this Agreement, the Parties agree that in the event of failure of the Contractor to provide the Performance Security in accordance with the provisions of Clause 7.1.1 and within the time specified therein or such extended period as may be provided by the Authority, in accordance with the provisions of Clause 7.1.3, the Authority shall encash the Bid Security and appropriate the proceeds thereof as part-Damages, and thereupon all rights, privileges, claims and entitlements of the Contractor under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Contractor, and this Agreement shall be deemed to have been terminated by mutual agreement of the Parties along with further levy of the Liquidated Damages equivalent to the stipulated ‘Performance Security’, which shall be recoverable from contractor’s pending/future dues with IR in any of the ongoing/future contracts.
- 7.1.3 In the event the Contractor fails to provide the Performance Security within 30 (Thirty) days of the issue of LOA as provided in Clause 7.1.1 above, the Contractor may seek extension of time for a period not exceeding a further 30 (Thirty) days on payment of damages for such extended period equivalent to a sum calculated at the rate of **0.01% (zero point zero one percent)** of the contract price for each day of delay until the Performance Security is provided. **(i.e. from 31st day to 60th day).**

7.2 Extension of Performance Security

- 7.2.1 The Contractor may initially provide the Performance Security for a period of 2 (two) years; provided that it shall procure the extension of the validity of the Performance Security, as necessary, at least 2 (two) months prior to the date of expiry thereof. Upon the Contractor providing an extended Performance Security, the previous Performance Security shall be deemed to be released and the Authority shall return the same to the Contractor within a period of 7 (seven) business days from the date of submission of the extended Performance Security.

7.3 Appropriation of Performance Security

- 7.3.1 Upon occurrence of a Contractor Default, the Authority shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to encash and appropriate from the Performance Security the amounts due to it as Damages for the Contractor Default.
- 7.3.2 Upon such encashment and appropriation from the Performance Security, the Contractor shall, within 30 (thirty) days thereof, replenish, in case of partial appropriation, to its original level the Performance Security, and in case of appropriation of the entire Performance Security provide a fresh Performance Security, as the case may be, and the Contractor shall, within the time so granted, replenish or furnish fresh Performance Security as aforesaid failing which the Authority shall be entitled to terminate the Agreement in accordance with Article 21. Upon such replenishment or furnishing of a fresh Performance Security, as the case may be, the Contractor shall be entitled to an additional Cure Period of 30 (thirty) days for remedying the Contractor Default, and in the event of the Contractor not curing its default within such Cure Period, the Authority shall be entitled to encash and appropriate such Performance Security as Damages, and to terminate this Agreement in accordance with Article 21.

7.4 Release of Performance Security

The Authority shall release the Performance Security within 60 (sixty) days of the expiry of the Defects Liability Period or the extended Defects Liability Period, as the case may be, under this Agreement. Notwithstanding the aforesaid, the Parties agree that the Authority shall not be obliged to release the Performance Security until all Defects identified during the Defects Liability Period or the extended Defects Liability Period, as the case may be, have been rectified.

7.5 Retention Money

- 7.5.1 From every payment for Works due to the Contractor in accordance with the provisions of Clause 17.5, the Authority shall deduct 6% (six per cent) thereof as guarantee money for performance of the obligations of the Contractor during the Construction Period (the “**Retention Money**”) subject to the condition that the maximum amount of Retention Money shall not exceed 5% (five per cent) of the Contract Price.
- 7.5.2 Upon occurrence of a Contractor’s Default, the Authority shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to appropriate the relevant amounts from the Retention Money as Damages for such Contractor’s Default.
- 7.5.3 The Contractor may, upon furnishing an irrevocable and unconditional Bank Guarantee substantially in the form provided at Annex-II of Schedule-F, require the Authority to refund the Retention Money deducted by the Authority under the provisions of Clause 7.5.1. Provided that the refund hereunder shall be made in tranches of not less than 0.5% (zero point five per cent) of the Contract Price. Further, the Retention Money may be deposited as Bank Guarantee, issued by Scheduled

Commercial Bank after signing of Contract Agreement, but before payment of first payment bill. Provided further that validity of Bank Guarantee shall be extended from time to time depending upon extension of Contract granted.

- 7.5.4 Within 15 (fifteen) days of the date of issue of the Completion Certificate, the Authority shall discharge the bank guarantees, if any, furnished by the Contractor under the provisions of Clause 7.5.3 and refund the balance of Retention Money remaining with the Authority after adjusting the amounts appropriated under the provisions of Clause 7.5.2 and the amounts refunded under the provisions of Clause 7.5.3.
- 7.5.5 The Parties agree that in the event of Termination of this Agreement, the Retention Money and the bank guarantees specified in this Clause 7.5 shall be treated as if they are Performance Security and shall be reckoned as such for the purposes of Termination Payment under Clause 21.6.

ARTICLE 8 RIGHT OF WAY

8.1 The Site

The site of the Railway Project (the “**Site**”) shall comprise the site described in Schedule-A in respect of which the Right of Way shall be provided by the Authority to the Contractor. The Authority shall be responsible for:

- (a) acquiring and providing Right of Way on the Site in accordance with the scheme plans for ABS finalized by the Authority and attached with this document, free from all encroachments and encumbrances, and free access thereto for the execution of this Agreement;

This Right of Way will not include completely free access to locations where working may affect safety of train traffic (i.e. relay room, locations boxes, ABS huts, track crossing, existing cable path etc). In such cases, right of work will be arranged by the Authority Engineer on written request made by contractor at least 7 days in advance, if such request is reasonable

- (b) Not applicable.

8.2 Handing Over of the Project Site

- 8.2.1 The Authority Representative and the Contractor shall, within 15 (fifteen) days of providing the Performance Security by the Contractor in accordance with the provisions of Clause 7.1, jointly inspect the Site and prepare a joint memorandum containing an inventory of the Site including the vacant and unencumbered land, buildings, structures, road / railway works, trees and any other immovable property on or attached to the Site. Subject to the provisions of Clause 8.2.3, such memorandum shall have appended thereto an Appendix (the “**Appendix**”) specifying in reasonable detail those parts of the Site to which vacant access and Right of Way has not been given to the Contractor. Signing of the memorandum, in 2 (two) counterparts (each of which shall constitute an original), by the authorised representatives of the Parties shall be deemed to constitute valid evidence of handing over of the Right of Way to the Contractor for discharging its obligations under and in accordance with the provisions of this Agreement and for no other purpose whatsoever.

For the avoidance of doubt, the Parties agree that subject to the provisions of Clauses 8.2.2 and 8.2.3, whenever the Authority is ready to provide Right of Way for any part or parts of the Site included in the “**Appendix**”, it shall by notice inform the Contractor, of the proposed date and time when the Authority Representative and the Contractor shall inspect the specified parts of the Site, and prepare a memorandum which shall be deemed to constitute a valid evidence of handing over of such Right of Way to the Contractor in accordance with the provisions of this Clause 8.2.1.

- 8.2.2 Notwithstanding anything to the contrary contained in this Clause 8.2, the Authority shall specify the parts of the Site, if any, for which Right of Way shall be provided to the Contractor on the dates specified in Schedule-A. Such parts shall also be included in the Appendix prepared in pursuance of Clause 8.2.1. For the avoidance of doubt, the Parties expressly agree that the Appendix shall in no event contain Sections of the Railway Project the cumulative length of which exceeds 5% (Five per cent) of the core land length and 10% (ten per cent) of the non-core land length of the Railway Project.
- 8.2.3 The Authority shall provide the Right of Way to the Contractor, in respect of the land included in the Appendix, by the date specified in Schedule-A for each part of the Site referred to therein, but in no case later than 180 (one hundred and eighty) days of the Appointed Date, and in the event of delay

for any reason other than Force Majeure or breach of this Agreement by the Contractor, it shall pay to the Contractor, Damages in a sum calculated in accordance with Clause 8.3.

8.3 Damages for Delay in Handing Over the Site

- 8.3.1 In the event the Right of Way to any part of the Site is not provided by the Authority on or before the date(s) specified in Clause 8.2 for any reason other than Force Majeure or breach of this Agreement by the Contractor, the Authority shall grant a suitable extension to time and no damages will be paid to the contractor.

In the event that any Damages are due and payable to the Contractor under the provisions of this Clause 8.3.1 for delay in providing the Right of Way, the Contractor shall, subject to the provisions of Clause 10.4, be entitled to Time Extension equal to the period for which the Damages have become due and payable under this Clause 8.3.1, save and except that:

- (b) if any delays involve time overlaps, the overlaps shall not be additive; and
- (c) such Time Extension shall be restricted only to the Works which are affected by the delay in providing the Right of Way.

For the avoidance of doubt, the Parties expressly agree that the Damages specified hereunder and the Time Extension specified in Clause 10.4 shall be restricted only to failure of the Authority to provide the Right of Way for and in respect of the width of the Site required for Works in accordance with the Good Industry Practice.

- 8.3.2 Notwithstanding anything to the contrary contained in this Agreement, the Contractor expressly agrees that Works on all parts of the Site for which Right of Way is granted within 180 (one hundred and eighty) days of the Appointed Date, or with respect to the parts of the Site provided in Schedule-A, no later than the date(s) specified therein, as the case may be, shall be completed before the Scheduled Completion Date and shall not qualify for any Time Extension under the provisions of Clause 8.3.1.
- 8.3.3 Notwithstanding anything to the contrary contained in this Agreement, the Authority may at any time withdraw any part of the Right of Way and the Works forming part of this Agreement, subject to such Works not exceeding an aggregate value, such value to be determined in accordance with Schedule-G, equal to 5% (five per cent) of the Contract Price.

Provided that if Right of Way has not been provided within 240 (two hundred and forty) days of the Appointed Date, for commencing construction on any part of the Site included in the Appendix, the affected Works shall be deemed to be withdrawn under the provisions of this Clause 8.3.3 unless the Parties agree to the contrary, and such Works shall not be computed for the purposes of the aforesaid ceiling of 5% (five per cent) of the Contract Price hereunder. For the avoidance of doubt, the Parties agree that such deemed withdrawal of Works hereunder shall be without prejudice to the Contractor's entitlement to Damages under Clauses 4.1.4, 8.3 and 9.2.

- 8.3.4 In the event of withdrawal of Works under Clause 8.3.3, including deemed withdrawal of Works, the Contract Price shall be reduced by an amount equal to 95% (ninety five per cent) of the value of the Works withdrawn and the Contractor shall not be entitled to any other compensation or Damages for the withdrawal of Works, including their deemed withdrawal, save and except for Damages as provided under Clause 4.3.

Provided that if any Works are withdrawn after commencement of the Construction of such Works, the Authority shall pay to the Contractor 100% (one hundred) of the fair value of the work done, as assessed by the Authority Engineer.

8.4 Site to be Free from Encumbrances

Subject to the provisions of Clause 8.2, the Site shall be made available by the Authority to the Contractor pursuant hereto free from all Encumbrances and occupations and without the Contractor being required to make any payment to the Authority on account of any costs, compensation, expenses and charges for the acquisition and use of such Site for the duration of the Project Completion Schedule. For the avoidance of doubt, it is agreed that the existing rights of way, easements, privileges, liberties and appurtenances to the Site shall not be deemed to be Encumbrances. It is further agreed that, unless otherwise specified in this Agreement, the Contractor accepts and undertakes to bear any and all risks arising out of the inadequacy or physical condition of the Site.

8.5 Protection of Site from Encroachments

On and after signing the memorandum and / or subsequent memorandum referred to in Clause 8.2.1, and until the issue of the Provisional Certificate, the Contractor shall maintain a round-the-clock vigil over the Site and shall ensure and procure that no encroachment thereon takes place. During the Construction Period, the Contractor shall protect the Site from any and all occupations, encroachments or Encumbrances, and shall not place or create nor permit any Sub-contractor or other person claiming through or under the Agreement to place or create any Encumbrance or security interest over all or any part of the Site or the Project Assets, or on any rights of the Contractor therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement. In the event of any encroachment or occupation on any part of the Site, the Contractor shall report such encroachment or occupation forthwith to the Authority and undertake its removal at its own cost and expenses.

8.6 Special / Temporary Right of Way

The Contractor shall bear all costs and charges for any special or temporary right of way required by it in connection with access to the Site. The Contractor shall obtain at its cost such facilities on or outside the Site as may be required by it for the purposes of the Railway Project and the performance of its obligations under this Agreement.

8.7 Access to the Authority and the Authority Engineer

- 8.7.1 The Right of Way given to the Contractor hereunder shall always be subject to the right of access of the Authority and the Authority Engineer and their employees and agents for inspection, viewing and exercise of their rights and performance of their obligations under this Agreement.
- 8.7.2 The Contractor shall ensure, subject to all relevant safety procedures, that the Authority has unrestricted access to the Site during any Emergency.

8.8 Geological and Archaeological Finds

It is expressly agreed that mining, geological or archaeological rights do not form part of this Agreement with the Contractor for the Works, and the Contractor hereby acknowledges that it shall

not have any mining rights or interest in the underlying minerals, fossils, antiquities, structures or other remnants or things either of particular geological or archaeological interest and that such rights, interest and property on or under the Site shall vest in and belong to the Authority or the concerned Government Instrumentality. The Contractor shall take all reasonable precautions to prevent its workmen or any other person from removing or damaging such interest or property and shall inform the Authority forthwith of the discovery thereof and comply with such instructions as the Authority or the concerned Government Instrumentality may reasonably give for the removal of such property. For the avoidance of doubt, it is agreed that any reasonable expenses incurred by the Contractor hereunder shall be reimbursed by the Authority. It is also agreed that the Authority shall procure that the instructions hereunder are issued by the concerned Government Instrumentality within a reasonable period.

ARTICLE 9
UTILITIES AND TREES

9.1 Existing Utilities and Roads

Notwithstanding anything to the contrary contained herein, the Contractor shall ensure that the respective entities owning the existing roads, right of way, level crossings, structures, or utilities on, under or above the Site are enabled by it to keep them in continuous satisfactory use, if necessary, by providing suitable temporary diversions with the authority of the controlling body of that road, right of way or utility.

- 9.1.1** The works of shifting of utility (ies) owned by Railways and already communicated to Contractor as part of Tender document shall be part of schedule-G. List of utilities (Railway owned or other) is being made available to the contractor as part of Tender document. However, the contractor shall have to conduct the inspection/investigation of the utilities before execution of the work independently.
- 9.1.2** Diversion of utility(ies) not owned by Railways or not communicated to Contractor as part of Tender document shall be payable under BOQ items of relevant Schedule-G1
- 9.1.3** List of utilities (Railway owned or other) is being made available to the contractor as part of Tender document. However, the contractor shall have to conduct the inspection/investigation of the utilities before execution of the work independently.

9.2 Shifting of Obstructing Utilities

- 9.2.1** The Contractor shall, in accordance with Applicable Laws and with the proactive support & assistance of the Authority, cause shifting of utility (ies) as per 9.1.2 (including electric lines, water pipes and telephone cables) to an appropriate location or alignment, if such utility or obstruction adversely affects/ infringes the execution of Works in accordance with this Agreement. The utilities are to be diverted with proper liaison and approval of the utility owning agencies. NOC & Approval of schemes of Diversion of Utilities from the concerned regulatory /statutory / Local Authority is the responsibility of the Contractor. Cost of such utility shifting unless otherwise specified will be paid separately under relevant item of BOQ (Schedule G1B). No claim on account of delay in execution of utility diversion will be entertained.
- 9.2.2** For the existing utilities owned by Railways, where the shifting thereof can take place only after certain works for enabling its shifting have been completed by the Contractor, the Authority shall, undertake and complete its shifting within 180 (one hundred and eighty) days after the Contractor has notified the Authority of the completion of the enabling works. In the event of delay in shifting the utility, beyond the aforesaid period of 180 (one hundred and eighty) days, the Contractor shall be entitled to Damages for the period of delay in accordance with the provisions of this Clause 9.2.1.
- 9.2.3** The utilities which are not to be diverted, proper supporting shall be done to prevent any damage. No payment shall however be made for supporting and protecting the utilities during execution of the work. All temporary diversion of any utilities done to facilitate the construction activity shall be the part of the schedule G.

9.3 New Utilities

- 9.3.1** The Contractor shall allow, subject to such conditions as the Authority may specify, access to, and use of the Site for laying telephone lines, water pipes, electric cables or other public utilities. Where

such access or use causes any financial loss to the Contractor, it may require the user of the Site to pay compensation or damages as per Applicable Laws. For the avoidance of doubt, it is agreed that use of the Site under this Clause 9.3 shall not in any manner relieve the Contractor of its obligation to construct and maintain the Railway Project in accordance with this Agreement and any damage caused by such use shall be restored forthwith at the cost of the Authority.

- 9.3.2 In the event the construction of any Works is affected by a new utility or works undertaken in accordance with this Clause 9.3, the Contractor shall be entitled to a reasonable Time Extension in accordance with Clause 10.4 for and in respect of the part(s) of the Works affected by such delay; provided that if the delays involve any time overlaps, the overlaps shall not be additive.

9.4 Felling of Trees

The Authority shall obtain the Applicable Permits for felling of trees to be identified by the Authority for this purpose if and only if such trees cause a Material Adverse Effect on the construction of the Railway Project. The cost of such felling and of the compensatory plantation of trees, if any, shall be borne by the Authority. In the event of any delay in felling thereof for reasons beyond the control of the Contractor; it shall be excused for failure to perform any part of its obligations hereunder if such failure is a direct consequence of delay in the felling of trees. The Parties hereto agree that the felled trees shall be deemed to be owned by the Authority and shall be disposed in such manner and subject to such conditions as the Authority may in its sole discretion deem appropriate. For the avoidance of doubt, the Parties agree that if any felling of trees hereunder is in a forest area, the Applicable Permit thereof shall be procured by the Authority within the time specified in the Agreement; and for any period of delay in providing the Applicable Permits, the Contractor shall be entitled to Damages and Time Extension as provided under Clause 9.2.1.

ARTICLE 10
DESIGN AND CONSTRUCTION OF THE RAILWAY PROJECT

10.1 Obligations Prior to Commencement of Works

10.1.1 Within 20 (twenty) days of the Appointed Date, the Contractor shall:

- (a) appoint its representative, duly authorised to deal with the Authority in respect of all matters under or arising out of or relating to this Agreement;
- (b) appoint a design director (the “**Design Director**”) who will head the Contractor’s design unit and shall be responsible for surveys, investigations, collection of data, and preparation of preliminary and detailed designs;
- (c) undertake and perform all such acts, deeds and things as may be necessary or required before commencement of Works under and in accordance with this Agreement, Applicable Laws and Applicable Permits; and
- (d) make its own arrangements for quarrying and procurement of materials needed for the Railway Project under and in accordance with Applicable Laws and Applicable Permits.

10.1.2 The Authority shall, within 15 (fifteen) days of the date of this Agreement, appoint an engineer (the “**Authority Engineer**”) to discharge the functions and duties specified in this Agreement, and shall notify to the Contractor the name, address and the date of appointment of the Authority Engineer forthwith.

10.1.3 Within 30 (thirty) days of the Appointed Date, the Contractor shall submit to the Authority and the Authority Engineer a programme / CPM Charts and Bar Charts (the “**Programme**”) for construction of Works, developed using networking techniques and giving the following details:

Part I Contractor’s organisation for the Project, the project execution plan indicating arrangements for design and construction i.e. engagement of design consultants, project phasing and sub-contracting etc., environmental management plan, Quality Assurance Plan including design quality plan, traffic management and safety plan covering safety of users and workers during construction, Contractor’s key personnel, and equipment.

In case of non- submission of documents beyond 30 days from appointed date the damages shall be imposed as under –

- a) QAP which includes design quality plan, MTP, ITP etc. @ Rs. 25,000/- per day
- b) Environmental management plan @ Rs. 10,000/- per day
- c) Method Statement @ Rs. 10000/- per method statement per day.

Part II Programme for completion of all stages of construction given in Schedule-G and Project Milestones of the Works as specified in Project Completion Schedule set forth in Schedule-I. The Programme shall include:

- (a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of design and stages of Works;

- (b) the periods for reviews under Clause 10.2; and
- (c) the sequence and timing of inspections and tests specified in this Agreement.

The Contractor shall submit a revised programme whenever the previous programme is inconsistent with the actual progress or with the Contractor's obligations.

Part III Monthly cash flow forecast for the Project

Provided, however, that the Authority may, within a period of 21 (twenty-one) days of receipt of the Programme, convey its comments to the Contractor stating the modifications, if any, required for compliance with the provisions of this Agreement, and the Contractor shall carry out such modifications, to the extent required for conforming with the provisions of this Agreement.

Part IV Monthly account of resources (Men and Machinery) proposed to be deployed to complete the milestone/contract in specified time. Failure to deploy the resources will make contractor liable for penalty as decided by authority. The penalties so recovered can be refunded if the contractor make good the resources and achieve next milestone.

The Contractor shall submit a revised resource loaded programme whenever the previous programme is inconsistent with the actual progress or with the Contractor's obligation.

- 10.1.4 The Contractor shall plan the project work by keeping Schedule-G into consideration in order to maximise the cash flow and progress. However, the Authority Engineer may modify / break up any of the stage payment schedule (payment milestones) during execution if the same is considered essential to speed up the progress or if the contractor is not able to achieve a particular payment milestone due to the reasons / delays attributable to the Authority or due to the factors beyond the control of Contractor or to any unforeseen circumstances.
- 10.1.5 Procurement of items should be planned by the Contractor in consultation with the Authority Engineer. Procurement plan should be prepared in such a manner that those materials which have limited shelf life may be procured in a staggered manner so that materials are utilised / consumed well before its expiry. If the material / product does not remain of required specifications at the time of its actual use, the same will be replaced by the Contractor with materials confirming to Specifications at his own cost.

10.2 Design and Drawings

- 10.2.1 Design and Drawings shall be developed in conformity with the Specifications and Standards set forth in Schedule-D. In the event, the Contractor requires any relaxation in design standards due to restricted Right of Way in any section or unforeseen issues, the alternative design criteria for such section shall be provided for review / approval of the Authority Engineer.
 - 10.2.1A In case Contractor is not having in house design team then - The Contractor shall appoint a "Design Consultant" at its cost after proposing to the Authority a panel of 3 (three) names of qualified, reputed and experienced firms and Authority will select one Design Consultant from the above panel, provided, however, that if none of the name proposed in the panel is acceptable to the Authority and the reasons for the same are furnished to the Contractor, the Contractor shall propose to the Authority a revised panel of 3 (three) more names for obtaining the consent of the Authority.

The Contractor shall also obtain the consent of the Authority for two key personnel of the Design Consultant who shall have adequate experience and qualifications with respect to the main components of the Railway Project. The Authority shall, within 30 (thirty) days of receiving a panel from the Contractor, either convey its decision with reasons, to the Contractor, and if no such decision is conveyed within the said period, the Contractor may proceed with engaging of the Design Consultant of its own choice. For the avoidance of doubt, the Parties agree that no firm or person having any conflict of interest shall be engaged for this purpose. The Parties further agree that any assignments completed at least three years prior to the appointment hereunder shall not be reckoned for the purposes of conflict of interest.

10.2.2 The Contractor shall appoint a proof checking consultant at its cost. (the “**Proof Consultant**”). Contractor shall submit the panel of 3 names within 30 days of appointed date to the Authority Engineer. After proposing to the Authority a panel of 3 (three) names of qualified, reputed and experienced firms and Authority will select one Proof Consultant from the above panel, provided, however, that if none of the name proposed in the panel is acceptable to the Authority and the reasons for the same are furnished to the Contractor, the Contractor shall propose to the Authority a revised panel of 3 (three) more names for obtaining the consent of the Authority. The Contractor shall also obtain the consent of the Authority for two key personnel of the Proof Consultant who shall have adequate experience and qualifications with respect to the main components of the Railway Project. The Authority shall, within 30 (thirty) days of receiving a panel from the Contractor, either convey its decision with reasons, to the Contractor, and if no such decision is conveyed within the said period, the Contractor may proceed with engaging of the Proof Consultant of its own choice. For the avoidance of doubt, the Parties agree that no firm or person having any conflict of interest shall be engaged for this purpose. The Parties further agree that any assignments completed at least three years prior to the appointment hereunder shall not be reckoned for the purposes of conflict of interest.

10.2.3 The Proof Consultant shall:

- (a) evolve a systems approach with the Design Director so as to minimise the time required for approval of final designs and construction drawings; and
- (b) examine the designs expeditiously and wherever necessary raise observations / seek clarifications etc. as deemed appropriate and refer back the drawings within 15 days for rectifications / clarifications, and finally proof check and endorse / counter-sign the detailed calculations, drawings and designs, which have been approved by the Design Director.

10.2.4 In respect of the route control chart, the following shall apply:

- (a) route control chart
 - (i) The Contractor shall prepare and submit to the Authority Engineer all route control charts conforming to the ESP / SIPs, within a period of 3 (three) months from the Appointed Date;
 - (ii) The Authority Engineer shall review the route control chart within two weeks and submit it with its comments to the Authority for its approval; and
 - (iii) The Authority shall communicate the route control chart as approved by it within a period not exceeding 2 (two) months from the date of submission of the route control chart by the Contractor. Such period of two months shall exclude any time that is taken by the Contractor in providing clarifications or modifications in response to any communication from the Authority.

10.2.5 In the event of delay by the Contractor in submitting route control chart, as the case may be, within the period specified in Clause 10.2.4 for any reason other than Force Majeure or the delay attributable

to the Authority, the Contractor shall pay Damages to the Authority in a sum equal to **0.01% (zero-point zero one percent)** of the Contract Price for each day of delay.

- 10.2.6 In the event of delay by the Authority in providing to the Contractor the approved route control chart, within the period specified in Clause 10.2.4 for any reason other than Force Majeure or breach of this Agreement by the Contractor, the Authority shall pay Damages to the Contractor in a sum equal to **0.01% (zero-point zero one percent)** of the Contract Price for each day of delay, and shall also grant Time Extension in accordance with the provisions of Clause 10.4.
- 10.2.7 In regard to Contractor's obligations with respect to the design and Drawings of the Railway Project as set forth in Schedule-H, the following shall apply:
- (a) The Contractor shall prepare and submit, with reasonable promptness and in such sequence as is consistent with the Project Completion Schedule, 3 (three) copies each of the design and necessary Drawings, duly approved / signed by the Design Director and certified / signed by the Proof Consultant, to the Authority Engineer for review. Provided, however, that in respect of Important Bridges, Major Bridges, Structures, railway stations and yards, the Authority Engineer may require additional drawings for its review in accordance with Good Industry Practice;
 - (b) by submitting the Drawings for review to the Authority Engineer, the Contractor shall be deemed to have represented that it has determined and verified that the design and Drawings are in conformity with stipulated Specifications and Standards, the Applicable Laws, statutory stipulations and Good Industry Practice;
 - (c) within 21 (twenty-one) days of the receipt of the Drawings, the Authority Engineer shall review the same and convey its observations to the Contractor with particular reference to their conformity or otherwise with the Scope of the Project and the Specifications and Standards. Beyond the said period of 21 (twenty one) days, the Contractor shall not be obliged to await the observations of the Authority Engineer on the Drawings submitted pursuant hereto and may begin or continue Works at its own discretion and risk; Provided, however, that in case of Important Bridges, Major Bridges, Structures, interlocking and telecom switching equipment and any other specified item the aforesaid period of 21 (twenty one) days may be extended as per the time limit as indicated in Annexure-II of Schedule-D;
 - (d) if the aforesaid observations of the Authority Engineer indicate that the Drawings are not in conformity with the Scope of the Project or the Specifications and Standards, such Drawings shall be revised by the Contractor in conformity with the provisions of this Agreement and resubmitted to the Authority Engineer for review. The Authority Engineer shall give its observations, if any, within 10 (ten) days of receipt of the revised Drawings. In the event the Contractor fails to revise and resubmit such Drawings to the Authority Engineer for review as aforesaid, the Authority Engineer may cause the payment for the affected works to be withheld under and in accordance with the provisions of Clause 17.5.4. If the Contractor disputes any decision, direction or determination of the Authority Engineer hereunder, the Dispute shall be resolved in accordance with the Dispute Resolution Procedure;
 - (e) no review and / or observation of the Authority Engineer and / or its failure to review and / or convey its observations on any Drawings shall relieve the Contractor of its obligations and liabilities under this Agreement in any manner nor shall the Authority Engineer or the Authority be liable for the same in any manner; and if errors, omissions, ambiguities, inconsistencies,

inadequacies or other Defects are found in the Drawings, they shall, along with the affected Works, be corrected at the Contractor's cost, notwithstanding any review under this Article 10;

- (f) the Contractor shall be responsible for delays in submitting the Drawings, as set forth in Schedule-H, caused by reason of delays in surveys and field investigations, and shall not be entitled to seek any relief in respect thereof from the Authority; and
- (g) the Contractor warrants that its designers, including any third parties engaged by it, shall have the required experience and capability in accordance with Good Industry Practice and it shall indemnify the Authority against any damage, expense, liability, loss or claim, which the Authority might incur, sustain or be subject to arising from any breach of the Contractor's design responsibility and / or warranty as set out in this Clause.

10.2.8 Any cost or delay in construction arising from the review by the Authority Engineer shall be borne by the Contractor.

10.2.9 Works shall be executed in accordance with the Drawings provided by the Contractor in accordance with the provisions of this Clause 10.2 and the observations of the Authority Engineer thereon as communicated pursuant to the provisions of Clause 10.2.7. Such Drawings shall not be amended or altered without prior written notice to the Authority Engineer. If a Party becomes aware of an error or defect of a technical nature in the design or Drawings, that Party shall promptly give notice to the other Party of such error or defect.

10.2.10 Within 90 (ninety) days of the Project Completion Date, the Contractor shall furnish to the Authority and the Authority Engineer a complete set of as-built Drawings, in 2 (two) hard copies and in its editable digital format or in such other medium or manner as may be acceptable to the Authority, including an as-built survey illustrating the layout of the Railway Project and setback lines, if any, of the buildings and structures forming part of Project Facilities, and shall hand them over to the Authority against receipt thereof.

10.2.11 The Contractor shall also appoint a safety consultant (the "**Safety Consultant**"), contractor shall submit the panel within 30 days of Appointed date to the Authority Engineer, after proposing to the Authority a panel of 3 (three) names of qualified and experienced consultants having minimum 10 years experience in ensuring safety at work site from whom the Authority may choose 1 (one) to be the Safety Consultant. Provided, however, that if the panel is not acceptable to the Authority and the reasons for the same are furnished to the Contractor, the Contractor shall propose to the Authority a revised panel of 3 (three) names for obtaining the consent of the Authority. The Contractor shall also obtain the consent of the Authority for additional two key personnel of the Safety Consultant who shall have at least 5 years experience in ensuring safety at work site. The Authority shall, within 15 (fifteen) days of receiving a proposal from the Contractor hereunder, convey its decision, with reasons, to the Contractor, and if no such decision is conveyed within the said period, the Contractor may proceed with engaging of the Safety Consultant. The Safety Consultant shall:

- (a) evolve a system approach for undertaking a safety audit of the Railway Project during construction phase ; and
- (b) proof check the detailed safety plan covering all aspects of including safety of Users, workers and equipment.

10.3 Construction of the Railway Project

10.3.1 The Contractor shall construct the Railway Project as specified in Schedule-B and Schedule-C, and in conformity with the Specifications and Standards set forth in Schedule-D. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works. For works involving existing yards, the non-interlocking programme for each yard shall be drawn by the Authority Engineer and provided to the Contractor. The Contractor and the Authority Engineer, within a period of 30 days, will discuss the same and issue a jointly agreed NI programme. The execution of work during the non-interlocking period will be the responsibility of the Contractor. The work during non-interlocking period in yards will be executed directly under the supervision of Railways, however, the timely completion of NI working will be the responsibility of the Contractor. **The 480th (Four hundred and Eightieth day)** from the Appointed Date shall be the scheduled completion date (the “Scheduled Completion Date”) and the Contractor agrees and undertakes that the construction shall be completed on or before the Scheduled Completion Date, including any extension thereof, in which case the Scheduled Completion Date will be the extended date as per the time extension granted.

10.3.2 The Contractor shall construct the Railway Project in accordance with the Project Completion Schedule set forth in Schedule-I. In the event that the Contractor fails to achieve any Project Milestone or the Scheduled Completion Date within a period of 30 (thirty) days from the date set forth in Schedule-I, unless such failure has occurred due to Force Majeure or for reasons attributable to the Authority, it shall pay Damages to the Authority in a sum calculated at the rate of 0.05% (zero point zero five per cent) of the Contract Price for delay of each day reckoned from the date specified in Schedule-I and until such Project Milestone is achieved or the Works are completed; provided that if the period for any or all Project Milestones or the Scheduled Completion Date is extended in accordance with the provisions of this Agreement, the dates set forth in Schedule-I shall be deemed to be modified accordingly and the provisions of this Agreement shall apply as if Schedule-I has been amended as above; provided further that in the event the Works are completed within or before the Scheduled Completion Date including any Time Extension, the Damages paid under this Clause 10.3.2 shall be refunded by the Authority to the Contractor, but without any interest thereon. For the avoidance of doubt, it is agreed that recovery of Damages under this Clause 10.3.2 shall be without prejudice to the rights of the Authority under this Agreement including the right of Termination thereof. The Parties further agree that Time Extension hereunder shall only be reckoned for and in respect of the affected Works as specified in Clause 10.4.2.

