



**KOLKATA METRO RAIL CORPORATION LIMITED
(A Government of India Undertaking)**

**Reg Office: KMRCL Bhawan, 2nd & 3rd Floor, Munshi Premchand Sarani,
KOLKATA 700021**

ADDENDUM NO.-3

NIT No. : Civil/1 of 2015-16 of Managing Director, KMRCL

Contract No. EWSAFEM: Architectural Finishing, Plumbing, Tubewell, VAC, Electrical, Fire Fighting Works for 6 Elevated Stations including lighting of Viaduct & lighting of TSS/ASS of Car Depot and RCC Structural roof over Platform of Sector-V Station of East West Corridor of Kolkata Metro

Contract: EWSAFEM - Architectural Finishing, Plumbing, Tubewell, VAC, Electrical, Fire Fighting Works for 6 Elevated stations including lighting of Viaduct & lighting of TSS/ASS of Car Depot and RCC Structural roof over Platform of Sector-V Station of East West Corridor of Kolkata Metro

Addendum No. 3

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
1	1	1.1.3	1 of 10	1.1.3 The attached Tender Documents comprises of:	Additional information 1.1.3 The attached Tender Documents comprises of:
2	2	SCC, Clause 20, Sub-Clause 7.11.5, First line	91 of 154	The Design and Construction Standards to be adopted by the	The Construction Standards to be adopted by the
3	4 BOQ, Schedule B	Item No. 9.2 of Part-I (Civil)		Extra for providing edge moulding to 18mm thick marble / granite stone counters, vanities etc. over item No. 8.2 including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.	Extra for providing edge moulding to 18mm thick marble / granite stone counters, vanities etc. over item No. 9.1 including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.
4	4 BOQ, Schedule B	Item No. 13.1, Part-I		Calcium Silicate Ceiling Providing and installing suspended ceiling systems / vertical fascia as per controlled sample for concourse, 15mm thick calcium Silicate board panels with semi-gloss paint including supply of suspension system of galvanised steel as per manufacturer's recommendation, top-fixings of SS expanding anchor bolts, rigid hangers, accessories inclusive of providing openings for electrical fixtures / fittings, fixed framing to support fixtures / fittings and providing secondary supporting system for cable tray and duct and all complete as per relevant drawings and the direction of Engineer-in-charge.	Calcium Silicate Ceiling Providing and installing suspended ceiling systems / vertical fascia as per controlled sample for concourse, 12mm thick calcium Silicate board panel ceiling and grid ceiling with semi-gloss paint including supply of suspension system of galvanised steel as per manufacturer's recommendation, top-fixings of SS expanding anchor bolts, rigid hangers, accessories inclusive of providing openings for electrical fixtures / fittings, fixed framing to support fixtures / fittings and providing secondary supporting system for cable tray and duct and all complete as per relevant drawings and the direction of Engineer-in-charge.
5	4 BOQ, Schedule B	Item No. 13.2, Part-I		Providing and fixing Custom sized pre galvanised steel polyster powder coated non - perforated panels of approved make including all suspension channel / verner hanger complete installation at site. Rate to include charges for cutting the panels to accomo	Providing and fixing Custom sized pre galvanised steel polyster powder coated non-perforated panels (minimum thickness 0.5mm) of approved make including all suspension channel / verner hanger complete installation at site. Rate to include charges for cutting the panels to accommodate the electrical, fixtures, air-conditioning panel, temporary supporting structures like scaffolding etc.

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced				New Clauses replacing existing Clauses					
6	4 BOQ, Schedule E	Sl. no. 25		Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete	cum	3000	407.38	1,222,140.00	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete				
				40 mm thick with 20 mm nominal size stone aggregate					40 mm thick with 20 mm nominal size stone aggregate	sqm	3000	407.38	1,222,140.00
7	2	GCC, Cl. 11.3, Sl. No. (i) and (ii)	53 of 154	<p>(i) The fixed Lump Sum Price shall be apportioned by the Contractor amongst the various Cost Centres. The amount thus apportioned under each Cost Centre will be further detailed amongst various items. The Contractor shall be entitled to submit to the Engineer requests for interim payments only upon the achievement of one or more of the Milestones described in the Cost Centre.</p> <p>(ii) At the beginning of each month. the Engineer shall issue to the Contractor certificate in respect of each Milestone due to be achieved in the preceding month stating:</p> <p>(a) the date on which the Milestone was achieved; or</p> <p>(b) the non-achievement of the Milestone.</p>				Deleted					
8	2	SCC, Clause 27, Sub-Clause 11.1.1, First para	92 of 154	"Change in Law" means the occurrence or coming into force of the following, at any time after the Date of submission of tender.				"Change in Law" means the occurrence or coming into force of the following:					

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses		
9	4 Preamble	Clause 21	5 of 5	Part-II (Electrical, VAC & Fire Fighting Works)	Part-II (Electrical, VAC & Fire Fighting Works)		
				SL.No		Items/Description	
				(i)		Mobilisation Advance	10%
				(ii)		After approval of construction Stage Drawing	5%
				(iii)		For Supply items delivery at site/ Contractor's godown (Except for Conduit /Point wiring shall be 10% after laying of conduit and 40% after laying of wires & associated materials)	50%
				(iv)		Payment after completion of Installation work against different items of BOQ	15%
				(v)		Payment after successful Testing & commissioning	15%
(vi)	Retention Money	5%					
Note:-							
1. Refer sl. No (ii),5% Payment of Total contract value of part-II(E&M) to be released progressively against approval of drawings as per Approved List of drawings.							
2. Refer sl. No (vi), Retention money to be released on successful completion of Defect Liability Period.							
10	2	SCC, SI No-23, Sub Clause-8.8	92 of 154	Consequences of Suspension GCC Clause 8.8 shall be deleted and replaced by SCC 52	Consequences of Suspension GCC Clause 8.8 shall be deleted and replaced by SCC 46		
11	4	BOQ, Schedule-A, SI no. 5.7	3 of 5	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade: Two or more coats on new work	Painting with acrylic enamel paint on wall of approved brand and manufacture to give an even shade: Two or more coats on new work		
12	1 Part III	Additional Clause after Clause No. 5.0 – Seismic Zone	10 of 10		6.0 Contractor shall provide & maintain till completion of the work under this Contract the furnished site office for Engineer/ Employer Staff in two elevated stations (Bengal Chemical and Sector-V Station) without any additional cost reimbursement for this site office including necessary works stations, air-conditioner etc.		

SI. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
13	2	SCC, Clause 27, Sub-Clause 11.1.1 (b)	93 of 154	<p>(b) change in any law pertaining to work having the above said impact.</p> <p>Then such additional or reduced cost shall be certified by the Engineer after examining records provided by the Contractor and shall be paid by or credited to the Employer.</p>	<p>(b) change in any law pertaining to work having the above said impact.</p> <p>Then such additional or reduced cost shall be certified by the Engineer after examining records provided by the Contractor and shall be paid by or credited to the Employer.</p> <p>However change in the rate of any existing tax will not be considered a Change in Law. Any risk of change of tax rate whatsoever related to the work lies with the Contractor.</p> <p>Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if,</p> <p>(a) the same shall have been reflected in the indexing of any of the inputs to the Price Adjustment Formula in accordance with the provisions of Clause 13.0 of "General Conditions of Contract", or</p> <p>(b) the same shall have been taken into account under any other clause of the Contract.</p> <p>(c) In case Price Variation formula based on Reserve Bank of India indices is proposed to be adopted, no addition/reduction in cost due to Change in Law will be allowed.</p>
14	2	SCC Sl. No. 72 SI No. B (ii) for E&M Works	117 of 154	22.1.1 under Price variation formula	<p>Insert a new item no. (d) under B) (ii) :</p> <p>d) In case of any ambiguity decision of Engineer shall be final.</p>
15	2	SCC, Sub Clause 4.5, First & Second para	81 of 154	<p>The Employer shall screen the sub-contractors and vendors listed in Appendix 6 to the Form of Tender. It will be obligatory for the Contractor to obtain Notice of No Objection from the Engineer to the identity of the sub-contractors and vendors selected by the Contractor from the such screened list.</p> <p>For installation and other sub-contracts for items not included in Appendix 6 to the Form of Tender, each costing over Rs. One Million, it will be obligatory on the part of the Contractor to</p>	<p>It will be obligatory for the Contractor to obtain Notice of No Objection from the Engineer to the identity of the sub-contractors and vendors selected by the Contractor.</p> <p>Deleted</p>

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced		New Clauses replacing existing Clauses			
				obtain consent of the Employer to the identity of the Sub-Contractor. The Employer will give his consent after assessing the technical suitability, equipment resources of the sub-system/system including proven performance, and feasibility of its maintenance in India, etc. In case the Employer intends to withhold his consent, he should inform the Contractor within 15 days to enable him to make alternative arrangements to fulfil his programme.					
16	2	GCC Clause 4.2.2 (c)	19 of 154	The balance amount shall become due and shall be paid to the Contractor, after the expiry of the final Defects liability Period + 28, i.e. 28 days after expiry of Defects liability Period.		The balance amount shall become due and shall be paid to the Contractor, after the expiry of the final Defects liability Period + 30, i.e. 30 days after expiry of Defects liability Period.			
17	2	SCC, Clause 29, Sub-Clause 11.2.6	93 of 154	Interest in Case of Delay in Repayment of Advance GCC Clause 11.2.6 shall be deleted from the Contract.		Interest in Case of Delay in Repayment of Advance Interest as specified in clause 11.2.6 of GCC shall not be applied if extension of time provided as per clause 8.4.1 of GCC			
18	1	Form of Tender, Form-C-5	19 of 36	Summarized actual assets and liabilities in INR equivalent (at the rates of exchange current at the end of each year) for the previous five years		Summarized actual assets and liabilities in INR equivalent (at the rates of exchange current at the end of each year) for the previous three years			
19	3 Part-2	Section E.02 - Distribution Boards, Clause 3.4	71	Breakers must conform to IEC 60898 with facility for locking using padlock with hasp in OFF position. Copper Pressure clamp terminals for stranded/solid conductor insertion are acceptable up to 10-sqmm size and for higher ratings; the terminals shall be suitably shrouded.		Deleted			
20	1	FOT, Appendix-I, Sl. No. 3	5 of 36	3	Latest date for commencement of the Works (GCC Sub-Clause 8.1)	Date of issue of Letter of Acceptance	3	Latest date for commencement of the Works (GCC Sub-Clause 8.1)	Within 15 days from the date of issue of Letter of Acceptance
21	1	FOT, Appendix-I, Sl. No. 4	5 of 36	4	Liquidated Damages (GCC: Sub-Clause 8.5 & SCC Clauses 23 & 23A) of delay for the Key Dates of Works other than the one relating to taking over on completion of entire Works.	0.5% of total contract value of works for each work or part of a work. Contractor is in default subject to maximum of 10% of total contract value.	4	Liquidated Damages (GCC: Sub-Clause 8.5 & SCC Clauses 22 of delay for the Key Dates of Works other than the one relating to taking over on completion of entire Works.	Rs. 10,000 per day for each milestone

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced		New Clauses replacing existing Clauses			
22	1	FOT, Appendix-I, Sl. No. 5	5 of 36	5	Defects Liability Period for the whole of the Works (GCC Sub-Clause 10 & SCC 25):	Eighteen (18) Months from the date of issue of Completion Certificate	5	Defects Liability Period for the whole of the Works (GCC Sub-Clause 10 & SCC 25):	Twenty Four (24) Months from the date of issue of taking over certificate
23	1	FOT, Appendix-I, Sl. No. 13	5 of 36	13	Retention Money (SCC: Clause 42)	5% of Contract Price (To be released on successful completion of Defect Liability Period)	13	Retention Money (SCC: Clause 39)	Deleted
24	1	FOT, Appendix-I, Sl. No. 12	5 of 36	12	Period of maintenance from the date of issue of "Completion certificate"	12 months	12	Period of maintenance from the date of issue of taking over certificate	24 months
25	1	FOT, Appendix-I, Sl. No. 10	5 of 36	10	Contract Key Dates (Sub-Clause 13.1 of the GCC)	Refer Appendix 1 A of the Form of Tender	10	Contract Key Dates	Refer Sub-Clause 4.13 of the GCC & SCC Clause 54
26	2	SCC Sub Clause 4.23	86 of 154	Extension of Time for Unforeseeable Physical Condition The Engineer shall also assess the delay due to the unforeseen physical conditions encountered in accordance with the provision of GCC Sub-Clause 8.4 as amended by SCC Clause 22A		Extension of Time for Unforeseeable Physical Condition The Engineer shall also assess the delay due to the unforeseen physical conditions encountered in accordance with the provision of GCC Sub-Clause 8.4			
27	1	2.0	4 of 10	2.0 SCOPE OF WORK 2.1 GENERAL Design, detailed Engineering, Supply, Installation, Testing & Commissioning (Including Integrated Testing & Commissioning) of E&M, Fire & VAC Services, Architectural Finishes and Plumbing works for Six Elevated Stations; Lighting & its associated Electrics- Viaduct; Lighting & Fire services – TSS/ASS of Car Depot and RCC Structural Roof of Sector V Station - East West Corridor of Kolkata Metro.		2.0 SCOPE OF WORK 2.1 GENERAL Architectural Finishing, Plumbing, Tubewell, VAC, Electrical, Fire Fighting Works for 6 Elevated stations including lighting of Viaduct & lighting of TSS/ASS of Car Depot and RCC Structural roof over Platform of Sector-V Station of East West Corridor of Kolkata Metro.			

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28	2	SCC, Clause 34, Sub-Clause 15.1	94 of 154	<p>Insurance In GCC Clause 15.1 value of Professional indemnity insurance shall be equal to the value of this contract</p> <p>Period of Insurance In GCC Clause 15.1 the validity period of insurance shall be from the date of commencement of the Works, until 2 years after the date of issuance of Performance Certificate.</p>			Deleted		
29	2	GCC, Clause 12.4g(v)	63 of 154	(v) An amount of 20% of items (a), (b), (c) and (d) above to allow for Contractor's overheads, taxes and profits. This percentage shall also estimated cost of Materials supplied free to the Contractor.			(v) An amount of 20% of items (I), (II), (III) and (IV) above to allow for Contractor's overheads, taxes and profits. This percentage shall also estimated cost of Materials supplied free to the Contractor.		
30	3 (Part – 1)	Cl. 17, Table 17-1, Sl. No. 58	117 of 117	58	Admixtures	FORSOC, MBT, Asian Lab, MC Beucheme, Chembond.	58	Admixtures	FOSROC, BASF, SIKA, ADO, SWC
31	3 (Part – 1)	Cl. 17, Table 17-1, Sl. No 61	117 of 117	61	Form work Release Agent	FORSOC,MBT, MC Beucheme	61	Form work Release Agent	FOSROC, BASF, SWC, SIKA
32	3 (Part – 1)	Cl. 17, Table 17-1, Sl. No 64	117 of 117	64		SWC, Sika, Fosroc, BASF, Adidas	64	Floor Hardner	SIKA, FOSROC, BASF, CICO, SWC
33	1	FOT, Form T-V, Sl. No. 1a)	27 of 36	<p>1. Construction Equipment: a) Installation of Batching Plant by the Contractor is encouraged. However if contractor wishes to use RMC, dedicated RMC plant has to be made and that plant shall not produce any other concrete during the period of supply to this work. The plant will have to be approved by KMRC and KMRC will reserve the right to reject the plant in case of breach of exclusiveness for this project or to procure the concrete from KMRC's approved RMC suppliers.</p>			<p>1. Construction Equipment: a) Installation of Batching Plant by the Contractor is encouraged. However if contractor wishes to use RMC, dedicated RMC plant has to be made and that plant shall not produce any other concrete during the period of supply to this work. The plant will have to be approved by KMRC and KMRC will reserve the right to reject the plant in case of breach of exclusiveness for this project or to procure the concrete from KMRC's approved RMC suppliers. However procurement of Ready Mix Concrete from KMRCL's approved vendor also to be allowed.</p>		

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34	1	FOT, Form C-3A	17 of 36	Form (E-3A) can be used for all sub-clauses of clause 2.2 of Instructions to Tenderers. The relevant sub-clause should be identified under item 4 of the table.	Form (C-3A) can be used for all sub-clauses of clause 2.2 of Instructions to Tenderers. The relevant sub-clause should be identified under item 4 of the table.
35	3 (Part-2) & 1 (Part-II)	Section E.00 Cl. 1.1.1 (iv) & (iv)	4	(iv) The emergency power supply via Diesel Generator shall feed 3 nos. lift, signage system, MCC – fire pumps, UPS unit for Electrical, Emergency Lighting Distribution Board, Emergency Distribution Board for property development area of Bengal Chemical & Salt Lake Sector V.	(iv) The emergency power supply via Diesel Generator shall feed 3 nos. lift, signage system, Platform Screen Door (PSD), MCC – fire pumps, UPS unit for Electrical, Emergency Lighting Distribution Board, Emergency Distribution Board for property development area of Bengal Chemical & Salt Lake Sector V.
			5		
36	3 (Part-2) & 1 (Part-II)	Section E.00 Cl. 1.1.1 (v) & (iv)	4	(v) The essential (Dedicated) power supply to be fed from UPS panel (E&M) to Auto-Fare Collection (AFC), Platform Screen Door (PSD), lighting for platform & concourse levels, Viaduct on both sides, fire alarm control panel and any other equipments as required.	(v) The essential (Dedicated) power supply to be fed from UPS panel (E&M) to lighting of platform & concourse levels, Viaduct on both sides, fire alarm control panel and any other equipments as required for E&M services.
			6		
37	3 (Part-2) & 1 (Part-II)	Section E.00 Cl. 1.1.1 (xii) & (xii)	5	(xii) The scope of work for S&T's equipment earthing shall be up to the earth bus (copper plate) which will be located in S&T room. The supply, installation & testing of earthing system of S&T shall be by means of copper plate & strip. The earthing system of S&T shall be totally separate from any other earthing system. The value of earth resistance for S&T system shall be restricted up to 0.5 ohm.	Deleted.
			6		
38	3 (Part-2) & 1 (Part-II)	Section E.00 Cl. 1.1.1 (xiii) & (xiii)	5	(xiii) The scope of work for power source to UPS of S&T shall be up to the supply & installation of one no. switch which is MCCB of rating 160A, 4P, 35KA breaking capacity for 1 sec with microprocessor based releases in sheet steel enclosure and to be located in S&T's UPS room. The scope also includes supply, laying & termination of cable from Emergency power control centre to this MCCB unit at UPS room of elevated station.	(xiii) The scope of work for power source to UPS of S&T shall be up to the supply & installation of one no. switch which is MCCB of rating 160A, 4P, 35KA breaking capacity for 1 sec with microprocessor based releases in sheet steel enclosure and to be located in S&T's UPS room. The scope also includes supply, laying & termination of cable from Emergency power control centre to this MCCB unit at UPS room of elevated station. The power supply to Auto Fare Collection unit (AFC) shall be fed from S&T's UPS panel.
			6		

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
39	3 (Part-2) & 1 (Part-II)	Section E.00 Cl. 1.1.1 (xviii) (xviii)	5 7	(xviii) The Contractor shall invite the Employer or his representative for inspection & testing at vendor's works for all equipments, materials of this E&M work, only after receipt of confirmation from vendor that they had manufactured the materials / equipment as per approved drawings & documents; And the Contractor will be allowed to dispatch any materials / equipment before receipt of written confirmation from Employer or his representative.	(xviii) The Contractor shall invite the Employer or his representative for inspection & testing at vendor's works for all equipments, materials of this E&M work, only after receipt of confirmation from vendor that they had manufactured the materials / equipment as per approved drawings & documents; And the Contractor will be allowed to dispatch any materials / equipment, only after receipt of written confirmation from Employer or his representative.
40	3 (Part-2) & 1 (Part-II)	Section E.00 Cl. 1.1.1 (xx) (xx)	6	Electric Supply Authority, Municipal Corporation etc. – necessary permission in different stages during execution of work is to be obtained; No Objection Certificate (NOC) along with approval for Fire Services also to be obtained.	Electric Supply Authority, Municipal Corporation etc. – necessary permission in different stages during execution of work along with “No Objection Certificate” (NOC) and approval for Fire Services also to be obtained by the Contractor.
41	3 (Part-2) & 1 (Part-II)	Section E.00 Cl. 1.1.1 (xxi) (xxi)	6		Insert one item after Sl. No. (xxi) (d): (e) 1 No. Diesel Generator set
42 (i)	3 (Part-2)	Section E.00 Cl. 1.4.3	11	IS 2147 : Degree of protection of enclosure for switchgear and control gear	IEC 60529-2004 : Degree of protection of enclosure for switchgear and control gear
(ii)			12	IS: 694 – 1990 : PVC Insulated cables for working voltages up to and including 1100 V	IS: 694 – 1990 : PVC Insulated cables for working voltages up to and including 450V / 750V
(iii)			12	IS: 2667-1988 : Fittings for rigid steel conduits for electrical wiring	IS: 14768, Part-2-2003 : Conduit fittings for electrical installation – Part-2 - 2003
(iv)			13	IS 13947 : Part 1 : 1993 : Specification for Low-voltage Switchgear and Controlgear – Part 1 : General Rules	IS/IEC 60947 Part-1 - 2007 : Specification for Low-voltage Switchgear and Controlgear – Part 1 : General Rules
(v)			13	IS 13947 : Part 2 : 1993 : Specification for Low-voltage Switchgear and Controlgear – Part 2 : Circuit Breakers	IS/IEC 60947 Part-2 - 2003 : Specification for Low-voltage Switchgear and Controlgear – Part 2 : Circuit Breakers
(vi)			13	IS 13947 : Part 3 : 1993 : Specification for Low-voltage Switchgear and Controlgear – Part 3 : Switches, Disconnections, Switch Disconnections and Fuse Combination Units	IS/IEC 60947 Part-3 - 1999 : Specification for Low-voltage Switchgear and Controlgear – Part 3 : Switches and Fuse Combination Units

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(vii)			13	IS 13947 : Part 4 : Sec 1 : 1993 : Specification for Low-Voltage Switchgear and Controlgear – Part 4 : Contractors and Motor-Starters – Section 1 : Electromechanical Contactors and Motor Starters		IS/IEC 60947 Part-4 – Sec 1 - 2000 : Specification for Low-Voltage Switchgear and Controlgear – Electromechanical Contactors and Motor Starters	
(viii)			13	IS 13947 : Part 5 : Sec 1 : 2004 : Low-Voltage Switchgear and Controlgear – Specification – Part 5 : Control Circuit Devices and Switching Elements – Section 1 : Electromechanical Control Circuit Devices		IS/IEC 60947 Part-5 – Sec 1 - 2003 : Low-Voltage Switchgear and Controlgear – Specification – Part 5 : Control Circuit Devices and Switching Elements – Section 1 : Electromechanical Control Circuit Devices	
(ix)			13	IS 13947 : Part 5 : Sec 2 : 2004 : Low-Voltage Switchgear and Controlgear – Specification – Part 5 : Control Circuit Devices and Switching Elements – Section 2 : Proximity Switches		IS/IEC 60947 Part-5 – Sec 2 - 2007 : Low-Voltage Switchgear and Controlgear – Specification – Part 5 : Control Circuit Devices and Switching Elements – Section 2 : Proximity Switches	
(x)			13	IS 2705 : Current Transformer		IS 2705 (Part 1, 2 & 3) - 1992 : Current Transformer	
(xi)			13	IS 8828 – 1978 : Miniature Circuit Breaker (MCB)		IS 13032 - 1991 : Miniature Circuit Breaker (MCB) not exceeding 1100 Volts	
(xii)			13	IS 8828 – 1996 : Electrical Accessories – Circuit Breakers for Over Current Protection for Household and Similar Installations		IS/IEC 60898 – Part-1 - 2002 : Electrical Accessories – Circuit Breakers for Over Current Protection for Household and Similar Installations; MCB	
(xiii)			13	IS: 4722 – 2001 : Rotating Electrical Machines - Specification		IS/IEC 60034 – Part-1 - 2004: Rotating Electrical Machines – Specification; Degrees of protection provided by integral design of rotating machine	
(xiv)			13	IS 375 : Marking and arrangement for switch gear Bus-Bar main connection & auxiliary wiring		IS 5578-1984 IEC 60391 : Guide for marking of insulated conductors	
(xv)			14	IEC 60439 : Low-voltage switchgear and control gear assemblies		IEC 61439 : Low-voltage switchgear and control gear assemblies	
(xvi)			14			Insert a note at the end of Cl. 1.4.3: Note: The tenderer to consider the above modified IS numbers against different items. However, IS/IEC number against the above same item specified elsewhere, can be ignored.	
43	3 (Part-2)	Section E.00 Cl. 1.5, Table, Sl. No. B-2	16	2	Fire Detection & Alarm System Integrator	Sterling & Wilson/SRP Automation/Sagtaur Universal/Godrej & Boyce	Deleted

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
44	3 (Part-2)	Section E.00 Cl. 1.6.2	17	The three phase symmetrical short circuit rating (Breaking capacity) of the switchgears at 415V, shall be 50KA with withstand duration of 1 sec.	The three phase symmetrical short circuit rating (Breaking capacity) of the switchgears at 415V, shall be 50KA with withstand duration of 1 sec. at the receiving end of Main L.T. Panel.
45	3 (Part-2)	Section E.00 Cl. 2.5.1, Para 2	22	GI materials shall be used also for Viaduct using GI plate as Earth electrode along with GI strip / wire for earthing system	GI materials shall be used also for Viaduct using GI Pipe as Earth electrode along with GI strip / wire for earthing system
46	3 (Part-2)	Section E.00 Cl. 2.6.1.1	23	Panels shall be considered as one unit for the purpose of measurement and shall include the following and specification para 11.	Panels shall be considered as one unit for the purpose of measurement and shall include the following:
47	3 (Part-2)	Section E.00 Cl. 2.7.4	27	Earthing wire of 2.5-sqmm FRLS PVC insulated copper conductor is also included in the point wiring rate and nothing extra shall be paid for it.	Deleted
48	3 (Part-2)	Section E.00 Cl. 4.1.1.3.5.4	33		<u>Insert a new clause under Cl. .3.5.4</u> .3.5.4.1 Installation at outdoor area : IP 65
49	3 (Part-2)	Section E.00 Cl. 4.1.1.3.5.6	33	The frame work shall be finished with standard two coats of final paint of approved color shade after necessary chemical degreasing and primer coating as per standard practice. For detail refer specification of Switch Board	Deleted
50	3 (Part-2)	Section E.00 Cl. 4.1.1.4.2.2	47	MCCBs shall be current limiting type with trip time of less than 10 millisecond suitable for 3 phase 415 Volts AC 50 HZ supply with neutral 4P/3P/2P as required and rated for insulation voltage 690- 750 V, operating voltage of 415V for 3 Phase, Service short circuit breaking capacity (Ics) i.e Ics=35 kA up to 630A and above rating ACB shall be used with S.C. Breaking capacity of 50 kA. All Breakers/MCCBs shall incorporate front adjustable interchangeable trip units with adjustable overload and adjustable short circuit faults. All the MCCBs shall have microprocessor based releases. All MCCB's offered shall have double insulation feature as standard. MCCB's offered shall be from the same series to have a commonality of appearance and spares management. No mixing of series is allowed within a manufacturer's range of MCCBs. Four pole MCCBs shall have flexibility of setting neutral current N or N/2. The	MCCBs shall be current limiting type with trip time of less than 10 millisecond suitable for 3 phase 415 Volts AC 50 HZ supply with neutral and rated for insulation voltage 690- 750 V, operating voltage of 415V for 3 Phase, Service short circuit breaking capacity (Ics) i.e. Icu = Ics = 35 kA up to 630A and above rating ACB shall be used with S.C. Breaking capacity of 50 kA. All Breakers/MCCBs shall incorporate front adjustable interchangeable trip units with adjustable overload and adjustable short circuit faults. MCCB shall have adjustable thermal-magnetic release up to 160A and for above rating microprocessor based releases. All MCCB's offered shall have double insulation feature as standard. MCCB's offered shall be from the same series to have a commonality of appearance and spares management. No mixing of series is allowed within a manufacturer's range of MCCBs. Four pole MCCBs shall have

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				mechanical operations MCCBs shall be > 15000 operations.	flexibility of setting neutral current N or N/2. The mechanical operations MCCBs shall be > 15000 operations.
51	3 (Part-2)	Section E.00 Cl. 4.1.1.4.6	51	.4.6 Potential Transformer (PT)	Deleted
52	3 (Part-2)	Section E.00 Cl. 4.1.1.10	59	List of Switch Boards Main Switch boards and panels for Normal, Emergency (DG) & Essential (UPS) system as per following list need be provided. The incoming & outgoing feeders, indications, metering and protection details are shown on various drawings as also referred in BOQ.	Main Switch boards and panels for Normal, Emergency (DG) & Essential (UPS) system as per following list need be provided. The incoming & outgoing feeders, indications, metering and protection details as specified in technical specifications and also in BOQ enclosed herewith.
53	3 (Part-2)	Section E.01 Cl. 1.0 j)	60	All MCCBs shall be current limiting type microprocessor based having inbuilt adjustable settings for O/L,S/C & E/F protections rated for requisite specified Service short circuit breaking capacity (I_{cs}) suitable for isolation conforming to latest IEC947-2/IS13947-2 duly marked on MCCB, at operating voltage (U_e) of 415 V, insulation voltage (U_i) 750 V and with trip free mechanism, handle indicating ON/OFF/tripped position. The breaking capacity as mentioned shall be I_{cs} values.	All MCCBs of rating above 160A shall be current limiting type microprocessor based having inbuilt adjustable settings for O/L,S/C & E/F protections rated for requisite specified Service short circuit breaking capacity (I_{cs}) suitable for isolation conforming to latest IEC947-2/IS13947-2 duly marked on MCCB, at operating voltage (U_e) of 415 V, insulation voltage (U_i) 750 V and with trip free mechanism, handle indicating ON/OFF/tripped position. The breaking capacity as mentioned shall be I_{cs} values.
54	3 (Part-2)	Section E.01 Cl. 1.1 (B)	63	j) RS-485 port for display of ON/OFF status of ACB on BMS workstation through MODBUS protocol; Contractor shall provide an earmarked terminal boards for SCADA signals as per specification & requirements.	j) RS-485 port for display of ON/OFF status of ACB on BMS workstation through MODBUS protocol; k) One no. C.T of suitable burden shall be provided on 'R' phase of the Incomer for Auto Power factor Correction Relay for interconnection between Incomer of PCC & Incomer of PFCP. l) Contractor shall provide an earmarked terminal boards for SCADA signals as per specification & requirements.
55	3 (Part-2)	Section E.01 Cl. 1.1 F (a)	64	1 no. 630A, 4P, MCCB, 35KA with variable overcurrent, short circuit & Earth fault releases, UVR & shunt trip, each having 1 set of 3 nos. phase indication lamp and heavy duty solid neutral link	2 nos. 630A, 4P, MCCB, 35KA with variable overcurrent, short circuit & Earth fault releases, UVR & shunt trip, each having 1 set of 3 nos. phase indication lamp and heavy duty solid neutral link