However, Authority may consider the request of contractor to defer the recovery of these damages if the same is considered essential to maintain the progress of work. The contractor shall submit a resource loaded plan to make good the delay and achieve next Milestone.

10.3.3 The Authority shall notify the Contractor of its decision to impose Damages in pursuance of the provisions of this Clause 10.3. Provided, however, that no deduction on account of Damages shall be effected by the Authority without taking into consideration the representation, if any, made by the Contractor within 20 (twenty) days of such notice. The Parties expressly agree that the total amount of Damages under Clause 10.3.2 shall not exceed 10% (ten percent) of the Contract Price.

10.3.4 Certain works, which are executed in the vicinity of running track, may require prior sanction of Commissioner of Railway Safety (CRS) before execution of such works are taken up by the Contractor. Authority Engineer will advise such works to the Contractor. The Contractor shall be responsible to prepare and submit applications to Authority Engineer for obtaining sanction of CRS at least 60 (sixty) days in advance of commencing a work that requires prior sanction of CRS.

10.4 Extension of Time for Completion

10.4.1 Without prejudice to any other provision of this Agreement for and in respect of extension of time, the Contractor shall be entitled to extension of time in the Project Completion Schedule (the “**Time Extension**”) to the extent that completion of any Project Milestone is or will be delayed by any of the following, namely:

- (a) delay in providing the Right of Way, or scheme plans for ABS in accordance with the provisions of this agreement;
- (b) Change of Scope, unless an adjustment to the Scheduled Completion Date has been agreed under Article 13;
- (c) occurrence of a Force Majeure Event;
- (d) any delay, impediment or prevention caused by or attributable to the Authority, the Authority’s personnel or the Authority’s other contractors on the Site; and
- (e) any other cause or delay which entitles the Contractor to Time Extension in accordance with the provisions of this Agreement.

10.4.2 The Contractor shall, no later than 30 (thirty) business days from the occurrence of an event or circumstance specified in Clause 10.4.1, inform the Authority Engineer by notice in writing, with a copy to the Authority, stating in reasonable detail with supporting particulars, the event or circumstances giving rise to the claim for Time Extension in accordance with the provisions of this Agreement. Provided that the period of 15 (fifteen) business days shall be calculated from the date on which the Contractor became aware, or should have become aware, of the occurrence of such an event or circumstance.

Provided further that notwithstanding anything to the contrary contained in this Agreement, Time Extension shall be due and applicable only for the Works which are affected by the aforesaid events or circumstances and shall not in any manner affect the Project Completion Schedule for and in respect of the Works which are not affected thereby.

10.4.3 In the event of the failure of the Contractor to issue to the Authority Engineer a notice in accordance with the provisions of Clause 10.4.2 within the time specified therein, the Contractor shall not be entitled to any Time Extension and shall forfeit its right for any such claims in future. For the avoidance of doubt, in the event of failure of the Contractor to issue notice as specified in this Clause 10.4.3, the Authority shall be discharged from all liability in connection with the claim.

10.4.4 The Authority Engineer shall, on receipt of a claim in accordance with the provisions of Clause 10.4.2, examine the claim expeditiously within the time frame specified herein. In the event the Authority Engineer requires any clarifications to examine the claim, the Authority Engineer shall seek the same within 15 (fifteen) days from the date of receiving the claim. The Contractor shall, on the receipt of the communication of the Authority Engineer requesting for clarification, furnish the same to the Authority Engineer within 10 (ten) days thereof. The Authority Engineer shall, within a period of 30 (thirty) days from the date of receipt of such clarifications, forward in writing to the Contractor its determination of Time Extension. For the avoidance of doubt, the Parties agree that

the Authority Engineer shall, in accordance with the provisions of this Agreement, notify the Contractor of the aforesaid Time Extension no later than 30 (thirty) days from the date of receipt of the Contractor's claim for Time Extension or the date of receipt of the clarification from the Contractor, as the case may be.

Provided that when determining each extension of time under this Clause 10.4, the Authority Engineer shall review previous determinations and may increase, but shall not decrease, the total Time Extension.

10.4.5 If the event or circumstance giving rise to the notice has a continuing effect:

- (a) the detailed claim shall be considered as interim;
- (b) the Contractor shall, no later than 10 (ten) days after the close of each month, send further interim claims specifying the accumulated delay, the extension of time claimed, and such further particulars as the Authority Engineer may reasonably require; and
- (c) the Contractor shall send a final claim within 30 (thirty) days after the effect of the event or the circumstance ceases.

Upon receipt of the claim hereunder, the Authority Engineer shall examine and determine the same in accordance with the provisions of Clause 10.4.4 within a period of 30 (thirty) days of the receipt thereof.

10.5 Incomplete Works

In the event the Contractor fails to complete the Works in accordance with the Project Completion Schedule, including any Time Extension granted under this Agreement, the Contractor shall endeavour to complete the balance work expeditiously and shall pay Damages to the Authority in accordance with the provisions of Clause 10.3.2 for delay of each day until the Works are completed in accordance with the provisions of this Agreement. Recovery of Damages under this Clause shall be without prejudice to the rights of the Authority under this Agreement including the right to termination under Clause 21.1.

10.6 Equipment Specific Maintenance Manual

No later than 90 (ninety) days prior to the Project Completion Date, the Contractor shall, in consultation with the Authority Engineer, evolve an equipment specific maintenance manual for equipment based on a new technology not currently in use in the Railways (the “**Maintenance Manual**”) for the regular operation and maintenance of such equipment in conformity with safety requirements, Good Industry Practice and manufacturer's manuals and instructions and shall provide 10 (ten) hard copies and 2 (two) compact discs thereof to the Authority Engineer.

ARTICLE 11
QUALITY ASSURANCE, MONITORING AND SUPERVISION

11.1 Quality of Materials and Workmanship

- 11.1.1 The Contractor shall ensure that the Construction, Materials and workmanship are in accordance with the requirements specified in this Agreement, Specifications and Standards and Good Industry Practice.
- 11.1.2 The Contractor warrants that all Materials shall be new, unused, not reconditioned and in conformity with Specification and Standards, Applicable Laws and Good Industry Practice, and that the Contractor shall not use any materials which are generally recognised as being deleterious under Good Industry Practice.

11.2 Quality Control System

- 11.2.1 The Contractor shall establish a Quality Control Mechanism, Quality Assurance Plan (the “**Quality Assurance Plan**” or “**QAP**”), Material Testing Plan (the “**Material Testing Plan**” or “**MTP**”) and Method Statements for execution of works (the “**Method Statements**” or “**MS**”) in consultation of Authority Engineer.
- 11.2.2 The Contractor shall, within 30 (thirty) days of the Appointed Date, submit to the Authority Engineer its Quality Control Mechanism, QAP, MTP and MS which shall include the following:
- (a) organisation, duties and responsibilities, procedures, inspections and documentation;
 - (b) quality control mechanism including sampling and testing of Materials, tests required during the execution of works and frequencies by Contractor and Authority Engineer, standards, acceptance criteria, testing facilities, reporting, recording and interpretation of test results, approvals, check list for site activities, and proforma for testing and calibration in accordance with the Specifications and Standards and Good Industry Practice; and
 - (c) internal quality audit system. The Contractor shall carry out internal audits of the Quality Management System regularly, and at least once every 6 months. The Contractor shall submit to the Engineer a report listing the results of each internal audit within 7 days of completion. Each report shall include, where appropriate, the proposed measures to improve and / or rectify the Quality Management System and / or its implementation.

The Authority Engineer shall convey its comments to the Contractor within a period of 21 (twenty-one) days of receipt of the QAP stating the modifications, if any, required, and the Contractor shall incorporate those in the QAP to the extent required for conforming with the provisions of this Clause 11.2.

- 11.2.3 The Contractor shall procure all documents, apparatus and instruments, fuel, consumables, water, electricity, labour, Materials, samples, and qualified personnel as are necessary for examining and testing the Project Assets, Materials and workmanship in accordance with the Quality Assurance Plan.
- 11.2.4 The cost of testing of Construction, Materials and workmanship under this Article 11 shall be borne by the Contractor.

11.3 Methodology

The Contractor shall, at least 15 (fifteen) days prior to the commencement of any construction activity, submit to the Authority Engineer for review the Method Statement proposed to be adopted for executing the Work, giving details of inspection checklist, quality parameters, equipment to be deployed, traffic management and measures for ensuring safety. The Authority Engineer shall complete the review and convey its comments, if any, to the Contractor within a period of 10 (ten) days from the date of receipt of the proposed method statement from the Contractor. The Contractor shall revise the method statements by incorporating these comments or else will advise the Authority Engineer reasons for not / partially including the same.

11.4 Inspection and Technical Audit by the Authority

The Authority or any representative authorised by the Authority in this behalf may inspect and review the progress and quality of the construction of Works and issue appropriate directions to the Authority Engineer and the Contractor for taking remedial action in the event the Works are not in accordance with the provisions of this Agreement.

11.5 External Technical Audit

At any time during construction, the Authority may appoint an external technical auditor to conduct an audit of the quality of the Works. The findings of the audit, to the extent accepted by the Authority, shall be notified to the Contractor and the Authority Engineer for taking remedial action in accordance with this Agreement. The Contractor shall provide all assistance as may be required by the auditor in the conduct of its audit hereunder. Notwithstanding anything contained in this Clause 11.5, the external technical audit shall not affect any obligations of the Contractor or the Authority Engineer under this Agreement.

11.6 Inspection of Construction Records

The Authority shall have the right to inspect the records of the Contractor relating to the Works.

11.7 Monthly Progress Reports

During the Construction Period, the Contractor shall, no later than 10 (ten) days after the close of each month, furnish to the Authority and the Authority Engineer a monthly report on the progress of Works and shall promptly give such other relevant information as may be required by the Authority Engineer along with all resources deployed and all problems faced during work.

11.8 Inspection

11.8.1 The Authority Engineer and its authorised representative shall at all times:

- (a) have full access to all parts of the Site and to all places from which natural Materials are being obtained for use in the Works; and
- (b) during production, manufacture and construction at the Site and at the place of production, be entitled to examine, inspect, measure and test the Materials and workmanship, and to check the progress of manufacture of Materials.

11.8.2 The Contractor shall give the Authority Engineer and its authorised agents access, facilities and safety equipment for carrying out their obligations under this Agreement.

11.8.3 The Authority Engineer shall submit a monthly inspection report (the “**Inspection Report**”) to the Authority and the Contractor bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies. For the avoidance of doubt, such inspection or submission of Inspection Report by the Authority Engineer shall not relieve or absolve the Contractor of its obligations and liabilities under this Agreement in any manner whatsoever.

11.9 Samples

The Contractor shall submit the following samples of Materials and relevant information to the Authority Engineer for review:

- (a) manufacturer’s test reports and standard samples of manufactured Materials; and
- (b) samples of such other Materials as the Authority Engineer may require.

11.10 Tests

11.10.1 For determining that the Works conform to the Specifications and Standards, the Authority Engineer shall require the Contractor to carry out or cause to be carried out tests, at such time and frequency and in such manner as specified in this Agreement, and in accordance with Good Industry Practice for quality assurance. The Contractor shall submit the schedule for performing such tests to the Authority Engineer well in advance and not less than 7 days prior to conducting such tests. The Contractor shall, with due diligence, carry out all the tests in accordance with the Agreement and furnish the results thereof to the Authority Engineer. Of the total tests for each category or type to be undertaken by the Contractor under the provisions of this Agreement and Good Industry Practice, the Authority Engineer or his authorised representative may witness or participate in such tests conducted or cause to be conducted by the Contractor. Documentation of test records to be maintained by Contractor and Authority Engineer or his authorised representative shall scrutinize 100% Testing records of all tests conducted as per existing guidelines of Indian Railways and Indian Road Congress. A copy of such tests records shall be provided to the Authority Engineer.

11.10.2 In the event that results of any tests conducted under this Clause 11.10 establish any Defects or deficiencies in the Works, the Contractor shall carry out remedial measures and furnish a report to the Authority Engineer in this behalf. The Authority Engineer shall require the Contractor to carry out or cause to be carried out tests to determine that such remedial measures have brought the Works into compliance with the Specifications and Standards, and the procedure shall be repeated until such Works conform to the Specifications and Standards. For the avoidance of doubt, the cost of such tests and the remedial measures in pursuance thereof shall be solely borne by the Contractor.

11.11 Examination of Work Before Covering Up

In respect of the work which the Authority Engineer is entitled to examine, inspect, measure or test before it is covered up or put out of view or any part of the work is placed thereon, the Contractor shall give notice to the Authority Engineer whenever any such work is ready and before it is covered up. The Authority Engineer shall then either carry out the examination, inspection or testing without unreasonable delay, or promptly give notice to the Contractor that the Authority Engineer does not require to do so. Provided, however, that if any work is of a continuous nature where it is not possible

or prudent to keep it uncovered or incomplete, the Contractor shall notify the schedule of carrying out such work to give sufficient opportunity, not being less than 3 (three) business days' notice, to the Authority Engineer to conduct its inspection, measurement or test while the work is continuing. Provided further that in the event the Contractor receives no response from the Authority Engineer within a period of 3 (three) business days from the date on which the Contractor's notice hereunder is delivered to the Authority Engineer, the Contractor shall be entitled to assume that the Authority Engineer would not undertake the said inspection.

11.12 Rejection

- 11.12.1 If, as a result of an examination, inspection, measurement or testing, any Plant, Material, design or workmanship is found to be defective or otherwise not in accordance with the provisions of this Agreement, the Authority Engineer may reject such Plant, Material, design or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the Defect and ensure that the rejected item complies with the requirements of this Agreement.
- 11.12.2 If the Authority Engineer requires the Plant, Material, design or workmanship to be retested, the tests shall be repeated on the same terms and conditions, as applicable in each case. If the rejection and retesting cause the Authority to incur any additional costs, such costs shall be recoverable by the Authority from the Contractor and may be deducted by the Authority from any monies due to be paid to the Contractor.
- 11.12.3 The Contractor shall not be entitled to any extension of time on account of rectifying any Defect or retesting as specified in this Clause 11.12.
- 11.12.4 No examination, inspection, measurement or testing of any Plant, Material, design or workmanship by the Authority Engineer or its failure to convey its observations or to examine, inspect, measure or test shall relieve the Contractor of its obligations and liabilities under this Agreement in any manner nor shall the Authority be liable for the same in any manner.

11.13 Remedial Work

- 11.13.1 Notwithstanding any previous test or certification, the Authority Engineer may instruct the Contractor to:
- (a) remove from the Site and replace any Plant or Materials which are not in accordance with the provisions of this Agreement;
 - (b) remove and re-execute any work which is not in accordance with the provisions of this Agreement and the Specification and Standards; and
 - (c) execute any work which is urgently required for the safety of the Railway Project, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work which is required on account of a Force Majeure Event, the provisions of Clause 19.6 shall apply.
- 11.13.2 If the Contractor fails to comply with the instructions issued by the Authority Engineer under Clause 11.13.1, within the time specified in the Authority Engineer's notice or as mutually agreed, the Authority Engineer may advise the Authority to have the work executed by another agency. The cost so incurred by the Authority for undertaking such work shall, without prejudice to the rights of the Authority to recover Damages in accordance with the provisions of this Agreement, be recoverable from the Contractor and may be deducted by the Authority from any monies due to be paid to the Contractor.

11.14 Delays During Construction

Without prejudice to the provisions of Clause 10.3.2, in the event the Contractor does not achieve any of the Project Milestones within the time period stipulated in Schedule-I or the Authority Engineer shall have reasonably determined that the rate of progress of Works is such that Completion of the Railway Project is not likely to be achieved by the end of the Scheduled Completion Date, it may notify the same to the Contractor, and the Contractor shall, within 15 (fifteen) days of such notice, by a communication inform the Authority Engineer in reasonable detail about the steps it proposes to take to expedite progress and the period within which it shall achieve the Project Completion Date.

11.15 Quality Control Records and Documents

The Contractor shall hand over to the Authority Engineer a copy of all its quality control records and documents before the Completion Certificate is issued pursuant to Clause 12.2.

11.16 Video Recording

During the Construction Period, the Contractor shall provide to the Authority for every calendar quarter, a video recording, which will be compiled into a 3 (three) hour digital video disc or any substitute thereof, covering the status and progress of Works in that quarter. The video recording shall be provided to the Authority no later than 15 (fifteen) days after the close of each quarter after the Appointed Date.

11.17 Suspension of Unsafe Construction Works

11.17.1 Upon recommendation of the Authority Engineer to this effect, or on its own volition in cases of emergency or urgency, the Authority may by notice require the Contractor to suspend forthwith the whole or any part of the Works if, in the reasonable opinion of the Authority Engineer or the Authority, as the case may be, such work threatens the safety of the Users and or other persons on or about the Railway Project.

11.17.2 The Contractor shall, pursuant to the notice under Clause 11.17.1, suspend the Works or any part thereof for such time and in such manner as may be specified by the Authority and thereupon carry out remedial measures to secure the safety of suspended works, the Users, other persons and vehicles on or about the Railway Project including pedestrians. The Contractor may by notice require the Authority Engineer to inspect such remedial measures forthwith and make a report to the Authority recommending whether or not the suspension hereunder may be revoked. Upon receiving the recommendations of the Authority Engineer, the Authority shall either revoke such suspension or instruct the Contractor to carry out such other and further remedial measures as may be necessary in the reasonable opinion of the Authority, and the procedure set forth in this Clause 11.17 shall be repeated until the suspension hereunder is revoked.

11.17.3 Subject to the provisions of Clause 19.6, all reasonable costs incurred for maintaining and protecting the Works or part thereof during the period of suspension (the “**Preservation Costs**”), shall be borne by the Contractor; provided that if the suspension has occurred as a result of any breach of this Agreement by the Authority, the Preservation Costs shall be borne by the Authority.

11.17.4 If suspension of Works is for reasons not attributable to the Contractor, the Authority Engineer shall determine any Time Extension to which the Contractor is reasonably entitled.

ARTICLE 12
COMPLETION CERTIFICATE

12.1 Tests on Completion

- 12.1.1 No later than 30 (thirty) days prior to the likely completion of the Railway Project or a part thereof, the Contractor shall prepare and submit to the Authority Engineer the documents required for seeking approval of the Commissioner of Railway Safety in accordance with the provisions of the Railways Opening for Public Carriage of Passenger Rules, the Indian Railway Permanent Way Manual, the Indian Railways Manual of A.C. Traction, Indian Railways Signal Engineering Manual, Indian Railways Telecom Manual as the case may be, and notify the Authority Engineer of its intent to subject the Railway Project to Tests. After ensuring and procuring that the documents required to be submitted to the Commissioner for Railway Safety meet the requirements of Applicable Laws, the Authority Engineer shall, in consultation with the Contractor, determine the date and time of each of the Tests, and inform the Authority who may designate its representative to witness the Tests. The Contractor shall provide such assistance as the Authority Engineer may reasonably require for conducting the Tests. For avoidance of doubts, the parties agree that in the event of the Contractor and the Authority Engineer failing to mutually agree on the dates for conducting the Tests, the Contractor shall fix the dates by giving not less than 10 (ten) days' notice to the Authority Engineer. Authority will carry out tests on completion within 30 days of receiving request from contractor. And if Authority Engineer fails to carry out test within 30 days, the Authority will pay damage to Contractor at the rate of 0.02% (zero point zero two per cent) of the payment pending for want of test per day.
- 12.1.2 All Tests shall be conducted in accordance with Schedule-J at the cost and expense of the Contractor; provided, however, that the trial running on railway track shall be undertaken at the cost and expense of the Authority. The Authority Engineer shall observe, monitor and review the results of the Tests to determine compliance of the Railway Project with Specifications and Standards and if it is reasonably anticipated or determined by the Authority Engineer during the course of any Test that the performance of the Railway Project or Section or any part thereof, does not meet the Specifications and Standards, it shall have the right to suspend or delay such Test and require the Contractor to remedy and rectify any Defect or deficiency. Upon completion of each Test, the Authority Engineer shall provide to the Contractor and the Authority copies of all Test data including detailed Test results. For the avoidance of doubt, the Parties expressly agree that the Authority Engineer may require the Contractor to carry out or cause to be carried out additional Tests, in accordance with Good Industry Practice, for determining the compliance of the Railway Project thereof with the Specifications and Standards.

12.2 Provisional Certificate

- 12.2.1 Upon completion of Tests, the Authority Engineer shall satisfy itself that the Tests have been successful and the Railway Project is fit for opening to traffic. A list of outstanding items signed jointly by the Authority Engineer and the Contractor (called the “**Punch List**”) shall be prepared in two parts. The part-1 showing the critical / safety items and the part-2 showing non-critical / non-safety items. The Authority Engineer may issue a Provisional Certificate to the Contractor and the Authority in the form set forth in Schedule-K (the “**Provisional Certificate**”), provided the items figuring in the Punch List of critical / safety items (part-1) have been fully completed / attended to. The items figuring in the Punch List (part-2) of non-critical / non-safety should be completed by contractor in a time frame as stipulated in Clause 12.3.

- 12.2.2 Upon issuance of the “Provisional Certificate”, the Authority Engineer shall forward to the Authority (i) copies of all Test data including Test results, and (ii) the documents submitted by the Contractor for seeking approval of the Commissioner of Railway Safety in accordance with the provisions of the Railways Opening for Public Carriage of Passenger Rules, the Indian Railway Permanent Way Manual / or the Indian Railways Manual of A.C. Traction, Indian Railways Signal Engineering Manual, Indian Railways Telecom Manual as the case may be, for obtaining authorisation from the Commissioner for Railway Safety.
- 12.2.3 The Contractor shall assist the Authority during inspection and tests to be conducted by the Commissioner of Railway Safety for determining compliance of the Railway Project with Applicable Laws and the provisions of this Agreement.
- 12.2.4 The Defects Liability Period for the Railway Project shall commence from the date of issue of the Provisional Certificates.
- 12.2.5 The Parties hereto expressly agree that the Authority Engineer may also issue a “part Provisional Certificate” for part of the Railway Project ready for commissioning / opening subject to the provisions of Clauses 12.1 and 12.2 applying *mutatis mutandis*. The issuance of the part provisional certificate will however not absolve the contractor in any manner of its obligations to complete the remaining part of Railway Project.
- 12.2.6 The risk of loss or damage to any Materials, Plant or Works in the Railway Project or part thereof, as the case may be, and the care and custody thereof shall pass from the Contractor to the Authority upon issuance of Provisional Certificate for the Railway Project or part thereof.

12.3 Completion of Part-2 Punch List Items

All items figuring in the part-2 of Punch List shall be completed by the Contractor within 90 (ninety) days of the date of issuance of the Provisional Certificate for that part and for any delay thereafter, other than for reasons solely attributable to the Authority or due to Force Majeure, the Authority shall be entitled to recover Damages from the Contractor to be calculated and paid for each day of delay until all items are completed, at the lower of (a) 0.005% (zero point zero zero five per cent) of the contract price and (b) 0.2% (zero point two percent) of the cost of completing such items as as estimated by the Authority Engineer. Subject to payment of such Damages, the Contractor shall be entitled to a further period not exceeding 120 (one hundred and twenty) days for completion of the part-2 Punch List items. For the avoidance of doubt, it is agreed that if completion of any item in the part-2 of Punch List is delayed for reasons attributable to the Authority or due to Force Majeure, the completion date thereof shall be determined by the Authority Engineer in accordance with Good Industry Practice, and such completion date shall be deemed to be the date of issue of the Provisional Certificate for the purposes of Damages, if any, payable for such item under this Clause 12.3.

12.4 Completion Certificate

- 12.4.1 Upon completion of all items in the Punch List (part-1 as well as part-2) and issuance of authorisation by the Commissioner of Railway Safety and compliance of all CRS observations pertaining to Contractor if any, the Authority Engineer shall issue forthwith to the Contractor and the Authority; a completion certificate substantially in the form set forth in Schedule-K (the “**Completion Certificate**”) separately in respect of each Provisional Certificate issued. For Avoidance of doubt, Completion Certificate may also be issued for part-commissioning of Project.

- 12.4.2 Upon receiving the Completion Certificate, the Contractor shall remove its equipment, materials, debris and temporary works from the Site, which are not required any more for the Project, within a period of 15 (fifteen) days thereof, failing which the Authority may remove or cause to be removed, such equipment, materials, debris and temporary works and recover from the Contractor an amount equal to 120% (one hundred and twenty per cent) of the actual cost of removal incurred by the Authority.

12.5 Rescheduling of Tests

- 12.5.1 If the Authority Engineer certifies to the Authority and the Contractor that it is unable to issue the Completion Certificate or Provisional Certificate, as the case may be, because of events or circumstances on account of which the Tests could not be held or had to be suspended, the Contractor shall be entitled to re-schedule the Tests and hold the same as soon as reasonably practicable.

12.6 Delayed Authorisation

In the event of delay in issuance of authorisation by the Commissioner of Railway Safety beyond a period of 60 (sixty) days from the date of completion of all safety / critical items of punch list, the Contractor shall be entitled to interest for the period of delay at a rate equal to 3% (three per cent) above the Bank Rate on the payment due for integrated testing and commissioning as specified in Schedule-G.

ARTICLE 13 CHANGE OF SCOPE

13.1 Change of Scope

13.1.1 The Authority may, notwithstanding anything to the contrary contained in this Agreement, require the Contractor to make modifications or alterations to the Works (“**Change of Scope**”) before the issue of the Completion Certificate either by giving an instruction or by requesting the Contractor to submit a proposal for Change of Scope involving additional cost or reduction in cost. Any such Change of Scope shall be made and valued in accordance with the provisions of this Article 13.

13.1.2 Change of Scope shall mean:

- (a) change in specifications of any item of Works;
- (b) omission of any work from the Scope of the Project except under Clause 8.3.3; provided that, subject to Clause 13.5, the Authority shall not omit any work under this Clause in order to get it executed by any other entity; or
- (c) any additional work, Plant, Materials or services which are not included in the Scope of the Project, including any associated Tests on completion of construction. However, any un sanctioned work which is independent work per se shall not be considered as Change of Scope.
- (d) Variation in the quantities of certain items (positive or negative) necessitated due to any change(s) in the L-Section / Alignment / ESPs of the Project with respect to those attached with this document, except on account of existing ground conditions mentioned in L-Section/Alignment/ESPs. For avoidance of doubt, it is clarified that the existing ground conditions are to be validated by bidders before bid and hence no change on this account is payable, except for works under schedule G1.
- (e) any change in quantities under Schedule G1;

13.1.2.1 Unless parties agree to the contrary, following shall be the limits of variation for items of works under Schedule G1;

(a) For Items related to work of foundation	No Limits
(b) For Items in Schedule G1 related to works other than foundation	25%

13.1.3 (1) If the Contractor determines at any time that a Change of Scope will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Authority of executing, maintaining or operating the Railway Project, (iii) improve the efficiency or value to the Authority of the completed Railway Project, or (iv) otherwise be of benefit to the Authority, it shall prepare a proposal with relevant details, as under :-

- (a) for works under schedule G, and for items covered under schedule G1 beyond the limits of variation mentioned in article 13.1.2.1, at its own cost; or
- (b) for works under schedule G1 within the limits of variation mentioned in article 13.1.2.1, as per cost derived on the basis of accepted rates of respective items under schedule G1.

The Contractor shall submit such proposal, supported with the relevant details including the amount of reduction in the Contract Price, if any, to the Authority to consider such Change of Scope. The Authority shall, within 15 (fifteen) days of receipt of such proposal, either accept such Change of Scope with modifications, if any, and initiate proceedings therefor in accordance with this Article 13 or reject the proposal and inform the Contractor of its decision. In case of change of Scope is proposed by Authority Engineer to the contractor, the contractor shall, within 15 (fifteen) days of

receipt of such proposal, either accept such Change of scope with modifications, if any, and initiate proceedings therefore in accordance with this Article-13 or reject the proposal and inform the authority of its decision.

(2) In case Change of Scope is proposed by Authority Engineer to the contractor is for items covered under schedule G1 within the limits of variation mentioned in article 13.1.2.1, the contractor shall accept and continue the works as per rate accepted for those items/ schedules under schedule G1.]

In case Change of Scope is proposed by Authority Engineer to the contractor [is for the items not covered either in the scope of work under schedule G, or within the limits of variation mentioned in article 13.1.2.1 for the items under schedule G1,] the contractor shall, within 15 (fifteen) days of receipt of such proposal, either accept such Change of Scope with modifications, if any, and initiate proceedings therefore in accordance with this Article 13 or reject the proposal and inform the authority of its decision.

For the avoidance of doubt, the Parties agree that the Contractor shall not undertake any Change of Scope without a Change of Scope Order being issued by the Authority, save and except any Works necessary for meeting any Emergency.

13.2 Procedure for Change of Scope

13.2.1 In the event of the Authority determining that a Change of Scope is necessary, it may direct the Authority Engineer to issue to the Contractor a notice specifying in reasonable detail the works and services contemplated thereunder (the “**Change of Scope Notice**”).

13.2.2 Upon receipt of a Change of Scope Notice from Authority Engineer, the Contractor shall, with due diligence, provide to the Authority Engineer such information as is necessary, together with preliminary documentation in support of:

- (a) the impact of the Change of Scope on the Project Completion Schedule, if the works or services are required to be carried out during the Construction Period; and
- (b) the options for implementing the proposed Change of Scope and the effect, if any, each such option would have on the costs and time thereof; including the following details:
 - (i) breakup of the quantities, unit rates and cost for different items of work;
 - (ii) proposed design for the Change of Scope; and
 - (iii) proposed modifications, if any, to the Project Completion Schedule of the Railway Project.

For the avoidance of doubt, the Parties expressly agree that, subject to the provisions of Clause 13.4.2, the Contract Price shall be increased or decreased, as the case may be, on account of Change of Scope.

13.2.3 The Contractor’s quotation of rates / costs for the Change of Scope shall be determined on the following principles:

- (A) The rate for various items to be executed through change of scope order shall be estimated on the basis of Schedule of Rates (SOR) for Signalling and Telecom items , Last Accepted Rates

(LARs) of South Central Railway and other zonal railways for item other than building works and as per CPWD's AOR for building works and by applying the prevailing market rates of various input construction materials, labour, machinery and T & P.

For working out rate of item in change of scope, the following shall be considered –

- (a) Input of man days, quantities of materials etc.
- (b) The market rates of various materials, labour, machinery shall be as follows:
 - i. For materials market rate shall be based on invoices submitted by contractor or Purchase order placed by contractors for the supply of materials.
 - ii. Rates for unskilled, semi-skilled and skilled workers as per the records maintained by the Contractor in accordance with the Laws subject to maximum of those payable as per minimum wages act.
- (c) Contractor's overheads and profit at the rate of 15 (Fifteen) percent of the cost arrived by above AOR.
- (d) Applicable Taxes.

(B) In case AOR of any items is not available in South Central Railway's SOR, Last Accepted Rates of South Central railway and LAR's of other zonal railways then such rates shall be determined as per prevailing market rates in accordance with Good Industry Practice by the Authority Engineer.

13.2.4 Upon reaching an agreement, the Authority shall issue an order (the “**Change of Scope Order**”) requiring the Contractor to proceed with the performance thereof. In the event that the Parties are unable to agree, the Authority may:

- (a) issue a Change of Scope Order requiring the Contractor to proceed with the performance thereof at the rates and conditions approved by the Authority till the matter is resolved in accordance with Article 24; or
- (b) proceed in accordance with Clause 13.5.

13.2.5 The provisions of this Agreement, insofar as they relate to Works and Tests, shall apply *mutatis mutandis* to the works undertaken by the Contractor under this Article 13.

13.3 Payment for Change of Scope

Payment for Change of Scope shall be made in accordance with the payment schedule specified in the Change of Scope Order.

13.4 Restrictions on Change of Scope

13.4.1 No Change of Scope shall be executed unless the Authority has issued the Change of Scope Order save and except any Works necessary for meeting any Emergency.

13.4.2 Unless the Parties mutually agree to the contrary, the total value of all Change of Scope Orders shall not exceed 25% (twenty five per cent) of the Contract Price.

13.4.3 Notwithstanding anything to the contrary in this Article 13, no change arising from any default of the Contractor in the performance of its obligations under this Agreement shall be deemed to be Change of Scope, and shall not result in any adjustment of the Contract Price or the Project Completion Schedule.

13.5 Power of the Authority to Undertake Works

- 13.5.1 In the event the Parties are unable to agree to the proposed Change of Scope Orders in accordance with Clause 13.2, the Authority may, after giving notice to the Contractor and considering its reply thereto, award such works or services to any person on the basis of open competitive bidding from amongst bidders who are pre-qualified for undertaking the additional work; provided that the Contractor shall have the option of matching the first ranked bid in terms of the selection criteria, subject to payment of 2% (two per cent) of the bid amount to the Authority^{\$}, and thereupon securing the award of such works or services. For the avoidance of doubt, it is agreed that the Contractor shall be entitled to exercise such option only if it has participated in the bidding process and its bid does not exceed the first ranked bid by more than 10% (ten percent) thereof. It is also agreed that the Contractor shall provide assistance and cooperation to the person who undertakes the works or services hereunder, but shall not be responsible for rectification of any Defects and / or maintenance of works carried out by other agencies.
- 13.5.2 The works undertaken in accordance with this Clause 13.5 shall conform to the Specifications and Standards and shall be carried out in a manner that it should not cause any disruption to the Project and also minimise adverse effect to main contractor. The provisions of this Agreement, insofar as they relate to Works and Tests, shall apply *mutatis mutandis* to the works carried out under this Clause 13.5.

^{\$} The Authority shall transfer 75% (seventy five per cent) of the amount so received to the first ranked bidder whose bid shall have been matched by the Contractor.

ARTICLE 14
TRAFFIC REGULATION

14.1 Traffic Regulation by the Contractor

- 14.1.1 The Contractor shall take all the required measures and make arrangements for the safety of any persons and vehicles on or about the Site during the construction of the Railway Project or a Section thereof in accordance with Good Industry Practice, and Applicable Laws. It shall provide, erect and maintain all such barricades, signs, markings, flags, and lights as may be required by Good Industry Practice for the safety of the traffic using any public roads or access along or across the Section under construction.
- 14.1.2 All works shall be carried out in a manner creating least interference to traffic passing along or across the Railway Project or a Section thereof. The Contractor shall ensure that proper passage is provided for the traffic. Where it is not possible or safe to allow traffic on the existing road or passage, a temporary diversion of proper specifications shall be constructed by the Contractor at its own cost. The Contractor shall take prior approval of the Authority Engineer for any proposed arrangement for traffic regulation during Construction, which approval shall not be unreasonably withheld.
- 14.1.3 In the event any construction work is required to be executed in close proximity of an existing operating system of Railways, the Contractor shall make arrangements for the safety of such system in accordance with the provisions of the 'Compendium of Instructions on Safety at Work Sites' issued by the Authority and Good Industry Practice.

ARTICLE 15
DEFECTS LIABILITY

15.1 Defects Liability Period

15.1.1 The Contractor shall be responsible for all the Defects and deficiencies, except usual wear and tear in the Railway Project or any part thereof, till the expiry of a period of 2 (two) years commencing from the date of Provisional Certificate or expiry of a period 18 (eighteen) months from the date of Completion Certificate, whichever is later (the “**Defects Liability Period**”).

15.1.2 Deleted

15.1.3 Deleted

15.1.4 Deleted

15.2 Remedy and Rectification of Defects and Deficiencies

15.2.1 Without prejudice to the provisions of Clause 15.2.2, the Contractor shall repair or rectify all Defects and deficiencies observed by the Authority Engineer during the Defects Liability Period within a period of 15 (fifteen) days from the date of notice issued by the Authority Engineer, or within such reasonable period as may be determined by the Authority Engineer at the request of the Contractor, in accordance with Good Industry Practice. For the purpose of this clause, the time period of 15 days shall be applicable only to those Defects and Deficiencies which are not affecting train operations of safety. For any defect noticed affecting train operation of train safety, the Contractor shall arrange to rectify it within such reasonable period as may be determined by the Authority Engineer. If the Contractor is not able to rectify any fault as decided by the Authority Engineer, the Authority will be at full liberty to make its own efforts to get such defects rectified at Contractor's cost.

15.2.2 During a period of 2 (two) months from the date of issuance of Completion Certificate, the Contractor shall retain sufficient staff and spares at Project for procuring prompt replacement, installation or re-installation of any defective parts of (a) the SCADA system; (b) traction substations and switching posts and (c) EI system / Axle Counters / Automatic Train Protection system. The spares for the purpose of this clause, shall be separate from any spares supplied within the scope of the Project.

15.3 Cost of Remedying Defects

For the avoidance of doubt, any repair or rectification undertaken in accordance with the provisions of Clause 15.2, including any additional tests, shall be carried out by the Contractor at its own risk and cost, to the extent that such rectification or repair is attributable to:

- (a) the design of the Project;
- (b) Works, Plant, Materials or workmanship not being in accordance with this Agreement and the Specifications and Standards;
- (c) improper maintenance during construction of the Railway Project by the Contractor; or
- (d) failure by the Contractor to comply with any other obligation under this Agreement.

15.4 Contractor's Failure to Rectify Defects

In the event that the Contractor fails to repair or rectify such Defect or deficiency within the period specified in Clause 15.2, the Authority shall be entitled to get the same repaired, rectified or remedied at the Contractor's cost so as to make the Railway Project conform to the Specifications and Standards and the provisions of this Agreement. All costs consequent thereon shall, after due consultation with the Authority and the Contractor, be determined by the Authority Engineer. The cost so determined, and an amount equal to 20% (twenty percent) of such cost as Damages, shall be recoverable by the Authority from the Contractor and may be deducted by the Authority from any monies due to the Contractor.

15.5 Contractor to Search Cause

- 15.5.1 The Authority Engineer may instruct the Contractor to examine the cause of any Defect in the Works or part thereof before the expiry of the Defects Liability Period.
- 15.5.2 In the event any Defect identified under Clause 15.5.1 is attributable to the Contractor, the Contractor shall rectify such Defect within the period specified by the Authority Engineer, and shall bear the cost of the examination and rectification of such Defect.
- 15.5.3 In the event such Defect is not attributable to the Contractor, the Authority Engineer shall, after due consultation with the Authority and the Contractor, determine the costs incurred by the Contractor on such examination and notify the same to the Contractor, with a copy to the Authority, and the Contractor shall be entitled to payment of such costs by the Authority.

15.6 Extension of Defects Liability Period

- 15.6.1 The Defects Liability Period shall be deemed to be extended till the identified Defects under Clause 15.2 have been remedied.
- 15.6.2 Any Materials or Works with Defects identified under Clause 15.2 and replaced or repaired during the Defects Liability Period or the extended Defects Liability Period, as the case may be, would be further warranted for a period of twelve (12) months from the date of completion of such repair or replacement.
- 15.6.3 The Contractor shall upon termination or expiry of this Agreement or upon expiry of the Defects Liability Period, assign any outstanding benefit in respect of any subcontract or any warranty, to the Authority or to such other person as the Authority may direct.

ARTICLE 16
AUTHORITY'S ENGINEER

16.1 Appointment of the Authority Engineer

- 16.1.1 The Authority shall appoint a railway engineer / Project Management Services (PMS) agency, to be the engineer under this Agreement (the “**Authority Engineer**”).
- 16.1.2 The appointment of the Authority Engineer shall be made no later than 30 (Thirty) days from the date of this Agreement. The Authority shall notify the appointment or replacement of the Authority Engineer to the Contractor.
- 16.1.3 The staff of the Authority Engineer shall include suitably qualified engineers and other professionals who are competent to assist the Authority Engineer to carry out its duties.

16.2 Duties and Functions of the Authority Engineer

- 16.2.1 The Authority Engineer shall perform its duties and discharge its functions in accordance with the provisions of this Agreement, and substantially in accordance with the duties and responsibilities set forth in Annex 1 of Schedule L, but subject to obtaining prior written approval of the Authority before determining:
- (a) any Time Extension;
 - (b) any additional cost to be paid by the Authority to the Contractor;
 - (c) the Termination Payment;
 - (d) providing Power Block or Traffic Block or necessary disconnections to the Contractor;
 - (e) approval of signalling and interlocking plan and route control chart; and alterations in ESP if essentially required;
 - (f) approval of disconnections for modification of signalling and telecom works, or
 - (g) any other matter which is not specified in (a) to (f) above and which creates an obligation or liability on either Party for a sum exceeding Rs. 50,00,000/- (Rupees fifty lakh).
- 16.2.2 No decision or communication of the Authority Engineer shall be effective or valid unless it is accompanied by an attested true copy of the approval of the Authority for and in respect of any matter specified in Clause 16.2.1.
- 16.2.3 The Authority Engineer shall submit regular periodic reports, at least once every month, to the Authority in respect of its duties and functions assigned to him for the project. Such reports shall be submitted by the Authority Engineer within 10 (ten) days of the beginning of every month.
- 16.2.4 A true copy of all communications sent by the Authority to the Authority Engineer and by the Authority Engineer to the Authority shall be sent forthwith by the Authority Engineer to the Contractor.
- 16.2.5 A true copy of all communications sent by the Authority Engineer to the Contractor and by the Contractor to the Authority Engineer shall be sent forthwith by the Authority Engineer to the Authority.

16.3 Authorised Signatories

The Authority Engineer will designate and notify to the Contractor up to 2 (two) persons under him to sign for and on behalf of the Authority Engineer, and any communication or document required to be signed by the Authority Engineer shall be valid and effective only if signed by any of the designated persons; provided that the Authority Engineer may, by notice in writing, substitute any of the designated persons by any of its employees.

16.4 Instructions of the Authority Engineer

- 16.4.1 The Authority Engineer may issue to the Contractor instructions for remedying any Defect. The Contractor shall take such instructions from the Authority Engineer only.
- 16.4.2 The instructions issued by the Authority Engineer shall be in writing. However, if the Authority Engineer issues any oral instructions to the Contractor, it shall confirm in writing the oral instructions within 2 (two) working days of issuing them.
- 16.4.3 In case the Contractor does not receive the confirmation of the oral instructions within the time specified in Clause 16.4.2, the Contractor shall seek the written confirmation of the oral instructions from the Authority Engineer and shall obtain acknowledgement from the Authority Engineer of the communication seeking written confirmation. In case of failure of the Authority Engineer to reply to the Contractor within 2 (two) days of the receipt of the communication from the Contractor, the Contractor may not carry out the instruction.

16.5 Determination by the Authority Engineer

- 16.5.1 The Authority Engineer shall consult with each Party in an endeavour to reach agreement wherever this Agreement provides for the determination of any matter by the Authority Engineer. If such agreement is not achieved, the Authority Engineer shall make a fair determination in accordance with this Agreement having due regard to all relevant circumstances. The Authority Engineer shall give notice to both the Parties of each such agreement or determination, with supporting particulars.
- 16.5.2 Each Party shall give effect to each agreement or determination made by the Authority Engineer in accordance with the provisions of this Agreement. Provided, however, that if any Party disputes any instruction, decision, direction or determination of the Authority Engineer, the Dispute shall be resolved in accordance with the Dispute Resolution Procedure as per article 24.

16.6 Remuneration of the Authority Engineer

The remuneration, cost and expenses of the Authority Engineer shall be borne by the Authority.

16.7 Replacement of the Authority Engineer

- 16.7.1 The Authority may, in its discretion, replace the Authority Engineer at any time, but only upon appointment of another Authority Engineer in accordance with Clause 16.1.
- 16.7.2 If the Contractor has reasons to believe that the Authority Engineer is not discharging its duties and functions in accordance with the provisions of this Agreement, it may make a written representation

to the Authority and seek replacement of the Authority Engineer. Upon receipt of such representation, the Authority shall hold a tripartite meeting with the Contractor and Authority Engineer and make best efforts for an amicable resolution of the Dispute. After due consideration, The Authority will decide about the replacement of Authority Engineer or otherwise. However, if Contractor is not satisfied with decision of Authority, the Dispute shall be resolved in accordance with Depute Resolution Procedure as per article 24. In the event that the Authority Engineer is to be replaced, the Authority shall appoint forthwith another Authority Engineer in accordance with Clause 16.1.

16.8 Interim Arrangement

In the event that the Authority has not appointed an Authority Engineer, or the Authority Engineer so appointed has relinquished its functions, the Authority may, in the interim, designate and authorise any person to discharge the functions of the Authority Engineer in accordance with the provisions of this Agreement, save and except that such person shall not exercise any functions relating to review, comment, approval or inspection as specified in this Agreement for and in respect of the Authority Engineer, and such functions shall be discharged as and when an Authority Engineer is appointed in accordance with the provisions of this Agreement. Provided, however, that nothing contained in this Clause 16.8 shall in any manner restrict the rights of the Authority to enforce compliance of the provisions of this Agreement.

PART IV

FINANCIAL COVENANTS

ARTICLE 17
PAYMENTS

17.1 Contract Price

The Authority shall make payments to the Contractor for the Works on the basis of the lump sum price accepted by the Authority in consideration of the obligations specified in this Agreement for an amount of **₹ 130,64,99,073.00/- (Rupees One Hundred and Twenty Crore Sixty-Four Lakh Ninety-Nine Thousand and Seventy-Three only) under schedule G and on the basis of actual work done for an amount of ₹ 3,64,49,772.35/- (Rupees Three Crore Sixty Four Lakh Forty Nine Thousand Seven Hundred and Seventy Nine and Paise Thirty Five only) under schedule G1. The “Contract Price” Sum of schedule G and Schedule G1= ₹ 134,29,48,845.35/- (Rupees One Hundred and Thirty-Four Crore Twenty-Nine Lakh Forty-Eight Thousand Eight Hundred and Forty-Five and Paise Thirty-Five only)**, which shall be subject to adjustments in accordance with the provisions of this Agreement. The Parties further agree that save and except as provided in this Agreement, the Contract Price shall be valid and effective until issue of Completion Certificate.

- 17.1.1 The Contract Price includes all duties, taxes, royalty, and fees that may be levied in accordance with the laws and regulations in force as on the Base Month on the Contractor's equipment, Plant, Materials and supplies acquired for the purpose of this Agreement and on the on the Works undertaken under this Agreement. Nothing in this Agreement shall relieve the Contractor from its responsibility to pay any tax including any tax that may be levied in India on profits made by it in respect of this Agreement.
- 17.1.2 The Contract Price shall not be adjusted for any change in duties, taxes etc. specified in Clause 17.1.2 above, save and except as specified in Clauses 17.8 and 17.13.
- 17.1.3 The Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs, unless otherwise provided for in this Agreement.
- 17.1.4 Unless otherwise specified in this Agreement, the Contract Price covers all the Contractor's obligations for the Works under this Agreement and all things necessary for the Construction thereof and for the rectification of any Defects in the Railway Project.
- 17.1.5 All payments under this Agreement shall be made in Indian Rupees.

17.2 Advance Payment

- 17.2.1 Upon receiving request from Contractor, the Authority shall make an advance payment (the “**Advance Payment**”), upto 10% (ten per cent)¹ of the Contract Price, for mobilisation expenses and for acquisition of equipment, which shall carry simple interest at the rate of Bank Rate plus 4% per annum and shall be made in two instalments of upto maximum 5% (five per cent) of the contract price each.
- 17.2.2 The Contractor may apply to the Authority for the first instalment of the Advance Payment at any time after the Appointed Date, along with an irrevocable and unconditional guarantee from a Bank for an amount equivalent to 110% (one hundred and ten per cent) of such instalment, substantially in the form provided at Annex-III of Schedule-F, to remain effective till the complete and full repayment thereof.

¹ For large value (Contract price not less than 500 cr), or complex projects, the Advance Payment may be increased from 10% (ten per cent) to upto 15%(fifteen percent) of the contract price.

- 17.2.3 At any time, after 60 (sixty) days from the Appointed Date, the Contractor may apply to the Authority for the second instalment of the Advance Payment along with an irrevocable and unconditional guarantee from a Bank for an amount equivalent to 110% (one hundred and ten per cent) of such instalment, substantially in the form provided at Annex-III of Schedule-F, to remain effective till the complete and full repayment thereof along with proof of utilization of 1st instalment.
- 17.2.4 The instalments of Advance Payment shall generally be paid by the Authority to the Contractor within 15 (fifteen) days of the receipt of its respective requests in accordance with the provisions of this Clause 17.2.
- 17.2.5 The Advance Payment shall be recovered through proportionate deductions to be made in the Interim Payments Certificates issued in accordance with the provisions of Clause 17.5.2. Deductions of Advance Payment shall commence from the Interim Payment Certificate in which the cumulative interim payments certified shall have reached 50% (fifty per cent) of the Contract Price. The total amount recovered in each Interim Payment Certificate shall be equal to 30% (thirty per cent) of the amount of interim payment due and payable under such Interim Payment Certificate, and interest on the amount being recovered to be calculated from the date of disbursement of the Advance Payment to the date of recovery until the entire Advance Payment together with interest is recovered. For the avoidance of doubt, the Parties agree that in the event the total payment specified in any Interim Payment Certificate exceeds the limit of 50% (fifty per cent) of the Contract Price, the proportionate of recovery hereunder shall be restricted to the amount exceeding 50% (fifty per cent) of the Contract Price. By way of illustration, the Parties agree that if the first recovery of say, Rupees 'x' is made after 20 (twenty) months from the date of 1st (first) instalment of the Advance Payment, the interest will be recovered on Rupees 'x' for a period of 20 (twenty) months; and when the next recovery is made in the following month for say, Rupees 'y', interest on Rupees 'y' will be computed for a period of 21 (twenty one) months. The Parties further agree that no payments in excess of 90% (ninety per cent) of the Contract Price shall be released until the Advance Payment, including interest thereon, has been fully recovered.
- 17.2.6 If the Advance Payment has not been fully repaid prior to Termination under Clause 19.7 or Article 21, as the case may be, the whole of the balance then outstanding shall immediately become due and payable by the Contractor to the Authority. In the event of Termination due to Contractor's Default, the Advance Payment shall be deemed to carry interest at an annual rate of 4% (four per cent) above the Bank Rate from the date of Advance Payment to the date of recovery by encashment of bank guarantee for the Advance Payment. For the avoidance of doubt, the aforesaid interest shall be payable on each instalment of the Advance Payment, regardless of whether the instalment or any part thereof has been repaid to the Authority prior to Termination.
- 17.2.7 For large value (Contract price not less than 500 cr.) and complex projects, the Authority shall make Advance Payment up to 15% (fifteen per cent) of the Contract Price. The payment shall be made in two instalments of up to maximum 7.5% (seven and half per cent) of the contract price each on fulfilment of conditions stipulated in clause 17.2.2 and 17.2.3.

17.3 Procedure for Estimating the Payment for the Works

- 17.3.1 The Authority shall make interim payments to the Contractor, as certified by the Authority Engineer on completion of a Stage, for a length, number or area as specified, and valued in accordance with

the proportion of the Contract Price assigned to each item and its stage and payment procedure in Schedule-G or/and as per actual execution of items as specified for works under schedule G1.

- 17.3.2 The Contractor shall base its claim for interim payment for the stages completed for works under schedule G or/and as per execution of items for works under schedule G1 till the end of the month for which the payment is claimed, valued in accordance with Clause 17.3.1, supported with necessary particulars and documents in accordance with this Agreement.
- 17.3.3 Any reduction in the Contract Price arising out of Change of Scope or the Works withdrawn under Clause 8.3, as the case may be, shall not affect the amounts payable for the items or stage payments thereof which are not affected by such Change of Scope or withdrawal. For the avoidance of doubt and by way of illustration, the Parties agree that if the amount assigned to Important Bridges and / or Major Bridges is reduced from Rs. 100 crore to Rs. 80 crore owing to Change of Scope or withdrawal of Works, as the case may be, the reduction in payment shall be restricted to the relevant payments for Important Bridges and / or Major Bridges and the payment due in respect of all other stage payments under the item Important Bridges and / or Major Bridges shall not be affected in any manner. The Parties further agree that the adjustments arising out of the aforesaid modifications shall be carried out in a manner that the impact of such modifications is restricted to the said Change of Scope or withdrawal, as the case may be, and does not alter the payments due for and in respect of items or stage payments which do not form part of such Change of Scope or withdrawal.

17.4 Stage Payment Statement for Works

The Contractor shall submit a statement (the “**Stage Payment Statement**”), in 3 copies, by the 7th (seventh) day of a month to the Authority Engineer in the form set forth in Schedule-M, showing the amount calculated in accordance with Clause 17.3 to which the Contractor considers itself entitled for the completed stage(s) of Works under schedule G or/and completed items of works under schedule G1. The Stage Payment Statement shall be accompanied with the progress reports and any other supporting documents. The Contractor shall not submit any claim for payment of incomplete stages of work. In the event that there is no claim for a month in accordance with the provisions of this Clause 17.4, the Contractor shall submit a nil claim to the Authority Engineer.

17.5 Stage Payment for Works

- 17.5.1 Within 04 (Four) days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 17.4, the Authority Engineer shall broadly determine the amount due to the Contractor and recommend the release of 80 (eighty) percent of the amount so determined as part payment against the Stage Payment Statement, pending issue of the Interim Payment Certificate (IPC) by the Authority Engineer. Within 5 (five) days of the receipt of recommendation of the Authority Engineer as above, the Authority shall make electronic payment directly to the Contractor’s bank account.
- 17.5.2 Within 20 (twenty) days of the receipt of the Stage Payment Statement referred to in Clause 17.4, the Authority Engineer shall determine and shall deliver to the Authority and the Contractor an IPC certifying the amount due and payable to the Contractor, after adjusting the payments already released to the Contractor against the said statement. For the avoidance of doubt, the Parties agree that the IPC shall specify all the amounts that have been deducted from the Stage Payment Statement and the reasons therefor.

- 17.5.3 In cases where there is a difference of opinion as to the value of any stage, the opinion of the Authority Engineer shall prevail and interim payments shall be made to the Contractor on this basis; provided that the foregoing shall be without prejudice to the Contractor's right to raise a Dispute.
- 17.5.4 The Authority Engineer may, for reasons to be recorded, withhold from payment:
- (a) the estimated value of work or obligation that the Contractor has failed to perform in accordance with this Agreement and in respect of which the Authority Engineer had notified the Contractor; and
 - (b) the estimated cost of rectification of any Works which have not been constructed in accordance with this Agreement.
- 17.5.5 Payment by the Authority shall not be deemed to indicate the Authority acceptance, approval, consent or satisfaction with the work done.
- 17.5.6 In the event the amounts released by the Authority under Clause 17.5.1 exceed the amount finally determined by the Authority Engineer pursuant to Clauses 17.5.2 to 17.5.4, the difference thereof shall be accounted for in the next IPC.

17.6 Payment of Damages

- 17.6.1 The Contractor as well as the Authority may claim Damages due and payable to it in accordance with the provisions of this Agreement.
- 17.6.2 The Authority Engineer shall verify and check the claim and issue the IPC within 20 (twenty) days of the receipt of the claim under Clause 17.6.1, after making adjustments in accordance with the provisions of this Agreement. The Authority shall pay to the Contractor the amount due under such IPC within a period of 30 (thirty) days from the date of the submission of the claim under this Clause 17.6. In the event of the failure of the Authority to make payment to the Contractor within the specified time, the Authority shall be liable to pay to the Contractor interest thereon and the provisions of Clause 17.7 shall apply *mutatis mutandis* thereto.

17.7 Time of Payment and Interest

- 17.7.1 The Authority shall pay to the Contractor any amount due under any payment certificate issued by the Authority Engineer in accordance with the provisions of this Article 17, or in accordance with any other clause of this Agreement as follows:
- (a) Payment shall be made no later than 30 (thirty) days from the date of submission of the Stage Payment Statement by the Contractor to the Authority Engineer for certification in accordance with the provisions of Clause 17.4 for an IPC; provided, however, that in the event the IPC is not issued by the Authority Engineer within the aforesaid period of 30 (thirty) days, the Authority shall pay the amount shown in the Contractor's Stage Payment Statement and any discrepancy therein shall be adjusted in the next payment certificate; and
 - (b) payment shall be made no later than 30 (thirty) days from the date of submission of the Final Payment Certificate for Works along with the discharge submitted to the Authority Engineer for certification in accordance with the provisions of Clause 17.12.

- 17.7.2 In the event of failure of the Authority to make payment to the Contractor within the time period specified in this Clause 17.7, the Authority shall be liable to pay to the Contractor interest at a rate equal to the Bank Rate plus 3%, calculated at quarterly rests, on all sums remaining unpaid from the date by which the same should have been paid, calculated in accordance with the provisions of Clause 17.7.1 (a) and (b) and till the date of actual payment.

17.8 Price Adjustment for Works

- 17.8.1 The amounts payable to the Contractor for Works shall be adjusted in accordance with the provisions of this Clause 17.8.
- 17.8.2 Subject to the provisions of Clause 17.8.3, the amounts payable to the Contractor for Works shall be adjusted in the IPC issued by the Authority Engineer for the increase or decrease in the index cost of inputs for the works, by the addition or subtraction of the amounts determined by the formulae specified in Clause 17.8.4.
- 17.8.3 To the extent that any compensation or reimbursement for increase or decrease in costs to the Contractor is not covered by the provisions of this or other Clauses in this Agreement, the costs and prices payable under this Agreement shall be deemed to include the amounts required to cover the contingency of such other increase or decrease of costs and prices.
- 17.8.4 The Contract Price for works under schedule G shall be adjusted for increase or decrease in rates and prices of labour, Materials, fuel and lubricants, equipment, Machinery, Plant and other Materials or inputs in accordance with the principles, procedures and formulae specified below:
- (a) Price adjustment shall be applied on completion of the specified stage of the respective item of work in accordance with Schedule-G. The 1st Quarter will start from Bid Due date month;
 - (b) Adjustment for each item of work/stage shall be made separately;
 - (c) The following expressions and meanings are assigned to the value of the work done for signalling and telecommunication works:

SIGWK = Value of signalling works for a stage payment of the item signalling works;

INVSIG = Value of inventory for signalling works for a stage payment of the item inventory for signalling works;

INTGTESTSIG = Value of integrated testing and commission for signalling works of the Railway Project;

COMWK= Value of telecommunication works for a stage payment of the item telecommunication works;

INVCOM = Value of inventory for telecommunication works for a stage payment of the item inventory for telecommunication works; and

INTGTESTCOM = Value of integrated testing and commission for telecommunication works of the Railway Project.

(d) Price adjustment for changes in cost of signalling works and telecommunication works shall be paid in accordance with the following formula:

- (i)
$$VSIGWK = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POFC} \times (\text{OFC}_i - \text{OFC}_o) / \text{OFC}_o + \text{PLB} \times (\text{LBI} - \text{LBO}) / \text{LBO} + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o + \text{S30C} \times (\text{P30C}_i - \text{P30C}_o) / \text{P30C}_o + \text{S24C} \times (\text{P24C}_i - \text{P24C}_o) / \text{P24C}_o + \text{S19C} \times (\text{P19C}_i - \text{P19C}_o) / \text{P19C}_o + \text{S12C} \times (\text{P12C}_i - \text{P12C}_o) / \text{P12C}_o + \text{S9C} \times (\text{P9C}_i - \text{P9C}_o) / \text{P9C}_o + \text{S6C} \times (\text{P6C}_i - \text{P6C}_o) / \text{P6C}_o + \text{S4C} \times (\text{P4C}_i - \text{P4C}_o) / \text{P4C}_o + \text{S2C} \times (\text{P2C}_i - \text{P2C}_o) / \text{P2C}_o + \text{S12C2.5} \times (\text{P12C2.5}_i - \text{P12C2.5}_o) / \text{P12C2.5}_o + \text{S2C2.5} \times (\text{P2C2.5}_i - \text{P2C2.5}_o) / \text{P2C2.5}_o + \text{S2C25} \times (\text{P2C25}_i - \text{P2C25}_o) / \text{P2C25}_o + \text{QC} \times (\text{PQC}_i - \text{PQC}_o) / \text{PQC}_o];$$
- (ii)
$$\text{VINVSIG} = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$$
- (iii)
$$\text{VINTGTESTSIG} = 0.85 \text{ INTGTESTSIG} \times [\text{PLB} \times (\text{LBI} - \text{LBO}) / \text{LBO} + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$$
- (iv)
$$\text{VCOMWK} = 0.85 \text{ COMWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POFC} \times (\text{OFC}_i - \text{OFC}_o) / \text{OFC}_o + \text{PLB} \times (\text{LBI} - \text{LBO}) / \text{LBO} + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o + \text{S30C} \times (\text{P30C}_i - \text{P30C}_o) / \text{P30C}_o + \text{S24C} \times (\text{P24C}_i - \text{P24C}_o) / \text{P24C}_o + \text{S19C} \times (\text{P19C}_i - \text{P19C}_o) / \text{P19C}_o + \text{S12C} \times (\text{P12C}_i - \text{P12C}_o) / \text{P12C}_o + \text{S9C} \times (\text{P9C}_i - \text{P9C}_o) / \text{P9C}_o + \text{S6C} \times (\text{P6C}_i - \text{P6C}_o) / \text{P6C}_o + \text{S4C} \times (\text{P4C}_i - \text{P4C}_o) / \text{P4C}_o + \text{S2C} \times (\text{P2C}_i - \text{P2C}_o) / \text{P2C}_o + \text{S12C2.5} \times (\text{P12C2.5}_i - \text{P12C2.5}_o) / \text{P12C2.5}_o + \text{S2C2.5} \times (\text{P2C2.5}_i - \text{P2C2.5}_o) / \text{P2C2.5}_o + \text{S2C25} \times (\text{P2C25}_i - \text{P2C25}_o) / \text{P2C25}_o + \text{QC} \times (\text{PQC}_i - \text{PQC}_o) / \text{PQC}_o + \text{PCEQP} \times (\text{CEQP}_i - \text{CEQP}_o) / \text{CEQP}_o];$$
- (v)
$$\text{VINVCOM} = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{PCEQP} \times (\text{CEQP}_i - \text{CEQP}_o) / \text{CEQP}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o]; \text{ and}$$
- (vi)
$$\text{VINTGTESTCOM} = 0.85 \text{ INTGTESTCOM} \times [\text{PLB} \times (\text{LBI} - \text{LBO}) / \text{LBO} + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o].$$

Where

$VSIGWK$ = Increase or decrease in the cost of signalling works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

$VINVSIG$ = Increase or decrease in the cost of inventory for signalling during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

$VINTGTESTSIG$ = Increase or decrease in the cost of integrated testing and commissioning of signalling works of the Railway Project during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VCOMWK = Increase or decrease in the cost of communication works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VINVCOM = Increase or decrease in the cost of inventory for telecommunications works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VINTGTESTCOM = Increase or decrease in the cost of integrated testing and commissioning of telecommunication works of the Railway Project during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

PCEQP, PELEX, PIC, PLB, POFC, and POTH are the percentages of communication equipment, electronics, PVC insulated cables, labour, optical fibre cables, and other materials respectively;

CEQP_o = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called “WPI”) for communication equipment for the month of the Base Month ;

CEQP_i = The WPI for communication equipment for the average price index of the 3 months of the quarter under consideration;

ELEX_o = The WPI for electronics for the month of the Base Month;

ELEX_i = The WPI for electronics for the average price index of the 3 months of the quarter under consideration;

P30C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 30C x 1.5 sq mm signalling cable

P30C_o = Price per Km of cable as per purchase order / Contract agreement.

S30C = Percentage of size 30C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P24C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 24C x 1.5 sq mm signalling cable

P24C_o = Price per Km of cable as per purchase order / Contract agreement.

S24C = Percentage of size 24C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P19C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 19C x 1.5 sq mm signalling cable

P19C_o = Price per Km of cable as per purchase order / Contract agreement.

S19C = Percentage of size 19C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P12C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 12C x 1.5 sq mm signalling cable

P12C_o = Price per Km of cable as per purchase order / Contract agreement.

S12C = Percentage of size 12C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P9C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 9C x 1.5 sq mm signalling cable

P9C_o = Price per Km of cable as per purchase order / Contract agreement.

S9C = Percentage of size 9C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P6C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 6C x 1.5 sq mm signalling cable

P6C_o = Price per Km of cable as per purchase order / Contract agreement.

S6C = Percentage of size 6C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P4C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 4C x 1.5 sq mm signalling cable

P4C_o = Price per Km of cable as per purchase order / Contract agreement.

S4C = Percentage of size 4C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P2C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 1.5 sq mm signalling cable

P2C_o = Price per Km of cable as per purchase order / Contract agreement.

S2C = Percentage of size 2C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P12C2.5_i = Price payable per Km as adjusted in accordance with price variation Clause for size 12C x 2.5 sq mm signalling cable

P12C2.5_o = Price per Km of cable as per purchase order / Contract agreement.

S12C2.5 = Percentage of size 12C x 2.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P2C2.5_i = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 2.5 sq mm signalling cable

P2C2.5_o = Price per Km of cable as per purchase order / Contract agreement.

S2C2.5 = Percentage of size 2C x 2.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P2C25_i = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 25 sq mm signalling cable

P2C25_o = Price per Km of cable as per purchase order / Contract agreement.

S2C25 = Percentage of size 2C x 25 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

PQC_i = Price payable per Km as adjusted in accordance with price variation Clause for size 0.9mm dia, 6 Quad cable.

PQC_o = Price per Km of cable as per purchase order / Contract agreement.

QC = Percentage of size 0.9mm dia, 6 Quad cable shall govern the price.

LBo = The consumer price index for industrial workers – All India, published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called “CPI”) for the month of the Base Month;

LBi = The CPI for industrial workers – All India for the average price index of the 3 months of the quarter under consideration;

OFCo = The WPI for fibre cables for the month of the Base Month;

OFCi = The WPI for fibre cables for the average price index of the 3 months of the quarter under consideration;

OTHo = The WPI for all commodities for the month of the Base Month; and

OTHi = The WPI for all commodities for the average price index of the 3 months of the quarter under consideration.