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56	3 (Part-2)	Section E.01 Cl. 1.3	66	<p>MLDB :-</p> <p>A INCOMER 1 no. 200A, 415V, Ics=35 kA, 4P motorized MCCB with fixed neutral and with variable overcurrent, short circuit & Earth Fault releases, UVR & shunt trip having indication lamps to give status</p> <p>a) 1- set Red/Green ON/OFF indicating lamps</p> <p>b) 1- set of three phase indicating lamps (red, yellow, blue)</p> <p>c) Amber healthy trip indicating lamps for above feeders</p> <p>B BUSBAR</p> <p>a) Electrolytic high conductivity copper three phase and neutral busbars rated at 200 A having a maximum current density of suitable to with stand symmetrical fault level of 35kA at 415 V. The neutral busbar is to be of same size as phases.</p> <p>C METERING</p> <p>a) 1 sets of AC operated, 3.5 Digit, independent Digital Ammeter, Digital Voltmeter with necessary Circuit MCBs and with suitable size CTs connections as required for incoming feeders.</p> <p>D OUTGOING Outgoing feeders shall be finalised during detail design stage as per requirement of Illumination system using 4P MCCB at 415V, 25KA, with ON indication lamp</p>	<p>MLDB:- The panel shall be floor mounted type, compartmentalised, non-draw out, indoor, dust & vermin proof made of 2mm thick sheet steel (CRCA), and with IP 43 enclosure protection, top & bottom cable entry with detachable blank gland plate of 3mm thick. In regards to construction features of the panel, its painting internal wiring etc., you may refer switch board specification mentioned elsewhere in this technical document. Control transformer of adequate VA burden of ratio 415 / 220 V, for auxiliary AC power supply shall be considered along with DP MCB for incoming & outgoing of transformer, indication lamps etc.; In order to avoid heat dissipation inside panel, exhaust fan with timer etc and louvers with wire mesh shall be provided.</p> <p>Both horizontal & vertical Bus bars shall be made of electrolytic copper of rectangular cross-section and rated for a temperature rise of 35°C over an ambient temperature of 45°C. The maximum current density of copper shall be suitable to withstand symmetrical fault level of 35 KA for one second.</p> <p>Incomer – 1 No., 200A, 4P, 415V, MCCB with microprocessor based releases, with Ics = 35KA and with variable over current, short circuit & earth fault releases. UVR & shunt trip having indication lamps to give status. ON, OFF, TRIP & phase indication lamps; Digital Voltmeter & Ammeter, selector switches, necessary circuit MCBs, C.T. etc.</p> <p>Outgoings – All outgoing feeders shall be with TPN MCB of different rating with 'ON' indication lamp and as per following: 2 Nos 63 A TPN MCB for PDB/LDB 6 Nos. 40A TPN MCB for different LDBs 1 No. 63A TPN MCB as Spare Feeder 1 No. 32A TPN MCB as Spare Feeder Any other components etc. not been specially mentioned above, then the same need to be considered in order to complete this distribution board in totality.</p>

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57	3 (Part-2)	Section E.01 Cl. 1.4	66-67	<p>EMLDB :-</p> <p>A INCOMER 1 no. 100 A, 415V, Ics= 35 kA, 4P MCCB with bimetallic over current and magnetic short circuit releases having:</p> <p>a) 1- set Red/Green ON/OFF indicating lamps b) 1- set of three phase indicating lamps (red, yellow, blue) c) Amber healthy trip indicating lamps for above feeders</p> <p>B BUSBAR a) Electrolytic high conductivity copper Three phase and neutral busbars rated at 100A having a maximum current density of suitable to with stand symmetrical fault level of 35kA. The neutral busbar is to be of same as phases.</p> <p>C METERING a) 1 sets of AC operated, 3.5 Digit, independent Digital Ammeter, Digital Voltmeter with necessary Circuit MCBs and with suitable size CTs connections as required for incoming feeders.</p> <p>D OUTGOING Outgoing feeders shall be finalised during detail design stage as per requirement of Illumination system using 4P MCCB at 415V, 25KA, with ON indication lamp.</p>	<p>EMLDB: The panel shall be floor mounted type, compartmentalised, non-draw out, indoor, dust & vermin proof made of 2mm thick sheet steel (CRCA), and with IP 43 enclosure protection, top & bottom cable entry with detachable blank gland plate of 3mm thick. In regards to construction features of the panel, its painting internal wiring etc., you may refer switch board specification mentioned elsewhere in this technical document. Control transformer of adequate VA burden of ratio 415 / 220 V, for auxiliary AC power supply shall be considered along with DP MCB for incoming & outgoing of transformer, indication lamps etc.; In order to avoid heat dissipation inside panel, exhaust fan with timer etc and louvers with wire mesh shall be provided. Both horizontal & vertical Bus bars shall be made of electrolytic copper of rectangular cross-section and rated for a temperature rise of 35°C over an ambient temperature of 45°C. The maximum current density of copper shall be suitable to withstand symmetrical fault level of 35 KA for one second. Incomer – 1 No., 100A, 4P, 415V, MCCB with variable overload, with Ics = 35KA, short circuit & earth fault releases. UVR & shunt trip having indication lamps to give status ON, OFF, TRIP & phase indication lamps; Digital Voltmeter & Ammeter, selector switches, necessary circuit MCBs, C.T. etc. Outgoings – All outgoing feeders shall be with TPN MCB of following rating and with 'ON' indication lamp on each feeder: 6 Nos. 25A TPN MCB 2 Nos. 25A TPN MCB as Spare Feeder Any other components etc. not been specially mentioned above, the same need to be considered in order to complete this board as per requirement.</p>
58	3 (Part-2)	Section E.01 Cl. 1.5	67-68		<p><u>Insert a new para at the end of Cl. 1.5:</u> Necessary arrangement shall be provided for auto level controller for high & low level of water in the reservoir.</p>

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59	3 (Part-2)	Section E.01 Cl. 1.6	68	<p>VACP :-</p> <p>A INCOMER 1 no. 200A, 415V, Ics=35 kA, 4P MCCB with fixed neutral and with variable overcurrent, short circuit & Earth Fault releases, UVR & shunt trip having indication lamps to give status</p> <p>a) 1- set Red/Green ON/OFF indicating lamps b) 1- set of three phase indicating lamps (red, yellow, blue) c) Amber healthy trip indicating lamps for above feeders</p> <p>B BUSBAR Electrolytic high conductivity copper three phase and neutral busbars rated at 200 A having a maximum current density of suitable to with stand symmetrical fault level of 35kA at 415 V. The neutral busbar is to be of same size as phases.</p> <p>C METERING 1 sets of AC operated, 3.5 Digit, independent Digital Ammeter, Digital Voltmeter with necessary Circuit MCBs and with suitable size CTs connections as required for incoming feeders.</p> <p>D OUTGOING Outgoing feeders shall be finalised during detail design stage as per requirement of Illumination system using 4P MCCB at 415V, 25KA, with ON indication lamp.</p>	<p>VACP :-</p> <p>The panel shall be floor mounted type, compartmentalised, non-draw out, indoor, dust & vermin proof made of 2mm thick sheet steel (CRCA), top & bottom cable entry with detachable blank gland plate of 3mm thick. In regards to construction features of the panel, its painting internal wiring etc., you may refer switch board specification mentioned elsewhere in this technical document. Control transformer of adequate VA burden of ratio 415 / 220 V, for auxiliary AC power supply shall be considered along with DP MCB for incoming & outgoing of transformer, indication lamps etc.; In order to avoid heat dissipation inside panel, exhaust fan with timer etc and louvers with wire mesh shall be provided.</p> <p>Both horizontal & vertical Bus bars shall be made of electrolytic copper of rectangular cross-section and rated for a temperature rise of 35°C over an ambient temperature of 45°C. The maximum current density of copper shall be suitable to withstand symmetrical fault level of 35 KA for one second.</p> <p>Incomer – 1 No., 200A, 4P, 415V, MCCB with Ics = 35KA over current, short circuit & earth fault releases. UVR & shunt trip having indication lamps to give status. ON, OFF, TRIP & phase indication lamps: Digital Voltmeter & Ammeter, selector switches, necessary, C.T. etc.</p> <p>Outgoings – All outgoing MCB feeders shall be provided with 'ON' indication lamps and as per following TPN / SPN MCB feeders:-</p> <p>a) <u>For Bengal Chemical & Central Park using 17.0 TR unit</u> 2 Nos. 63A TPN MCB for Bengal Chemical & Central Park shall be considered. 1 No. 32A TPN MCB (for all stations for 8.5 TR unit) 1 No. 20A SPN MCB (for 1.0 TR unit each in all stations) In addition, 1 No. 40A TPN MCB and 3 Nos. 20A SPN MCB shall be provided as spare feeders.</p> <p>b) <u>For Salt Lake Stadium, City Centre, karunamoyee & Sector- V using 11TR-</u> 2 Nos. 40A TPN MCB (for Stadium, City Centre,</p>

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					<p>Karunamoyee & Sector V for 11.0 TR unit), 1 No. 32A TPN MCB (for all stations for 8.5 TR unit) 3 Nos. 25A SPN MCB (for Stadium, City Centre & Central Park for 1.5 TR unit) 1 No. 20A SPN MCB (for 1.0 TR unit each in all stations) In addition, 1 No. 40A TPN MCB and 3 Nos. 20A SPN MCB shall be provided as spare feeders</p> <p>c) In addition to above, 3 Nos. 25A SPN MCB for each 1.5 TR unit shall be consider under VACP of Stadium, City Centre & Central Park and 4 Nos. 25A SPN MCB under VACP for Bengal Chemical, Karunamoyee & Sector V.</p>
60	3 (Part-2)	Section – E.01 Cl. 1.7	69	<p>Outgoings – All outgoing feeders shall be with TPN MCB of following rating and with ‘ON’ indication lamp on each feeder: 2 nos. 40A TPN MCB 4 nos. 25A TPN MCB 1 no. 25A TPN MCB as spare feeder 1 no. 40A TPN MCB as spare feeder</p>	<p>Outgoings – All outgoing feeders shall be with TPN MCB of following rating and with ‘ON’ indication lamp on each feeder: 4 nos. 40A TPN MCB 4 nos. 25A TPN MCB 1 no. 25A TPN MCB as spare feeder 1 no. 40A TPN MCB as spare feeder</p>
61	3 (Part-2)	Section – E.01 Cl. 1.9 (2)d)	70a	<p>All sheet steel work shall be thoroughly cleaned of rust, scale, oil, grease, dirt and swarf by pickling, emulsion cleaning etc. The sheet steel shall be phosphate and then painted with two coats of zinc rich primer paint. After application of primer, two coats of finishing synthetic enamel paint oven baked / stoved, shall be applied.</p>	Deleted.
62	3 (Part-2)	Section – E.02 Cl. 3.4	71	<p>Breakers must conform to IEC 60898 with facility for locking using padlock with hasp in OFF position. Copper Pressure clamp terminals for stranded/solid conductor insertion are acceptable up to 10-sqmm size and for higher ratings; the terminals shall be suitably shrouded.</p>	Deleted.
63	3 (Part-2)	Section – E.02 Cl. 4.2	72	<p>Distribution boards shall be made of 2.0 mm thick CRCA sheet Box with hinged lockable spring loaded door suitable for recessed, flush mounting, totally enclosed, dust and vermin proof duly rust inhibited through a process of degreasing, acid pickling, phosphating and spray painted to an approved colour over a coat of red oxide primer and shall comprise of</p>	<p>MCB Distribution boards shall be made of 1.6 mm thick CRCA sheet Box with hinged lockable spring loaded door suitable for recessed, flush mounting, totally enclosed, dust and vermin proof duly rust inhibited through a process of degreasing, acid pickling, phosphating and powder coated to an approved colour over a coat of red oxide primer and shall comprise of controlling</p>

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				controlling miniature circuit breakers, earth leakage circuit breakers, neutral link etc as detailed in the schedule of quantities & drawings.	miniature circuit breakers, earth leakage circuit breakers, neutral link etc as detailed in the schedule of quantities. The DB shall be mounted at a height of 1500 mm min. from FFL or as per site.
64	3 (Part-2)	Section – E.02 Cl. 6.0	73	<p>6.0 Sheet Steel Treatment and Painting</p> <p>6.1 Sheet Steel materials used in the construction shall undergo a rigorous rust proofing process comprising of alkaline degreasing, de-scaling in dilute sulphuric acid and a recognized phosphating process. The steelwork shall then receive two coats of oxide fill primer before final painting as specified or powder coated as per specification.</p> <p>6.2 All sheet steel as well as the angle iron frame shall after metal treatment be given powder coated finish painted with two coats of approved shade to IS 5 on the outside and white on the inside. Each coat of paint shall be properly stoved and the paint thickness shall not be less than 50 microns.</p>	Deleted.
65	3 (Part-2)	Section – E.02 Cl. 10.1	75	Supply, installation, testing & commissioning of front operated front access cubical type indoor duty dead front wall / recess/ surface mounting, totally enclosed dust and vermin proof (minimum protection IP 43) panels with foamed-in neoprene gasketed hinged doors, fabricated from 2 mm thick CRCA with powder coated finish suitable for 415 V, 3-phase, 4 wire, 50 Hz system including suitably rated insulated copper busbars, interconnections, neutral bar assembly, phase segregating barriers, LED indicating lamps for incoming and outgoing feeders, knockouts and gland plates for entry of cables and conduits, all internal wiring using high temperature FRLS wires, independent terminals for each phase, earthing terminals and including the cost of providing Master key lock on the door and pad locking facility on door at incomer, bonding to earth etc. complete as per specification, & BOQ as required and as under:	Supply, installation, testing & commissioning of front operated front access cubical type indoor duty dead front wall / recess/ surface mounting, totally enclosed dust and vermin proof (minimum protection IP 43) panels with foamed-in neoprene gasketed hinged doors, fabricated from 1.6 mm thick CRCA with powder coated finish suitable for 415 V, 3-phase, 4 wire, 50 Hz system including suitably rated insulated copper busbars, interconnections, neutral bar assembly, phase segregating barriers, LED indicating lamps for incoming, knockouts and gland plates for entry of cables and conduits, all internal wiring using high temperature FRLS wires, independent terminals for each phase, earthing terminals and including the cost of providing Master key lock on the door and pad locking facility on door at incomer, bonding to earth etc. complete as per specification, & BOQ as required and as under:

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66	3 (Part-2)	Section E.03 Cl. 7.1	87	7.1 Contractor shall furnish following minimum technical particulars along with Tender :-	Contractor shall furnish to the Employer/his representatives the following minimum technical particulars for necessary approval before taking any purchase action of cables :
67	3 (Part-2)	Section E.04 Cl. 5.4.1	96	Sub-circuit/ Sub-Main Wiring shall be carried out in looping system. Joints shall be made only at distribution board terminals, switches/buzzers and at ceiling roses/connectors/ lamp holders terminals of lights/fans/socket outlets. No joints shall be made inside conduits or junction/draw/inspection boxes	Deleted.
68	3 (Part-2)	Section E.05 Clause 4.6	107	Industrial fluorescent luminaire (with additional stove enamelled reflector): The luminaire as specified in BOQ, suitable for surface mounting, shall comprise a stove-enamelled reflector, reflecting white from inside, fabricated from CRCA sheet, fitted to a base channel by means of a locking device be complete with capacitor, rotor, lock type lamp holders, electronic ballast pre-wired with PVC Insulated, PVC sheathed, multi-stranded ,copper conductor with protection level of IP 55 or IP 65 and improved IK protection as specified.	Industrial fluorescent luminaire (with additional stove enamelled reflector): The luminaire as specified in BOQ, suitable for surface mounting, shall comprise a stove-enamelled reflector, reflecting white from inside, fabricated from CRCA sheet, fitted to a base channel by means of a locking device be complete with capacitor, rotor, lock type lamp holders, electronic ballast pre-wired with PVC Insulated, PVC sheathed, multi-stranded ,copper conductor with protection level of IP 20 for indoor, IP 54 for semi-indoor (platform area etc.), IP 65 for outdoor area.
69	3 (Part-2)	Section E.05 Clause 4.7	108	2x20watt LED Surface Mounted Mirror Optics luminaries : The luminaries will be in line with General purpose surface mounted 2x28 watt T-5 Fluorescent in description ; only in place of 2x28 watt Fluorescent T-5 it will be 2x 20 watt LED , Instead of Ballast LED Luminaries will have built in electronic driver for starting of luminaries. Luminaries detail mechanical components will be as per 4.2 and 4.3 as mentioned above.	1x40 watt LED Surface Mounted Mirror Optics luminaries : The luminaries will be in line with General purpose surface mounted with 1x40W LED and Luminaries will have built in electronic driver for starting of luminaries. Luminaries detail mechanical components will be as per 4.2 and 4.3 as mentioned above.
70	3 (Part-2)	Section E.05 Clause 4.10	108	1x150 watt Metal halide low bay integral version complete with ballast/ pf capacitor /igniter / terminal block duly wired suitable for use with 1x150 watt Metal halide MHN- TD Lamp. Flood light will be supplied in all respects including 150 watt MHN- TD Lamps. Excellent uniform light distribution with bi-directional beam ensured by stippled aluminium, anodised and brightened reflector. Silicon rubber gasket makes the	1x150 watt Metal halide low bay integral version complete with ballast/ pf capacitor /igniter / terminal block duly wired suitable for use with 1x150 watt Metal halide MHN- TD Lamp. Flood light will be supplied in all respects including 150 watt MHN- TD Lamps, with anodised aluminium reflector and enclosure protection of IP 65; Flood lights will be similar to Philips MPF-922 / 1x150W CDM-T or equivalent approved make.

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				<p>luminaire protected against ingress of dust and water.IP-65 Protection. [Luminaries will be fixed on structure using brackets etc]</p> <p>1x150 watt Metal halide MHN-TD Double ended lamp will have Color temperature 4200 deg K with C.R.I more than 85 and average lamp life will be 10500 hrs avg. Lumen output 12900 Lumens.</p>	
71	3 (Part-2)	Section E.05 Clause 4.12, Para 1 & 2	109	<p>1x25 watt LED Compact Street light is perfect for secondary roads and pathways. It sports a compact body. This is a versatile street light that can be used in various outdoor applications. The compact size allows it to be used as an outdoor light for periphery lighting. Street light is completely maintenance free; it ensures trouble free operation with use of LED source and electronic driver. Specially designed polycarbonate cover reduces glare, spreads light evenly and is impact resistant. It is completely reliable for Indian conditions as it operates on a wide range of supply voltage also has IP 65 protection with very high ingress protection against dust and water. It also resists Vibration due to Led light source.</p> <p>The operating voltage should be 120-277 volts with power factor >0.95.The driver efficiency should be more than 90% with 3kV surge protection. The colour temperature should be cool white (>5500 K) with colour rendering index of >70. Lumen maintenance of 70% at 50,000 burning hours. The luminaire should conform to IEC 60598 and should be Class 1.</p>	1x25 watt LED Compact Street light shall be with trouble free operation with use of LED source & electronic driver with specially designed polycarbonate cover for reduction of glare and shall be impact resistant. The enclosure protection shall be IP 65 for outdoor area and against dust & water; and also to be suitable to resist vibration.
72	3 (Part-2)	Section E.05 Clause 4.13	109	<p>1X90 WATT LED STREET LIGHT</p> <p>The housing of the street lights should be of high pressure die-cast aluminium with LM6 alloy. The luminaire should conform to IEC 60598 and should be Class 1.</p>	<p>1x110 WATT LED STREET LIGHT</p> <p>The housing of the street lights should be of high pressure die-cast aluminium with LM6 alloy. The luminaire should conform to IEC 60598 and should be Class 1. The enclosure protection shall be dust & water proof, outdoor with protection of IP 65.</p>
73	3 (Part-2)	Section E.05 Clause 4.14	109	<p>1X216 WATT LED STREET LIGHT</p> <p>The housing of the street lights should be of high pressure die-cast aluminium with LM6 alloy. The front cover should be</p>	<p>1x147 WATT LED STREET LIGHT</p> <p>The housing of the street lights should be of high pressure die-cast aluminium with LM6 alloy. The front cover should be extra</p>

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				extra clear high tempered glass. The luminaire should conform to IEC 60598 and should be Class 1.		clear high tempered glass. The luminaire should conform to IEC 60598 and should be Class 1. The enclosure protection shall be dust & water proof, outdoor with protection of IP 65.			
74	3 (Part-2)	Section E.05 Clause 5, Table – Sl. 1	110	1	Railway track side[Platform Area], Cleaner Room, Store Room, ASS/TSS Room, UPS Room, Security Room, Spare Part Room, First Aid Room, Refuse Collection Store, Passage	Mirror Optic Surface mounted luminaries as per proven list, and supplied with 2 No's 28W Tubular T5 Flourescent Lamps. For reference please consider Philips CAT NO: TBS – 252 SK TL-5/2x28 or equivalent.	1	Cleaner Room, Store Room, ASS/TSS Room, UPS Room, Security Room, Spare Part Room, First Aid Room, Refuse Collection Store, Passage	Mirror Optic Surface mounted luminaries as per proven list, and supplied with 2 No's 28W Tubular T5 Flourescent Lamps. For reference please consider Philips CAT NO: TBS – 252 SK TL-5/2x28 or equivalent, approved make; and with enclosure protection IP 20
75	3 (Part-2)	Section E.05 Clause 5, Table – Sl. 1.1	111	LED. Mirror Optic Surface mounted luminaries as per proven list, For reference please consider Philips Cat No: SP-824 Sereno 1x40W / 2x20W or equivalent.		LED. Linear 1x40 watt luminaries similar to Philips Cat. No. SP 824 Sereno 1x40W LED or equivalent approved make; and with enclosure protection of IP 54.			
76	3 (Part-2)	Section E.05 Clause 5, Table – Sl. 2	111	2	Paid Area / Un Paid Area/ Station Control Room /Station Manager Room / Telecom equipment Room / Audit & Cash Storage Room/ UPS Rooms / General Room / Signalling Equipment Room / Ticket issuing Room / Public area/ E.S.R Room / Station Entrance and Passage ways / Passage / Refuse Store / Store room / Maintenance Room/ Excess Fair office / First Aid Room / Security Room / Enquiry Room/ Platform Supervisor Booth/ Crew Supervisor Booth [80% Luminaries]	Mirror Optic Recess mounted luminaries as per proven list, and supplied with 4 No's 14W Tubular T5 Flourescent Lamps. For reference please consider Philips CAT NO: TBS – 669/414 M2 HF or equivalent.	2	Paid Area / Un Paid Area/ Station Control Room /Station Manager Room / Telecom equipment Room / Audit & Cash Storage Room/ UPS Rooms / General Room / Signalling Equipment Room / Ticket issuing Room / Public area/ E.S.R Room / Station Entrance and Passage ways / Passage / Refuse Store / Store room / Maintenance Room/ Excess Fair office / First Aid Room / Security Room / Enquiry Room/ Platform Supervisor Booth.	Mirror Optic Recess mounted luminaries as per proven list, and supplied with 4 No's 14W Tubular T5 Flourescent Lamps. For reference please consider Philips CAT NO: TBS – 669/414 M2 HF or equivalent. Approved make; and with enclosure protection of IP 20.

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77	3 (Part-2)	Section E.05 Clause 5, Table – Sl. 2.1	111	2.1	Paid Area / Un Paid Area/ Station Control Room /Station Manager Room / Telecom equipment Room / Audit & Cash Storage Room/ UPS Rooms / General Room / Signalling Equipment Room / Ticket issuing Room / Public area/ E.S.R Room / Station Entrance and Passage ways / Passage / Refuse Store / Store room / Maintenance Room/ Excess Fair office / First Aid Room / Security Room / Enquiry Room/ Platform Supervisor Booth/ Crew Supervisor Booth [20% Luminaries]	Mirror Optic Recess mounted luminaries as per proven list, and supplied with 1x43 w LED Square Module. For reference please consider Philips CAT NO: CIRRUS RC- 365/1X43 W.LED or equivalent.	2.1	Paid Area / Un Paid Area/ Station Control Room /Station Manager Room / Telecom equipment Room / Audit & Cash Storage Room/ UPS Rooms / General Room / Signalling Equipment Room / Ticket issuing Room / Public area/ E.S.R Room / Station Entrance and Passage ways / Passage / Refuse Store / Store room / Maintenance Room/ Excess Fair office / First Aid Room / Security Room / Enquiry Room/ Platform Supervisor Booth/ Crew Supervisor Booth.	LED recessed mounting fixture equivalent to PHILIPS LED CIRRUS 43W RC365 using efficient optics. Philips Cat No. RC365B LED33S – 4000 PSU OD WH or equivalent. Approved make; and with enclosure protection of IP 20.
78	3 (Part-2)	Section E.05 Clause 5, Table – Sl. 6	112	LED Street Light Luminaries 1x216 watt LED, Reference Philips Cat No: BRP 322- glass cover 1x128 LED. or equivalent.		LED Street Light Luminaries 1x147 watt LED, Reference Philips Cat No: BRP322 LED 147 CW HE MR FG S3 XT or equivalent. Approved make; enclosure protection of IP 65.			
79	3 (Part-2)	Section E.05 Clause 5, Table – Sl. 7	112	LED Street Light Luminaries 1x 90 watts LED, Reference Philips Cat No: BRP 322- 1x48 LED-CW-75 FG SI PSU. or equivalent.		LED Street Light Luminaries 1x 110 watts LED, Reference Philips Cat No: BY400V LED110S CW SK PSU S2 FG WH or Equivalent. Approved make; enclosure protection of IP 65.			
80	3 (Part-2)	Section E.05 Clause 5, Table – Sl. 8	112	LED Street Light Luminaries 1x25 watt LED, Reference Philips Cat No.: BRP 020- 1x10 LED 25w or equivalent.		LED Street Light Luminaries 1x25 watt LED, Reference Philips Cat No.: BRP 020 – 1x10 LED 25w or equivalent. Approved make with enclosure protection of IP 65.			
81	3 (Part-2)	Section E.06 Clause 5.7.3	118	Loop earthing conductors shall run from the final distribution boards and shall be connected to any point on the main/sub-main earthing conductor, or its distribution board. In general localised Earth Bus plate to be provided for sub-earthing of different equipment / panel etc.		In general localised Earth Bus plate to be provided for sub-earthing of different equipment / panel etc.			
82	3 (Part-2)	Section E.07 Clause 4.4	122	Each down conductor shall have no independent earth electrode.		Each down conductor shall have an independent earth electrode.			

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
83	4 (Part-II)	Schedule G1 E.03, Item No. 1.1	2 of 12	Supply, laying, testing and commissioning of 1100 V grade, XLPE insulated Galvanised steel wire armoured Aluminium/copper cable with FRLS outer sheath on existing trays/walls/columns/indoor /trenches including the cost of supports with suitable clamps, saddles, hooks, bolts etc. and including the cost of proper dressing of cables, markers providing identification tags, earthing of glands armouring etc. complete as per specifications, as required and as below. including cable gland at all points of entry and exit from building wall.	Supply, laying, testing and commissioning of 1100 V grade, XLPE insulated Galvanised steel wire armoured Aluminium/copper conductor cables with FRLS outer sheath on existing trays/walls/columns/trenches including saddles, nut-bolts for proper dressing of cables, identification of tag, etc.
84	4 (Part-II)	Schedule G1 E.05, Item No. 1.1	6 of 12	Supply, installation, testing and commissioning of Mirror Optic Surface mounted luminaries as per proven list, with housing made of white powder coated CRCA sheet steel, accommodating all electrical accessories pre-wired upto a terminal block. It should have high efficiency mirror optic reflector for asymmetrical light distribution and confirm IP-20 protection). The luminaries should be suitable for 2 x 28W Tubular Fluorescent Lamps and supplied with 2 Nos 28W Tubular T5 Fluorescent Lamps. The luminaries will be similar to Philips -TBS 252 SK 2xTL-5/2X28W or Equivalent. [Luminaries will be installed below Race way necessary accessories for fixing to race way like ball socket /check nut /necessary drilling to race way etc to be done [T-5 will be used in case of Normal/ Emergency & UPS Circuits]	Supply, installation, testing and commissioning of Mirror Optic Surface mounted luminaries, with housing made of white powder coated CRCA sheet steel, accommodating all electrical accessories pre-wired upto a terminal block. It should have high efficiency mirror optic reflector and with enclosure protection shall be of IP-54. The luminaries shall be with 2x28W T5 tubular fluorescent lamps and similar to Philips TBS 252 SK 2xTL-5, 2x28W or equivalent Approved make. [Luminaries will be installed below Race way necessary accessories for fixing to race way like ball socket /check nut /necessary drilling to race way etc to be done]
85	4 (Part-II)	Schedule G1 E.05, Item No. 1.1.1	6 of 12	Supply, installation, testing and commissioning of Mirror Optic Surface mounted luminaries as per proven list, with housing made of white powder coated CRCA sheet steel, accommodating all electrical accessories pre-wired upto a terminal block. It should have high efficiency mirror optic reflector for symmetrical and asymmetrical light distribution and must conform to Ingress Protection Classification of IP 54 (for dust and moisture protection). The luminaries should be suitable for 1X40 W/2x20W led tube Lamps complete in all respects; LED Lamp Color Temperature : 4000 deg K (Cool White) Lamp Life : 50000 Hrs(Avg). similar to Philips Cat No SP-824 Sereno 1x40 W LED or equivalent [LED will be used	Supply, installation, testing and commissioning of Mirror Optic Surface mounted luminaries as per proven list, with housing made of white powder coated CRCA sheet steel, accommodating all electrical accessories pre-wired upto a terminal block. It should have high efficiency mirror optic reflector for symmetrical and asymmetrical light distribution and must conform to Ingress Protection Classification of IP 54 (for dust and moisture protection). The luminaries should be suitable for 1x40W LED Lamps complete in all respects; LED lamp colour shall be cool white and similar to Philips Cat No. SP 824 Sereno 1x40W LED or equivalent approved make. Luminaries will be installed below Race way necessary accessories for fixing to