- (e) The following percentages shall govern the price adjustment of the Contract Price for signalling and telecommunication work

PVC COMPONENTS AND WEIGHTAGES FOR SCH-G OF THE PROJECT:

SL. No	Works Component	Signalling			Telecommunication		
		Signalling Works	Signalling Inventory	Integrated Testing and Commissionin	Telecommunication Works	Telecommunication Inventory	Integrated Testing and Commissionin
		%	%	%	%	%	%
1	Electronics (PELEX)	44.08	23.05	43.65	0.00	0.00	0.00
2	Communication Equipment (PCEQP)	0.23	24.58	0.00	0.66	0.00	32.63
3	Optical Fibre Cable (POFC)	0.00	0.00	0.00	4.13	0.00	0.00
4	30C x 1.5 sq.mm signalling cable (S30C)	0.00	0.00	0.00	0.00	0.00	0.00
5	24C x 1.5 sq.mm signalling cable (S24C)	0.00	0.00	0.00	0.00	0.00	0.00
6	19C x 1.5 sq.mm signalling cable (S19C)	0.00	0.00	0.00	0.00	0.00	0.00
7	12C x 1.5 sq.mm signalling cable (S12C)	20.86	0.00	0.00	0.00	0.00	0.00
8	9C x 1.5 sq.mm signalling cable (S9C)	0.00	0.00	0.00	0.00	0.00	0.00
9	6C x 1.5 sq.mm signalling cable (S6C)	0.00	0.00	0.00	0.00	0.00	0.00
10	4C x 1.5 sq.mm signalling cable (S4C)	0.00	0.00	0.00	0.00	0.00	0.00
11	2C x 1.5 sq.mm signalling cable (S2C)	0.00	0.00	0.00	0.00	0.00	0.00
12	12C x 2.5 sq.mm signalling cable (S12C2.5)	0.00	0.00	0.00	0.00	0.00	0.00
13	2C x 2.5 sq.mm signalling cable (S2C2.5)	0.00	0.00	0.00	0.00	0.00	0.00
14	2C x 25 sq.mm signalling cable (S2C25)	0.00	0.00	0.00	0.00	0.00	0.00
15	0.9mm dia 6 Quad cable (QC)	0.00	0.00	0.00	44.38	0.00	0.00
16	Labour (PLB)	6.80	17.53	25.19	15.29	24.11	49.59
17	Other Materials	28.03	34.85	31.16	35.54	75.89	17.78
	Total	100.0	100.0	100.0	100.0	100.00	100.00

PVC COMPONENTS AND WEIGHTAGES FOR SCH-G1 OF THE PROJECT:

SL. No	Works Component	Signalling			Telecommunication		
		Signalling Works	Signalling Inventory	Integrated Testing and Commissioning	Telecommunication on Works	Telecommunication on Inventory	Integrated Testing and Commissioning
		%	%	%	%	%	%
1	Electronics (PELEX)	92.66	0.00	0.00	0.00	0.00	0.00
2	Communication Equipment (PCEQP)	0.00	0.00	0.00	0.00	0.00	0.00
3	Optical Fibre Cable (POFC)	0.00	0.00	0.00	0.00	0.00	0.00
4	30C x 1.5 sq.mm signalling cable (S30C)	0.00	0.00	0.00	0.00	0.00	0.00
5	24C x 1.5 sq.mm signalling cable (S24C)	0.00	0.00	0.00	0.00	0.00	0.00
6	19C x 1.5 sq.mm signalling cable (S19C)	0.00	0.00	0.00	0.00	0.00	0.00
7	12C x 1.5 sq.mm signalling cable (S12C)	0.00	0.00	0.00	0.00	0.00	0.00
8	9C x 1.5 sq.mm signalling cable (S9C)	0.00	0.00	0.00	0.00	0.00	0.00
9	6C x 1.5 sq.mm signalling cable (S6C)	0.00	0.00	0.00	0.00	0.00	0.00
10	4C x 1.5 sq.mm signalling cable (S4C)	0.00	0.00	0.00	0.00	0.00	0.00
11	2C x 1.5 sq.mm signalling cable (S2C)	0.00	0.00	0.00	0.00	0.00	0.00
12	12C x 2.5 sq.mm signalling cable (S12C2.5)	0.00	0.00	0.00	0.00	0.00	0.00
13	2C x 2.5 sq.mm signalling cable (S2C2.5)	0.00	0.00	0.00	0.00	0.00	0.00
14	2C x 25 sq.mm signalling cable (S2C25)	0.00	0.00	0.00	0.00	0.00	0.00
15	0.9mm dia 6 Quad cable (QC)	0.00	0.00	0.00	0.00	0.00	0.00
16	Labour (PLB)	0.00	0.00	0.00	0.00	0.00	0.00
17	Other Materials	7.34	100.00	100.00	0.00	100.00	0.00
	Total	100.0	100.0	100.0	0.00	100.00	0.00

(a) Price Variation Formula for Signalling and Telecom Cable

The price payable for signalling cables is variable as per Price Variation Formula given below:

For Signalling Copper Cables:

$$P_i = P_o + CuF (Cu - C_{uo}) + CCF_{cu}(CC - CCo) + FeF (Fe - Feo)$$

For Telecom Copper Cables For Jelly Filled, 0.9 mm dia, 6 quad cable

$$P_i = P_o + CuF (Cu - C_{uo}) + AlF_{cu}(Al - Alo) + CCF_{cu} (CC - Cco) + FeF (Fe - Feo)$$

For Aluminium Power Cables:

$$P_i = P_o + AlF (Al - Alo) + CCF_{Al}(CC - CCo) + FeF (Fe - Feo)$$

Where,

P_i = Price payable per KM as adjusted in accordance with Price variation clause.

P_o = Price per KM of cable as per Purchase order.

CuF = Variation factor for Copper

C_{uo} = Price of copper Rod in Rs. Per MT

CCF_{Cu} = Variation factor for PVC Compound for Copper Signalling & Telecom cable

CCo = Price of PVC Compound in Rs. Per MT

AlF = Variation factor for Aluminium

Alo = Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.

CCF_{Al} = Variation factor for PVC Compound for Aluminium power cable

FeF = Variation factor for Steel

Feo = Price of Steel for Armour (Flat strip 4 mm. x 0.8mm/ Round 1.4mm dia) in Rs. Per MT

(Prices per MT for C_{uo} , CCo , Feo , Alo as applicable on the 1st working day of the month, one month prior to the deadline for submission of bids. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/--/-- one month prior to the deadline for submission of bids.)

Cu = Price of Copper Rod in Rs. Per MT.

CC = Price of PVC Compound in Rs. Per MT.

Fe = Price of Steel for Armouring (Flat strip 4mm x 0.8 mm/ Round 1.4mm dia) in Rs. Per MT.

Al = Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.

(Prices per MT for Cu , CC , Fe , Al as prevailing on 1st working day of the calendar month covering the date One month prior to the date of inspection call letter will be applicable for the calculation of updated price. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/--/-- one month prior to the date of inspection.)

The value of variation factors for copper, steel and PVC Compound are different for different sizes of signalling cables. Accordingly, the PVC formula for some of the types of signalling cable is as given under:

Underground Railway Signalling Cable unscreened and armoured copper conductor

(i) Size 30 C x 1.5 sq.mm

$$P_{30C_i} = P_{30C_o} + 0.391(Cu - C_{uo}) + 0.557(CC - CCo) + 0.425(Fe - Feo)$$

For armouring, price of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

(ii) Size 24C x 1.5 sq.mm

$$P_{24C_i} = P_{24C_o} + 0.313(Cu - C_{uo}) + 0.481 (CC - CCo) + 0.398(Fe - Feo)$$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

(iii) Size 19C x 1.5 sq.mm

$$P19C_i = P19C_o + 0.248(Cu - C_{uo}) + 0.395(CC - CC_o) + 0.343(Fe - Fe_o)$$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

- (iv) Size 12C x 1.5 sq.mm

$$P12C_i = P12C_o + 0.157(Cu - C_{uo}) + 0.277(CC - CC_o) + 0.289(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (v) Size 9C x 1.5 sq.mm

$$P9C_i = P9C_o + 0.117(Cu - C_{uo}) + 0.241(CC - CC_o) + 0.383(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (vi) Size 6C x 1.5 sq.mm

$$P6C_i = P6C_o + 0.078(Cu - C_{uo}) + 0.199(CC - CC_o) + 0.329(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (vii) Size 4C x 1.5 sq.mm

$$P4C_i = P4C_o + 0.052(Cu - C_{uo}) + 0.152(CC - CC_o) + 0.277(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (viii) Size 2C x 4 sq.mm(multistrand)

$$P2C_i = P2C_o + 0.073(Cu - C_{uo}) + 0.156(CC - CC_o) + 0.3(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (ix) Size 12C x 2.5 sq.mm

$$P12C_{2.5i} = P12C_{2.5o} + 0.282(Cu - C_{uo}) + 0.371(CC - CC_o) + 0.342(Fe - Fe_o)$$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

- (x) Size 2C x 2.5 sq.mm

$$P2C_{2.5i} = P2C_{2.5o} + 0.047(Cu - C_{uo}) + 0.139(CC - CC_o) + 0.277(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (xi) Size 2C x 25 sq.mm PVC insulated, armoured, Aluminium power cable

$$P2C_{25i} = P2C_{25o} + 0.146(Al - Al_o) + 0.303(CC - CC_o) + 0.306(Fe - Fe_o)$$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

- (xii) For Jelly filled, 0.9mm dia, 6 quad cable

$$PQC_i = PQC_o + 0.135(Al - Al_o) + 0.139(Cu - C_{uo}) + 0.515(CC - CC_o) + 0.693(Fe - Fe_o)$$

For PVC Compound Grade CW-22, is to be taken into consideration.

17.8.4-B The Contract Price for Works under schedule G1 shall be adjusted for increase or decrease in rates and prices of labour, Materials, fuel and lubricants, equipment, Machinery, Plant and other Materials or inputs in accordance with the principles, procedures and formulae specified below:

- (a) Price adjustment shall be applied on execution of the respective item of work in accordance with Schedule-G1. The 1st Quarter will start from Bid Due date month;
- (b) Adjustment for each item of work shall be made as per classification of those item of work. Classification for item/ work for determining applicable components will be mentioned either in the work order against Schedule G1 or sub schedules of G1.

17.8.5 In case an IPC relates to a month which is within 3 (three) months from the Base Month, no price adjustment shall be applicable.

17.9 Restrictions on Price Adjustment

Price adjustment shall be due and payable only in respect of the stages of Works for which the Stage Payment Statement has been submitted by the Contractor no later than 30 (thirty) days from the date of the applicable Project Milestone or the Scheduled Completion Date, as the case may be, including any Time Extension granted therefor in accordance with the provisions of this Agreement. For the avoidance of doubt, in the event of submission of any Stage Payment Statement after the period

specified herein, price adjustment shall be applicable only until the date of the respective Project Milestone or the Scheduled Completion Date, as the case may be.

17.10 Final Payment Statement

17.10.1 Within 60 (sixty) days of receiving the Completion Certificate under Clause 12.4, the Contractor shall submit to the Authority Engineer six copies of a final payment statement (the “**Final Payment Statement**”), with supporting documents, in the form prescribed by the Authority Engineer:

- (a) the summary of Contractor’s Stage Payment Statements for Works as submitted in accordance with Clause 17.4;
- (b) the amounts received from the Authority against each claim; and
- (c) any further sums which the Contractor considers due to it from the Authority.

17.10.2 If the Authority Engineer disagrees with or cannot verify any part of the Final Payment Statement, the Contractor shall submit such further information as the Authority Engineer may reasonably require. The Authority Engineer shall deliver to the Authority:

- (i) an IPC for those parts of the Final Payment Statement which are not in dispute, along with a list of disputed items which shall then be settled in accordance with the provisions of Article 24; or
- (ii) a Final Payment Certificate in accordance with Clause 17.15, if there are no disputed items.

17.10.3 If the Authority Engineer does not prescribe the form referred to in Clause 17.10.1 within 7 (Seven) days of the date of issue of the Completion Certificate, the Contractor shall submit the statement in such form as it deems fit.

17.11 Discharge

Upon submission of the Final Payment Statement under Clause 17.10, the Contractor shall give to the Authority, with a copy to the Authority Engineer, a written discharge confirming that the total of the Final Payment Statement represents full and final settlement of all monies due to the Contractor in respect of this Agreement for all the Works arising out of this Agreement, except for any monies due to either Party on account of any Defect. Provided that such discharge shall become effective only after the payment due has been made in accordance with the Final Payment Certificate issued pursuant to Clause 17.12.

17.12 Final Payment Certificate

17.12.1 Within 30 (thirty) days after receipt of the Final Payment Statement under Clause 17.10, and the written discharge under Clause 17.11, and there being no disputed items of claim, the Authority Engineer shall deliver to the Authority, with a copy to the Contractor, a final payment certificate (the “**Final Payment Certificate**”) stating the amount which, in the opinion of the Authority Engineer, is finally due under this Agreement or otherwise. For the avoidance of doubt, before issuing the Final Payment Certificate, the Authority Engineer shall ascertain from the Authority all amounts previously paid by the Authority, all sums due to the Authority, and the balance, if any, due from the Authority to the Contractor or from the Contractor to the Authority, as the case may be.

17.12.2 The Authority shall, in accordance with the provisions of Clause 17.7, pay to the Contractor the amount which is specified as being finally due in the Final Payment Certificate.

17.13 Change in Law

17.13.1 If as a result of Change in Law, the Contractor suffers any additional costs in the execution of the Works or in relation to the performance of its other obligations under this Agreement, the Contractor shall, within 15 (fifteen) days from the date it becomes reasonably aware of such addition in costs, notify the Authority with a copy to the Authority Engineer of such additional costs due to Change in Law.

17.13.2 If as a result of Change in Law, the Contractor benefits from any reduction in costs for the execution of this Agreement or in accordance with the provisions of this Agreement, either Party shall, within 15 (fifteen) days from the date it becomes reasonably aware of such reduction in costs, notify the other Party with a copy to the Authority Engineer of such reduction in costs due to Change in Law.

17.13.3 The Authority Engineer shall, within 15 (fifteen) days from the date of receipt of notice from the Contractor or the Authority, as the case may be, determine any addition or reduction to the Contract Price, as the case may be, due to the Change in Law.

17.14 Correction of Interim Payment Certificates

The Authority Engineer may by an Interim Payment Certificate make any correction or modification in any previous Interim Payment Certificate issued by the Authority Engineer.

17.15 Authority's Claims

If the Authority considers itself to be entitled to any payment from the Contractor under any Clause of this Agreement, it shall give notice and particulars to the Contractor 20 (twenty) days before making the recovery from any amount due to the Contractor, and shall take into consideration the representation, if any, made by the Contractor in this behalf, before making such recovery.

17.16 Bonus for Early Completion

In the event that the Project Completion Date occurs prior to the Scheduled Completion Date, the Contractor shall be entitled to receive a payment of bonus equivalent to 0.03% (zero point zero three per cent) of the Contract Price for each day by which the Project Completion Date precedes the Scheduled Completion Date, but subject to a maximum of 5% (five per cent) of the Contract Price. Provided, however, that the payment of bonus, if any, shall be made only after the issue of the Completion Certificate. For the avoidance of doubt, the Parties agree that for the purpose of determining the bonus payable hereunder, the Contract Price shall always be deemed to be the amount specified in Clause 17.1.1, and shall exclude any revision thereof for any reason.

ARTICLE 18
INSURANCE

18.1 Insurance for Works

18.1.1 The Contractor shall affect and maintain at its own cost the insurances specified in Schedule-N and as per the requirements of Applicable Laws.

18.1.2 Subject to the provisions of Clause 19.6, the Contractor shall, in accordance with the provisions of this Agreement, be liable to bear the cost of any loss or damage that does not fall within the scope of this Article 18 or cannot be recovered from the insurers.

18.1.3 Subject to the exceptions specified in Clause 18.1.4 below, the Contractor shall fully indemnify, hold harmless and defend the Authority from and against any and all losses, damages, costs, charges and / or claims with respect to:

(a) the death of or injury to any person; or

(b) the loss of or damage to any property;

that may arise out of or in consequence of any breach by the Contractor of this Agreement during the execution of the Works or the remedying of any Defects therein.

18.1.4 Notwithstanding anything stated above in Clause 18.1.3, the Authority shall fully indemnify the Contractor from and against any and all losses, damages, costs, charges, proceedings and/or claims arising out of or with respect to

(a) the use or occupation of land or any part thereof by the Authority;

(b) the damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any Defects therein, in accordance with this Agreement; and

(c) the death of or injury to persons or loss of or damage to property resulting from any act or neglect of the Authority, its agents, servants or other contractors, not being employed by the Contractor. Provided, that in the event of any injury or damage as a result of the contributory negligence of the Contractor, the Authority shall be liable to indemnify the Contractor from and against any and all losses, damages, costs, charges, proceedings and / or claims to the extent proportionate to the liability of the Authority, its servants or agents or other contractors not associated with the Contractor in such injury or damage.

18.1.5 Without prejudice to the obligations of the parties as specified under Clauses 18.1.3 and 18.1.4, the Contractor shall maintain or effect such third party insurances as may be required under Applicable Laws.

18.1.6 The Contractor shall provide to the Authority, within 30 days of the Appointed Date, evidence of professional liability insurance maintained by its Design Director and / or consultants to cover the risk of professional negligence in the design of Works. The professional liability cover shall be for a sum of not less than 3% (three per cent) of the Contract Price and shall be maintained until the end of the Defects Liability Period.

18.2 Notice to the Authority

No later than 15 (fifteen) days after the date of this Agreement, the Contractor shall by notice furnish to the Authority, in reasonable detail, information in respect of the insurances that it proposes to effect and maintain in accordance with this Article 18. Within 15 (fifteen) days of receipt of such notice, the Authority may require the Contractor to effect and maintain such other insurances as may be necessary pursuant hereto, and in the event of any difference or disagreement relating to any such insurance, the Dispute Resolution Procedure shall apply.

18.3 Evidence of Insurance Cover

- 18.3.1 All insurances obtained by the Contractor in accordance with this Article 18 shall be maintained with insurers on terms consistent with Good Industry Practice. Within 10 (ten) days of obtaining any insurance cover, the Contractor shall furnish to the Authority notarised true copies of the certificate(s) of insurance, copies of insurance policies and premia payment receipts in respect of such insurance, and no such insurance shall be cancelled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty-five) days after notice of such proposed cancellation, modification or non-renewal has been delivered by the Contractor to the Authority. The Contractor shall act in accordance with the directions of the Authority.
- 18.3.2 The Contractor shall procure and ensure the adequacy of the insurances at all times in accordance with the provisions of this Agreement.

18.4 Remedy for Failure to Insure

If the Contractor shall fail to effect and keep in force all insurances for which it is responsible pursuant hereto, the Authority shall have the option to either keep in force any such insurances, and pay such premia and recover the costs thereof from the Contractor, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Contractor. If either the Contractor or the Authority fails to comply with any condition of the insurances effected under the 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.

18.5 Waiver of Subrogation

All insurance policies in respect of the insurance obtained by the Contractor pursuant to this Article 18 shall include a waiver of any and all rights of subrogation or recovery of the insurers thereunder against, inter alia, the Authority, and its assigns, successors, undertakings and their subsidiaries, Affiliates, employees, insurers and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

18.6 Contractor's Waiver

The Contractor hereby further releases, assigns and waives any and all rights of subrogation or recovery against, inter alia, the Authority and its assigns, undertakings and their subsidiaries, Affiliates, employees, successors, insurers and underwriters, which the Contractor may otherwise have or acquire in or from or in any way connected with any loss, liability or obligation covered by policies of insurance maintained or required to be maintained by the Contractor pursuant to this Agreement (other than third party liability insurance policies) or because of deductible clauses in or inadequacy of limits of any such policies of insurance.

18.7 Cross Liabilities

- 18.7.1 Any such insurance maintained or effected in pursuance of this Article 18 shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Authority as separately insured.

18.8 Accident or Injury to Workmen

Notwithstanding anything contained in this Agreement, it is hereby expressly agreed between the Parties that the Authority shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or Sub-contractor, save and except as for death or injury resulting from any act, omission or default of the Authority, its agents or servants. The Contractor shall indemnify and keep indemnified the Authority from and against all such claims, proceedings, damages, costs, charges, and expenses whatsoever in respect of the above save and except for those acts, omissions or defaults for which the Authority shall be liable.

18.9 Insurance Against Accident to Workmen

The Contractor shall effect and maintain during the Agreement such insurances as may be required to insure the Contractor's personnel and any other persons employed by it on the Railway Project from and against any liability incurred in pursuance of this Article 18. Provided that for the purposes of this Clause 18.9, the Contractor's personnel / any person employed by the Contractor shall include the Sub-contractor and its personnel. Provided further that in respect of any persons employed by any Sub-contractor, the Contractor's obligations to insure as aforesaid under this Clause 18.9 shall be discharged if the Sub-contractor shall have insured against any liability in respect of such persons in such manner that the Authority is indemnified under the policy. The Contractor shall require such Sub-contractor to produce before the Authority, when required, such policy of insurance and the receipt for payment of the current premium within 10 (ten) days of such demand being made by the Authority.

18.10 Application of Insurance Proceeds

The proceeds from all insurance claims, except for life and injury, shall be applied for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Railway Project and the provisions of this Agreement in respect of construction of Works shall apply *mutatis mutandis* to the Works undertaken out of the proceeds of insurance.

18.11 Compliance with Policy Conditions

The Contractor expressly acknowledges and undertakes to fully indemnify the Authority from and against all losses and claims arising from the Contractor's failure to comply with conditions imposed by the insurance policies effected in accordance with this Agreement.

PART V

FORCE MAJEURE AND TERMINATION

ARTICLE 19
FORCE MAJEURE

19.1 Force Majeure

As used in this Agreement, the expression “**Force Majeure**” or “**Force Majeure Event**” shall mean occurrence in India of any or all of Non-Political Event, Indirect Political Event and Political Event, as defined in Clauses 19.2, 19.3 and 19.4 respectively, if it affects the performance by the Party claiming the benefit of Force Majeure (the “**Affected Party**”) of its obligations under this Agreement and which act or event (a) is beyond the reasonable control of the Affected Party, and (b) the Affected Party could not have prevented or overcome by exercise of due diligence and following Good Industry Practice, and (c) has Material Adverse Effect on the Affected Party.

19.2 Non-Political Event

A Non-Political Event shall mean one or more of the following acts or events:

- (a) act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionising radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Site);
- (b) strikes or boycotts (other than those involving the Contractor, Sub-contractors or their respective employees/representatives, or attributable to any act or omission of any of them) interrupting supplies and services to the Railway Project for a continuous period of 24 (twenty-four) hours and an aggregate period exceeding 10 (ten) days in an Accounting Year, and not being an Indirect Political Event set forth in Clause 19.3;
- (c) any failure or delay of a Sub-contractor but only to the extent caused by another Non-Political Event;
- (d) any judgement or order of any court of competent jurisdiction or statutory authority made against the Contractor in any proceedings for reasons other than (i) failure of the Contractor to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by the Authority; or (v) breach of its obligations by the Contractor under its sub-contracts;
- (e) the discovery of geological conditions, toxic contamination or archaeological remains on the Site that could not reasonably have been expected to be discovered through a site inspection; or
- (f) any event or circumstances of a nature analogous to any of the foregoing.

19.3 Indirect Political Event

An Indirect Political Event shall mean one or more of the following acts or events:

- (a) an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;
- (b) industry-wide or State-wide strikes or industrial action for a continuous period of 24 (twenty-four) hours and exceeding an aggregate period of 10 (ten) days in an Accounting Year;
- (c) any civil commotion, boycott or political agitation which prevents construction of the Railway Project by the Contractor for an aggregate period exceeding 10 (ten) days in an Accounting Year;

- (d) failure of the Authority to permit the Contractor to continue with its Construction Works, with or without modifications, in the event of stoppage of such work after discovery of any geological or archaeological finds;
- (e) any failure or delay of a Sub-contractor to the extent caused by any Indirect Political Event;
- (f) any Indirect Political Event that causes a Non-Political Event; or
- (g) any event or circumstances of a nature analogous to any of the foregoing.

19.4 Political Event

A Political Event shall mean one or more of the following acts or events by or on account of any Government Instrumentality:

- (a) Change in Law, only if consequences thereof cannot be dealt with under and in accordance with the provisions of Clause 17.13;
- (b) compulsory acquisition in national interest or expropriation of any Project Assets or rights of the Contractor or of the Sub-Contractors;
- (c) unlawful or unauthorised or without jurisdiction revocation of, or refusal to renew or grant without valid cause, any clearance, licence, permit, authorisation, no objection certificate, consent, approval or exemption required by the Contractor or any of the Sub-contractors to perform their respective obligations under this Agreement; provided that such delay, modification, denial, refusal or revocation did not result from the Contractor's or any Sub-contractor's inability or failure to comply with any condition relating to grant, maintenance or renewal of such clearance, licence, authorisation, no objection certificate, exemption, consent, approval or permit;
- (d) any failure or delay of a Sub-contractor but only to the extent caused by another Political Event; or
- (e) any event or circumstances of a nature analogous to any of the foregoing.

19.5 Duty to Report Force Majeure Event

19.5.1 Upon occurrence of a Force Majeure Event, the Affected Party shall by notice report such occurrence to the other Party forthwith. Any notice pursuant hereto shall include full particulars of:

- (a) the nature and extent of each Force Majeure Event which is the subject of any claim for relief under this Article 19 with evidence in support thereof;
- (b) the estimated duration and the effect or probable effect which such Force Majeure Event is having or will have on the Affected Party's performance of its obligations under this Agreement;
- (c) the measures which the Affected Party is taking or proposes to take for alleviating the impact of such Force Majeure Event; and
- (d) any other information relevant to the Affected Party's claim.

19.5.2 The Affected Party shall not be entitled to any relief for or in respect of a Force Majeure Event unless it shall have notified the other Party of the occurrence of the Force Majeure Event as soon as reasonably practicable, and in any event no later than 10 (ten) days after the Affected Party knew, or ought reasonably to have known, of its occurrence, and shall have given particulars of the probable material effect that the Force Majeure Event is likely to have on the performance of its obligations under this Agreement.

19.5.3 For so long as the Affected Party continues to claim to be affected by such Force Majeure Event, it shall provide the other Party with regular (and not less than weekly) reports containing information as required by Clause 19.5.1, and such other information as the other Party may reasonably request the Affected Party to provide.

19.6 Effect of Force Majeure Event on the Agreement

19.6.1 Upon the occurrence of any Force Majeure

- (a) prior to the Appointed Date, both Parties shall bear their respective Force Majeure costs.
- (b) after the Appointed Date, the costs incurred and attributable to such event and directly relating to this Agreement (the “**Force Majeure costs**”) shall be allocated and paid as follows:
 - (i) upon occurrence of a Non-Political Event, the Parties shall bear their respective Force Majeure costs and neither Party shall be required to pay to the other Party any costs thereof;
 - (ii) upon occurrence of an Indirect Political Event, all Force Majeure costs attributable to such Indirect Political Event, and not exceeding the Insurance Cover for such Indirect Political Event, shall be borne by the Contractor, and to the extent Force Majeure costs exceed such Insurance Cover, one half of such excess amount shall be reimbursed by the Authority to the Contractor for the Force Majeure events; and
 - (iii) upon occurrence of a Political Event, all Force Majeure costs attributable to such Political Event shall be reimbursed by the Authority to the Contractor.

For the avoidance of doubt, Force Majeure costs may include costs directly attributable to the Force Majeure Event, but shall not include debt repayment obligations, if any, of the Contractor.

19.6.2 Save and except as expressly provided in this Article 19, neither Party shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising out of occurrence or existence of any Force Majeure Event or exercise of any right pursuant hereto.

19.6.3 Upon the occurrence of any Force Majeure Event during the Construction Period, the Project Completion Schedule for and in respect of the affected Works shall be extended on a day for day basis for such period as performance of the Contractor’s obligations is affected on account of the Force Majeure Event or its subsisting effects, as may be determined by the Authority Engineer.

19.6.4 Force Majeure costs for any event which results in any offsetting compensation being payable to the Contractor by or on behalf of its sub-contractors shall be reduced by such amounts that are payable to the Contractor by its Sub-contractors.

19.7 Termination Notice for Force Majeure Event

If a Force Majeure Event subsists for a period of 60 (sixty) days or more within a continuous period of 120 (one hundred and twenty) days, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever, save as provided in this Article 19, and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days time to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

19.8 Termination Payment for Force Majeure Event

- 19.8.1 In the event of this Agreement being terminated on account of a Non-Political Event, the Termination Payment shall be an amount equal to the sum payable under Clause 21.5.
- 19.8.2 If Termination is on account of an Indirect Political Event, the Termination Payment shall include:
- (a) any sums due and payable under Clause 21.5; and
 - (b) the reasonable cost, as determined by the Authority Engineer, of the Plant and Materials procured by the Contractor and transferred to the Authority for use in Construction, only if such Plant and Materials are in conformity with the Specifications and Standards;
- 19.8.3 If Termination is on account of a Political Event, the Authority shall make a Termination Payment to the Contractor in an amount that would be payable under Clause 21.6.2 as if it were an Authority Default.

19.9 Dispute Resolution

In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the Dispute Resolution Procedure; provided that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and / or excuse on account of such Force Majeure Event.

19.10 Excuse from Performance of Obligations

If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations to the extent it is unable to perform on account of such Force Majeure Event; provided that:

- (a) the suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event;
- (b) the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and
- (c) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party notice to that effect and shall promptly resume performance of its obligations hereunder.

ARTICLE 20
SUSPENSION OF CONTRACTOR'S RIGHTS

20.1 Suspension Upon Contractor Default

Upon occurrence of a Contractor Default, the Authority shall be entitled, without prejudice to its other rights and remedies under this Agreement including its rights of Termination hereunder, to (a) suspend carrying out of the Works or any part thereof, and (b) carry out such Works itself or authorise any other person to exercise or perform the same on its behalf during such suspension (the “**Suspension**”). Suspension hereunder shall be effective forthwith upon issue of notice by the Authority to the Contractor and may extend up to a period not exceeding 90 (ninety) days from the date of issue of such notice.

20.2 Authority to Act on Behalf of Contractor

During the period of Suspension hereunder, all rights and liabilities vested in the Contractor in accordance with the provisions of this Agreement shall continue to vest in the Contractor and all things done or actions taken, including expenditure incurred by the Authority for discharging the obligations of the Contractor under and in accordance with this Agreement shall be deemed to have been done or taken for and on behalf of the Contractor and the Contractor undertakes to indemnify the Authority for all costs incurred during such period. The Contractor hereby licences and sub-licences respectively, the Authority or any other person authorised by it under Clause 20.1 to use during Suspension, all Intellectual Property belonging to or licenced to the Contractor with respect to the Railway Project and its design, engineering, construction and maintenance, and which is used or created by the Contractor in performing its obligations under the Agreement.

20.3 Revocation of Suspension

- 20.3.1 In the event that the Authority shall have rectified or removed the cause of Suspension within a period not exceeding 60 (sixty) days from the date of Suspension, it shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement. For the avoidance of doubt, the Parties expressly agree that the Authority may, in its discretion, revoke the Suspension at any time, whether or not the cause of Suspension has been rectified or removed hereunder.
- 20.3.2 Upon the Contractor having cured the Contractor Default within a period not exceeding 60 (sixty) days from the date of Suspension, the Authority shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement.

20.4 Termination

- 20.4.1 At any time during the period of Suspension under this Article 20, the Contractor may by notice require the Authority to revoke the Suspension and issue a Termination Notice. The Authority shall, within 15 (fifteen) days of receipt of such notice, terminate this Agreement under and in accordance with Article 21 as if it is a Contractor Default under Clause 21.1.
- 20.4.2 Notwithstanding anything to the contrary contained in this Agreement, in the event that Suspension is not revoked within 90 (ninety) days from the date of Suspension hereunder, the Agreement shall, upon expiry of the aforesaid period, be deemed to have been terminated by mutual agreement of the Parties and all the provisions of this Agreement shall apply, *mutatis mutandis*, to such Termination as if a Termination Notice had been issued by the Authority upon occurrence of a Contractor Default.