SI. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
				in case of Normal Supply][Luminaries will be installed below Race way necessary accesseries for fixing to race way like ball socket /check nut /necessary drilling to race way etc to be done	race way like ball socket /check nut /necessary drilling to race way etc to be done.
86	4 (Part-II)	Schedule G1 E.05, Item No. 1.3	6 of 12	Supply, installation, testing and commissioning of Mirror Optic, recess mounted Luminaries as per proven supplier, with housing made of white powder coated CRCA Sheet Steel, accommodating all electrical accessories pre-wired upto a terminal box. It should have high efficiency mirror optic reflector and must conform to Ingress Protection Classification of IP 54 (for dust and moisture Protection). The Luminaries should be suitable for 4 x 14W Tubular Fluorescent lamp and supplied with 4Nos. 14W Tubular T5 Fluorescent Lamp. The luminaries will be similar to Philips -TBS 669/414 M2 or Equivalent.[Luminaries will be installed using 2nos down rod 20mm dia x 1.6mm thick steel conduit upto 30cm length painting and wiring the down roads connection with 1.5sq,mm FRLS Copper conductor /including supply and fixing ball and socket arrangements / ceiling rose as applicable	Supply, installation, testing and commissioning of Mirror Optic, recess mounted Luminaries, with housing made of white powder coated CRCA Sheet Steel, accommodating all electrical accessories pre-wired upto a terminal box. The enclosure of luminaries shall be with IP-20 enclosure protection. The Luminaries should be suitable for 4x14W Tubular Fluorescent lamp and supplied with 4 Nos. 14W Tubular T5 Fluorescent Lamp. The luminaries will be similar to Philips -TBS 669/414 M2 or Equivalent approved make. [Luminaries will be installed using 2 nos. down rod 20mm dia x 1.6mm thick steel conduit upto 30cm length painting and with supply and fixing ball and socket arrangements / ceiling rose as applicable]
87	4 (Part-II)	Schedule G1 E.05, Item No. 1.4	7 of 12	Supply, installation, testing and commissioning of Mirror Optic Surface mounted luminaries as per proven list, with housing made of white powder coated CRCA sheet steel, accommodating all electrical accessories pre-wired upto a terminal block. It should have high efficiency mirror optic reflector for symmetrical and asymmetrical light distribution and must conform to Ingress Protection Classification of IP 54 (for dust and moisture protection). The luminaries should be suitable for 2 x 28W Tubular Fluorescent Lamps and supplied with 2 Nos 28W Tubular T5 Fluorescent Lamps. The luminaries will be similar to Philips -TBS 252 SK 2xTL-5 /2x28W or Equivalent. Luminaries will be installed using 2nos down rod 20mm dia x 1.6mm thick steel conduit upto 30cm length painting and wiring the down roads connection with 1.5sq,mm FRLS Copper conductor /including supply and fixing ball and socket arrangements / ceiling rose as applicable	Supply, installation, testing and commissioning of Mirror Optic Surface mounted luminaries as per proven list, with housing made of white powder coated CRCA sheet steel, accommodating all electrical accessories pre-wired upto a terminal block. It should have high efficiency mirror optic reflector. The luminaries shall have enclosure protection of IP-54 and to be supplied with 2x28W TL5 fluorescent lamps. The luminaries shall be similar to Philips Cat No. TBS-252 SK 2x28W TL-5 or equivalent approved make. Luminaries will be installed using 2 nos. down rod 20mm dia x 1.6mm thick steel conduit upto 30cm length painting and with supply and fixing ball and socket arrangements / ceiling rose as applicable.

SI. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
88	4 (Part-II)	Schedule G1 E.05, Item No. 1.6	7 of 12	Supply, installation, testing and commissioning of Mirror Optic Recess mounted luminaires as per proven list, with housing made of white powder coated CRCA sheet steel, accommodating all electrical accessories pre-wired upto a terminal block. It should have high efficiency mirror optic reflector for symmetrical and asymmetrical light distribution and must conform to Ingress Protection Classification of IP 54 (for dust and moisture protection). The luminaires should be suitable for 4 x 14W Tubular Fluorescent Lamps and supplied with 4 Nos 14W Tubular T5 Fluorescent Lamps Philips TBS 669/414 M2 or equivalent [.Luminaries will be installed using 2nos down rod 20mm dia x 1.6mm thick steel conduit upto 30cm length painting and wiring the down roads connection with 1.5sq,mm FRLS Copper conductor /including supply and fixing ball and socket arrangements / ceiling rose as applicable]	Supply, installation, testing and commissioning of Mirror Optic Recess mounted luminaires as per proven list, with housing made of white powder coated CRCA sheet steel, accommodating all electrical accessories pre-wired upto a terminal block. It should have high efficiency mirror optic reflector. The luminaries shall be with IP-20 enclosure protection and will be suitable for 4x14W TL-5 fluorescent lamps; and shall be similar to Philips Cat. No. TBS 669/414 M2 or equivalent approved make. [Luminaries will be installed using 2 nos. down rod 20mm dia x 1.6mm thick steel conduit upto 30cm length painting including supply and fixing ball and socket arrangements / ceiling rose as applicable]
89	4 (Part-II)	Schedule G1 E.05, Item No. 1.6.1	8 of 12	Supply, installation, testing and commissioning of Mirror Optic Recess mounted luminaires as per proven list, with housing made of white powder coated CRCA sheet steel, accommodating all electrical accessories pre-wired upto a terminal block. It should have high efficiency mirror optic reflector for symmetrical and asymmetrical light distribution and must conform to Ingress Protection Classification of IP 54 (for dust and moisture protection). The luminaries should be suitable for 1x43 w LED Square Module / Recess Mounted and supplied The luminaries should be suitable for 1X40 W led tube Lamps complete in all respects LED Lamp Color Temperature : 4000 deg K (Cool White) Lamp Life : 50000 Hrs(Avg). similar to Philips Cat No CIRRUS RC-365 / 1X 43 W.LED [.Luminaries will be installed using 2nos down rod 20mm dia x 1.6mm thick steel conduit upto 30cm length painting and wiring the down roads connection with 1.5sq,mm FRLS Copper conductor /including supply and fixing ball and socket arrangements / ceiling rose as applicable]	Supply, installation, testing and commissioning of Mirror Optic Recess mounted luminaires as per proven list, with housing made of white powder coated CRCA sheet steel, accommodating all electrical accessories pre-wired upto a terminal block. It should have high efficiency mirror optic reflector. The enclosure protection shall be with IP-20 in indoor location. The luminaries shall be similar to Philips Cat No CIRRUS RC-365 – 1x43W LED or equivalent approved make. [Luminaries will be installed using 2nos down rod 20mm dia x 1.6mm thick steel conduit upto 30cm length painting including supply and fixing ball and socket arrangements / ceiling rose as applicable]

Note: The wiring using FRLS copper wire is not included as specified in original BOQ under Vol 4, Cl. No. E.05 (Sl. No. 1.3, 1.4, 1.6, 1.6.1, 1.7 and 1.8)

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
90	4 (Part-II)	Schedule G1 E.08, Item No. 6.1	12 of 12	SITC IP 66 LED streetlights with following specifications: The housing of the street lights should be of high pressure die-cast aluminium with LM6 alloy. The front cover should be extra clear high tempered glass. The lumen output of the system should not be less than 19000 lumens with system efficacy of >85 lumens/watts and wattage no more than 216 watts. The operating voltage should be 120-277 volts with power factor >0.95. The driver efficiency should be more than 90% with 3kV surge protection. The colour temperature should be cool white (>5500 K) with colour rendering index of >70. Lumen maintenance of 70% at 50,000 burning hours. The luminaire should conform to IEC 60598 and should be Class 1. Similar to Philips Luminaire type: BRP322 glass cover 1x128 LED or equivalent.	Supply, installation, testing & commissioning of street light luminaries with the housing should be of high pressure die-cast aluminium with LM6 alloy. The front cover should be extra clear high tempered glass. The lumen output of the system should not be less than 14000 lumens. The operating voltage should be 120-277 volts with power factor >0.95. The driver efficiency should be more than 90% with 3kV surge protection. The colour should be cool white and enclosure protection of IP-65. The luminaries should conform to IEC 60598 and Class 1, similar to Philips type: BRP 322 LED 147 CW HE MR FG S3 XT or equivalent approved make.
91	4 (Part-II)	Schedule G1 E.08, Item No. 6.2	12 of 12	SITC IP 66 LED streetlights with following specifications: The housing of the street lights should be of high pressure die-cast aluminium with LM6 alloy. The front cover should be extra clear high tempered glass. The lumen output of the system should not be less than 7650 lumens with system efficacy of >85 lumens/watts and wattage no more than 90 watts. The operating voltage should be 120-277 volts with power factor >0.95. The driver efficiency should be more than 90% with 3kV surge protection. The colour temperature should be cool white (>4000 K) with colour rendering index of >70. Lumen maintenance of 70% at 50,000 burning hours. The luminaire should conform to IEC 60598 and should be Class 1. Similar to Philips Luminaire type : 1x90 watt LED Street Light BRP 322 48 LED CW 75 FG SI PSU or Equivalent	Supply, installation, testing & commissioning of street light luminaries with the housing should be of high pressure die-cast aluminium with LM6 alloy. The front cover should be extra clear high tempered glass. The lumen output of the system should not be less than 8000 lumens. The operating voltage should be 120-277 volts with power factor >0.95. The driver efficiency should be more than 90% with 3kV surge protection. The colour should be cool white and enclosure protection of IP-65. The luminaries should conform to IEC 60598 and Class 1, similar to Philips type: BRP 322 LED 110 CW HE MR FG S3 XT or equivalent approved make.
92	5	--	--	Power Distribution Block Riser Diagram (Typical) – Elevated Station Drg. No. KMRCL/E&M./ELEV./001 (Rev R0)	Power Distribution Block Riser Diagram (Typical) – Elevated Station Drg. No. KMRCL/E&M./ELEV./001 (R1)
93	3 (Part-I)	Clause 5.2	45 of 117	Concrete Facing Blockwork for General Use a. Blocks: To IS 2185 (Part-1) 1979. b. Type: Solid c. Minimum average compressive strength: 7.5 N/mm ² d. Maximum thermal conductivity at N/A % moisture content	Concrete Facing Blockwork for General Use a. Blocks: To IS 2185 (Part-3) - 1984 b. Type: Autoclaved Cellular (Aerated) c. Minimum compressive strength: 7.0 N/mm ²

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
				<p>to IS 2185(Part-1) 1979</p> <p>e. Work size(s): 400 x 200 x 100mm and 400 x 200 x 200mm.</p> <p>f. Finish/colour: 'Fair-faced' finish, colour to be decided.</p> <p>g. Special shapes: None</p> <p>h. Mortar: To IS 2250 - 1981.</p> <p>i. Mix: Group 2 as clause 105/F10</p> <p>j. Special requirements: None</p> <p>k. Bond: Stretcher</p> <p>l. Joints: Flush</p> <p>m. Features: None</p>	<p>d. Thermal conductivity in air dry condition: To IS 2185 (Part-3) 1984</p> <p>e. Work size(s): 400 x 200 x 100mm and 400 x 200 x 200mm.</p> <p>f. Finish/colour: 'Fair-faced' finish, colour to be decided.</p> <p>g. Special shapes: None</p> <p>h. Mortar: To IS 2250 - 1981</p> <p>i. Joints: Flush</p>
94	4 (Part-I) Civil	Schedule A, Item 2.1	1 of 5	Providing and laying autoclaved aerated cement blocks masonry with 100 mm thick AAC blocks in super structure above plinth level up to floor V level in cement mortar 1:4 (1 cement : 4 coarse sand). The rate includes providing and placing in position 2 Nos 6 mm dia M.S. bars at every third course of masonry work.	Providing and laying autoclaved aerated cement blocks in super structure above plinth level up to floor V level in cement mortar 1:4 (1 cement : 4 coarse sand). The rate includes providing and placing in position 2 Nos 6 mm dia M.S. bars at every third course of masonry work.
95	1	Scope of work - Part-II (First sentence)	7 of 10	The scope of work under these specifications generally covers Detailed Design, Supply, fabrication, installation/fixing, necessary touch up painting, testing and commissioning of the following	The scope of work under these specifications generally covers Engineering for preparation of Detailed Working Drawing, Supply, fabrication, installation/fixing, necessary touch up painting, testing and commissioning of the following
96	1	Scope of work - Part-II (Last Sentence)	7 of 10	The work shall include all incidental jobs / minor civil works connected with installation such as excavation in trenches and backfilling, cutting, drilling and grouting etc.	The work shall include all incidental jobs / minor civil works connected with installation such as excavation in trenches and backfilling, cutting, drilling and grouting etc. The work shall also include preparation of Combined Services Drawing after interfacing with other Contractors.
97	1 ITT	Clause 1.2 (c)	4 of 26	"Defects Liability Period" (Appendix-1 of FOT) 18 months from the date of issue of "Completion Certificate".	"Defects Liability Period" (Appendix-1 of FOT) 24 months from the date of issue of Taking Over Certificate.
98	1 ITT	Clause 1.2 (d)	4 of 26	Period of completion (Appendix-1 of FOT) 24 months from the date of issue of "Letter of acceptance". Tenderers to note that night working will be resorted to duly complying with the guide line issued by West Bengal Pollution Control Board.	Period of completion (Appendix-1 of FOT) 24 months from the date of commencement mentioned in "Letter of acceptance". Tenderers to note that night working will be resorted to duly complying with the guide line issued by West Bengal Pollution Control Board.

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
99	1 ITT	Clause 2.1.1	4 of 26	The Tenderer may be an individual firm or organization or a Joint Venture with a maximum of four members (to be registered as a Joint Venture eligible to conduct business in accordance with the relevant laws of India on award of Contract) or a group of firms or organizations (hereinafter referred to as a Consortium) coming together for the purpose of executing the Works. General information on the Tenderer shall be furnished in Forms C-1, C-1A, C-2, C-2A, C-2B, C-3, C-3A, C-4, C-5 and C-6 of ITT together with his Tender.	The Tenderer may be an individual firm or organization or a Joint Venture with a maximum of four members (to be registered as a Joint Venture eligible to conduct business in accordance with the relevant laws of India on award of Contract) or a group of firms or organizations (hereinafter referred to as a Consortium) coming together for the purpose of executing the Works. General information on the Tenderer shall be furnished in Forms C-1, C-1A, C-2, C-2A, C-2B, C-3, C-3A, C-4, C-5 and C-6 of FOT together with his Tender.
100	1 ITT	Clause 2.2.2	6 of 26	The Tenderer must complete Form C-3 of the ITT dealing the technical information related to eligibility.	The Tenderer must complete Form C-3A of the ITT dealing the technical information related to eligibility.
101	1 ITT	Clause 2.3.4	7 of 26	Eligible Source Countries for Materials, plant and Services There are no restrictions on the country of origin of Plant, Materials and Services to be provided under the Contract. However, the Tenderer should note the requirements for transfer of technology.	Deleted
102	1 ITT	Clause 2.4.3	8 of 26	The Tenderer shall submit with his Tender full details of his ownership and control or, if the Tenderer is a partnership, Joint Venture or consortium, full details of ownership and control of each member thereof.	Deleted
103	1 ITT	Clause 2.4.6	8 of 26	Details of information as submitted by the applicants should be authenticated and correct. Tenderers should observe the highest standard of ethics while submitting details of information including Qualification Requirements and it should be true and correct. If any I furnished by the Tenderer is found at a later date to be incorrect or any material information having been suppressed/misleading, the tender submitted by the Tenderer may not be considered or the tender acceptance may be withdrawn and cancel the contract (in case awarded to the Tenderer). No claim/arbitration from the Tenderer will be admissible. Further, the Employer will declare the Tenderer ineligible, either indefinitely or for a specified period of time, for any of its contracts.	Details of information as submitted by the applicants should be authenticated and correct. Tenderers should observe the highest standard of ethics while submitting details of information including Qualification Requirements and it should be true and correct. If any information furnished by the Tenderer is found at a later date to be incorrect or any material information having been suppressed/misleading, the tender submitted by the Tenderer may not be considered or the tender acceptance may be withdrawn and cancel the contract (in case awarded). No claim/arbitration from the Tenderer will be admissible in such case. Further, the Employer will declare the Tenderer ineligible, either indefinitely or for a specified period of time, for any of its contracts.

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
104	1	NIT	1 of 10	NOTICE OF INVITATION TO TENDER 1.1.1 Name of Work (whole clause) 1.1.2 Key details (whole clause)	Deleted
105	1 ITT	Clause 3.2.2	11 of 26	A Tenderer requiring any clarification of the tender documents including any error or mismatch in the tender documents, may notify the Chief Engineer, in writing at the Engineer's mailing address indicated in NIT. The Engineer will respond in writing to any request for clarification received in writing from Tenderers prior to dead line. Written copies of the Engineer's response will be sent to all prospective Tenderers who have purchased the tender documents.	A Tenderer requiring any clarification of the tender documents including any error or mismatch in the tender documents, may notify the Chief Engineer, in writing at the Employer's mailing address indicated in NIT. The Employer will respond in writing to any request for clarification received in writing from Tenderers prior to dead line. Written copies of the Employer's response in the form of 'replies to prebid queries' will be uploaded in KMRCL Website. The intended tenderers will download the same and those will form part of tender submittal.
106	1 ITT	Clause 3.3	11 of 26	Amendment to Tender Documents During the tender period, the Employer may issue further instructions to Tenderers or any modifications to existing tender documents in the form of an addendum/corrigendum/prebid queries. Such an amendment in the form of an addendum/corrigendum/prebid queries to all prospective Tenderers who have purchased the tender document in the tender period. Without prejudice to the order of preference as specified in Clause 1.5 of General Conditions of Contract, the provisions in such addenda shall take priority over the Invitation to tender and Tender Documents issued previously. Tenderers should acknowledge receipt of such addenda and list them in the tender submittal.	Amendment to Tender Documents During the tender period, the Employer may issue further instructions to Tenderers or any modifications to existing tender documents in the form of an addendum/corrigendum. Such an amendment in the form of an addendum/corrigendum to all prospective Tenderers who have purchased the tender document in the tender period. Without prejudice to the order of preference as specified in Clause 1.5 of General Conditions of Contract, the provisions in such addenda/corrigenda shall take priority over the Invitation to tender and Tender Documents issued previously. Tenderers should acknowledge receipt of such addenda and list them in the tender submittal.
107	1 ITT	Clause 4.2.1	12 of 26	4.2.1 The Tenderer shall on or before the date & time given in NIT, submit the Tender in Three (3) separate sealed packages clearly marked with the name of the Tenderer and with : (a) Tender Security in original in a separate sealed	4.2.1 The Tenderer shall on or before the date & time given in NIT or subsequent addenda/corrigenda thereof, submit the Tender in Three (3) separate sealed packages clearly marked with the name of the Tenderer and with :

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
				<p>envelope,</p> <p>(b) Technical Package consists of the following in a separate sealed Envelope-</p> <p>(i) Attested Copy of Power of Attorney (in favour of the Authorized Signatory) of the Tenderer; And in group, Power of Attorney of each member of said group.</p> <p>(ii) The Memorandum of Understanding (MOU) for the consortium or joint venture.</p> <p>(iii) Technical Specification of E&M and Architectural finishes & Plumbing Works</p> <p>Financial Package consists of the followings in a separate sealed Envelope</p> <p>i) Total value Construction work done for the last three financial years (Form C-1A, C-3A)</p> <p>ii) All financial data including Annual Turn Over in the prescribed format shall be certified by Chartered Accountant along with his signature and seal.</p> <p>iii) No information relating to financial terms of service should be included in the technical package.</p> <p>All the Tenderers must submit attested copy of the</p> <p>i) latest Income Tax and Sales Tax clearance Certificate</p> <p>ii) Registration certificate under W.B. VAT Tax Act, 2005.</p> <p>In case of Joint ventures/consortia, the above is required to be submitted by all partners of the same.</p> <p>If a Tenderer is from outside West Bengal he must give an undertaking to the fact that he will get himself registered with W.B. VAT authorities, in the event of issue of Letter of acceptance to the Tenderer and shall submit attested copy of Registration Certificate before claiming any payment whatsoever.. In the absence of registration detail with W.B.</p>	<p>(a) Tender Security in original in a separate sealed envelope,</p> <p>(b) Technical bid consists of the following in a separate sealed Envelope-</p> <p>(i) Attested Copy of Power of Attorney (in favour of the Authorized Signatory) of the Tenderer; And in group, Power of Attorney of each member of said group.</p> <p>(ii) The Memorandum of Understanding (MOU) for the consortium or joint venture.</p> <p>(iii) Technical Specification of E&M and Architectural finishes & Plumbing Works</p> <p>(iv) Total value Construction work done for the last three financial years (Form C-1A, C-3A)</p> <p>(v) All financial data including Annual Turn Over in the prescribed format shall be certified by Chartered Accountant along with his signature and seal.</p> <p>All the Tenderers must submit attested copy of the</p> <p>1) latest Income Tax and Sales Tax clearance Certificate</p> <p>2) Registration certificate under W.B. VAT Tax Act, 2005.</p> <p>In case of Joint ventures/consortia, the above is required to be submitted by all partners of the same.</p> <p>If a Tenderer is from outside West Bengal he must give an undertaking to the fact that he will get himself registered with W.B. VAT authorities, in the event of issue of Letter of acceptance to the Tenderer and shall submit attested copy of Registration Certificate before claiming any payment whatsoever.. In the absence of registration detail with W.B. VAT Department, EPF authority, first payment shall not be released.</p> <p>No information relating to financial terms of service should be included in the technical package.</p>

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				VAT Department, EPF authority, first payment shall not be released.	
108	1 ITT	Clause 4.2.2	12 of 26	In addition to above, Technical Package shall contain:	In addition to above, Technical bid shall contain:
109	1 ITT	Clause 4.2.2 (b)	12 of 26	The name, background and professional experience of each key staff member to be assigned to the project, with particular reference to his experience of a nature similar to that of the proposed assignment. The majority of the key staff shall be regular members of the firm for at least six months (Form T-I)	The name, background and professional experience of each key staff member to be assigned to the project, with particular reference to his experience of a nature similar to that of the proposed assignment. (Form T-I)
110	1 ITT	Clause 4.2.2 (c)	13 of 26	Names and addresses of Sub-contractors who are proposed to be engaged for execution of different types of works as well as the details of the experience and past performance of such Sub-contractors will be required to be furnished in accordance with Clause 4.5 of GCC in the format prescribed (Form T-III). This information shall be given for all critical items of works on/off site irrespective of the status of the Sub-contractors in the Tender. The total sub-contracting shall not exceed 50% of the value of work. In case of sub-contractors the complete details as per the format prescribed (Form T-III) will be furnished.	Names and addresses of Sub-contractors who are proposed to be engaged for execution of different types of works as well as the details of the experience and past performance of such Sub-contractors will be required to be furnished in accordance with Clause 4.5 of GCC in the format prescribed (Form T-III). This information shall be given for all critical items of works on/off site irrespective of the status of the Sub-contractors in the Tender. The total sub-contracting shall not exceed 50% of the value of work.
111	1 ITT	Clause 4.2.2 (d)	13 of 26	Tender documents from Volume 1, Volume 2, Volume-3, Volume-5 and Volume-6 (the tenderer shall take the print out of the contents from CD and shall submit the hard copy duly signed and stamped in all pages along with Technical Package during tender submission) with true copy of Volume 4- Pricing Document (BOQ) making the Price along with Addenda /Corrigenda if any shall be submitted duly signed and stamped on each page by the authorized signatory having Power of Attorney. The Tenderer shall confirm that his Priced offer is without any conditions, deviations, qualifications or remarks, and if any, has been priced for unconditional withdrawal.	Tender documents from Volume 1, Volume 2, Volume-3, Volume-5 and Volume-6 (the tenderer shall take the print out of the contents from CD and shall submit the hard copy duly signed and stamped in all pages along with Technical Package during tender submission) with true copy of Volume 4- Pricing Document (BOQ) marking the Price along with Addenda /Corrigenda (if any) shall be submitted duly signed and stamped on each page by the authorized signatory having Power of Attorney. The Tenderer shall confirm that his Priced offer is without any conditions, deviations, qualifications or remarks.

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
112	1 ITT	Clause 4.2.2 (e) (iv)	13 of 26	Statement of deviations from tender documents (Form -B)	Deleted
113	1 ITT	Clause 4.2.2 (e) (vi)	13 of 26	Contract Price quoted to the pricing document shall be inclusive of all taxes, Levis, duties and any other statutory requirement in the state of West Bengal.	Deleted
114	1 ITT	Clause 4.2.2 (g) (i)	14 of 26	The tender shall submit as part of his tender on Outline Safety, Health and Environmental Plan separately illustrating the intended means of compliance with Clause 5.0 of Special Conditions of Contract and as per Safety, Health and Environment Manual (SHE Manual) of the Employer (Vol-5 of tender document), setting out in summary form an adequate basis for the development of the more detailed document to be submitted under sub clause (iv) of this clause. The Outline Safety, Health and Environmental Plan shall contain sufficient information to demonstrate clearly the proposed method of achieving the Tenderer's Safety, Health and environmental objectives with regard to the requirement of the contract.	The tender shall submit as part of his tender on Outline Safety, Health and Environmental Plan separately illustrating the intended means of compliance with Clause 5.0 of Special Conditions of Contract and as per Safety, Health and Environment Manual (SHE Manual) of the Employer (Vol-6 of tender document), setting out in summary form an adequate basis for the development of the more detailed document to be submitted under sub clause (iv) of this clause. The Outline Safety, Health and Environmental Plan shall contain sufficient information to demonstrate clearly the proposed method of achieving the Tenderer's Safety, Health and environmental objectives with regard to the requirement of the contract.
115	1 ITT	Clause 4.2.2 (g) (iii)	15 of 26	The Site Safety, Health and Environmental Plan shall include detailed policies and procedures which when implemented, will ensure compliance with Clause 5.0 of Special Conditions on Contract and SHE Manual of the Employer.	The Site Safety, Health and Environmental Plan shall include detailed policies and procedures which when implemented, will ensure compliance with Clause 7 & 8 of Special Conditions on Contract and SHE Manual of the Employer. (Vol. 6 of the tender document).
116	1 ITT	Clause 4.2.2 (h) (i)	15 of 26	The Contractor shall be responsible for maintaining the Works until handing over to the Employer and for the provision of relevant operation and maintenance manuals and drawings. He will also be responsible for timely and effective maintenance of his installation for 18 months during Defect Liability Period.	The Contractor shall be responsible for maintaining the Works until handing over to the Employer and for the provision of relevant operation and maintenance manuals and drawings. He will also be responsible for timely and effective maintenance of his installation for 24 months during Defect Liability Period.
117	1 ITT	Clause 8.1	17 of 26	The Tenderer shall submit with his Tender a Tender Security for the sum mentioned in NIT in Appendix-1 given in ITT an irrevocable Bank Guarantee issued by a Nationalized/ Scheduled Bank in India. In case of Joint Venture/ Consortium Tender Security shall be in the name of joint	The Tenderer shall submit with his Tender a Tender Security for the sum mentioned in Appendix-1 given in ITT an irrevocable Bank Guarantee issued by a Nationalized/ Scheduled Bank in India as per form provided in Schedule 9 of SCC. In case of Joint Venture/ Consortium Tender Security shall be in the name of

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
				venture/consortium. The Tender Security shall remain valid for 30 days beyond the validity period of Tender.	joint venture/consortium. The Tender Security shall remain valid for 30 days beyond the validity period of Tender.
118	1 ITT	Clause 8.2	17 of 26	The Tender Security shall be submitted in a separate sealed envelope clearly marked on top "Tender Security for the East West Metro Project - for Elevated Stations. With viaduct"	The Tender Security shall be submitted in a separate sealed envelope clearly marked on top as per Clause 16 of ITT.
119	1 ITT	Clause 8.3	17 of 26	Any Tender not accompanied by an acceptable Tender Security shall be rejected by the Employer considering it as non-responsive and their Eligibility and Technical packages and Financial package shall be returned unopened.	Any Tender not accompanied by an acceptable Tender Security shall be rejected by the Employer considering it as non-responsive and their Technical packages and Financial package shall be returned unopened.
120	1 ITT	Clause 8.5	17 of 26	The Tender Security of the successful Tenderer shall be returned upon the execution of the Contract and the receipt by the Employer of valid and acceptable Performance Security in accordance with Sub-Clause 4.2 of the GCC.	The Tender Security of the successful Tenderer shall be returned upon the execution of the Contract and the receipt by the Employer of valid and acceptable Performance Guarantee in accordance with Sub-Clause 4.2 of the GCC.
121	1 ITT	Clause 8.6 (c)	17 of 26	if the successful Tenderer <ul style="list-style-type: none"> refuses or neglects to execute the Contract within time limit specified or 	if the successful Tenderer <ul style="list-style-type: none"> refuses or neglects to execute the Contract agreement within time limit specified or
122	1 ITT	Clause 9.0	17 of 26	9.0 Performance Guarantee, Undertaking and Warranties i. The Tenderer shall submit full details of the identity of the proposed parties who shall provide or issue the Performance Guarantee in accordance with Sub-Clause 4.2 of the GCC;	9.0 Performance Guarantee, Undertaking i. The Tenderer shall submit full details of the identity of the proposed parties who shall provide or issue the Performance Guarantee in accordance with Sub-Clause 4.2 of the GCC; in format provided in Schedule 2 of SCC.
123	1 ITT	Clause 14 (iv) & (v)	18 of 26	(iv) The text of the questions raised by all the Tenderers and the responses given, will be transmitted without delay to all purchasers of the Tender Documents. Any modification of the Tender Documents listed in paragraph B4 which may become necessary as a result of the Pre-Tender meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to paragraph B4 and shall be uploaded in the web-site. (v) Non-attendance at the Pre-Tender meeting will not be a cause for disqualification of a Tenderer.	(iv) The text of the questions raised by all the Tenderers and the responses given, will be transmitted without delay to all purchasers of the Tender Documents. Any modification of the Tender Documents which may become necessary as a result of the Pre-Tender meeting shall be made by the Employer exclusively through the issue of an Addendum and shall be uploaded in the web-site. (v) Non-attendance at the Pre-Tender meeting will not be a cause for disqualification of a Tenderer.