ARTICLE 21
TERMINATION

21.1 Termination for Contractor Default

21.1.1 Save as otherwise provided in this Agreement, in the event that any of the defaults specified below shall have occurred, and the Contractor fails to cure the default within the Cure Period set forth below, or where no Cure Period is specified, then within a Cure Period of 60 (sixty) days, the Contractor shall be deemed to be in default of this Agreement (the “**Contractor Default**”), unless the default has occurred as a result of any breach of this Agreement by the Authority or due to Force Majeure. The defaults referred to herein shall include:

- (a) The Contractor fails to provide, extend or replenish, as the case may be, the Performance Security in accordance with this Agreement;
- (b) subsequent to the replenishment or furnishing of fresh Performance Security in accordance with Clause 7.3, the Contractor fails to cure, within a Cure Period of 30 (thirty) days, the Contractor Default for which the whole or part of the Performance Security was appropriated;
- (c) the Contractor does not achieve the latest outstanding Project Milestone due in accordance with the provisions of Schedule-I, subject to any Time Extension, and continues to be in default for 45 (forty five) days;
- (d) the Contractor abandons or manifests intention to abandon the construction of the Railway Project without the prior written consent of the Authority;
- (e) the Contractor fails to proceed with the Works in accordance with the provisions of Clause 10.1 or stops Works for 30 (thirty) days without reflecting the same in the current programme and such stoppage has not been authorised by the Authority Engineer;
- (f) the Project Completion Date does not occur within the period specified in Schedule-I for the Scheduled Completion Date, or any extension thereof;
- (g) failure to complete the Punch List items within the periods stipulated therefor in Clause 12.3;
- (h) the Contractor fails to rectify any Defect, the non rectification of which shall have a Material Adverse Effect on the Project, within the time specified in this Agreement or as directed by the Authority Engineer;
- (i) the Contractor subcontracts the Works or any part thereof in violation of this Agreement or assigns any part of the Works without the prior approval of the Authority;
- (j) the Contractor creates any Encumbrance in breach of this Agreement;
- (k) an execution levied on any of the assets of the Contractor has caused a Material Adverse Effect;
- (l) the Contractor is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for the Contractor or for the whole or material part of its assets that has a material bearing on the Project;
- (m) the Contractor has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that would cause, in the reasonable opinion of the Authority, a Material Adverse Effect;
- (n) a resolution for winding up of the Contractor is passed, or any petition for winding up of the Contractor is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within 90 (ninety) days of the date thereof or the Contractor is ordered to be wound up by a court except for the purpose of amalgamation or reconstruction; provided that, as part of such amalgamation or reconstruction, the entire property, assets and undertaking of the Contractor are transferred to the amalgamated

- or reconstructed entity and that the amalgamated or reconstructed entity has unconditionally assumed the obligations of the Contractor under this Agreement; and provided that:
- (i) the amalgamated or reconstructed entity has the capability and experience necessary for the performance of its obligations under this Agreement; and
 - (ii) the amalgamated or reconstructed entity has the financial standing to perform its obligations under this Agreement and has a credit worthiness at least as good as that of the Contractor as at the Appointed Date;
- (o) any representation or warranty of the Contractor herein contained which is, as of the date hereof, found to be materially false or the Contractor is at any time hereafter found to be in breach thereof;
- (p) the Contractor submits to the Authority any statement, notice or other document, in written or electronic form, which has a material effect on the Authority's rights, obligations or interests and which is false in material particulars;
- (q) the Contractor has failed to fulfil any obligation, for which failure Termination has been specified in this Agreement;
- (r) the Contractor has failed to make any payment to the Authority within the period specified in this Agreement; or
- (s) the Contractor commits a default in complying with any other provision of this Agreement if such a default causes a Material Adverse Effect on the Project or on the Authority.
- 21.1.2 Without prejudice to any other rights or remedies which the Authority may have under this Agreement, upon occurrence of a Contractor Default, the Authority shall be entitled to terminate this Agreement by issuing a Termination Notice to the Contractor; provided that before issuing the Termination Notice, the Authority shall by a notice inform the Contractor of its intention to issue such Termination Notice and grant 15 (fifteen) days to the Contractor to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.
- 21.1.3 After termination of this Agreement for Contractor Default, the Authority may complete the Works and / or procure its completion through any other entity. The Authority and such entity may, for this purpose, use any Materials, Plant and equipment, Contractor's documents and other design documents made by or on behalf of the Contractor.

21.2 Termination for Authority Default

- 21.2.1 In the event that any of the defaults specified below shall have occurred, and the Authority fails to cure such default within a Cure Period of 90 (ninety) days or such longer period as has been expressly provided in this Agreement, the Authority shall be deemed to be in default of this Agreement (the "**Authority Default**") unless the default has occurred as a result of any breach of this Agreement by the Contractor or due to Force Majeure. The defaults referred to herein shall include:
- (a) the Authority commits a material default in complying with any of the provisions of this Agreement and such default has a Material Adverse Effect on the Contractor;
 - (b) the Authority has failed to make payment of any amount due and payable to the Contractor within the period specified in this Agreement;
 - (c) the Authority has failed to provide, within a period of 180 (one hundred and eighty) days from the Appointed Date, the environmental clearances and forest clearances required for construction of the Railway Project;

- (d) the Authority repudiates this Agreement or otherwise takes any action that amounts to or manifests an irrevocable intention not to be bound by this Agreement; or
- (e) the Authority Engineer fails to issue the relevant Interim Payment Certificate within 60 (sixty) days after receiving a statement and supporting documents.

21.2.2 Without prejudice to any other right or remedy which the Contractor may have under this Agreement, upon occurrence of an Authority Default, the Contractor shall be entitled to terminate this Agreement by issuing a Termination Notice to the Authority; provided that before issuing the Termination Notice, the Contractor shall by a notice inform the Authority of its intention to issue the Termination Notice and grant 15 (fifteen) days to the Authority to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.

21.3 Right of Authority to Determine the Contract

Notwithstanding anything hereinabove, the Authority shall be entitled to determine and terminate the contract at any time should, in the Authority's opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case it shall be treated as Authority Default and Termination Payment shall be made as per clause 21.6 below. Notice in writing from the Authority of such determination and the reasons therefor shall be conclusive evidence thereof. The termination shall take effect 30 (thirty) days from the date of notice hereunder.

21.4 Requirements After Termination

Upon Termination of this Agreement in accordance with the provisions of this Article 21, the Contractor shall comply with and conform to the following:

- (a) deliver to the Authority all Plant and Materials which shall have become the property of the Authority under this Article 21;
- (b) deliver all relevant records, reports, Intellectual Property and other licences pertaining to the Works, other design documents and in case of Termination occurring after the Provisional Certificate has been issued, the “**as built**” Drawings for the Works;
- (c) transfer and / or deliver all Applicable Permits to the Authority to the extent permissible under Applicable Laws; and
- (d) vacate the Site within 15 (fifteen) days.

21.5 Valuation of Unpaid Works

21.5.1 Within a period of 45 (forty-five) days after Termination under Clause 21.1, 21.2 or 21.3, as the case may be, has taken effect, the Authority Engineer shall proceed in accordance with Clause 16.5 to determine as follows the valuation of unpaid Works (the “**Valuation of Unpaid Works**”):

- (a) value of the completed stage of the Works, less payments already made; and
- (b) reasonable value of the partially completed stages of works as on the date of Termination, only if such works conform with the Specifications and Standards.

and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement; and (ii) all taxes due to be deducted at source.

21.5.2 The Valuation of Unpaid Works shall be communicated to the Authority, with a copy to the Contractor, within a period of 45 (forty five) days from the date of Termination.

21.6 Termination Payment

- 21.6.1 Upon Termination on account of Contractor Default under Clause 21.1, the Authority shall:
- (a) encash and appropriate the Performance Security and Retention Money and in the event the Contractor has failed to replenish or extend the Performance Security, claim the amount stipulated in Clause 7.1.1, as agreed pre-determined compensation to the Authority for any losses, delays and cost of completing the Works, if any;
 - (b) encash and appropriate the bank guarantee, if any, to the extent of the outstanding Advance Payment and interest thereon; and
 - (c) pay to the Contractor, by way of Termination Payment, an amount equivalent to the Valuation of Unpaid Works after adjusting any other sums payable or recoverable, as the case may be, in accordance with the provisions of this Agreement, and all taxes due to be deducted at source.
- 21.6.2 Upon Termination on account of an Authority Default under Clause 21.2 or under Clause 21.3, the Authority shall:
- (a) return the Performance Security and Retention Money forthwith;
 - (b) encash and appropriate the bank guarantee, if any, to the extent of the outstanding Advance Payment, including interest thereon; and
 - (c) pay to the Contractor, by way of Termination Payment, an amount equal to:
 - (i) Valuation of Unpaid Works;
 - (ii) the reasonable cost, as determined by the Authority Engineer, of the Plant and Materials procured by the Contractor and transferred to the Authority for its use, only if such Plant and Materials are in conformity with the Specifications and Standards;
 - (iii) the reasonable cost of temporary works, as determined by the Authority Engineer; and
- shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement, and (ii) all taxes due to be deducted at source.
- 21.6.3 Termination Payment shall become due and payable to the Contractor within 30 (thirty) days of a demand being made by the Contractor to the Authority with the necessary particulars, after the Valuation of Unpaid Works has been communicated by the Authority Engineer, and in the event of any delay, the Authority shall pay interest at the Bank Rate plus 3% (three percent), calculated at quarterly rests, on the amount of Termination Payment remaining unpaid; provided that such delay shall not exceed 90 (ninety) days. For the avoidance of doubt, it is expressly agreed that Termination Payment shall constitute full discharge by the Authority of its payment obligations in respect thereof hereunder.
- 21.6.4 The Contractor expressly agrees that Termination Payment under this Article 21 shall constitute a full and final settlement of all claims of the Contractor on account of Termination of this Agreement and that it shall not have any further right or claim under any law, treaty, convention, contract or otherwise.

21.7 Other Rights and Obligations of the Parties

Upon Termination for any reason whatsoever

- (a) property and ownership in all Materials, Plant and Works and the Railway Project shall, as between the Contractor and the Authority, vest in the Authority in whole, free from any and all Encumbrances; provided that the foregoing shall be without prejudice to Clause 21.6;
- (b) risk of loss or damage to any Materials, Plant or Works and the care and custody thereof shall pass from the Contractor to the Authority; and
- (c) the Authority shall be entitled to restrain the Contractor and any person claiming through or under the Agreement from entering upon the Site or any part of the Project except for taking possession of materials, stores, implements, construction plants and equipment of the Contractor, which have not been vested in the Authority in accordance with the provisions of this Agreement.

21.8 Survival of Rights

Notwithstanding anything to the contrary contained in this Agreement any Termination pursuant to the provisions of this Agreement shall be without prejudice to the accrued rights of either Party including its right to claim and recover money damages, insurance proceeds, security deposits, and other rights and remedies, which it may have in law or Agreement. All rights and obligations of either Party under this Agreement, including Termination Payments, shall survive the Termination to the extent such survival is necessary for giving effect to such rights and obligations.

PART VI

OTHER PROVISIONS

ARTICLE 22
ASSIGNMENT AND CHARGES

22.1 Restrictions on Assignment and Charges

This Agreement shall not be assigned by the Contractor to any person, save and except with the prior consent in writing of the Authority, which consent the Authority shall be entitled to decline without assigning any reason.

22.2 Hypothecation of Materials or Plant

Notwithstanding the provisions of Clause 22.1, the Contractor may pledge or hypothecate to its lenders, any Materials or Plant prior to their incorporation in the Works. Further, the Contractor may, by written notice to the Authority, assign its right to receive payments under this Agreement either absolutely or by way of charge, to any person providing financing to the Contractor in connection with the performance of the Contractor's obligations under this Agreement. The Contractor acknowledges that any such assignment by the Contractor shall not relieve the Contractor from any obligations, duty or responsibility under this Agreement. For the avoidance of doubt, all Materials and Plants shall, upon their incorporation into Works, be free from any and all Encumbrances without the Authority being required to make any payment to any person on account of any costs, compensation, expenses and charges for such Materials, Plants and Works.

ARTICLE 23
LIABILITY AND INDEMNITY

23.1 General Indemnity

The Contractor will indemnify, defend, save and hold harmless the Authority and its officers, servants, agents, Government Instrumentalities and Government owned and / or controlled entities / enterprises, (the “**Authority Indemnified Persons**”) against any and all suits, proceedings, actions, demands and third party claims for any loss, damage, cost and expense of whatever kind and nature, whether arising out of any breach by the Contractor of any of its obligations under this Agreement or from any negligence under the Agreement, including any errors or deficiencies in the design documents, or tort or on any other ground whatsoever, except to the extent that any such suits, proceedings, actions, demands and claims have arisen due to any negligent act or omission, or breach or default of this Agreement on the part of the Authority Indemnified Persons.

23.2 Indemnity by the Contractor

23.2.1 Without limiting the generality of Clause 23.1, the Contractor shall fully indemnify, hold harmless and defend the Authority and the Authority Indemnified Persons from and against any and all loss and / or damages arising out of or with respect to:

- (a) failure of the Contractor to comply with Applicable Laws and Applicable Permits;
- (b) payment of taxes required to be made by the Contractor in respect of the income or other taxes of the Sub-contractors, suppliers and representatives; or
- (c) non-payment of amounts due as a result of Materials or services furnished to the Contractor or any of its Sub-contractors which are payable by the Contractor or any of its Sub-contractors.

23.2.2 Without limiting the generality of the provisions of this Article 23, the Contractor shall fully indemnify, hold harmless and defend the Authority Indemnified Persons from and against any and all suits, proceedings, actions, claims, demands, liabilities and damages which the Authority Indemnified Persons may hereafter suffer, or pay by reason of any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign patent rights, copyrights or other Intellectual Property, proprietary or confidentiality rights with respect to any materials, information, design or process used by the Contractor or by the Sub-contractors in performing the Contractor’s obligations or in any way incorporated in or related to the Project. If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Contractor shall make every reasonable effort, by giving a satisfactory bond or otherwise, to secure the revocation or suspension of the injunction or restraint order. If, in any such suit, action, claim or proceedings, the Railway Project, or any part thereof or comprised therein, is held to constitute an infringement and its use is permanently enjoined, the Contractor shall promptly make every reasonable effort to secure for the Authority a licence, at no cost to the Authority, authorising continued use of the infringing work. If the Contractor is unable to secure such licence within a reasonable time, the Contractor shall, at its own expense, and without impairing the Specifications and Standards, either replace the affected work, or part, or process thereof with non-infringing work or part or process, or modify the same so that it becomes non-infringing.

23.3 Notice and Contest of Claims

In the event that either Party receives a claim or demand from a third party in respect of which it is entitled to the benefit of an indemnity under this Agreement (the “**Indemnified Party**”) it shall notify the other Party (the “**Indemnifying Party**”) within 15 (fifteen) days of receipt of the claim or demand and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim or demand, it may conduct the proceedings in the name of the Indemnified Party, subject to the Indemnified Party being secured against any costs involved, to its reasonable satisfaction.

23.4 Defence of Claims

- 23.4.1 The Indemnified Party shall have the right, but not the obligation, to contest, defend and litigate any claim, action, suit or proceeding by any third party alleged or asserted against such Party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder, and reasonable costs and expenses thereof shall be indemnified by the Indemnifying Party. If the Indemnifying Party acknowledges in writing its obligation to indemnify the Indemnified Party in respect of loss to the full extent provided by this Agreement, the Indemnifying Party shall be entitled, at its option, to assume and control the defence of such claim, action, suit or proceeding, liabilities, payments and obligations at its expense and through the counsel of its choice; provided it gives prompt notice of its intention to do so to the Indemnified Party and reimburses the Indemnified Party for the reasonable cost and expenses incurred by the Indemnified Party prior to the assumption by the Indemnifying Party of such defence. The Indemnifying Party shall not be entitled to settle or compromise any claim, demand, action, suit or proceeding without the prior written consent of the Indemnified Party, unless the Indemnifying Party provides such security to the Indemnified Party as shall be reasonably required by the Indemnified Party to secure the loss to be indemnified hereunder to the extent so compromised or settled.
- 23.4.2 If the Indemnifying Party has exercised its rights under Clause 23.3, the Indemnified Party shall not be entitled to settle or compromise any claim, action, suit or proceeding without the prior written consent of the Indemnifying Party (which consent shall not be unreasonably withheld or delayed).
- 23.4.3 If the Indemnifying Party exercises its rights under Clause 23.3, the Indemnified Party shall nevertheless have the right to employ its own counsel, and such counsel may participate in such action, but the fees and expenses of such counsel shall be at the expense of the Indemnified Party, when and as incurred, unless:
- (a) the employment of counsel by such party has been authorised in writing by the Indemnifying Party; or
 - (b) the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the conduct of the defence of such action; or
 - (c) the Indemnifying Party shall not, in fact, have employed independent counsel reasonably satisfactory to the Indemnified Party, to assume the defence of such action and shall have been so notified by the Indemnified Party; or

- (d) the Indemnified Party shall have reasonably concluded and specifically notified the Indemnifying Party either:
- (i) that there may be specific defences available to it which are different from or additional to those available to the Indemnifying Party; or
 - (ii) that such claim, action, suit or proceeding involves or could have a material adverse effect upon it beyond the scope of this Agreement:

Provided that if Sub-clauses (b), (c) or (d) of this Clause 23.4.3 shall be applicable, the counsel for the Indemnified Party shall have the right to direct the defence of such claim, demand, action, suit or proceeding on behalf of the Indemnified Party, and the reasonable fees and disbursements of such counsel shall constitute legal or other expenses hereunder.

23.5 No Consequential Claims

Notwithstanding anything to the contrary contained in this Article 23, the indemnities herein provided shall not include any claim or recovery in respect of any cost, expense, loss or damage of an indirect, incidental or consequential nature, including loss of profit, except as expressly provided in this Agreement.

23.6 Survival on Termination

The provisions of this Article 23 shall survive Termination.

ARTICLE 24
DISPUTE RESOLUTION

24.1 Conciliation of Disputes

- 24.1.1 All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the Contractor to the “**Authority**” through “Notice of Dispute” provided that no such notice shall be served later than 30 days after the date of issue of Completion Certificate by the Authority Engineer. Authority shall, within 30 days after receipt of the Contractor’s “Notice of Dispute”, notify the name of conciliator(s) to the Contractor. In case Authority fails to fix Conciliator within 30 days, Contractor shall be free to approach Dispute Adjudication Board (DAB) for adjudication of Dispute.
- 24.1.2 The Conciliator(s) shall assist the parties to reach an amicable settlement in an independent and impartial manner within the terms of contract. If the parties reach agreement on a settlement of the dispute, they shall draw up and sign a written settlement agreement duly signed by Authority Engineer, Contractor and conciliator(s). When the settlement agreement is signed, it shall be final and binding on the parties. The conciliators shall be paid fee as fixed by Ministry of Railways time to time, which shall be shared equally by the parties.
- 24.1.3 The parties shall not initiate, during the conciliation proceedings, any reference to DAB or arbitral or judicial proceedings in respect of a dispute that is the subject matter of the conciliation proceedings.
- 24.1.4 The conciliation shall be carried out as per ‘The Arbitration and Conciliation Act, 1996’ and the proceedings may be terminated as per Section 76 of the above Act.

24.2 Dispute Adjudication Board (DAB)

- 24.2.1 A dispute/s if not settled through conciliation, shall be referred to DAB. The DAB shall consist of a panel of three Retired Railway Officers not below senior administrative grade (SAG). The DAB shall be formed within 90 days of signing of Contract Agreement. For this purpose, the Authority will maintain a panel of DAB members. The complete panel, which shall not be less than five members, shall be sent by Authority to the Contractor to nominate one member of the DAB from the panel as Contractor’s nominee within two weeks of receipt of the panel. On receipt of Contractor’s nominee, the Authority shall nominate one member from the same panel as Authority’s nominee for the DAB. Both above nominees shall jointly select presiding member of the DAB from the same panel.
- 24.2.2 The appointment of DAB shall be effectuated by way of a tri-partite agreement among the Authority, Contractor and the respective DAB members. The terms of the remuneration of each member shall be as fixed by Ministry of Railways from time to time. Each party shall be responsible for paying one-half of this remuneration.
- 24.2.3 If one or more of the members appointed refuses to act as DAB member, or is unable or unwilling to perform his functions as DAB member for any reason whatsoever or dies or in the opinion of the Authority fails to act without undue delay, the parties shall terminate the mandate of such DAB member and thereupon new DAB member shall be appointed in the same manner, as the outgoing DAB member had been appointed.

24.2.4 The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Authority or the Contractor acting alone. Unless otherwise agreed by both the Parties, the appointment of the DAB (including each member) shall expire upon expiry of this Contract Agreement.

24.2.5 Before start of DAB proceedings, each DAB member shall give the following certificate to the Authority and the Contractor:

“I have no any past or present relationship in relation to the subject matter in dispute, whether financial, business, professional or other kind. Further, I have no any past or present relationship with or interest in any of the parties whether financial, business, professional or other kind, which is likely to give rise to justifiable doubts as to my independence or impartiality.”

24.2.6 DAB proceedings shall be conducted as decided by the DAB. The DAB shall give its decision within 90 days of a Dispute referred to it by any of the Parties, duly recording the reasons before arriving at the decision. The DAB shall decide the issue within terms and conditions of the contract. This time limit shall be extendable subject to the Parties mutual agreement.

24.2.7 The DAB decision shall not be binding on both the Parties. In case any party is not satisfied by the decision of DAB, then the aggrieved party may approach Standing Arbitral Tribunal for arbitration proceedings. However, even if the aggrieved party had proceeded for Arbitration as per provisions of this agreement, 75% of award amount, pending adjudication by Standing Arbitral Tribunal / Court of Law, shall be made by party to other party. In case payment is to be made by Authority to Contractor, the terms and conditions as incorporated in the Ministry of Railways Letter No. 2016/CE(I)/CT/ARB/3(NITI Aayog)/Pt. dated 08th Mar, 2017 as amended time to time shall be followed. However, in case Contractor has to pay to the Authority, then 75% of the award amount shall be deducted by the Authority from the running bills or other dues of the Contractor, pending adjudication by Standing Arbitral Tribunal / Court of Law.

24.2.8 No dispute shall be referred to Standing Arbitral Tribunal unless the same has been referred to DAB for adjudication. However, in case DAB is not formed due to any reason, the disputes can be directly referred to Standing Arbitral Tribunal to adjudicate the dispute.

24.2.9 In the specific cases of any misconduct by any of the members of the DAB, the parties shall have the right to specifically bring it to the notice of the DAB such conduct, through a statement filed with necessary documents in proof of such misconduct and the DAB, after taking NOTICE of such conduct initiate the replacement of the member concerned, in the same manner the member to be replaced was appointed.

24.2.10 Once the decision is given by DAB, DAB cannot review the decision at its own or on the request of one party, unless both parties agree for review of decision by DAB.

24.2.11 In case DAB decision is not challenged by either party within 180 days of receipt of decision of DAB, the decision shall be considered as final and parties would be barred for referring the same to Standing Arbitral Tribunal for adjudication.

24.2.12 The obligation of the Authority and the Contactor shall not be altered by reasons of issue being or under reference to DAB.

24.2.13 The DAB shall conduct the proceedings at Vijayawada or any other convenient venue which shall be decided by DAB in consultations with parties.

24.2.14 It is a term of this contract that the Parties shall not approach any Court of Law for settlement of such disputes or differences unless an attempt has first been made by the parties to settle such disputes or differences through DAB and Standing Arbitral Tribunal.

24.3 Standing Arbitral Tribunal

24.3.1 The arbitration proceedings shall be conducted as per 'The Arbitration and Conciliation Act, 1996'. The Arbitral Tribunal shall consist of a panel of three Retired Railway Officers not below senior administrative grade (SAG). The Standing Arbitral Tribunal shall be formed within 90 days of signing of Contract document. For this purpose, the Authority shall maintain a panel of arbitrators. The complete panel, which shall not be less than five members, shall be sent by Authority to the Contractor to nominate one arbitrator from the panel as Contractor's nominee within two weeks of receipt of the panel. On receipt of Contractor's nominee, the Authority shall appoint above contractor's nominee as well as another from the same panel as Authority's nominee as arbitrators. Both above arbitrators shall jointly select presiding arbitrator from the same panel.

24.3.2 If the Contractor fails to select the contractor's nominee from the panel within two weeks of the receipt of the said panel, the Authority shall, after giving one more opportunity to contractor to nominate one as contractor's nominee within next two weeks, appoint two arbitrators from the same panel. Both above arbitrators shall jointly select presiding arbitrator from the same panel.

24.3.3 If one or more of the Arbitrators appointed refuses to act as Arbitrator, withdraws from his office as Arbitrator, or vacates his office or is unable or unwilling to perform his functions as Arbitrator for any reason whatsoever or dies or in the opinion of the Authority fails to act without undue delay, the parties shall terminate the mandate of such arbitrator and thereupon new arbitrator shall be appointed in the same manner, as the outgoing arbitrator had been appointed.

24.3.4 Before start of arbitration proceedings, each appointed arbitrator shall give the following certificate to the Authority and the Contractor:

"I have no any past or present relationship in relation to the subject matter in dispute, whether financial, business, professional or other kind. Further, I have no any past or present relationship with or interest in any of the parties whether financial, business, professional or other kind, which is likely to give rise to justifiable doubts as to my independence or impartiality in terms of The Arbitration and Conciliation Act, 1996."

24.3.5 In the specific cases of any misconduct by any of the members of the TRIBUNAL, the parties shall have the right to specifically bring it to the notice of the TRIBUNAL such conduct, through a statement filed with necessary documents in proof of such misconduct and the TRIBUNAL, after taking NOTICE of such conduct initiate the replacement of the member concerned, in the same manner the member to be replaced was appointed.

24.3.6 Each party has to prepare and furnish to Standing Arbitral Tribunal and other party, once in a every six months, an account giving full and detailed particulars of all claims, which even after decision of DAB are unsettled, to which the parties may consider themselves entitled to during the last preceding

six months. If any dispute has arisen as regards execution of the works under the contract, while submitting the said half yearly claims, the parties shall give full particulars of such dispute in the said submission. After signing Contract agreement, within 6 months, the parties shall submit all the claims from date of award of contract in first submission of claims.

- 24.3.7 The said communication will be the reference of the dispute to the ARBITRAL TRIBUNAL appointed under the present agreement.
- 24.3.8 The parties shall submit all the relevant documents in support of their claims and the reasons for raising the dispute to the TRIBUNAL.
- 24.3.9 The said claims of the parties so referred to ARBITRAL TRIBUNAL so far it relates to the disputed claims, shall be treated as Statement of Claims of the parties and the ARBITRAL TRIBUNAL shall call upon the other party to submit its reply. The ARBITRAL TRIBUNAL after giving an opportunity of being heard to both the parties, decide the dispute within a period of Four months from the date of communication of the dispute under clause 24.3.6 above. The Arbitral Tribunal will pass a reasoned award in writing, while deciding the Dispute. Once the award is declared, the Arbitral Tribunal cannot review the same except what is permissible in terms of provisions contained in Arbitration and Conciliation Act. The parties shall be entitled to the remedies under the Arbitration and Conciliation Act 1996 or any amendment thereof.
- 24.3.10 The parties agree that all the claims of any nature whatsoever, which the parties may have in respect of the work of the preceding six months, should be made in the said Statements of half yearly claims. If the parties do not raise the claim, if any, arising from the work done in the preceding six months in the statement of half yearly claim, to Standing Arbitral Tribunal, the parties shall be deemed to have waived and given up the claims. The ARBITRAL TRIBUNAL shall not entertain such disputes, which have not been raised in the statement of half yearly Claim before the Standing Arbitral Tribunal and such claims will stand excluded from the scope of arbitration and beyond the terms of reference to the ARBITRAL TRIBUNAL.
- 24.3.11 The parties agree that where the Arbitral award is for payment of money, no interest shall be payable on the whole or any part of the money for any period till the date on which the award is made.
- 24.3.12 The obligation of the Authority and the Contactor shall not be altered by reasons of arbitration being conducted during the progress of work. Neither party shall be suspended the work on account of arbitration and payments to the contractor shall continue to be made in terms of the contract and / or as awarded (except when Award is challenged in the Court in which case the payments would be as per the court's orders)
- 24.3.13 The ARBITRAL TRIBUNAL shall remain in force during the entire period the PRINCIPAL CONTRACT is in force and until the closure of the PRINCIPAL CONTRACT with the final no claim certificate, which will be filed with ARBITRAL TRIBUNAL.
- 24.3.14 The Arbitral Tribunal shall conduct the Arbitration proceedings at Vijayawada or any other convenient venue which shall be decided by Tribunal in consultation with both parties.
- 24.3.15 The cost of arbitration shall be borne equally by the respective parties. The cost shall inter-alia include fee of the arbitrators as per the rates fixed by the Indian Railways from time to time.

- 24.3.16 It is a term of this contract that the Contractor shall not approach any Court of Law for settlement of such disputes or differences unless an attempt has first been made by the parties to settle such disputes or differences through conciliation, DAB and Standing Arbitral Tribunal.
- 24.3.17 Even in case arbitration award is challenged by a party in the Court of Law, 75% of award amount, pending adjudication by Court of Law, shall be made by party to other party. In case payment is to be made by Authority to Contractor, the terms and conditions as incorporated in the Ministry of Railways Letter No. 2016/CE(I)/CT/ARB/3(NITI Aayog)/Pt. dated 08th Mar,2017 as amended time to time shall be followed. However, in case Contractor has to pay to the Authority, then 75% of the award amount shall be deducted by the Authority from the running bills or other dues of the Contractor, pending adjudication by Court of Law.
- 24.3.18 The contract shall be governed by the law for the time being in force in the Republic of India. In case of any disputes / differences resulting in court cases between Contractor and Authority, the jurisdiction shall be of Courts at Vijayawada only.

ARTICLE 25
MISCELLANEOUS

25.1 Governing Law and Jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at Vijayawada shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

25.2 Waiver of Immunity

Each Party unconditionally and irrevocably:

- (a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
- (b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Party with respect to its assets;
- (c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- (d) consents generally in respect of the enforcement of any judgement or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgement that may be made or given in connection therewith).

25.3 Delayed Payments

The Parties hereto agree that payments due from one Party to the other Party under the provisions of this Agreement shall be made within the period set forth therein, and if no such period is specified, within 30 (thirty) days of receiving a demand along with the necessary particulars. In the event of delay beyond such period, the defaulting Party shall pay interest for the period of delay calculated at a rate equal to Bank Rate plus 3% (three percent), save and except as otherwise specified in this Agreement. All interest payment under this Agreement shall, save and except as otherwise specified, be calculated at quarterly rests, and recovery thereof shall be without prejudice to the rights of the Parties under this Agreement including Termination thereof.

25.4 Waiver

25.4.1 Waiver, including partial or conditional waiver, by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Agreement:

- (a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
- (b) shall not be effective unless it is in writing and executed by a duly authorised representative of the Party; and
- (c) shall not affect the validity or enforceability of this Agreement in any manner.

25.4.2 Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

25.5 Liability for Review of Documents and Drawings

Except to the extent expressly provided in this Agreement:

- (a) no review, comment or approval by the Authority or the Authority Engineer of any Document or Drawing submitted by the Contractor nor any observation or inspection of the construction of the Railway Project nor the failure to review, approve, comment, observe or inspect hereunder shall relieve or absolve the Contractor from its obligations, duties and liabilities under this Agreement, Applicable Laws and Applicable Permits; and
- (b) the Authority shall not be liable to the Contractor by reason of any review, comment, approval, observation or inspection referred to in Sub-clause (a) above.

25.6 Exclusion of Implied Warranties etc.

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by either Party not contained in a binding legal agreement executed by both Parties.

25.7 Survival

25.7.1 Termination shall:

- (a) not relieve the Contractor or the Authority, as the case may be, of any obligations hereunder which expressly or by implication survive Termination hereof; and
- (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or caused by, acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

25.7.2 All obligations surviving Termination shall only survive for a period of 3 (three) years following the date of such Termination.

25.8 Entire Agreement

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the Contractor arising from the Request for Proposal and bid submissions, as the case may be, shall be deemed to form part of this Agreement and treated as such.

25.9 Severability

If for any reason whatsoever, any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the Dispute Resolution Procedure set forth under this Agreement or otherwise.

25.10 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture or partnership between the Parties, or to impose any partnership obligation or liability upon either Party, and neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

25.11 Third Parties

This Agreement is intended solely for the benefit of the Parties, and their respective successors and permitted assigns, and nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Agreement.

25.12 Successors and Assigns

This Agreement shall be binding upon, and inure to the benefit of the Parties and their respective successors and permitted assigns.

25.13 Notices

Any notice or other communication to be given by any Party to the other Party under or in connection with the matters contemplated by this Agreement shall be in writing and shall:

- (a) in the case of the Contractor, be given by facsimile or e-mail and by letter delivered by hand to the address given and marked for attention of the person set out below or to such other person as the Contractor may from time to time designate by notice to the Authority; provided that notices or other communications to be given to an address outside Vijayawada may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, air mail or by courier, be sent by facsimile or e-mail to the person as the Contractor may from time to time designate by notice to the Authority;
- (b) in the case of the Authority, be given by facsimile or e-mail and by letter delivered by hand and be addressed to the Chief Signal & Telecom Engineer/Projects-III, Vijayawada Division, South Central Railway with a copy delivered to the Authority Representative or such other person as the Authority may from time to time designate by notice to the Contractor; provided that if the Contractor does not have an office in Vijayawada, it may send such notice by facsimile or e-mail and by registered acknowledgement due, air mail or by courier; and
- (c) any notice or communication by a Party to the other Party, given in accordance herewith, shall be deemed to have been delivered when in the normal course of post it ought to have been delivered and in all other cases, it shall be deemed to have been delivered on the actual date and time of delivery; provided that in the case of facsimile or e-mail, it shall be deemed to have been delivered on the working day following the date of its delivery.