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
				However the tenderer has to inform the Employer well in advance for the same.	
124	1 ITT	Clause 15.7	19 of 26	For Milestone payment schedules, refer Vol. 4 Pricing documents – Schedule of Payment.	Deleted
125	1 ITT	Clause 16.1.1	19 of 26	The Tenderer shall seal the 'Tender Security' in a separate envelope duly marked "Tender Security" as specified under Contract No.	The Tenderer shall seal the 'Tender Security' in a separate envelope duly marked "Tender Security" as specified under Contract No. EWSAFEM.
126	1 ITT	Clause 16.1.5 (b)	20 of 26	(b) bear the following identification for the Eligibility and Technical Proposals: ELIGIBILITY or TECHNICAL PACKAGE as appropriate	(b) bear the following identification for Technical Proposals: TECHNICAL PACKAGE
127	1 ITT	Clause 16.1.5 (c)	20 of 26	(c) bear the following identification for the Technical Package: TECHNICAL PACKAGE CONTRACT NO.: EWSAFEM NAME OF THE WORK DO NOT OPEN BEFORE 15:30 hrs. on Scheduled date of opening.	(c) bear the following identification for the Financial Package: FINANCIAL PACKAGE CONTRACT NO.: EWSAFEM NAME OF THE WORK DO NOT OPEN BEFORE EVALUATION OF TECHNICAL PACKAGE
128	1 ITT	Clause 20	22 of 26	TENDER OPENING AND EVALUATION The Employer/ Engineer will open the Technical Package, in the presence of Tenderers or their representatives who choose to attend on date & time as mentioned in tender document in the Conference Room, Kolkata Metro Rail Corporation Ltd., Kolkata.	TENDER OPENING AND EVALUATION The Employer/ Engineer will open the Technical Package, in the presence of Tenderers or their representatives who choose to attend on date & time as mentioned in tender document or addendum thereafter in the Conference Room, Kolkata Metro Rail Corporation Ltd., Kolkata.
129	1 ITT	Clause 23.2	23 of 26	For the purpose of this Clause, a responsive tender is one, which conforms to all the terms, conditions and specifications of the tender documents without material deviation or reservation which include exceptions, exclusions & qualifications. A material deviation or reservation is one which affects in any substantial way the scope, quality, performance or administration of the works to be undertaken by the Tenderer under the Contract, or which limits in any substantial way, the Employer's rights or the Tenderers obligations under	For the purpose of this Clause, a responsive tender is one, which conforms to all the terms, conditions and specifications of the tender documents without material deviation or reservation which include exceptions, exclusions & qualifications. A material deviation or reservation is one which affects in any substantial way the scope, quality, performance or administration of the works to be undertaken by the Tenderer under the Contract, or which limits in any substantial way, the Employer's rights or the Tenderers obligations under the Contract as provided for in the

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
				the Contract as provided for in the Tender documents and / or is of an essential condition, the rectification of which would affect unfairly the competitive position of other Tenderers presenting substantially responsive tenders at reasonable price. Minor deviation may be brought out in Form -B.	Tender documents and / or is of an essential condition, the rectification of which would affect unfairly the competitive position of other Tenderers presenting substantially responsive tenders at reasonable price.
130	1 ITT	Clause 24.7	24 of 26	Bid capacity of Tenderer shall be evaluated based on financial data submitted in Form C-1A & C-5.	Deleted
131	1 ITT	Clause 30	26 of 26	PERFORMANCE SECURITY	PERFORMANCE GUARANTEE
132	1 ITT	Clause 30.1	26 of 26	The successful Tenderer shall furnish to the Employer a Performance Security in the form of an irrevocable Bank Guarantee in accordance with sub clause 4.2 of the General Conditions of Contract. The Schedule 2 attached to Volume 2 (SCC) shall be used for submitting Performance Security Bank Guarantee. The Performance Guarantee shall be valid up to 6 months after Defects Liability Period.	The successful Tenderer shall furnish to the Employer a Performance Guarantee in the form of an irrevocable Bank Guarantee in accordance with sub clause 4.2 of the General Conditions of Contract. The Schedule 2 attached to Volume 2 (SCC) shall be used for submitting Performance Security Bank Guarantee. The Performance Guarantee shall be valid up to 6 months after Defects Liability Period.
133	1 - FOT	Heading	3 of 36	On Tenderer Letter Head	On Tenderer's Letter Head
134	1 FOT	Clause 1	3 of 36	Having inspected the Site, examined the Employer's Requirements, General Conditions of Contract, Special Conditions of Contract, Employer's Requirements (General and Particular Specifications), Tender Drawings and Instruction to Tenderers including Pricing Document, and addenda thereto (if any) issued by the KMRCL for the supply, installation, testing and commissioning of the above-mentioned Works, and the matters set out in Appendix 1 hereto, and referring Form A, Appendix 1, Form B, C-1, C-1A, C-2, C-2A, C-2B, C-3, C-3A, C-4, C-5, C-6, Form T-I, II, III, IV & V, Annexure A, B, C, D, E, F & F-A offer to design, construct and complete the whole of the said Works and Commissioning and remedying any defects therein, in conformity with the above documents within the completion period as specified in Appendix 1A to this Form of Tender for the fixed lump sum price stated in the Pricing Document as completed by us and appended hereto	Having inspected the Site, examined the Employer's Requirements, General Conditions of Contract, Special Conditions of Contract, Employer's Requirements (General and Particular Specifications), Tender Drawings and Instruction to Tenderers including Pricing Document, and addenda thereto (if any) issued by the KMRCL for the supply, installation, testing and commissioning of the above-mentioned Works, and the matters set out in Appendix 1 hereto, and Form C-1, C-1A, C-2, C-2A, C-2B, C-3A, C-4, C-5, C-6, Form T-I, II, III, IV & V, Annexure A, B, C, D, E, F, F-A & G offer to design, construct and complete the whole of the said Works and Commissioning and remedying any defects therein including engineering for preparation of detailed working drawings and documents for specification of work, in conformity with the above documents within the completion period as specified in Appendix 1 to this Form of Tender, Form A for the price stated in the Pricing Document as completed by us and appended hereto

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced		New Clauses replacing existing Clauses			
135	1 FOT	Clause 3	3 of 36	We submit with this Tender a duly executed Tender Guarantee in respect of our obligations under this Tender.		We submit with this Tender a duly executed Tender Security in respect of our obligations under this Tender.			
136	1	FOT, Appendix-I, Sl. No. 6	5 of 36	6	Amount of mobilization advance payment (GCC : Sub-Clause 11.2)	10% of total Contract Value	6	Amount of mobilization advance payment (GCC : Sub-Clause 11.2 & SCC Clause 28)	10% of total Contract Value
137	1	FOT, Appendix-I, Sl. No. 7	5 of 36	7	Value of Tenderer's Professional : Indemnity Insurance (GCC Sub-Clause 15.1) in case of Part II (E&M) for design & preparation of drawings	5% of contract value for Part II (E&M)	7	Value of Tenderer's Professional : Indemnity Insurance (GCC Sub-Clause 15.1) in case of Part II (E&M) for design & preparation of drawings	Deleted
138	1	FOT, Appendix-I, Sl. No. 11	5 of 36	11	Completion Period of the Whole works in Totality	Twenty Four (24) months calculated from the Letter of acceptance as indicated elsewhere	11	Completion Period of the Whole works in Totality	Twenty Four (24) months calculated from the date of commencement mentioned in Letter of acceptance
139	1	FOT, Form-B	6 of 36 to 9 of 36	FORM-B STATEMENT OF DEVIATIONS		Deleted			
140	1	FOT, Form C-1A Last para	11 of 36	Total value of annual construction (and/or equipment, goods or services which apply to this contract) turnover, in terms of work billed to clients, in INR equivalent, converted at the rate of exchange at the end of the period reported and brought to 2014-15 levels by applying escalation factor mentioned in Clause 2.3.1 of ITT		Total value of annual (and/or equipment, goods or services which apply to this contract) turnover, in terms of work billed to clients, in INR equivalent, converted at the rate of exchange at the end of the period reported and brought to 2014-15 levels by applying escalation factor mentioned in Clause 2.3.1 of ITT			
141	1	FOT, Form C-2B Heading	14 of 36	Joint Venture or Consortium Agreement		Joint Venture or Consortium Agreement (JV agreement should be formalized before tender submission)			
142	1	FOT, Form C-3	16 of 36	FORM C-3 Particular Experience Record		Deleted			

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced			New Clauses replacing existing Clauses			
143	2	GCC Clause 13.3.4 Second Line	66 of 154	the Performance security, and shall pay the Contractor an amount			the Performance Guarantee, and shall pay the Contractor an amount			
144	1	FOT, Form C-5 Third para from the end	20 of 36	Attach audited financial statements for the last five years (for the individual Tenderer or each Member of a Joint Venture or Consortium).			Attach audited financial statements for the last three years (for the individual Tenderer or each Member of a Joint Venture or Consortium).			
145	1	FOT, Form T-I Table	22 of 36	Sr. No.	Disciplines	Minimum no. of Project-Personnel required	Sr. No.	Disciplines	Minimum no. of Project-Personnel required	Date of deployment
				PART-I			PART-I			
				1	Project Manager (Team Leader)	1	1	Project Manager (Team Leader)	1	15 days from LOA
				2	Senior Civil Engineer	1	2	Senior Civil Engineer	1	30 days from LOA
				3	Quality Assurance (QA)- In-Charge	1	3	Quality Assurance (QA)- In-Charge	1	30 days from LOA
				4	Safety Officer	1	4	Safety Officer	1	30 days from LOA
				5	Site Engineers	4	5	Site Engineers	4	30 days from LOA
				6	Surveyor	1	6	Senior Architect	1	30 days from LOA
				7	Senior Architect	1	7	Architectural Assistant (with knowledge of CAD)	1	30 days from LOA
				8	Architectural Assistant (with knowledge of CAD)	1	PART-II			
				1	Project manager (E&M)	1	1	Deputy Project manager (E&M)	1	15 days from LOA
				2	Electrical Engineer (E&M)	2	2	Electrical Engineer (E&M)	2	30 days from LOA
				3	Mechanical Engineer (E&M)	1	PART-II			
				4	Fire Fighting System (Engineer)	1	1	Testing & Commissioning Engineer (Electrical)	1	
				5	Ventilation & Air-conditioning System Engineer	1				
				6	Quality Control Expert	1				
				7	Testing & Commissioning Engineer (Electrical)	1				

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced				New Clauses replacing existing Clauses			
								3	Mechanical Engineer (E&M)	1	30 days from LOA
								4	Fire Fighting System (Engineer)	1	90 days from LOA
								5	Ventilation & Air-conditioning System Engineer	1	90 days from LOA
								6	Quality Control Expert	1	30 days from LOA
								7	Testing & Commissioning Engineer (Electrical)	1	180 days from LOA
146	1	FOT, Form T-IV (C)	26 of 36	C. TENDER WORK SCHEDULE (Please attach the work schedule as per clause 9.1.2(f)-iii)				C. TENDER WORK SCHEDULE (Please attach the work schedule)			
147	1	FOT, Annexure-D Part-I (Civil) Sl. 1	31 of 36	1.	Project Manager (Team Leader)	Graduate in Civil Engg.	Minimum 5 years as In-charge of similar works with experience in Project management including project planning and Minimum total experience 20 yrs.	1.	Project Manager (Team Leader)	Graduate in Civil Engg.	Minimum 10 years as In-Charge or Deputy in-Charge of similar works with experience in Project management including project planning and Minimum total post qualification experience of 20 yrs.
148	1	FOT, Annexure-D Part-I (Civil) Sl. 2	31 of 36	2.	Senior Civil Engineer	Graduate in Civil Engg	Minimum 10 years of site experience of similar type of works along with RCC work Industrial Building including project Planning & Management and minimum total experience 15 years.	2.	Senior Civil Engineer	Graduate in Civil Engg	Minimum 10 years of site experience of similar type of works along with RCC work Industrial Building including project Planning & Management and minimum total post qualification experience of 15 years.

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced				New Clauses replacing existing Clauses			
149	1	FOT, Annexure-D Part-I (Civil) Sl. 3	31 of 36	3.	Senior Architect	Bachelors in Architecture	Minimum 10 years of experience of similar type of work experience with having good exposure in big project work. Minimum total experience 15 years.	3.	Senior Architect	Bachelors in Architecture	Minimum 10 years of experience of similar type of work having good exposure in big project work. Minimum total post qualification experience of 15 years.
150	1	FOT, Annexure-D Part-I (Civil) Sl. 4	31 of 36	4.	Quality Assurance (QA)- In-Charge	Bachelors in Architecture	Minimum 3 yrs. in QA (field) and out of which two years as In-Charge.	4.	Quality Assurance (QA)- In-Charge	Graduate Civil Engineer / Diploma Civil Engineer with 10 yrs experience	Minimum 3 yrs. in QA (field) and out of which two years as In-Charge.
151	1	FOT, Annexure-D Part-I (Civil) Sl. 5	31 of 36	5.	Safety Officer	Concerned Degree/Diploma in Construction safety	Minimum 5 yrs. In safety (field) and out of which one year as In-Charge. Minimum total experience 10 years.	5.	Safety Officer	Concerned Degree/Diploma in Construction safety	Minimum 5 yrs. In safety (field) and out of which one year as In-Charge. Minimum total post qualification experience of 10 years.
152	1	FOT, Annexure-D Part-I (Civil) Sl. 6	31 of 36	6.	Site Engineers (4 nos.) Including one utility Engineer	Diploma in Civil Engg/ Architecture	Minimum 7 years of relevant experience in finishing and Plumbing (PHE) works	6.	Site Engineers (4 nos.) Including one utility Engineer	Diploma in Civil Engg	Minimum 7 years of relevant experience in finishing and Plumbing (PHE) works
153	1	FOT, Annexure-D Part-II Sl. 1	32 of 36	1.	Project manager (E&M)	Minimum - Graduate Engineer	15 years with at least 5 yrs as Manager of similar work.	1.	Deputy Project manager (E&M)	Minimum - Graduate Engineer	15 years with at least 5 yrs as Manager of similar work.