25.14 Language

All notices required to be given by one Party to the other Party and all other communications, Documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

25.15 Counterparts

This Agreement may be executed in two counterparts, each of which, when executed and delivered, shall constitute an original of this Agreement.

25.16 Confidentiality

The Parties shall treat the details of this Agreement as private and confidential, except to the extent necessary to carry out obligations under it or to comply with Applicable Laws. The Contractor shall not publish, permit to be published, or disclose any particulars of the Works in any trade or technical paper or elsewhere without the previous consent of the Authority.

25.17 Copyright and Intellectual Property Rights

25.17.1 As between the Parties, the Contractor shall retain the copyright and other Intellectual Property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor. The Contractor shall be deemed (by signing this Agreement) to give to the Authority a non-terminable transferable non-exclusive royalty-free licence to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This licence shall:

- (a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
- (b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
- (c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by this Agreement, including replacements of any computers supplied by the Contractor:

25.17.2 The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Authority for purposes other than those permitted under this Clause 25.17.

25.17.3 As between the Parties, the Authority shall retain the copyright and other Intellectual Property rights in this Agreement and other documents made by (or on behalf of) the Authority. The Contractor may, at its cost, copy, use, and obtain communication of these documents for the purposes of this Agreement. They shall not, without the Authority's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the contract.

25.18 Limitation of Liability

25.18.1 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 Agreement.

25.18.2 The total liability of one Party to the other Party under and in accordance with the provisions of this Agreement, save and except as provided in Articles 21 and 23, shall not exceed the Contract Price. For the avoidance of doubt, this Clause shall not limit the liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

ARTICLE 26
DEFINITIONS

26.1 Definitions

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

“Accounting Year” means the financial year commencing from the first day of April of any calendar year and ending on the thirty-first day of March of the next calendar year;

“Advance Payment” shall have the meaning as set forth in Clause 17.2.1;

“Affected Party” shall have the meaning as set forth in Clause 19.1;

“Affiliate” means, in relation to either Party {and / or Members}, a person who controls, is controlled by, or is under the common control with such Party {or Member} (as used in this definition, the expression “control” means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise);

“Agreement” means this Agreement, its Recitals, the Schedules hereto and any amendments thereto made in accordance with the provisions contained in this Agreement;

“Applicable Laws” means all laws, brought into force and effect by GOI or the State Government(s) including rules, regulations and notifications made thereunder, and judgements, decrees, injunctions, writs and orders of any court of record, applicable to this Agreement and the exercise, performance and discharge of the respective rights and obligations of the Parties hereunder, as may be in force and effect during the subsistence of this Agreement;

“Applicable Permits” means all clearances, licences, permits, authorisations, no objection certificates, consents, approvals and exemptions required to be obtained or maintained under Applicable Laws in connection with the construction of the Railway Project during the subsistence of this Agreement;

“Appointed Date” means that date which is later of:

- (a) the 15th day from the date of signing of this Agreement,
- (b) the 30th day from the date on which the Contractor has delivered the Performance Security in accordance with the provisions of Article 7;
- (c) the date on which the Authority has provided the Right of Way and environmental and forest clearances of at least 95% (ninety five per cent) of the core land length and 90% (ninety per cent) of the non core land length of the Railway Project in conformity with the provisions of Clause 4.3 and 8.2;

“Arbitration Act” means the Arbitration and Conciliation Act, 1996 and shall include modifications to or any re-enactment thereof, as in force from time to time;

“Authority” shall have the meaning attributed thereto in the array of Parties herein above as set forth in the Recitals;

“Authority Default” shall have the meaning as set forth in Clause 21.2;

“Authority Engineer” shall have the meaning as set forth in Clause 16.1;

“Authority Representative” means such person or persons as may be authorised in writing by the Authority to act on its behalf under this Agreement and shall include any person or persons having authority to exercise any rights or perform and fulfil any obligations of the Authority under this Agreement;

“Bank” means a Nationalised bank incorporated in India when a Bank Guarantee for Advance Payment (Clause 17.2) is to be submitted and a Scheduled Commercial Bank incorporated in India for all other purposes, or any other bank acceptable to the Authority;

“Bank Rate” means the rate of interest specified by the Reserve Bank of India from time to time in pursuance of section 49 of the Reserve Bank of India Act, 1934 or any replacement of such Bank Rate for the time being in effect;

“Base Month” means the month just prior to Bid Due Date month. The Quarter for applicability of price adjustment shall be commence from next month after Base Month;

“Bid” means the documents in their entirety comprised in the bid submitted by the selected bidder / Consortium in response to the Request for Proposal in accordance with the provisions thereof;

“Bid Security” means the bid security provided by the Contractor to the Authority in accordance with the Request for Proposal, and which is to remain in force until substituted by the Performance Security;

“Change in Law” means the occurrence of any of the following after the Base Month:

- (a) the enactment of any new Indian law;
- (b) the repeal, modification or re-enactment of any existing Indian law;
- (c) the commencement of any Indian law which has not entered into effect until the Base Month;
- (d) a change in the interpretation or application of any Indian law by a judgement of a court of record which has become final, conclusive and binding, as compared to such interpretation or application by a court of record prior to the Base Month; or
- (e) any change in the rates of any of the Taxes or royalties that have a direct effect on the Project;

“Change of Scope” shall have the meaning as set forth in Article 13;

“Change of Scope Notice” shall have the meaning asset forth in Clause 13.2.1;

“Change of Scope Order” shall have the meaning asset forth in Clause 13.2.4;

“Completion Certificate” shall have the meaning as set forth in Clause 12.4;

{**“Consortium / Joint Venture”** means the Consortium / Joint Venture of entities which have formed a Consortium / Joint Venture for implementation of this Project; }[§]

“Construction” shall have the meaning as set forth in Clause 1.2.1 (f);

“Construction Period” means the period commencing from the Appointed Date and ending on the date of the Completion Certificate;

“Contract Price” means the amount as specified in Clause 17.1.1;

“Contractor” shall have the meaning attributed thereto in the array of Parties hereinabove as set forth in the Recitals;

“Contractor Default” shall have the meaning as set forth in Clause 21.1;

“Core Land” means the part of Land essentially needed to open and operationalise the mainline for traffic including the Land required for laying the mainline tracks and its Signalling / Telecom / Overhead Electrification / Power Supply Installations, Operational Buildings (station building, huts, goomties etc), as shown in item No. 3(a) of Annexure-I of Schedule-A;

“Cure Period” means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Party responsible for such breach or default and shall:

- (a) commence from the date on which a notice is delivered by one Party to the other Party asking the latter to cure the breach or default specified in such notice;
- (b) not relieve any Party from liability to pay Damages or compensation under the provisions of this Agreement; and
- (c) not in any way be extended by any period of Suspension under this Agreement; provided that if the cure of any breach by the Contractor requires any reasonable action by the Contractor that must be approved by the Authority or the Authority Engineer hereunder, the applicable Cure Period shall be extended by the period taken by the Authority or the Authority Engineer to accord their approval;

“Damages” shall have the meaning as set forth in paragraph (w) of Clause 1.2.1;

“Defect” means any defect or deficiency in Construction of the Works or any part thereof, which does not conform with the Specifications and Standards;

“Defects Liability Period” shall have the meaning as set forth in Clause 15.1;

“Dispute” shall have the meaning as set forth in Clause 24.1.1;

“Dispute Resolution Procedure” means the procedure for resolution of Disputes as set forth in Article 24;

[§] This definition may be omitted if the Contractor is not a Consortium / Joint Venture.

“Drawings” means all of the drawings, calculations and documents pertaining to the Railway Project as set forth in Schedule-H, and shall include ‘as built’ drawings of the Railway Project;

“Document” or **“Documentation”** means documentation in printed or written form, or in tapes, discs, drawings, computer programmes, writings, reports, photographs, films, cassettes, or expressed in any other written, electronic, audio or visual form;

“Emergency” means a condition or situation that is likely to endanger the safety or security of the individuals on or about the Railway Project, including Users thereof, or which poses an immediate threat of material damage to the Works or any of the Project Assets;

“Encumbrances” means, in relation to the Railway Project, any encumbrances such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations, and shall include any designation of loss payees or beneficiaries or any similar arrangement under any insurance policy pertaining to the Railway Project, where applicable herein but excluding utilities referred to in Clause 9.1;

“EPC” means engineering, procurement and construction;

“Final Payment Certificate” shall have the meaning as set forth in Clause 17.12.1;

“Final Payment Statement” shall have the meaning as set forth in Clause 17.10.1;

“Force Majeure” or **“Force Majeure Event”** shall have the meaning ascribed to it in Clause 19.1;

“GAD” or **“General Arrangement Drawings”** shall have the meaning as set forth in Clause 4.1.3 (c);

“GOI” or **“Government”** means the Government of India;

“Good Industry Practice” means the practices, methods, techniques, designs, standards, skills, diligence, efficiency, reliability and prudence which are generally and reasonably expected from a reasonably skilled and experienced contractor engaged in the same type of undertaking as envisaged under this Agreement and which would be expected to result in the performance of its obligations by the Contractor in accordance with this Agreement, Applicable Laws and Applicable Permits in reliable, safe, economical and efficient manner;

“Government Instrumentality” means any department, division or sub-division of the Government or the State Government and includes any commission, board, authority, agency or municipal and other local authority or statutory body, including panchayat, under the control of the Government or the State Government, as the case may be, and having jurisdiction over all or any part of the Railway Project or the performance of all or any of the services or obligations of the Contractor under or pursuant to this Agreement;

“IEEMA” means Indian Electrical and Electronics Manufacturers Association

“Important Bridge” means a bridge having a linear waterway of 300 metres or a total water way of 1000 sqm or more;

“Indemnified Party” means the Party entitled to the benefit of an indemnity pursuant to Article 23;

“Indemnifying Party” means the Party obligated to indemnify the other Party pursuant to Article 23;

“Indirect Political Event” shall have the meaning as set forth in Clause 19.3;

“Insurance Cover” means the aggregate of the maximum sums insured under the insurances taken out by the Contractor pursuant to Article 18, and includes all insurances required to be taken out by the Contractor under Clauses 18.1 and 18.9 but not actually taken, and when used in the context of any act or event, it shall mean the aggregate of the maximum sums insured and payable or deemed to be insured and payable in relation to such act or event;

“Intellectual Property” means all patents, trade marks, service marks, logos, get-up, trade names, internet domain names, rights in designs, blue prints, programmes and manuals, drawings, copyright (including rights in computer software), database rights, semi-conductor, topography rights, utility models, rights in know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect anywhere in the world;

“Interim Payment Certificate” or **“IPC”** means the interim payment certificate issued by the Authority Engineer for payment to the Contractor in respect of Contractor’s claims for payment raised in accordance with the provisions of this Agreement;

{**“Lead Member”** shall, in the case of a Consortium / Joint Venture, mean the member of such Consortium / Joint Venture who shall have the authority to bind the contractor and each member of the Consortium / Joint Venture; and shall be deemed to be the Contractor for the purposes of this Agreement;}^s

“LOA” or **“Letter of Acceptance”** means the letter of acceptance referred to in Recital (D);

“Maintenance Manual” shall have the meaning ascribed to it in Clause 10.6;

“Major Bridge” means a bridge having a linear waterway of 18 metres or more or which has a clear opening of 12 metres or more in spans;

“Manuals” shall mean the manuals specified in Schedule-D;

“Material Adverse Effect” means a material adverse effect of any act or event on the ability of either Party to perform any of its obligations under and in accordance with the provisions of this Agreement and which act or event causes a material financial burden or loss to either Party;

“Materials” are all the supplies used by the Contractor for incorporation in the Works or for the maintenance of the Railway Project;

“Minor Bridge” means a bridge having a linear waterway of less than 18 metres or which has a clear opening of less than 12 metres or in spans;

“Non-Core Land” means the Land required for the project line other than the Core-Land, as shown in item No. 3(b) of Annexure-I of Schedule-A;

“Non-Political Event” shall have the meaning as set forth in Clause 19.2;

“Parties” means the parties to this Agreement collectively and **“Party”** shall mean any of the parties to this Agreement individually;

“Performance Security” shall have the meaning as set forth in Clause 7.1;

^s This definition may be omitted if the Contractor is not a Consortium / Joint Venture.

“Plant” means the apparatus and machinery intended to form or forming part of the Works;

“Political Event” shall have the meaning as set forth in Clause 19.4;

“Power Block” means the length of the railway line between two railway stations, on which the overhead equipment (OHE) is de-energised and earthed to enable the Contractor to execute construction or maintenance works;

“Programme” shall have the meaning as set forth in Clause 10.1.3;

“Project” means the construction and maintenance of the Railway Project in accordance with the provisions of this Agreement, and includes all works, services and equipment relating to or in respect of the Scope of the Project;

“Project Assets” means all physical and other assets relating to (a) tangible assets such as civil works and equipment including foundations, pavements, road surface, LC Gates, road signals, sign boards, electrical systems, signals, S&T Equipment’s with buildings accommodating them; and (b) Project Facilities situated on the Site;

“Project Completion Date” means the date on which the last Completion Certificate is issued;

“Project Completion Schedule” means the progressive Project Milestones set forth in Schedule-I for completion of the Railway Project on or before the Scheduled Completion Date;

“Project Facilities” means all the amenities and facilities to be constructed on the Site, as described in Schedule-C;

“Project Milestone” means the project milestone set forth in Schedule-I and includes the Scheduled Completion Date;

“Proof Consultant” shall have the meaning as set forth in Clause 10.2.2;

“Provisional Certificate” shall have the meaning as set forth in Clause 12.2;

“Punch List” shall have the meaning as set forth in Clause 12.2.1;

“Quality Assurance Plan” or **“QAP”** shall have the meaning as set forth in Clause 11.2.1;

“Railway Project” means the Works specified in this Agreement on the railway line from km 319.5 Chinnaganjam (CJM) of South Central Railway Zone to km 385.82 Tsundur (TSR) of South Central Railway Zone having a length of 66.32 kms;

“Re.”, **“Rs.”** or **“Rupees”** or **“Indian Rupees”** means the lawful currency of the Republic of India;

“Request for Proposals” or **“RFP”** shall have the meaning as set forth in Recital ‘C’;

“Retention Money” shall have the meaning set forth in Clause 7.5.1;

“Right of Way” means the constructive possession of the Site free from encroachments and encumbrances, together with all way leaves, easements, unrestricted access and other rights of way, howsoever described, necessary for construction of the Railway Project in accordance with this Agreement;

“**RINL**” means Rashtriya Ispat Nigam Limited

“**Safety Consultant**” shall have the meaning as set forth in clause 10.2.11

“**Scheduled Completion Date**” shall be the date as set forth in Clause 10.3.1;

“**Scope of the Project**” shall have the meaning as set forth in Clause 2.1;

“**Section**” means the portion of the railway line between two block stations;

“**Site**” shall have the meaning as set forth in Clause 8.1;

“**Specifications and Standards**” means the specifications and standards relating to the quality, quantity, capacity and other requirements for the Railway Project, as set forth in Schedule-D, and any modifications thereof, or additions thereto, as included in the design and engineering for the Railway Project submitted by the Contractor to, and expressly approved by, the Authority;

“**Stage Payment Statement**” shall have the meaning as set forth in Clause 17.4;

“**Structures**” means an elevated railway line or a flyover, as the case may be;

“**Sub-contractor**” means any person or persons to whom a part of the Works has been subcontracted by the Contractor and the permitted legal successors in title to such person, but not an assignee to such person;

“**Suspension**” shall have the meaning as set forth in Article 20;

“**Taxes**” means any Indian taxes including excise duties, customs duties, value added tax, sales tax, local taxes, cess and any impost or surcharge of like nature (whether Central, State or local) on the goods, Materials, equipment and services incorporated in and forming part of the Railway Project charged, levied or imposed by any Government Instrumentality, but excluding any interest, penalties and other sums in relation thereto imposed on any account whatsoever. For the avoidance of doubt, Taxes shall not include taxes on corporate income;

“**Termination**” means the expiry or termination of this Agreement;

“**Termination Notice**” means the communication issued in accordance with this Agreement by one Party to the other Party terminating this Agreement;

“**Termination Payment**” means the amount payable by either Party to the other upon Termination in accordance with Article 21;

“**Terms of Reference**” or “**TOR**” shall have the meaning as set forth in Clause 16.2.1;

“**Tests**” means the tests set forth in Schedule-J to determine the completion of Works in accordance with the provisions of this Agreement;

“**Time Extension**” shall have the meaning as set forth in Clause 10.4.1;

“**Traffic Block**” means the length of railway line between two railway stations, on which traffic is blocked with or without OHE being de-energised to enable construction or maintenance works to be undertaken.

“**User**” means a person who travels or intends to travel on the Railway Project or any part thereof on any train or vehicle;

“**Valuation of Unpaid Works**” shall have the meaning as set forth in Clause 21.5.1;

“**Works**” means all works including survey and investigation, design, engineering, procurement, construction, Plant, Materials, temporary works and other things necessary to complete the Railway Project in accordance with this Agreement; and

“**WPI**” means the wholesale price index for various commodities as published by the Ministry of Commerce and Industry, GOI and shall include any index which substitutes the WPI, and any reference to WPI shall, unless the context otherwise requires, be construed as a reference to the WPI published for the period ending with the preceding month.

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DAY, MONTH AND YEAR FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED	SIGNED, SEALED AND DELIVERED
For and on behalf of	For and on behalf of
The President of India, represented by the Ministry of Railways, CSTE/Projects-III, Vijayawada Division, South Central Railway by:	THE CONTRACTOR by:
(Signature)	(Signature)
(Name)	(Name)
(Designation)	(Designation)
In the presence of:	
1.	
2.	
{COUNTERSIGNED and accepted by:	
Name and particulars of other members of the Consortium / Joint Venture}	

SCHEDULES

SCHEDULE-A
(See Clauses 2.1 and 8.1)

SITE OF THE PROJECT

1 The Site

- 1.1 Site of the Railway Project shall include the land, buildings, structures and track works as described in Annex-I of this Schedule-A.
- 1.2 The dates of handing over Right of Way to the Contractor are specified in Annex-II of this Schedule-A.
- 1.3 An inventory of the Site including the land, buildings, structures, track works, trees and any other immovable property on, or attached to, the Site shall be prepared jointly by the Authority's Representative and the Contractor, and such inventory shall form part of the memorandum referred to in Clause 8.2.1 of this Agreement.
- 1.4 The alignment plans of the Railway Project are specified in Annex-III.
- 1.5 The status of the environment clearances and forest clearances obtained or awaited is given in Annex-IV.

ANNEX-I
(Schedule-A)

SITE

1 Site

The Site of the Railway Project comprises the **section from Km 319.5** of South Central Railway Zone **to Km 385.82** in BZA Division of South Central Railway Zone i.e. the **Chinnaganjam (CJM)-Tsunduru (TSR)** section in the State of Andhra Pradesh. The land and other structures comprising the Site are described below.

2 Route Length

The route length of the Railway Project comprises the section as described below:

S. No	Name of Location From	Name of Location To	Start Chainage (km)	End Chainage (km)	Length (km)	Remarks
1	Chinnaganjam (CJM)	Tsunduru (TSR)	319.5	385.82	66.32	The section is in BZA Division of South Central Railway

3 a. Core Land

The Site of the Railway Project comprises the land described below:

S.No.	Name of Location From	Name of Location To	Start Chainage (km)	End Chainage (km)	Length (km)	Remarks
Not Applicable						

b. Non Core Land

The Site of the Railway Project comprises the land described below:

S.No.	Name of Location From	Name of Location To	Start Chainage (km)	End Chainage (km)	Length (km)	Remarks
Not Applicable						

**4 Details of existing structures and facilities on adjoining railway track
(For doubling or 3rdline projects or electrification)**

Not Applicable

ANNEX-II
(Schedule-A)

DATES FOR PROVIDING RIGHT OF WAY

The following are complete details of the Right of Way showing the dates on which the Authority shall provide the different sections of the Right of Way to the Contractor.

S.No.	From km to km	Length (km)	Distance of Railway Boundary from C/L of outermost line (in m)		Date of Providing Right of Way
			Right Hand Side	Left Hand Side	
1	2	3	4	5	6
Part A:					
Right of Way being 95% (ninety five per cent) of the core land length and 90% (ninety per cent) of non core length of the Project, under Clauses 4.1.3 read with Clauses 8.2 and 8.3 of the Agreement					Railway Land is available for carrying out signalling and Telecommunication works in the entire route length of the project. and will be handed over Within 15 (fifteen) days of the signing of the Agreement or within 30 (thirty) days of the date of receiving the Performance Security from the Contractor, whichever is later.
Part B:					
Balance of the Right of Way not covered in Part A above.					Railway Land is available for carrying out signalling and Telecommunication works in the entire route length of the project. and will be handed over Within 15 (fifteen) days of the signing of the Agreement or within 30 (thirty) days of the date of receiving the Performance Security from the Contractor, whichever is later.

ANNEX-III
(Schedule-A)

PLAN AND PROFILE

The Approved Automatic Block Signalling Scheme Plan of the Railway Project is attached. This is based on survey conducted by the Authority. The Contractor shall verify the same for ensuring technical feasibility and submit Automatic Block Signalling Interlocking Plans for approval of Authority. Any deviation positive / negative from this Approved Automatic Block Signalling Scheme Plan will be treated as Change of Scope.

ANNEX-IV
(Schedule-A)

ENVIRONMENT CLEARANCES AND FOREST CLEARANCES

1 Environment Clearances

No Environment clearances are required for this project.

2 Forest Clearances

No Forest clearances are required for this project.

SCHEDULE-B
(See Clause 2.1)

DEVELOPMENT OF THE RAILWAY PROJECT

Development of the Railway Project shall include design and construction of the Railway Project as described in Annex-I to this Schedule-B and in Schedule-C

ANNEX-I
(Schedule-B)

DESCRIPTION OF RAILWAY PROJECT

Description of Railway Project:

Detailed description of Railway Project and Technical Specification of the project are enclosed as “Feasibility Report (Part-III)”. However Brief Scope of the project is given below.

The data and information related to L-section/ Geo technical data provided are indicative and for guidance only. These should be rechecked, verified and modified by conducting site investigation to suit the site conditions. Site Investigation should include but not limited to topographical survey, hydrological survey and geotechnical surveys etc. Any change on account of existing ground conditions mentioned in L= Section/Alignment/ESPs shall not be considered as Change of Scope. For avoidance of doubt, it is clarified that the existing ground conditions are to be validated by bidders before bid and hence no change on this account is payable.

1 Construction of Civil and Track Works

Not Applicable for this Project.

2 Signalling and Telecommunication

2.1 Signalling Works

2.1.1 All signalling works including survey, design, supply, installation, testing and commissioning shall be executed in accordance with the provisions of the South Central Railway G&SR, IRSOD, IRPWM, Indian Railway works Manual, Indian Railway Signal Engineering Manual, Indian Railway Telecommunication Manual, Operating Manual, IRACTM, RDSO specifications, RDSO guidelines, PCSTE/SCR Technical Circulars, PCEE/SCR Technical circulars, PCE/SCR technical & safety circulars and South Central Railway practices.

2.2 Brief description and the scope of project involves the following activities:

2.2.1 The entire **Chinnaganjam (CJM)-Tsundur (TSR) section of 66.32 RKM**s shall be provided with Automatic Block Signalling as per the approved system configuration attached as **Annexure-1** with Bid Document.

2.2.2 All the Three UP, DN and UD lines in CJM-TSR section shall be provided with Automatic Block Signalling. On UD Line Signals shall be provided with single line Automatic Block Signalling with direction establishment feature.

2.2.3 All the block stations shall have Semi-Automatic Signalling with changeover facility for converting main line signals of UP, DN and UD lines to Automatic Signals whenever required. Automatic Signalling Scheme Plans of CJM-TSR section are attached as Annexure-2 with Bid Document.

2.2.4 Required alterations in the existing interlocking infrastructure is part of the project and shall be carried out at block stations & LC gates.

2.2.5 The automatic block signalling shall be achieved through continuous track detection using MSDAC as per the approved system configuration attached as Annexure-1 with Bid Document.

2.2.6 The scope of project involves the following activities:

- a) Preparation of Designs and Drawings for Automatic Signalling system in the entire section.
- b) Preparation of all documents required as listed in **Annexure 3** for processing of approvals, sanction and any other documentation required for commissioning of the project.
- c) Supply of all material required for execution and completion of work as per the approved design.
- d) Construction of ABS huts and ABS equipment huts as detailed in para 3.8 (Typical ABS hut plan & ABS Equipment Hut plan at stations attached as **Annexure 4A & 4C** with Bid Document).
- e) Carrying out Electrical wiring at ABS huts and ABS equipment huts (As Per Wiring Diagram Attached as **Annexure 4B & 4D** with Bid Document)
- f) Approach Warning System at all Mid-Section interlocked LC gates as per **Drg. No. B/P/MISC/02/2025** with Bid Document. Interlocking of LC gates as per approved scheme plan with EOLB and emergency sliding boom. Provision of emergency sliding boom at interlocked LC gates as per Approved Scheme plan.
- g) Supply, installation, testing and commissioning of Power Supply arrangements required for Automatic Signalling work.
- h) Extension of Power supply from the ATs to ABS Huts and LC gates through 2x35Sq.mm XLPE copper cable. One spare 2x35 Sq.mm XLPE copper Cable shall be laid from ABS HUT to LC Gate.
- i) Complete Indoor and Outdoor Design, supply, installation, wiring, alteration in existing EI/PI/RII, testing, energization and commissioning of Stations, ABS huts, LC gates and any other place required as per the approved design to make the installation functional.
- j) Design, supply, installation, integration, testing and commissioning of Track detection system for Automatic Block Signalling using Multi Section Digital Axle Counters (MSDAC) with dual detection as per RDSO/SPN/176/2013Ver.3 or latest.
- k) Design, Supply, installation, testing and commissioning of MSDACs in parallel with track circuits in the station section for Vetapalem (VTM) station as per the scheme plan enclosed at **Annexure-17** as per RDSO/SPN/176/2013Ver.3 or latest. Integration of Track Section Status (MSDAC and DCTC) in the Electronic Interlocking (EI) System and Displaying the MSDAC ACPR and DCTC TPR indication in the EI VDU as per **Drg. No. B/P/MISC/39/2025**.
- l) Design, supply, installation, integration, testing and commissioning of UFSBI as per IRS Spec. No. IRS:S-104/2012 Ver.0 with latest amendments or FN mux as per RDSO specification RDSO/SPN/211/2022 Version: 1.0 or latest.
- m) Supply, installation, integration, testing, validation, networking and commissioning of Dataloggers. The work also involves augmentation, alteration and validation of existing Data Logger/RTU at stations, LC Gates and any other locations.
- n) Design, supply, installation and wiring of earthing arrangements for all new equipment installed at ABS huts as per RDSO STS/E/TAN/3006 Ver 3.0 dated 30.06.2025 or latest, and for other equipment as per OEM recommendations, RDSO code of standard practice and Zonal Railway practice.
- o) System Integration, Testing and Commissioning of both indoor and outdoor installations of Automatic Block Signalling system along with all associated works.
- p) Monitoring of the Automatic Block Signalling system (All works covered in the scope of the project) after commissioning during the Defects Liability Period as detailed in Article 15 of Draft EPC Agreement.
- q) Releasing of all non-functional equipment, systems and associated material after commissioning of Automatic Block Signalling system in the section, stations and transportation to designated location.
- r) **Construction of Camp Office of size not less than 100 Sq. Mtrs. at approved location(s) decided by the Authority Engineer for Authority & Authority Engineer's representatives for carrying out official work with all Civil, Electrical and Signalling & Telecom facilities and Required furniture.**
- s) Providing transportation and man power facilities required for Authority Engineer and his/her representatives for inspection and supervision of work.

- t) Supply of furniture for ABS huts and ABS Equipment Huts as detailed in Para 3.29.
- u) Supply and installation of Telecom Equipment for communication between Station to ABS Huts and ABS Huts to ABS Huts as detailed in Para No.3.21.
- v) Supply, Installation and commissioning of IP based day and night high resolution video surveillance system in the ABS huts.
- w) Supply, installation and commissioning of LED based VDU and Indication panel-based Display of Automatic Signals and track occupation status etc. at Stations and ABS huts respectively.
- x) Submission of As Made documents within 2 months after commissioning of the BlockSection as per **Annexure 3B**.
- y) Provision of 2(two) numbers of HDPE (40mm) ducts and blowing, termination, testing and commissioning of 2(two) numbers of 48 core armored OFC in the Main path in RCC duct.
- z) Rectification of defects in the existing OFC cables so that all the fibers are available from **CJM-TSR**.
- aa) Networking of MSDAC as per functional requirements specified in **Annexure-14**.
- bb) Networking of Input-Output Multiplexer/Fn Mux as per functional requirements specified in the DRG.No.**B/P/MISC/5/2025**.
- cc) Design, Supply, installation, testing and commissioning of Automatic Fire Detection and Alarm System (AFDAS) as per RDSO/SPN/217/2025 Ver. 3.1 or latest at ABS huts and Non-Interlocked Level Crossing Gates.
- dd) Augmentation of Fire alarm system at stations and end goomties as per technical specification in para 3.19.2.8.
- ee) Providing training to railway Officials on all the equipment.
- ff) Centralized monitoring/provisioning of Telecom equipment and surveillance equipment.
- gg) Construction of gateman buildings of adequate size as detailed in para 3.8.2.3(i) as per typical Level Crossing Gate Lodge Building Layout Plan Annexure-4E and Typical Level Crossing Gate Lodge Building Electrical Layout Plan Annexure-4F.
- hh) Design, Supply, Alteration / Augmentation of KAVACH as per SCHEDULE-G1 of Feasibility Report.

3. Brief Details of works at stations:

S. No	Description of Work		Details										
		Name of Station	Type of Block Working	Type of Track Detection System	ABS equipment Hut	Power Supply	EI Modifications	PI Modification	Datalogger	VDU based Indication Panel	Earthing & protection	Cables	Any other works
1	Survey, design, supply, installation, testing, manuals for new technology equipment installed at each place, supply of completion drawings, and commissioning at wayside stations.	CJM	ABS towards VTM	MSDAC with Dual Detection. In VTM MSDAC shall be provided in parallel with DC track circuit in the station section as per the scheme plan at Annexure-17	To be constructed as detailed in Part-III feasibility report	Modifications to be carried out as detailed in Part – III feasibility report	Required	NIL	Augmentation required if spare ports are not adequate as detailed in Part-III Feasibility Report	To be Provided as detailed in Part-III feasibility report	To be provided As Detailed in Part-III feasibility Report	To be laid as per approved system configuration and approved scheme Plans.	To be Carried out As Detailed in Part-III feasibility Report
		VTM	ABS towards CJM and CLX				Required	NIL					
		CLX	ABS towards VTM and BPP				Required	NIL					
		BPP	ABS towards CLX and APL				Required	NIL					
		APL	ABS towards BPP and NDO				Required	NIL					
		NDO	ABS towards APL and TSR				Required	NIL					
		TSR	ABS towards NDO				Required	NIL					
2	Inventory Supply of Signalling Spares	To be supplied as detailed in Part-III “Feasibility Report”.											
3	Integrated testing and commissioning	All stations as mentioned in S.No.1 shall be tested and commissioned with the works detailed in this table and Part-III “Feasibility Report”.											

4. **Explanatory Notes:** No changes in interlocking arrangements (Number of Lines, Standard of Interlocking, Type of Signalling, Type of Point Operation and Locking Arrangement, Sidings etc.) of the stations, save to the extent required as per the Approved ABS Signalling Interlocking Plan, are covered under the scope of the work

5. Brief Details of works in Block Section:

The details of works in block section are:

S.N o.	Description of work	Details										
		Block Section	Number of ABS Huts	Track Detection	Power Supply	AT Supply	Earthing & Protection	Signals	Data logger	Cables	Indication panel	Any other works
1	Survey, design, supply, installation, testing, manuals for new technology equipment installed at each place, supply of completion drawings, and commissioning at wayside stations.	CJM-VTM	1	MSDAC with Dual Detection	IPS with VRLA Batteries as per approved IPS Scheme	ATs Will be provided by Railways. Supply & laying of 2x35sqmm XLPE copper cable and CLS panels shall be provided by contractor.	Conventional earths for all signals and location boxes; Class A protection, Earthing as per STS/E/TAN/3006 Ver 3.0 dated 30.06.2025 or latest for ABS huts. As per OEM recommendations for other equipment.	As per Approved Scheme Plan	To be provided as detailed in Part-III Feasibility report	As per approved system configuration and approved scheme plan and as detailed in Part-III Feasibility report	To be Provided as detailed in Part-III feasibility report	As detailed in Part-III feasibility Report
		VTM-CLX	0									
		CLX-BPP	2									
		BPP-APL	1									
		APL-NDO	0									
		NDO-TSR	0									
2	Inventory. Supply	To be supplied as detailed in Part-III “Feasibility Report”.										
3	Integrated testing and commissioning	All stations as mentioned in S.No.1 shall be tested and commissioned with the works detailed in this table and Part-III “Feasibility Report”.										

6. Brief Details of works at Interlocked LC Gates

S. NO	Description of work	LC. NO	Type of Lifting Barrier	Emergency Sliding Boom	Power Supply	AT Supply	Earthing & Protection	Signals & Gate holding arrangements	Data logger	Cables	LC gate Indication cum operating panel	Any other works
	Survey, design, supply, installation, testing, manuals for new technology equipment installed at each place, supply of completion drawings, and commissioning at wayside stations.	227	Electrically operating Lifting barrier with Sliding boom available.	AVAILABLE	As detailed in Part-III feasibility Report	ATs Will be provided by Railways at ABS Huts. AT Supply Shall be extended to these LC Gates from the nearest ABS Hut/Station Goomty on 2X 35 Sq mm XLPE Copper cable and one spare 2x35 Sq.mm XLPE copper Cable shall be laid from ABS HUT/Station Goomty to LC Gate as detailed in Part-III feasibility Report	To be provided as detailed in Part-III feasibility report	To be provided as per approved scheme plan	To be Augmented/modified as detailed in feasibility report	To be Provided As per approved system configuration & approved Scheme Plan As per approved Scheme Plan As detailed in Part-III feasibility Report,	As per approved Scheme Plan	
		228		AVAILABLE								
		229		AVAILABLE								
		230		AVAILABLE								
		231		AVAILABLE								
		232		AVAILABLE								
		234		AVAILABLE								
		235		AVAILABLE								
		236		AVAILABLE								
		237		AVAILABLE								
		239		AVAILABLE								
		240		AVAILABLE								
		241		AVAILABLE								
		242		AVAILABLE								
		243		AVAILABLE								
		245		AVAILABLE								
		247		AVAILABLE								
		248		AVAILABLE								
		249		AVAILABLE								
		250		AVAILABLE								
		251		AVAILABLE								
		252		AVAILABLE								
		253		AVAILABLE								
		254		AVAILABLE								
		256		AVAILABLE								

S. NO	Description of work	LC. NO	Type of Lifting Barrier	Emergency Sliding Boom	Power Supply	AT Supply	Earthing & Protection	Signals & Gate holding arrangements	Data logger	Cables	LC gate Indication cum operating panel	Any other works
	Survey, design, supply, installation, testing, manuals for new technology equipment installed at each place, supply of completion drawings, and commissioning at wayside stations.	258	Electrically operating Lifting barrier with Sliding boom available.	AVAILABLE	As detailed in Part-III feasibility Report	ATs Will be provided by Railways at ABS Huts. AT Supply Shall be extended to these LC Gates from the nearest ABS Hut/Station Goomty on 2X 35 Sq mm XLPE Copper cable and one spare 2x35 Sq.mm XLPE copper Cable shall be laid from ABS HUT/Station Goomty to LC Gate as detailed in Part-III feasibility Report	To be provided as detailed in Part-III feasibility report	To be provided as per approved scheme plan	To be Augmented/modified as detailed in feasibility report	To be Provided As per approved system configuration & approved Scheme Plan As per approved Scheme Plan As detailed in Part-III feasibility Report,	As per approved Scheme Plan	
		259		AVAILABLE								
		262		AVAILABLE								
		264		AVAILABLE								
		266		AVAILABLE								
		268		AVAILABLE								
		274		AVAILABLE								
		275		AVAILABLE								
		278		AVAILABLE								
2	Inventory. Supply of Signalling Spares	To be supplied As Detailed in Part-III “Feasibility Report”.										
3	Integrated testing and commissioning	All LC Gates as mentioned in S.No.1 shall be tested and commissioned with the works detailed in this table and Part-III “Feasibility Report”.										

7. Brief Details of Works to be done at Non-Interlocked LC gates

S.No	Description of work	Details											
		LC No	Type of Lifting Barrier to be provided	Emergency Sliding Boom	Power Supply	AT Supply	Earthing & Protection	Signals & Gate holding Arrangements	Data logger/ RTU	Cables	LC operating/Indication panel	Any other works	Remarks
1	Survey, design, supply, installation, testing, manuals for new technology equipment installed at each place, supply of completion drawings, and commissioning at wayside stations.	263	Electrically operating Lifting barriers to be provided as detailed in Feasibility Report	To be Provided	As detailed in Part-III feasibility Report	ATs Will be provided by Railways at ABS Huts. AT Supply Shall be extended to these LC Gates from the nearest ABS Hut on 2X 35 Sq. mm XLPE Copper cable. one spare 2x35 Sq.mm XLPE copper Cable shall be laid from ABS HUT/Station Goomty to LC Gate. CLS panel of adequate capacity (not less than 60A) shall be supplied and provided As detailed in Part-III feasibility Report	To be provided as detailed in Part-III feasibility report	To be provided as per approved scheme plan	To be provided	To be Provided As per approved system configuration & approved Scheme Plan	To be provided as per approved Scheme Plan	As detailed in Part-III feasibility Report	
		269											
		270											
		272											
2	Inventory. Supply of Signalling Spares	To be supplied As indicated in Part-III “Feasibility Report”.											
3	Integrated testing and commissioning	All LC Gates as mentioned in S.No.1 shall be tested and commissioned with the works detailed in this table and Part-III “Feasibility Report”.											

8. Telecommunication works:

S.No .	Description of Work	Details							
		Name of Station/Block Section	6Q Cable	OFC Cable	Power Supply	Video Surveillance system	Telecom Equipment	Earthing & protection	Any other works
1	Survey, design, supply, installation, testing, manuals for new technology equipment installed at each place, supply of completion drawings, and commissioning at wayside stations.	CJM	To Be Provided as per approved system Configuration and Approved Scheme Plan	To be provided as per the Clause 3.9.2.3 of Feasibility Report	To be provided	To be provided at ABS huts & ABS Equipment huts as detailed in Part-III Feasibility Report	To be provided at ABS huts as detailed in Part-III Feasibility Report	As Detailed in Part-III feasibility Report	As Detailed in Part-III feasibility Report
		CJM-VTM							
		VTM							
		VTM-CLX							
		CLX							
		CLX-BPP							
		BPP							
		BPP-APL							
		APL							
		APL-NDO							
		NDO							
		NDO-TSR							
		TSR							
2	Inventory. Supply of Signalling Spares	To be supplied As indicated in Part-III “Feasibility Report”.							
3	Integrated testing and commissioning	All Telecommunication Equipment as mentioned in S.No.1 shall be tested and commissioned with the works detailed in this table and Part-III “Feasibility Report”.							

2.2.7 Automatic Train Protection System (KAVACH / TPWS)

The details of works for Automatic Train Protection (ATP) System are:

S.No.	Station / Block Section	Type of ATP System
-	NIL	NIL

2.3 Telecommunication

2.3.1 All telecommunication works including survey, design, supply, installation, testing and commissioning shall be executed in accordance with the provisions of the Indian Railway Telecom Manual and as detailed above in Para 8 above and in Part-III feasibility report.

2.3.2 Optic Fibre Cable System

Optic fibre cable supply, trenching, blowing and splicing shall be done as per Part-III “Feasibility Report”.

2.3.3 Six Quad Telecom Cable

Six quad cable supply, trenching and laying shall be done as per Part-III “Feasibility Report”.

2.3.4 Mobile Train Radio Communication

Not Applicable

2.4 Automatic Fire Alarm and Detection System

Augmentation of Automatic Fire Alarm and Detection System shall be done as per Part-III “Feasibility Report”.

2.5 Fuse Auto Changeover System

Fuse auto changeover system shall be installed as per Part-III “Feasibility Report”.

2.6 Earthing and Surge Protection System

Earthing and surge protection system shall be installed as per Part-III “Feasibility Report”.

2.7 Phase Working

Please refer milestones for commissioning of ABS as detailed in Schedule-I.

SCHEDULE – C

(See Clause 2.1)

PROJECT FACILITIES

1. **Project Facilities:** Construction of Camp Office of size not less than 100 Sq. Mtrs. at approved location(s) decided by the Authority Engineer for Authority & Authority Engineer's representatives for carrying out official work with all Civil, Electrical and Signalling & Telecom facilities and Required furniture.

SCHEDULE – D
(See Clause 2.1)
SPECIFICATIONS AND STANDARDS

1. Construction

The Contractor shall comply with the Specifications and Standards set forth in Annex-I of this Schedule-D for construction of the Railway Project. The time limit for the review and clearances by the Authority for design and drawings submitted by the Contractor shall be as indicated in Annexure-II.

2. Design Standards

The Railway Project including Project Facilities shall conform to design requirements set out in the following documents:

South Central Railway G&SR, Indian Railways Permanent Way Manual, Indian Railway Bridge Manual, Indian Railway Schedule of Dimensions & relevant IRS, RDSO Specifications referred in the Manual, Indian Railway Signalling Engineering Manual, Indian Railway Telecom Manual, Indian Railway Block Working Manual, Indian Railway AC Traction Manual complete, Operating Manual, Rules for Opening Railways, RDSO specifications/guidelines/TAN's, PCSTE/SCR circulars.

3. Latest Version

Latest version of the Manuals, Specifications and Standards including the amendments notified/published by the Base Month shall be considered applicable.

4. Terms Used in Manuals

The terms 'Inspector', 'SSE/JE', 'Engineer in charge', 'ASTE', 'DSTE', 'Dy.CSTE' used in the Manuals shall be deemed to be substituted by the term "Authority Engineer"; to the extent it is consistent with the provisions of the Agreement.

5. Absence of Specific Provision

In the absence of any specific provision on any particular issue in the aforesaid Manuals, Specifications, or Standards, the following standards shall apply in order of priority;

Bureau of Indian Standards (BIS)

EULYNX specifications or UNISIG specifications or Euro Codes or British Standards or American Standards.

Any other specifications/standards proposed by the Contractor and reviewed by the Authority's Engineer.

6. Alternative Specifications and Standards

- 6.1 The requirements specified in the Manuals are the minimum. The Contractor shall, however, be free to adopt international practices, alternative specifications, materials and standards to bring in innovation in the design and construction provided they are better or comparable with the standards prescribed in the Manuals. The specifications and techniques which are not included in the Indian Railway Manuals/ RDSO specifications shall be supported with authentic specifications and standards specified in paragraph 5 above. Such a proposal shall be submitted by the Contractor to the Authority's Engineer. In case, the Authority's Engineer is of the opinion that the proposal submitted by the Contractor is not in conformity with any of the international standards or codes, then he shall record his reasons and convey the same to the Contractor for compliance.
- 6.2 In case, the Contractor is offering an alternative product which is not as per the designs/specifications stipulated in this Agreement, but the same is already in the use with satisfactory performance in one or more major world Railway(s) for more than 5(five) years for the same or higher design speed/rating (as applicable for project line), such product can be permitted to be used by the Authority Engineer in accordance with the Cross Approval policy of the Railway Board as existing at the time of offering of such product. The products covered for the purpose of this clause shall be as per the list provided in the policy.

Annexure - I

(Schedule-D)

SPECIFICATIONS AND STANDARDS FOR CONSTRUCTION

1 Specifications and Standards

All Materials, works and construction operations shall conform to the following manuals:

1.1 For civil works:

- (a) Indian Railways Permanent Way Manual
- (b) Indian Railway Bridge Manual
- (c) Indian Railway Schedule of Dimensions
- (d) The relevant IRS Specifications referred to in the above documents listed at (i), (ii) and (iii)
- (e) Specifications of Works of South Central Railway.
- (f) In case of any contradiction in the various codal provisions, the order of precedence shall be as follows:-
 - i) Provisions of this Annex I.
 - ii) IRS Codal provisions
 - iii) IRC Codal provisions
 - iv) IS (BIS) Codal provisions

1.2 For signalling and telecommunication works:

- (a) Indian Railway Signal Engineering Manual for signalling; and
- (b) Indian Railway Telecom Manual for telecommunication works.
- (c) Latest IRS / RDSO specifications with latest amendments/and RDSO TAN
- (d) PCSTE/SCR Technical circulars
- (e) SCR Design and Construction practices
- (f) G&SR of South Central Railway
- (g) Indian Railway Block Working Manual
- (h) Operating Manual
- (i) Indian Railway Schedule of Dimensions

1.3 For electrification works:

- (a) Indian Railways Manual AC Traction Complete.
- (b) Manual of Standards & Specification for Railway Electrification
- (c) Indian Railways Standards of Dimension
- (d) RDSO Specifications
- (e) PCEE/SCR technical circular and specifications.

2 Deviations from the Specifications and Standards

Not Applicable

Annex - II
(Schedule-D)
(See Clause 10.2.7(c))

TIME SCHEDULE FOR REVIEW OF DRAWINGS BY THE AUTHORITY:

Sl. No.	Item	Preparation	Authority / Authority Engineer Review with time limit	Review by Open Line/ RDSO
1	Signal Interlocking Plans (SIPs)	Contractor	Authority (30 Days)	Approved copy of ABS Scheme Plan is enclosed with RFP. However contractor has to prepare and submit station wise SIP's duly carrying out survey as detailed in Part-III Feasibility Report.
2	Route Control Charts (RCCs)	Contractor	Authority (30 Days)	Remarks to be given within one month of submission and approval by Railways to be furnished to the contractor within one month of submission of compliance of remarks by contractor.
3	Cable Route Plan	Contractor	Authority Engineer (45 days)	Remarks to be given within one month of submission and approval by Railways to be furnished to the contractor within one month of submission of compliance of remarks by contractor.
4	Interface and logic circuits, PI /RRI circuits (to be submitted within 30 days after receipt of approved RCCs).	Contractor	Authority (30 Days for Both)	Remarks to be given within one month of submission and approval by Railways to be furnished to the contractor within one month of submission of compliance of remarks by contractor.
5	Station Working Rule Diagrams & Station Working Rules. (to be submitted within 21 days, after receipt of approved RCCs)	Contractor	Authority Engineer (30 Days)	Remarks to be given within one month of submission and approval by Railways to be furnished to the contractor within one month of submission of compliance of remarks by contractor.
6	Technical System Approval for EI	Contractor	Authority (30 Days)	Remarks to be given within one month of submission and approval by Railways/RDSO to be furnished to the contractor within one month of submission of compliance of remarks by contractor.

Sl. No.	Item	Preparation	Authority / Authority Engineer Review with time limit	Review by Open Line/ RDSO
7	Track circuit and traction Bonding plan (to be submitted within 21 days, after receipt of approved SIPs)	Contractor	Authority Engineer (21 Days)	Remarks to be given within one month of submission and approval by Railways to be furnished to the contractor within one month of submission of compliance of remarks by contractor.
8	Power supply scheme (to be submitted 21 days, after receipt of approved SIPs)	Contractor	Authority Engineer (21 Days)	Remarks to be given within one month of submission and approval by Railways to be furnished to the contractor within one month of submission of compliance of remarks by contractor.
9	Cable Core Plan, (to be submitted within 21 days, after receipt of approved SIPs)	Contractor	Authority Engineer (21 Days)	Remarks to be given within one month of submission and approval by Railways to be furnished to the contractor within one month of submission of compliance of remarks by contractor.

Note: All other drawings/designs which are not mentioned herein will fall under the review of Authority Engineer (Dy. CSTE/ Dy.CEE/ Dy. CE) and the time limit thereof will be as per the terms and conditions mentioned in the Contract Document.

SCHEDULE - E
(See Clause 3.1.6(a))
APPLICABLE PERMITS

1 Applicable Permits

- 1.1 The Contractor shall obtain, as required under Applicable Laws, the following Applicable Permits:
- a) Permission of the State Government for extraction of boulders from quarry;
 - b) Permission of Village Panchayats and Pollution Control Board for installation of crushers;
 - c) Licence for use of explosives;
 - d) Permission of the State Government for drawing water from river/reservoir;
 - e) Licence from inspector of factories or other competent Authority for setting up batching plant;
 - f) Clearance of Pollution Control Board for setting up batching plant;
 - g) Clearance of Village Panchayats and Pollution Control Board for setting up asphalt plant;
 - h) Permission of Village Panchayats and State Government for borrow earth; and
 - i) Any other permits or clearances required under Applicable Laws.
- 1.2 Applicable Permits, as required, relating to environmental protection and conservation shall have been or shall be procured by the Authority in accordance with the provisions of this Agreement.
-

SCHEDULE - F
(See Clauses 7.1.1, 7.5.3 and 17.2)
FORM OF BANK GUARANTEE
Annex-I
(See Clause 7.1.1)
PERFORMANCE SECURITY

The Senior Divisional Finance Manager-Vijayawada
South Central Railway,

WHEREAS:

- (A)(insert name and address of the contractor) (hereinafter called the “**Contractor**”) and (insert name and address of the project authority), (hereinafter called the “**Authority**”) have entered into an agreement (hereinafter called the “**Agreement**”) for the project “**Comprehensive Signalling and Telecommunication Works for Provision of Automatic Block Signalling System in Chinnaganjam (CJM)-Tsundururu (TSR) Section of Vijayawada Division in South Central Railway**” on Engineering, Procurement and Construction (the “**EPC**”) basis, subject to and in accordance with the provisions of the Agreement.
- (B) The Agreement requires the Contractor to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the {Construction Period/ Defects Liability Period } (as defined in the Agreement) in a sum of ₹.----) (the “**Guarantee Amount**”).
- (C) We, through our branch at (the “**Bank**”) have agreed to furnish this bank guarantee (hereinafter called the “**Guarantee**”) by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally **and** irrevocably guarantees the due and faithful performance of the Contractor’s obligations during the {Construction Period/ Defects Liability Period} under and in accordance with the Agreement, and agrees and undertakes to pay to the [mention Finance of Authority], upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an officer not below the rank of Junior Administrative Grade in South Central Railway, that the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.

3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Contractor contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Contractor under the Agreement.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect on 2 years^{\$}. Unless a demand or claim under this Guarantee is made in writing before expiry of the Guarantee, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been

^{\$} Insert date being 2 (two) years from the date of issuance of this Guarantee (in accordance with Clause 7.2 of the Agreement).

given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.

11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

Signed and sealed this day of, 20..... at

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

Annex – II
(Schedule - F)
(See Clause 7.5.3)

Form of Guarantee for Withdrawal of Retention Money

**The Senior Divisional Finance Manager-Vijayawada
South Central Railway**

WHEREAS:

- (A) [insert name and address of the contractor] (hereinafter called the “**Contractor**”) has executed an agreement (hereinafter called the “**Agreement**”) with the Chief Signal & Telecom Engineer/Projects-III, Vijayawada Division, South Central Railway, Vijayawada, and having its principal offices at Railway Mixed High School, First Floor, Opp. Running Room, Vijayawada - 520001, (hereinafter called the “**Authority**”) for the project “**Comprehensive Signalling and Telecommunication Works for Provision of Automatic Block Signalling System in Chinnaganjam (CJM)-Tsunduru (TSR) Section of Vijayawada Division in South Central Railway**” on Engineering, Procurement and Construction (the “**EPC**”) basis, subject to and in accordance with the provisions of the Agreement.
- (B) In accordance with Clause 7.5.3 of the Agreement, the Contractor may withdraw the retention money (hereinafter called the “**Retention Money**”) after furnishing to the Authority a bank guarantee for an amount equal to the proposed withdrawal.
- (C) We,through our branch at (the “**Bank**”) have agreed to furnish this bank guarantee (hereinafter called the “**Guarantee**”) for the amount of Rs. cr. (Rupees.....crore) (the “**Guarantee Amount**”).

NOW, THEREFORE, the Bank hereby unconditionally and irrevocably guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an officer not below the rank of Junior Administrative Grade in South Central Railway, that the Contractor has committed default in the due and faithful performance of all or any of its obligations for under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final, and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.

3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Retention Money and any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Retention Money.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect 15 (fifteen) days after the date of the Completion Certificate specified in Clause 12.4 of the Agreement.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by

post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.

11. This Guarantee shall come into force with immediate effect and shall remain in force and effect up to the dates specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

Signed and sealed this day of, 20..... at

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

Annex – III
(Schedule - F)
(See Clause 17.2)

FORM OF GUARANTEE FOR ADVANCE PAYMENT

**The Senior Divisional Finance Manager-Vijayawada
S.C Railway**

WHEREAS:

- (A) [name and address of the contractor] (hereinafter called the “**Contractor**”) has executed an agreement (hereinafter called the “**Agreement**”) with the Chief Signal & Telecom Engineer/Projects-III, Vijayawada Division, South Central Railway, Vijayawada, and having its principal offices at Railway Mixed High School, First Floor, Opp. Running Room, Vijayawada - 520001, (hereinafter called the “**Authority**”) for the project “**Comprehensive Signalling and Telecommunication Works for Provision of Automatic Block Signalling System in Chinnaganjam (CJM)-Tсандuru (TSR) Section of Vijayawada Division in South Central Railway**” on Engineering, Procurement and Construction (the “**EPC**”) basis, subject to and in accordance with the provisions of the Agreement.
- (B) In accordance with Clause 17.2 of the Agreement, the Authority shall make to the Contractor advance payment (herein after called “**Advance Payment**”) equal to 10% (ten per cent) of the Contract Price; and that the Advance Payment shall be made in two instalments subject to the Contractor furnishing an irrevocable and unconditional guarantee by a Bank for an amount equivalent to 110% (one hundred and ten percent) of such instalment to remain effective till the complete and full repayment of the instalment of the Advance Payment as security for compliance with its obligations in accordance with the Agreement. The amount of {first/second} instalment of the Advance Payment is Rs.cr. (Rupeescrore) and the amount of this Guarantee is Rs. cr. (Rupees crore) (the “**Guarantee Amount**”)^s.
- (C) We, through our branch at (the “**Bank**”) have agreed to furnish this bank guarantee (hereinafter called the “**Guarantee**”) for the Guarantee Amount.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful repayment on time of the aforesaid instalment of the Advance Payment under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an officer not below the rank of Junior Administrative Grade in South Central Railway, that the Contractor has committed default in the due and faithful performance of all or any of its obligations for the repayment of the instalment of the Advance Payment under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in

^sThe Guarantee Amount should be equivalent to 110% of the value of the applicable installment.

due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.

3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Advance Payment or to extend the time or period of its repayment or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Advance Payment.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect on ****.[§] Unless a demand or claim under this Guarantee is made in writing on or before the aforesaid date, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice

[§] Insert a date being 90 (ninety) days after the end of one year from the date of payment of the Advance payment to the Contractor (in accordance with Clause 17.2 of the Agreement).

and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.

11. The Bank hereby confirms that it is on the SFMS (Structured Financial Messaging System) and shall invariably send the advice of this Bank Guarantee to the following bank details –

IFSC CODE	SBIN00RAIL
IFSC TYPE	BRANCH
BANK NAME	STATE BANK OF INDIA
BRANCH NAME	RAIL
CITY NAME	NAVI MUMBAI
ADDRESS	SECTOR-11, CBD BELAPUR, NAVI MUMBAI
DISTRICT	NAVI MUMBAI
STATE	MAHARASHTRA
BG ENABLED	YES

12. This Guarantee shall come into force with immediate effect and shall remain in force and effect up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

Signed and sealed this day of 20..... at

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing bank.

SCHEDULE - G
(See Clauses 10.1.4 and 17.3)
CONTRACT PRICE WEIGHTAGES

1.1 The Contract Price for this Agreement is ₹ 130,64,99,073/- (Rupees One Hundred and Thirty Crore Sixty-Four Lakh Ninety-Nine Thousand and Seventy-Three only) It is assigned for different components of the Railway Project as follows:

FOR WORKS CONSISTING OF SIGNALLING AND TELECOM WORKS

Signalling Works	70.19% of the Contract Price
Telecom works	23.08% of the Contract Price
Civil works	2.54% of the Contract Price
Electrification works	4.20% of the Contract Price

1.2 Not Applicable

1.3 Signalling and telecommunication works:

Item	% Weightage to the Contract Price	Stage for Payment	% Weightage of Items	Payment Procedure
2.0 Survey, Design and Documentation for ABS works for Entire project.	[0.93%]	Survey, Design and Documentation for ABS works	[100%]	50% payment on approval of documents, 50% payment on submission of completion drawings & documents for completed block sections on pro rata basis.
2.1 Provision of ABS System for Entire Project. (Unit Block Section)	[90.47%]	2.1.1 Supply of all types of cables required for ABS section under 2.1	[28.66%]	50% payment on supply and acceptance of material at store depot; 40% payment on completion of trenching, laying, termination and testing for completed block sections on pro rata basis
		2.1.2 Trenching, laying, termination and testing of all types of cables viz, signalling, telecom , OFC, power etc.	[23.60%]	80% payment on trenching and laying of cables as per the technical specifications and 10% after termination and testing for completed block sections on pro rata basis.

Item	% Weightage to the Contract Price	Stage for Payment	% Weightage of Items	Payment Procedure
		2.1.3 Supply, installation, testing and commissioning of MSDAC which includes a. Supply of Complete MSDAC evaluators b. Track detection devices with associated cables and track side electronics c. Communication equipment such as Switches, Automatic changeover equipment, Media Converters etc.	[24.13%]	50% payment on supply of complete MSDAC and associated equipment and acceptance of material at store depot ; 30% on installation, energization, testing and submission of pre commissioning check list ; 10% after system integration and OEM certification for completed block sections on pro rata basis.
		2.1.4 Supply, installation, testing and commissioning of USFBI/Fn MUX	[4.80%]	50% payment on supply of complete USFBI/Fn MUX and associated equipment and acceptance of material at store depot; 30% on installation, energisation, testing and submission of pre commissioning check list; 10% after system integration, and OEM certification for completed block sections on pro rata basis
		2.1.5 Supply, installation, testing and commissioning of Power Supply System at ABS huts & LC gates. IPS, batteries, other power supply equipments and energization of all signalling/telecom systems in ABS huts/LC gates/ABS equipment Huts.	[1.47%]	70% on supply of equipment and acceptance of material at store depot 10% on installation, testing, energization of equipment, submission of pre commissioning check list; 10% System integration and OEM installation certificate for completed block sections on pro rata basis.

Item	% Weightage to the Contract Price	Stage for Payment	% Weightage of Items	Payment Procedure
		2.1.6 a. Supply, installation, wiring, validation, testing of Dataloggers /RTU & networking arrangements and updating database and fault logics at various locations b. Supply, installation, testing and commissioning of Telecom equipment, video surveillance equipment. c. Supply, installation and testing of Earthing and surge protection equipment	[3.55%]	70% on supply, 20% installation and wiring, energization, testing (for data loggers validation and updating of database and fault logics) Pre commissioning check lists and OEM installation certificate for completed block sections on pro rata basis.
		2.1.7 Supply installation, testing, energisation and commissioning of Indoor equipment involving IO Multiplexers, relays, wire coils, relay racks, CTR racks, Disconnect terminals, fuses, fixing of ladders , testing of wiring before and after soldering by officer and supervisor independently, energisation of circuits, integration of equipment/EI modifications, any other material/equipment required for the final functionality of the system.	[8.02%]	50% on Supply, installation and wiring; 20% after testing of wiring; 20% after energisation of circuits, integration with other systems and simulation testing for completed block sections on pro rata basis.

Item	% Weightage to the Contract Price	Stage for Payment	% Weightage of Items	Payment Procedure
		2.1.8 supply of Outdoor equipment like location boxes, signals, LED's etc. installation, wiring, testing, energisation and commissioning	[5.76%]	70% on supply and acceptance of material at store depot, 10% after foundations, erection, wiring, testing and energisation; 10% integration with other systems for completed block sections on pro rata basis.
<i>Note: For items under 2.1: Payment against supplies shall be made for quantities, on receipt of material at contractor depot and production of original inspection certificates and other documents against indemnity bond and insurance Cover as specified in Schedule-N. These payments shall not be counted for completion of Project milestone under schedule-I.</i>				
2.2 Integrated testing and commissioning of ABS works. (Unit: Block Section)	[0.94%]	2.2.1 Integrated testing of sub systems and commissioning of ABS works.	[100%]	100 % after testing and commissioning of block section under 2.1 Balance 10 % payment under item no. 2.1 above shall be paid after commissioning of section and issue of part completion certificate/completion certificate (Provisional or final) for completed block sections on pro rata basis.
2.3 Inventory: Supply of spares	[0.93%]	2.3.1 Supply of Spares for ABS system.	[100%]	Payment for inventory (supply of signalling & Telecom spares) shall be made on supply of entire quantity of spares for the project. <i>There will not be any payment for part supply of inventory.</i>
2.4 Construction of ABS huts, Construction of ABS Equipment Huts, Construction of LC Gate Buildings and electrification thereof.	[2.64%]	2.4.1 Construction of ABS huts, Construction of ABS Equipment Huts, Construction of LC Gate Buildings and Carrying out Electrical wiring.	[100%]	100% payment on completion of Construction of ABS huts, Construction of ABS Equipment Huts, Constructions of LC Gate Buildings, and Construction of camp office in all respects including electrification and submission of as made design & drawings. Payment shall be made on pro rata basis with respect to total quantity.

Item	% Weightage to the Contract Price	Stage for Payment	% Weightage of Items	Payment Procedure
2.5 Provision of power supply to ABS Huts. (Per ABS Hut)	[4.09%]	2.5.1 Provision of Electrical General lighting arrangements including CLS Panel and Laying XLPE Cable for ABS Huts.	[100%]	100% payment on provision of General electrical arrangements, CLS panel & Laying of XLPE Cables. Payment shall be made on pro rata basis with respect to total Quantity of ABS Hut.

SCHEDULE-G1
(SEE CLAUSES 10.1.4, 17.3 AND 17.4)
SEPARATE BOQ FOR ITEMISED WORK
CONTRACT PRICE WEIGHTAGES (FOR BOQ ITEMS)

1. The Contract Price for this schedule (G1) of Agreement is of ₹ 3,64,49,772.35/- (Rupees Three Crore Sixty-Four Lakh Forty-Nine Thousand Seven Hundred and Seventy-Two and Paise Thirty-Five only).
2. Schedule-G1 may be used as per the requirement.
3. Rate should be quoted (% Above / Below / At Par) for Schedule-G1.

S.No.	Description	Unit	Qty	Rate	Amount
1	Alteration to Station KAVACH in connection with Provision of ABS. This includes 1) Survey and Design alterations necessitated in connection Automatic Block Signalling 2) Supply of additional hardware and other associated materials such as modems, connectors, wiring materials etc. required for KAVACH - EI interface. 3) Submission of Interface and logic circuits pertaining to EI-KAVACH interface for approval of authority. 4) Carrying out FAT, SAT and other testing procedures as per RDSO guidelines. 5) KAVACH field trials shall be carried out after completion of installation. Required locomotives for the trials will be arranged by the Railways. 6) Submission of 6 sets of As made drawings for both EI and KAVACH.	Station	7	4106332	28744324
2	Supply, Programming and Fixing of new RFID TAGS (Inspection: RDSO)	Nos	200	19470	3894000
3	Shifting and reprogramming of existing RFID TAGS	Nos	200	7670	1534000
4	Arrangement for RITES inspection of S&T service buildings in different stages but not limited to 1) Foundation stage 2) First slab stage 3) Second slab stage 4) Finishing stage	per station	4	56060.33	224241.32
5	Arrangements for RITES inspection of Construction of Office of 100 Sq mm.	Per Location	1	22000	22000
6	Modification in the existing S&T service buildings Station building/Goomtys/LC gates as per the site incharge <i>(Item Breakup is furnished in the below table)</i>	Details	1	2031207	2031207.03
Schedule G 1 - KAVACH & Engg Portion					36449772.35

Breakup of item No.6 of Sch-G1:

Sl. No.	SSR No	Description	Unit	Qty.	Rate	Amount
1	15.7.4	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.: $2 \times 7.2 \times 0.18 \times 3.46 = 8.97$, deduct $2 \times 1.2 \times 0.18 \times 2.00 = 0.86$ (-)	Cum	56.77	2060.70	116985.94
2	15.12.1	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 meters lead : doors=3no.s, windows=2no.s	Each	21.00	367.20	7711.20

3	21.1.2.2	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing/paneling. C.P. brass/stainless steel screws, all complete For shutters of doors, windows & ventilators including providing and fixing hinges/pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron) Room partition. Door V – 2 x 1.95 x 1.2 = 4.68, T&B – 2 x 0.88 x 1.2 = 2.11, Middle - 1x0.88x1.2 = 1.05, 2 x 2 x 1.95 x 0.02 = 0.15, 2 x 4 x 0.88x 0.02 = 0.14	Kg	56.91	634.45	36106.55
4	21.1.1.2	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing/paneling. C.P. brass/stainless steel screws, all complete Powder coated aluminium (minimum thickness of powder coating 50 micron) V - 7x3.3x1.2 = 27.72, T - 1x7.2x1.2 = 8.64, B - 1x6.28x1.2 = 7.54, H - 2x7x1x1.2 = 16.8, H - 1x6x1x1.2 = 7.2	Kg	475.30	530.90	252336.77
5	21.2.2	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer- in-charge. Pre-laminated particle board with decorative lamination on both sides 2x6x1x0.55 = 6.6, 2x1x0.88x0.55 = 0.97, 2x6x1x1 = 12.00	Sqm	136.99	1115.40	152798.65
6	21.3.1	With float glass panes of 4.0 mm thickness (weight not less than 10kg/sqm)	Sqm	8.40	1176.80	9885.12
7	13.81.1	Distempering with 1st quality acrylic distemper (ready mixed) having VOC (Volatile Organic Compound) content less than 50 gram/ litre, of approved brand and manufacturer including applying additional coats wherever	Sqm	895.13	62.70	56124.34

		required to achieve even shade and colour Old work (one or more coats) 2x7.2x3.75 = 54, 2x9.85x3.75 = 73.875				
8	15.23.1	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. 15.23.1 For thickness of tiles 10 mm to 25 mm. LCNO.125 1X7.2X0.44=3.17, 1X6.78X0.42=2.85, 2X1.2X0.44=1.06, 1X4.6X0.44=2.02, 1X4.6X0.42=1.93, 1X2.2X0.86=1.89, 1X6.34X1.20=7.61, 1X7.2X0.18=1.29, 1X6.78X0.18=1.22, 2X4.6X0.18=1.65, 2X1.2X0.17=0.41, 1X2.97X7.2=21.38, 1X3.57X7.2=25.70, 1X6.80X0.32=2.18, 1X6.34X0.17=1.08, 1X1.65X0.32=0.53, 1X1.20X0.17=0.20, 1X4.1X0.32=1.31, 1X3.7X0.17=0.63	sqm	546.77	73.40	40132.92
9	15.2.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge. 15.2.1 Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix) LC125 1x7.2x9.5x0.1=6.84, 4.55x0.45x0.15=0.31, 2.13x0.45x0.35=0.33, 1.25x0.40x0.15=0.08, 7.20x0.40x0.35=1.01, 6.80x0.45x0.15=0.46	cum	68.18	2434.25	165967.17
10	4.1.5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:3:6 (1 cement : 3 coarse sand (zone-III): 6 graded stone aggregate 20mm nominal size). 1x7.2x9.85x0.15=10.64	cum	74.48	7294.70	543309.26
11	11.41.2	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 600x600 mm LC125 1X7.2X9.85=70.92	sqm	496.44	1553.45	771194.72
12	13.26	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete. 1X7.2X1.5=10.8, 1X5.00X1.5=7.50.	Sqm	128.10	262.70	33651.87
13	13.82.1	Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour. One coat. @ LC No.125-2X2X9.85X3.7=72.89, 2X7.2X3.7=53.28. DED-D-1X2.00X1.00=2, W-8X1.5X1.2=14.4	Sqm	768.39	92.00	70691.88
		Total				2256896
		Deductions @ 10%				225689
		Final Value				2031207.03

Description	Item	Value of Schedule	Payment Procedure	Applicable Rates
Schedule-G1A				
KAVACH & Engg Portion	NS Items	100%	Payment shall be made on actual work done as per work done measured while submitting stage payment certificate.	As detailed in Para 3 above.

Note: Before start of any sub-work(s) under Schedule-G1, drawing, method statement, BOQ etc. shall be finalised and approved from authority.

SCHEDULE - H
(See Clause 10.2.7)
DRAWINGS

2 Drawings

In compliance of the obligations set forth in Clause 10.2 of this Agreement, the Contractor shall furnish to the Authority's Engineer, free of cost, all Drawings listed in Annex-I of this Schedule-H.

3 Additional Drawings

If the Authority's Engineer determines that for discharging its duties and functions under this Agreement, it requires any drawings other than those listed in Annex-I, it may by notice require the Contractor to prepare and furnish such drawings forthwith. Upon receiving a requisition to this effect, the Contractor shall promptly prepare and furnish such drawings to the Authority's Engineer, as if such drawings formed part of Annex-I of this Schedule-H.

Annexure-I

(Schedule-H)

LIST OF DRAWINGS

List of Drawings and Documents to be furnished by the Concessionaire shall include, but not be limited to:

- 1. General & Civil Engineering:**
 - (a) General Alignment Drawings of S&T service buildings.
 - (b) Structural Drawings of S&T service buildings.
 - (c) Location Drawings of S&T service buildings.
 - (d) Any other drawings as Detailed in Part-III Feasibility Report
- 2. Signal Engineering:**
 - (a) Signal interlocking plan (station/ABS section)
 - (b) Route Control table of stations
 - (c) Panel/ VDU diagram (station/ LC gate huts/ ABS Huts)
 - (d) Cable Core Chart.
 - (e) Cable Route Plan
 - (f) Power Supply Diagram of stations
 - (g) Equipment lay out and details including cable troughs required
 - (h) Interface circuits, application logic circuits for EI
 - (i) Other miscellaneous interface Circuit Diagrams, Contact analysis
 - (j) Station/Gate working Rule/Rule diagrams
 - (k) Equipment Rack details
 - (l) Cable Termination Rack details
 - (m) Fuse Details
 - (n) Location/junction boxes lay out & wiring details
 - (o) Lightning, surge protection & earthing plan.
 - (p) Any other drawings as Detailed in Part-III Feasibility Report
- 3. Telecommunication Engineering:**
 - (a) Location and connectivity of all equipment's and cables
 - (b) Schematic and wiring diagrams
 - (c) Cable core plan and numbering scheme
 - (d) Equipment mounting details
 - (e) Cable route drawings
 - (f) Layouts in equipment racks, in equipment rooms, trackside, and all other equipment locations
 - (g) Any other drawings as Detailed in Part-III Feasibility Report
- 4. Electrical Engineering (Traction): As Detailed in Part-III Feasibility Report**
- 5. Electrical Engineering (General Power supply): As Detailed in Part-III Feasibility Report**
- 6. Tabulated details which shall consist of important characteristics of the railway project or a portion of railway project to be constructed, which shall, as may be necessary shall be provided.**

SCHEDULE - I

(See Clause 10.3.2)

PROJECT COMPLETION SCHEDULE

1 Project Completion Schedule

During Construction period, the Contractor shall comply with the requirements set forth in this Schedule-I for each of the Project Milestones and the Scheduled Completion Date. Within 15 (fifteen) days of the date of each Project Milestone, the Contractor shall notify the Authority of such compliance along with necessary particulars thereof.

2 Project Milestone-I

2.1 Occurs on 90th day from appointed date. The following drawings and documentation shall be completed and submitted to Authority.

i) Signalling and telecommunication Works

- a) Signal Interlocking plan (Block Station / Block Section / LC Gates) for sections targeted in Milestone-II and III
- b) Table of Control / Route Control table (Block Station / Block Section / LC Gates) for sections targeted in Milestone-II and III
- c) Interface & Application logic circuits for sections targeted in Milestone -II and III.
- d) Panel / VDU diagram (Block Station / ABS Huts / LC Gates) for sections targeted in Milestone-II&III
- e) Cable Route Plan (Separate for Block Station and Block Section) for the entire section
- f) Cable Core Charts for sections targeted in MS-II & MS-III
- g) Power Supply Diagram (Block Station / ABS Huts / LC Gates)
- h) Equipment Layout Plans (Block Station / ABS Huts / LC gates)
- i) Channelling plan for telecom equipment.
- j) Design Team and Supervisory Team Details
- k) Setting up of stores depot and its digitization.
- l) Commencement of Cable laying and outdoor works
- m) Details of Project management team
- n) Appointment of safety consultant
- o) Provision of vehicles.

ii) Civil Engineering works

- a) Layout plans and location plans of ABS Huts and Level Crossing Gate Buildings..
- b) Soil Test Reports of ABS Huts & Level Crossing Gate Buildings.for sections targeted in Milestone-II and III
- c) Foundation Designs based on location SBC for ABS Huts & Level Crossing Gate Buildings..
- d) Super Structure Design Drawings for ABS huts and Level Crossing Gate Buildings.
- e) Commencement of ABS Hut & Level Crossing Gate Buildings. construction activity at locations targeted in Milestone-II and III
- f) Quality Assurance Plan (QAP) for ABS huts and Level Crossing Gate Buildings.

1.3 Prior to the occurrence of Project Milestone-I, the Contractor shall have commenced construction of the Railway Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 5% (Five per cent) of the Contract Price.

3. Milestone-II

3.1 Occurs on 210th day from appointed date. The following activities shall be completed

- a) All balance Signal Interlocking Plans (Block Station / Block Section / LC Gates), Table of Control/Route Control table (Block Station / Block Section / LC Gates), Panel/ VDU diagram (Block Stations/LC gates), Interface circuits, Application logic circuits, Cable Route Plan (Separate for Block stations & Blocks sections) and any other documents required for the entire project for approval.
 - b) Completion of Construction of ABS huts, Construction of Level Crossing Gate Building and Augmentation/ modification /construction of accommodation for interlocking equipment at block stations/ sections targeted in Milestone-II & III.
 - c) Completion of cable laying, outdoor works and indoor works in sections targeted in Milestone-II
 - d) Interlocking of LC gates, Provision of Sliding Booms, Provision of Gate holding arrangements, Provision of Approach warning system etc. in the section targeted in MS-II
 - e) Not less than 50% Completion of cable laying and outdoor works in sections targeted in Milestone-III.
 - f) Commencement of Construction of Camp office
 - g) Completion of all works related to commissioning of targeted ABS Section(s) in Milestone II.
 - h) Commissioning of TSR-NDO & NDO-APL ABS Sections
- 3.2 Prior to the occurrence of Project Milestone-II, the Contractor shall have continued with construction of the Railway Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 30% (Thirty percent) of the Contract Price.

4. Milestone- III

4.1 Occurs on **300th** day from appointed date.

- a) Completion of Construction of all balance ABS huts, Construction of Level Crossing Gate Buildings and Augmentation/ modification /construction of accommodation for interlocking equipment at block stations
 - b) Completion of cable laying works, outdoor works and indoor works in sections targeted in Milestone-III
 - c) Interlocking of LC gates, Provision of Sliding Booms, Provision of Gate holding arrangements, Provision of Approach warning system etc. in the section targeted in MS-III
 - d) Not less than 50% Completion of cable laying and outdoor works in sections targeted in Milestone-IV
 - e) Completion of all works related to commissioning of targeted ABS Section(s) in Milestone III.
 - f) Completion of construction of camp office.
 - g) Commissioning of APL-BPP, BPP-CLX ABS Sections
 - h) Completion of all pending works in ABS sections Commissioned under Milestone- II
 - i) Submission of as-built drawings for the sections commissioned in Milestone II
- 4.2 Prior to the occurrence of Project Milestone-III, the Contractor shall have Continued with construction of the Railway Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 60% (Sixty per cent) of the Contract Price.

5. Milestone-IV

5.1 Occurs on **420th** day from appointed date

- a) Completion of cable laying works, outdoor works and indoor works in sections targeted in this Milestone-IV
- b) Completion of all pending works in ABS sections Commissioned under Milestone –III
- c) Interlocking of LC gates, Provision of Sliding Booms, Provision of Gate holding arrangements, Provision of Approach warning system etc. in the section targeted in MS-IV
- d) Completion of all works related to commissioning of targeted ABS Section(s) in Milestone IV.
- e) Commissioning of CLX-VTM, VTM-CJM ABS sections including VTM Station MSDAC.
- f) Submission of as-built drawings for the sections commissioned in Milestone III

- 5.2 Prior to the occurrence of Project Milestone-IV, the Contractor shall have Continued with construction of the Railway Project and submitted to the Authority duly and validly prepared Stage Payment Statements for an amount not less than 85% (Eighty Five per cent) and not more than 90% (Ninety percent) of the Contract Price.

6. Milestone-V

6.1 Occurs on **480th** day from appointed date

- a) Completion of all pending works identified during joint inspections and other inspections
- b) Submission of as-built drawings for the sections commissioned in Milestone IV and for the entire project.

7. Scheduled Completion Date

7.1 The Scheduled Completion Date shall be the **480th** day from the Appointed Date.

7.2 On or before the Scheduled Completion Date, the Contractor shall have completed all construction in accordance with this Agreement.

8. **Extension of Time:** Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Project Completion Schedule shall be deemed to have been amended accordingly.

9. Summary of Milestones

Milestone	Duration of Milestone (days)	Completion of Milestone (days) from Appointed Date	Activity
Milestone -I	90	90	Design & Documentation
Milestone-II	120	210	TSR-NDO, NDO-APL ABS section Commissioning
Milestone-III	90	300	APL-BPP, BPP-CLX ABS sections Commissioning
Milestone-IV	120	420	CLX-VTM, VTM-CJM, ABS Sections commissioning
Milestone-V	60	480	Completion of Pending Works & As made Documentation
Total	480 days		

SCHEDULE - J
(See Clause 12.1.2)
TESTS ON COMPLETION

1 Schedule for Tests

- 1.1 The Contractor shall, no later than 30 (thirty) days prior to the likely completion of construction, notify the Authority's Engineer and the Authority of its intent to subject the Railway Project to Tests, and no later than 10 (ten) days prior to the actual date of Tests, furnish to the Authority's Engineer and the Authority detailed inventory and particulars of all works and equipment forming part of Works.
- 1.2 The Contractor shall notify the Authority's Engineer of its readiness to subject the Railway Project to Tests at any time after 10 (ten) days from the date of such notice, and upon receipt of such notice, the Authority's Engineer shall, in consultation with the Contractor, determine the date and time for each Test and notify the same to the Authority who may designate its representative to witness the Tests. The Authority's Engineer shall thereupon conduct the Tests itself or cause any of the Tests to be conducted in accordance with Article 12 and this Schedule-J.

2 Tests

- 2.1 Visual and physical test: The Authority's Engineer shall conduct a visual and physical check of construction to determine that all works and equipment forming part thereof conform to the provisions of this Agreement. The physical tests shall include the tests as detailed in Feasibility Report.
- 2.2 Integrated Testing of system followed by a period of trial running. The test sequence may be as shown below:-
 - a) Tests on Equipment
 - b) Installation Test and sub-system individually
 - c) System Integrated Test
 - d) Final Acceptance Test
 - e) Trial Running
- 2.3 Sanction of Commissioner of Railway Safety (CRS) is required before opening of track in terms of Chapter XIII of Indian Railway Permanent Way Manual.
- 2.4 Not Applicable
- 2.5 Not Applicable
- 2.6 Other tests: The Authority's Engineer may require the Contractor to carry out or cause to be carried additional tests, in accordance with Good Industry Practice, for determining the compliance of the Railway Project with Specifications and Standards.
- 2.7 Environmental audit: The Authority's Engineer shall carry out a check to determine conformity of the Railway Project with the environmental requirements set forth in Applicable Laws and Applicable Permits.
- 2.8 Safety Audit: The Authority Engineer shall carry out, or cause to be carried out, a safety audit to determine conformity of the Railway Project with the safety requirements and Good Industry Practice.

3 Agency for conducting Tests

All Tests set forth in this Schedule-J shall be conducted by the Authority's Engineer or such other agency or person as it may specify in consultation with the Authority.

4 Completion Certificate

Upon successful completion of Tests, the Authority's Engineer shall issue the Provisional Certificate in accordance with the provisions of Article 12. For the avoidance of doubt, the Completion Certificate shall not be issued by the Authority's Engineer unless authorization of the Commissioner for Railway Safety has been obtained.

SCHEDULE - K

(See Clause 12.2 and 12.4)

1. PROVISIONAL CERTIFICATE

- 1 I/We, (Name of the Authority's Engineer), acting as the Authority's Engineer, under and in accordance with the Agreement dated (the "Agreement"), for the project "***Comprehensive Signalling and Telecommunication Works for Provision of Automatic Block Signalling System in Chinnaganjam (CJM)-Tсандuru (TSR) Section of Vijayawada Division in South Central Railway***" on Engineering, Procurement and Construction (EPC) basis through (Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been undertaken to determine compliance of the Railway Project with the provisions of the Agreement.
- 2 Certain minor works are incomplete and these are not likely to cause material inconvenience to the Users of the Railway Project or affect their safety or the movement of rail traffic in any manner. These works have been specified in the Punch List appended hereto, and the Contractor has agreed and accepted that it shall complete all such works in the time and manner set forth in the Agreement.
- 3 In view of the foregoing, I/We am/are satisfied that the Railway Project from km to km can be safely and reliably placed in service of the Authority for railway freight and passenger traffic, subject to authorisation by the Commissioner of Railway Safety in accordance with Applicable Laws. In terms of the Agreement, the Railway Project is hereby provisionally declared fit for entry into operation on this the day of 20.....

**ACCEPTED, SIGNED, SEALED
AND DELIVERED**

**For and on behalf of
CONTRACTOR by:**

(Signature)

**SIGNED, SEALED AND
DELIVERED**

**For and on behalf of
AUTHORITY's ENGINEER by:**

(Signature)

2. COMPLETION CERTIFICATE

- 1 I/We,(Name of the Authority's Engineer), acting as the Authority's Engineer, under and in accordance with the Agreement dated (the "**Agreement**"), ***"Comprehensive Signalling and Telecommunication Works for Provision of Automatic Block Signalling System in Chinnaganjam (CJM)-Tsunduru (TSR) Section of Vijayawada Division in South Central Railway"*** on Engineering, Procurement and Construction (EPC) basis through (Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been successfully undertaken to determine compliance of the Railway project with the provisions of the Agreement, and the authorisation by the commissioner for Railway Safety under Applicable Laws has been obtained.
- 2 It is certified that, in terms of the aforesaid Agreement, all works forming part of RailwayProject have been completed, and the Railway Project is hereby declared fit for entry into operation on this the day of 20....

SIGNED, SEALED AND DELIVERED

For and on behalf of

the Authority's Engineer by:

(Signature) (Name)
(Designation)
(Address)

SCHEDULE - L
(See Clause 16.1.1)

SELECTION OF AUTHORITY'S ENGINEER

- 1.1 **Selection of Authority's Engineer:** Authority shall appoint a railway engineer / Project Management services (PMS) Agency, to be the engineer as set forth in Article 16, to be the engineer under this agreement (the "Authority Engineer")
- 1.2 Generally, a Railway officer of Selection Grade (SG) / Junior Administrative Grade (JAG) --/ Project Management Services (PMS) Agency, shall be appointed as Authority's Engineer. Authority shall notify the contractor in writing of the appointment and identify of the Authority Engineer and of any replacement thereof from time to time.

2 Terms of Reference

The Terms of Reference for the Authority's Engineer (the "**TOR**") shall substantially conform with Annex 1 to this Schedule L.

Annex – I
(Schedule - L)

DUTIES & RESPONSIBILITIES OF AUTHORITY'S ENGINEER

1 Scope

- 1.1 These Duties & Responsibilities (DR) shall apply to construction and maintenance (wherever applicable) of the Railway Project.

2 Definitions and interpretation

- 2.1 The words and expressions beginning with or in capital letters and not defined herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement.
- 2.2 References to Articles, Clauses and Schedules in this DR shall, except where the context otherwise requires, be deemed to be references to the Articles, Clauses and Schedules of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this DR.
- 2.3 The rules of interpretation contained in Clauses 1.2, 1.3 and 1.4 of the Agreement shall apply, *mutatis mutandis*, to this DR.

3. General

- 3.1 The Authority's Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice.
- 3.2 The Authority's Engineer shall perform the duties and exercise the authority in accordance with the provisions of this Agreement, but subject to obtaining prior written approval of the Authority (where Authority's Engineer is designated as the Authority, the compliance of these conditions have to be ensured by him/her) before determining:
- (a) any Time Extension;
 - (b) any additional cost to be paid by the Authority to the Contractor;
 - (c) the Termination Payment;
 - (d) providing Power Block or Traffic Block to the Contractor;
 - (e) approval of signalling plan and route control chart;
 - (f) approval of disconnections for modification of signalling and telecom works;
 - (g) any other matter which is not specified in (a) to (f) above and which creates an obligation or liability on either Party for a sum exceeding Rs.50,00,000/- (Rupees fifty lakh).

- 3.3 The Authority's Engineer shall submit regular periodic reports, at least once every month, to the Authority in respect of its duties and functions assigned to him for the project. Such reports shall be submitted by the Authority's Engineer within 10 (ten) days of the beginning of every month.
- 3.4 The Authority's Engineer shall aid and advise the Authority on any proposal for Change of Scope under Article 13.
- 3.5 In the event of any disagreement regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the Authority's Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on Good Industry Practice and authentic literature.
- 3.6 The Authority's Engineer shall verify the as built drawings submitted by the Contractor after completion of the works. These drawings will be signed by the Authority's Engineer after due verification.

4. Construction Period

- 4.1 During the Construction Period, the Authority's Engineer shall review the Drawings furnished by the Contractor along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites and topographical surveys. The Authority's Engineer shall complete such review and send its observations to the Authority and the Contractor within 15 (fifteen) days of receipt of such Drawings; provided, however that in case of an Important Bridge, a Major Bridge or Structure, and interlocking and telecom switching equipment the aforesaid period of 15 (fifteen) days may be extended up to 30 (thirty) days. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards.
- 4.2 The Authority's Engineer shall review any revised Drawings sent to it by the Contractor and furnish its comments within 10 (ten) days of receiving such Drawings.
- 4.3 The Authority's Engineer shall review the Quality Assurance Plan submitted by the Contractor and shall convey its comments to the Contractor within a period of 21 (twenty-one) days stating the modifications, if any, required thereto.
- 4.4 The Authority's Engineer shall complete the review of the methodology proposed to be adopted by the Contractor for executing the Works, and convey its comments to the Contractor within a period of 10 (ten) days from the date of receipt of the proposed methodology from the Contractor. The Authority's Engineer shall draw the non- interlocking Programme for works involving existing yards and issue a jointly agreed NI Programme for each such yard.
- 4.5 The Authority's Engineer shall grant written approval to the Contractor, where necessary, for interruption and diversion of the flow of traffic in the existing lane(s) of the Railway Project for purposes of maintenance during the Construction Period in.
- 4.6 The Authority's Engineer shall review the monthly progress report furnished by the Contractor

and send its comments thereon to the Authority and the Contractor within 7 (seven) days of receipt of such report.

- 4.7 The Authority's Engineer shall inspect the Construction Works and the Railway Project and shall submit a monthly Inspection Report bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies.
- 4.8 The Authority's Engineer shall conduct the pre-construction review of manufacturer's test reports and standard samples of manufactured Materials, and such other Materials as the Authority's Engineer may require.
- 4.9 For determining that the Works conform to Specifications and Standards, the Authority's Engineer shall require the Contractor to carry out, or cause to be carried out, tests at such time and frequency and in such manner as specified in the Agreement and in accordance with Good Industry Practice for quality assurance. For purposes of this Paragraph 4.9, the tests specified in Manuals or any modification/substitution thereof shall be deemed to be tests conforming to Good Industry Practice for quality assurance.
- 4.10 The Authority's Engineer shall test check prescribed in this agreement for each category or type of test for quality control by the Contractor.
- 4.11 The timing of tests referred to in Paragraph 4.9, and the criteria for acceptance/ rejection of their results shall be determined by the Authority's Engineer in accordance with the Quality Control Manuals. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Contractor for its own quality assurance in accordance with Good Industry Practice.
- 4.12 In the event that results of any tests conducted under Clause 11.10 establish any Defects or deficiencies in the Works, the Authority's Engineer shall require the Contractor to carry out remedial measures.
- 4.13 The Authority's Engineer may instruct the Contractor to execute any work which is urgently required for the safety of the Railway Project, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work required on account of a Force Majeure Event, the provisions of Clause 19.6 shall apply.
- 4.14 In the event that the Contractor fails to achieve any of the Project Milestones, the Authority's Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Authority's Engineer shall determine that completion of the Railway Project is not feasible within the time specified in the Agreement, it shall require the Contractor to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which the Project Completion Date shall be achieved. Upon receipt of a report from the Contractor, the Authority's Engineer shall review the same and send its comments to the Authority and the Contractor forthwith.
- 4.15 The Authority's Engineer shall obtain from the Contractor a copy of all the Contractor's quality control records and documents before the Completion Certificate is issued pursuant to Clause 12.4.
- 4.16 Authority's Engineer may recommend to the Authority suspension of the whole or part of the

Works if the work threatens the safety of the public and pedestrians. After the Contractor has carried out remedial measure, the Authority's Engineer shall inspect such remedial measures forthwith and make a report to the Authority recommending whether or not the suspension hereunder may be revoked.

- 4.17 In the event that the Contractor carries out any remedial measures to secure the safety of suspended works and the public, and requires the Authority's Engineer to inspect such works, the Authority's Engineer shall inspect the suspended works within 3 (three) days of receiving such notice, and make a report to the Authority forthwith, recommending whether or not such suspension may be revoked by the Authority.
- 4.18 The Authority's Engineer shall carry out, or cause to be carried out, all the Tests specified in Schedule-J and issue a Completion Certificate or Provisional Certificate, as the case may be. For carrying out its functions under this Paragraph 4.18 and all matters incidental thereto, the Authority's Engineer shall act under and in accordance with the provisions of Article 12 and Schedule-J.

5. Determination of costs and time

- 5.1 The Authority's Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Agreement.
- 5.2 The Authority's Engineer shall determine the period of Time Extension that is required to be determined by it under the Agreement.
- 5.3 The Authority's Engineer shall consult each Party in every case of determination in accordance with the provisions of Clause 16.5.

6. Payments

- 6.1 The Authority's Engineer shall withhold payments for the affected works for which the Contractor fails to revise and resubmit the Drawings to the Authority's Engineer in accordance with the provisions of Clause 10.2.7 (d).
- 6.2 Authority's Engineer shall -
- (a) within 10 (ten) days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 17.4, determine the amount due to the Contractor and recommend the release of 80 (eighty) percent of the amount so determined as part payment, pending issue of the Interim Payment Certificate; and
 - (b) within 20 (twenty) days of the receipt of the Stage Payment Statement referred to in Clause 17.4, deliver to the Authority and the Contractor an Interim Payment Certificate certifying the amount due and payable to the Contractor, after adjustments in accordance with the provisions of Clause 17.11.

7. Other duties and functions

The Authority's Engineer shall perform all other duties and functions as specified in the Agreement.

8. Miscellaneous

- 8.1 A copy of all communications, comments, instructions, Drawings or Documents sent by the Authority's Engineer to the Contractor pursuant to this TOR and a copy of all the test results with comments of the Authority's Engineer thereon, shall be furnished by the Authority's Engineer to the Authority forthwith.
- 8.2 The Authority's Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.
- 8.3 Within 90 (ninety) days of the Project Completion Date, the Authority's Engineer shall obtain a complete set of as-built Drawings, in 2 (two) hard copies and in micro film form or in such other medium as may be acceptable to the Authority, reflecting the Railway Project as actually designed, engineered and constructed, including an as-built survey illustrating the layout of the Railway Project and setback lines, if any, of the buildings and structures forming part of Project Facilities; and shall hand them over to the Authority against receipt thereof.
- 8.4 The Authority's Engineer shall inform the Authority and the Contractor of any event of Contractor's Default within one week of its occurrence.

SCHEDULE - M
(See Clauses 17.4.1, 17.6.1, and 17.6.1)
FORMS OF PAYMENT STATEMENTS

1. Stage Payment Statement for Works

The Stage Payment Statement for Works shall state:

- (a) the estimated amount for the Works executed in accordance with Clause 17.3.1 subsequent to the last claim;
- (b) amounts reflecting adjustments in price for the aforesaid claim;
- (c) the estimated amount of each Change of Scope Order executed subsequent to the last claim;
- (d) amounts reflecting adjustment in price, if any, for (c) above in accordance with the provisions of Clause 13.2.3 (a);
- (e) total of (a), (b), (c) and (d) above;
- (f) Deductions:
 - (i) Any amount to be deducted in accordance with the provisions of the Agreement except taxes;
 - (ii) Any amount payable by the Contractor to the Authority under the provisions of the Agreement; and
 - a) Any amount towards deduction of taxes at source under Applicable Laws.
 - b) Total of (i) to (iii) above.
- (g) Net claim: (e) – (f) (iv);
- (h) The amounts received by the Contractor up to the last claim:
 - (i) For the Works executed (excluding Change of Scope orders);
 - (ii) For Change of Scope Orders, and
 - (iii) Taxes deducted at source under Applicable Laws

2. Contractor's claim for Damages

Note: The Contractor shall submit its claims in a form acceptable to the Authority.

SCHEDULE - N
(See Clause 18.1)
INSURANCE

1. Insurance during Construction Period

- 1.1 The Contractor shall effect and maintain at its own cost, from the Appointed Date till the date of issue of the Completion Certificate, the following insurances for any loss or damage occurring on account of Non Political Event of Force Majeure, malicious act, accidental damage, explosion, fire and terrorism:
- (a) insurance of Works, Plant and Materials and an additional sum of **15% (fifteen per cent)** of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature; and
 - (b) insurance for the Contractor's equipment and Documents brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.
- 1.2 The insurance under paragraph 1.1 (a) and (b) above shall cover the Authority and the Contractor against all loss or damage from any cause arising under paragraph 1.1 other than risks which are not insurable at commercial terms.

2. Insurance for Contractor's Defects Liability

The Contractor shall effect and maintain insurance cover for the Works from the date of issue of the Completion Certificate until the end of the Defects Liability Period for any loss or damage for which the Contractor is liable and which arises from a cause occurring prior to the issue of the Completion Certificate. The Contractor shall also maintain other insurances for maximum sums as may be required under Applicable Laws and in accordance with Good Industry Practice.

3. Insurance against Injury to Persons and Damage to Property

- 3.1 The Contractor shall insure against its liability for any loss, damage, death or bodily injury, or damage to any property (except things insured under Paragraphs 1 and 2 of this Schedule) or to any person (except persons insured under Clause 18.9), which may arise out of the Contractor's performance of this Agreement. This insurance shall be for a limit per occurrence of not less than the amount specified below with no limit on the number of occurrences.
The insurance cover shall be not less than: **Rs.25,00,000/- (Rs. Twenty-Five Lakhs Only)**
- 3.2 The insurance shall be extended to cover liability for all loss and damage to the Authority's property arising out of the Contractor's performance of this Agreement excluding:
- (a) the Authority's right to have the construction works executed on, over, under, in or through any land, and to occupy this land for the Works; and
 - (b) damage which is an unavoidable result of the Contractor's obligations to execute the Works.

4. Insurance to be in joint names

The insurance under paragraphs 1 to 3 above shall be in the joint names of the Contractor and the Authority.

SCHEDULE - O

(See Clauses 4.7)

PROVISION OF TRAFFIC BLOCKS AND POWER BLOCKS

1. Provision of Traffic Blocks Power Blocks and Disconnections:

- 1.1 Not Applicable
- 1.2 Not Applicable
- 1.3 The Authority shall arrange for disconnections of S&T system as determined by Authority Engineer, to enable the Contractor to execute the construction work which affects existing Signalling and Telecommunication installations.

SCHEDULE - P*(See Clauses 4.4)***MACHINERY AND EQUIPMENT**

The Authority shall provide the following machinery and equipment to the Contractor at the daily rates shown against each machinery and equipment:

S.No	Particulars of each type of machinery and equipment	Daily rate in rupees in rounded figures
1	NIL	NIL

Note: For Machines and T&P whose hire charges are not mentioned above, the monthly rate for those machines/ equipment shall be equal to 2% (two per cent) of the cost of such machine or equipment, as published in the latest Pink Book of Ministry of Railways. If the cost of any machine or equipment has not been published in the latest Pink Book, then the last purchase price thereof, shall be applicable for determining the charges for such machine or equipment.

The End of Schedules.

Appendices

APPENDIX-I

LIST OF BID-SPECIFIC CLAUSES^s

A. Clauses with non-numerical (\$) footnotes:

1. Clause 1.5 : Joint and several liability pertaining to Consortium/Joint Venture
2. Clause 3.2.1 : Obligation relating to sub-contracts and any other agreements
3. Clause 13.5.1 : Power of the Authority to undertake works
4. Article 26 : Definition of Consortium/Joint Venture
5. Schedule-F, Annexure-I : Item (C)-8
6. Schedule-F, Annexure-III : Item (B) and Item (C)-8

B. Clauses with curly { } brackets:

1. Recital : Para 2
2. Clause 1.5 : Joint and several liability
3. Clause 3.2.1 : Obligations relating sub-contracts and any other agreements
4. Clause 5.1 (I) : Representations and warranties of the Contractor
5. Article 26 : Definition of “Affiliate”, “Consortium/Joint Venture” and “Lead Member”
6. Contract Agreement: ‘Signature’ page
7. Schedule-F, Annexure-I: Item (B) and Item (C) 1
8. Schedule-F, Annexure-III: Item (B)

C. Clauses with Blank Spaces (.....), (*)**

1. First line of the Concession Agreement
2. Recital: Para 2
3. Recital: Item A, B, C and D
4. Clause 3.9: Training of Authority's Personnel
5. Clause 17.1.1: Contract Price
6. Schedule-F, Annexure-I: Item A, B and C
7. Schedule-F, Annexure-I: Signing Date
8. Schedule-F, Annexure-II: Item A and C
9. Schedule-F, Annexure-II: Signing Date
10. Schedule-F, Annexure-III: Item A, B and C
11. Schedule-F, Annexure-III: Signing Date
12. Schedule-L, Annexure-I: Clause 1.1: Scope

↔↔↔