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
154	1	FOT, Annexure-D Part-II Last para	32 of 36	Penalty will be imposed to the Contractor for non-compliance of the above	Penalty will be imposed to the Contractor for non-compliance of the above at following rate: (i) for each personnel in Sl. 1, 2, 3, 4 & 5 in Part-I and Sl. 1, 2 & 3 in Part-II : Rs. 2,50,000/- for each month or part thereof. (ii) For each other personnel in Part-I & II : Rs. 1,00,000/- for each month or part thereof.
155	2	SCC Clause 72, Sub-Clause 22.1.1: Price Variation Formula B) For E&M Works (Part II) (i)	116 of 154	"Ln", "Sn", "Cn", "An", and "Fn" are the current cost indices or reference prices for month "n", determined from RBI Indices;	"Ln", "Sn", "Cn", "An", and "Fn" are the current cost indices or reference prices for month "n", published by RBI; "Ln" = CPI Industrial Worker for Kolkata "Sn" = WPI Ferrous Metals "Cn" = WPI other Non-Ferrous Metals "An" = WPI Non-Ferrous Metals Aluminum "Fn" = WPI Mineral Oil
156	2	SCC Clause 72, Sub-Clause 22.1.1: Price Variation Formula B) For E&M Works (Part II) (i)	116 of 154	"Lo", "So", "Co", "Ao", and "Fo" are the base cost indices or reference prices corresponding to the above cost elements determined from RBI Indices.	"Lo", "So", "Co", "Ao", and "Fo" are the base cost indices or reference prices corresponding to the above cost elements published by RBI.
157	2	GCC Clause 4.2	19 of 154	Performance Security	Performance Guarantee
158	2	GCC Clause 4.2.1	19 of 154	Amount of Performance Security	Amount of Performance Guarantee
159	2	GCC Clause 4.2.1 (a) Second Line	19 of 154	successful Tenderer shall furnish Performance Security in the	successful Tenderer shall furnish Performance Guarantee in the

SI. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
160	2	GCC Clause 4.2.1 (b) Second Line	19 of 154	Performance Security shall be a ground for the annulment of the	Performance Guarantee shall be a ground for the annulment of the
161	2	GCC Clause 4.2.2	19 of 154	Release of Performance Security	Release of Performance Guarantee
162	2	GCC Clause 4.2.2 (a) First Line	19 of 154	The whole of the Performance Security amount shall be liable to	The whole of the Performance Guarantee amount shall be liable to
163	2	GCC Clause 4.2.2 (b) First & Second Line	19 of 154	On completion of the entire work, one half of the Performance Security shall be refunded to the Contractor, on issue of Taking	On completion of the entire work, one half of the Performance Guarantee shall be refunded to the Contractor, on issue of Taking
164	2	GCC Clause 4.2.3 (a) First & Second Line	20 of 154	submission by the Contractor of the requisite Performance security, parent company Undertakings and written Guarantees	submission by the Contractor of the requisite Performance Guarantee, parent company Undertakings and written Guarantees
165	2	GCC Clause 4.2.3 (b) First Line	20 of 154	failure by the Contractor to provide a Performance security or	failure by the Contractor to provide a Performance Guarantee or
166	2	GCC Clause 4.26 Fifth para, Ninth Line	29 of 154	Performance Security amount or from any other amount payable to the	Performance Guarantee amount or from any other amount payable to the
167	2	GCC Clause 10.5 Fifth Line	50 of 154	require the Contractor to increase the amount of Performance Security	require the Contractor to increase the amount of Performance Guarantee
168	2	GCC Clause 11.4 Second Line	54 of 154	and approved, the Performance security and the parent Company	and approved, the Performance Guarantee and the parent Company
169	2	GCC Clause 11.8 Sixth Line	55 of 154	has been made and the Performance security referred to in	has been made and the Performance Guarantee referred to in

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
170	2	GCC Clause 11.16 (i) Third Line	57 of 154	and/or over the deposit of Performance Security or other	and/or over the deposit of Performance Guarantee or other
171	2	GCC Clause 11.17 Second Line	57 of 154	Performance Security shall be signed by the person authorized to do	Performance Guarantee shall be signed by the person authorized to do
172	2	GCC Clause 13.2.1 (a)	64 of 154	forfeit the whole or such portion of the Performance Security amount as he may consider fit, and	forfeit the whole or such portion of the Performance Guarantee amount as he may consider fit, and
173	2	SCC Schedule 2 Performance Guarantee, Second para	128 of 154	WHEREAS ----- (Name and address of Design and Construct Contractor) (hereinafter called "the Contractor") has undertaken, in pursuance of Contract EL-E&M-1 to manufacture, Detailed Design, Supply, install, testing and commissioning complete and remedy any defects in the Works of the Construct Contract EL-E&M-1 (hereinafter called "the Contract")	WHEREAS ----- (Name and address of Design and Construct Contractor) (hereinafter called "the Contractor") has undertaken, in pursuance of Contract EWSAFEM to manufacture, Detailed Design, Supply, install, testing and commissioning complete and remedy any defects in the Works of the Construct Contract EWSAFEM (hereinafter called "the Contract")
174	2	SCC Schedule 3 Parent Company Undertaking, (A) First Line	130 of 154	By a contract EL-E&M-1 dated [] ("the Contract") made between (1) the	By a contract EWSAFEM dated [] ("the Contract") made between (1) the
175	2	SCC Schedule 5 Contractor's Warranty	136 of 154 to 139 of 154	Entire Schedule	Deleted
176	2	SCC Schedule 6 Form of Designer's Warranty	140 of 154 to 143 of 154	Entire Schedule	Deleted

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
177	2	SCC Schedule 7 Sub- Contractor's Warranty, (A) First Line	145 of 154	By a Contract EL-E&M-1 dated [] ("the Contract") made between (1)	By a Contract EWSAFEM dated [] ("the Contract") made between (1)
178	2	SCC Schedule 9 4.c.i.	153 of 154	fails or refuses to furnish the Performance Security in accordance with Clause 25 of the "Instructions to Tenderers" and/or	fails or refuses to furnish the Performance Guarantee in accordance with Clause 30 of the "Instructions to Tenderers" and/or
179	2	SCC Schedule 9 4.c.ii.	154 of 154	fails or refuses to enter into a Contract within the time limit specified in Clause 24 of the "Instructions to Tenderers".	fails or refuses to enter into a Contract within the time limit specified in Clause 29 of the "Instructions to Tenderers".
180	3 Part-2	Clause 2.1.6 First Sentence	19	Shop drawings – The contractor shall carryout design, detail engineering, preparation and furnish all shop drawings in quadruplicate at no extra cost for approval by the Employer before commencing fabrication, manufacturing of the equipment and before carrying out any work at site and within 7 days after the issue of award of contract & initial set of working drawings.	Shop drawings – The contractor shall carryout engineering for preparation of detailed working drawings & documents, and furnish all shop drawings in quadruplicate at no extra cost for approval by the Employer before commencing fabrication, manufacturing of the equipment and before carrying out any work at site.
181	3 Part-2	Clause .3.15.2	41	All sheet steel shall after metal treatment be powder coated with two coats of shade 692 or as approved to IS 5 on the outside and white on the inside. Each coat of paint shall be properly stoved and the paint thickness shall not be less than 80 microns.	All sheet steel shall after metal treatment be powder coated with two coats of shade 631 or as approved to IS 5 on the outside and white on the inside. Each coat of paint shall be properly stoved and the paint thickness shall not be less than 80 microns.
182	3 Part-2	Clause .4.2.3	47	MCCB cover and case shall be made of high strength heat resisting and flame retardant thermosetting insulating material. Operating handle shall be quick make/break, trip-free type having suitable ON, OFF and TRIPPED indicators and a common handle for simultaneous operation of all the phases. Suitable arc extinguishing device shall be provided for each contact. Tripping unit shall be connected by a common trip bar such that tripping of any one pole causes three poles to open simultaneously. Contact tips shall be made of suitable arc resistant alloy. Terminals shall be with adequate clearances.	MCCB cover and case shall be made of high strength heat resisting and flame retardant thermosetting insulating material. Operating handle shall be quick make/break, trip-free type having suitable ON, OFF and TRIPPED indicators and a common handle for simultaneous operation of all the phases. Suitable arc extinguishing device shall be provided for each contact. Contact tips shall be made of suitable arc resistant alloy. Terminals shall be with adequate clearances.

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
183	3 Part-2	Section E.03 - Medium Voltage Cabling, Clause 4.2, Last Line	78	4½ /4 Core : Red, Yellow, Blue and Black	3½ /4 Core : Red, Yellow, Blue and Black
184	2	SCC Clause 72, Sub- Clause 22.1.1 (A)	114 of 154	Note: p+q+r+s+t = 0.85, balance 0.15 shall be fixed component	Note: p+q+r+s+t+u = 0.85, balance 0.15 shall be fixed component
185	2	SCC Clause 72, Sub- Clause 22.1.1 (A)	115 of 154	Wso = Wholesale Price Index (Averages) for Basic Metals, Alloys and Metal Product as published in the RBI for the month in which tender was opened.	Wso = Wholesale Price Index (Averages) for Basic Metals, Alloys and Metal Product as published in the RBI Bulletin, prevailing on the day 28 days prior to the closing date for submission of bids.
186	2	SCC Clause 72, Sub- Clause 22.1.1 (A)	115 of 154	Wco = Whole Sale Price Index (Averages) for Cement and lime as published in the RBI Bulletin, for the month in which the tender was opened.	Wco = Whole Sale Price Index (Averages) for Cement and lime as published in the RBI Bulletin, prevailing on the day 28 days prior to the closing date for submission of bids.
187	2	SCC Clause 72, Sub- Clause 22.1.1 (A)	115 of 154	Wfo = Whole Sale Price Index (Averages) for Fuel & Power as published in the RBI Bulletin, for the month in which the tender was opened.	Wfo = Whole Sale Price Index (Averages) for Fuel & Power as published in the RBI Bulletin, prevailing on the day 28 days prior to the closing date for submission of bids.
188	2	SCC Clause 72, Sub- Clause 22.1.1 (A)	115 of 154	Wmo = Whole Sale Price Index (Averages) for Machinery and Machine Tools as published in the RBI Bulletin, for the month in which the tender was opened.	Wmo = Whole Sale Price Index (Averages) for Machinery and Machine Tools as published in the RBI Bulletin, prevailing on the day 28 days prior to the closing date for submission of bids.
189	2	SCC Clause 72, Sub- Clause 22.1.1 (A)	115 of 154	Wgm = Average of the monthly Whole Sale Price Index for (Averages) as published in the RBI Bulletin, for the month in which the tender was opened.	Wgm = Average of the monthly Whole Sale Price Index for (Averages) for other mineral as published in the RBI Bulletin, prevailing on the day 28 days prior to the closing date for submission of bids.
190	2	SCC Clause 72, Sub- Clause 22.1.1 (A)	115 of 154	Wgmo = Average of the monthly Whole Sale Price Index for (Averages) as published in the RBI Bulletins for the period of work under consideration..	Wgmo = Average of the monthly Whole Sale Price Index for (Averages) for other mineral as published in the RBI Bulletins for the period of work under consideration..

SI. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
191	2	SCC Clause 72, Sub-Clause 22.1.1 (B)(ii)(a)	117 of 154	The base cost indices or prices shall be those Base, prevailing on the day 28 days prior to the closing date for submission of bids. Current indices or prices shall be those prevailing on the day 28 days prior to the last day of the period to which a particular Interim Payment Certificate is related. If at any time the current indices are not available, provisional indices as determined by the Employer's Representative will be used, subject to subsequent correction of the amounts paid to the Contractor when the current indices become available.	The base cost indices or prices shall be those Base, prevailing on the day 28 days prior to the closing date for submission of bids. Current indices or prices shall be those prevailing for the period of work under consideration. If at any time the current indices are not available, latest available indices will be used, subject to subsequent adjustment of the amounts paid to the Contractor when the current indices become available.
192	2	SCC Clause 72, Sub-Clause 22.1.1 (B)(iv) Last two line	117 of 154	Adjustment on Account of Price Variation Adjustment on account of Price Variations may be positive (in which case	Deleted
193	2	SCC Clause 72, Sub-Clause 22.1.1 (B)(iv) First two para	118 of 154	extra amount shall be paid to the Contractor), or negative (in which case the amount of Price Variation shall be recovered from the Contractor). Adjustment on account of Price Variation shall be calculated separately, for each period, between two successive dates of measurements for bills and paid along with each bill. After verifying the bill, the Engineer shall certify the adjustment amount and advise the same to the Employer along with the 'On Account' bill. Should any extra amount be due to Contractor, the Employer shall pay the same as far as possible within 28 days of certification by Engineer. Any amount due from Contractor on account of negative adjustment shall be recovered from his pending or other bills at the earliest.	Deleted
194	2	GCC Clause 1.1.1.6	8 of 154	"Design Data" means all specifications, plans, drawings, details, graphs, sketches, models, levels, setting-out dimensions, calculations duly checked by the Contractor and other documents relating to the design of the Works prepared or to be prepared by or on behalf of the Contractor.	Deleted

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
195	2	GCC Clause 1.1.1.9	8 of 154	" Interim Payment Schedule " means the schedule included for each Cost Centre in the Pricing Document and accepted by the Employer to be used for interim payments in relation to achievement of milestones under that Cost Centre, as the same may be revised from time to time in accordance with Clause 11.	Deleted
196	2	GCC Clause 1.1.5.3	11 of 154	" Cost Centre Amount " means the amount apportioned to a Cost Centre as set out in the Pricing Document, as the same may be revised from time to time in accordance with the Contract.	Deleted
197	2	GCC Clause 1.1.6.2	12 of 154	" Cost Centre " means a group of activities and/ or items of work identified as such in the Pricing Document.	Deleted
198	2	GCC Clause 1.1.6.12	13 of 154	" Defects Liability Period " means the period of validity of the warranties given by Contractor commencing at Completion of the Facilities or a part thereof, during which the Contractor is responsible for defects with respect to the Facilities (or the relevant part thereof) as provided in GCC Clause 10 (Defect Liability) hereof.	" Defects Liability Period " means the period of warranties given by Contractor commencing at Completion during which the Contractor is responsible for defects with respect to the Facilities (or the relevant part thereof) as provided in GCC Clause 10 (Defect Liability) hereof.
199	2	GCC Clause 1.5	13 of 154	The documents forming the Contract are to be taken as mutually explanatory of one another. If there is an ambiguity or discrepancy in the documents, the Engineer shall issue any necessary clarification or instruction to the Contractor, and the priority of the documents shall be as follows: (a) The Contract Agreement; (b) The Letter of Acceptance; (c) Tender with all addenda & reply to query , etc all included; (d) The Outline Design Specifications (Design Criteria) and Outline Construction Specifications; (e) The Employer's Requirements; (f) The Special Conditions of Contract; (g) The General Conditions of Contract; (h) The Schedules; (i) The Contractor's Proposal; and (j) Any other document forming part of the Contract.	The documents forming the Contract are to be taken as mutually explanatory of one another. If there is an ambiguity or discrepancy in the documents, the Engineer shall issue any necessary clarification or instruction to the Contractor, and the priority of the documents shall be as follows: (a) The Contract Agreement; (b) The Letter of Acceptance; (c) Priced tender with all addenda and reply to query; (d) Technical Specifications; (e) The Special Conditions of Contract; (f) The General Conditions of Contract; (g) The Schedules; (h) Information to tenderer (i) Notice inviting tender (j) Any other document forming part of the Contract.

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200	2	GCC Clause 4.1 - Second para	17 of 154	The Contractor shall design, manufacture, supply, execute, install, complete, test (including Integrated Testing) and commission, the Works, including providing Construction and/or Manufacture Documents, within the Time for Completion and shall remedy any defects within the Contract Period. The Contractor shall provide all superintendence, labour, Plant, Materials, Contractor's Equipment, Temporary Works and all other things, whether of a temporary or permanent nature, required in and for such design, manufacture, execution, installation, completion, testing (including Integrated Testing) and commissioning and remedying of defects.	The Contractor shall manufacture, supply, execute, install, complete, test (including Integrated Testing) and commission, the Works, including providing Construction and/or Manufacture Documents, within the Time for Completion and shall remedy any defects within the Contract Period. The Contractor shall provide all superintendence, labour, Plant, Materials, Contractor's Equipment, Temporary Works and all other things, whether of a temporary or permanent nature, required in and for such manufacture, execution, installation, completion, testing (including Integrated Testing) and commissioning and remedying of defects.
201	2	GCC Clause 4.1 - Third para, 1 st line	18 of 154	Before commencing detail drawing, the Contractor shall satisfy himself	Before commencing engineering drawing, the Contractor shall satisfy himself
202	2	GCC Clause 4.1 - Fifth para, 4 th line	18 of 154	the Contract and all matters and things necessary for the proper design,	the Contract and all matters and things necessary for the proper
203	2	GCC Clause 4.1 – Last para	18 of 154	Any upward variation in equipment design parameter and system equipment requirement to meet the desired level of performance in normal and congested operations while validating the rating with simulation results will be with the Contractor and no cost to Employer.	Deleted
204	2	GCC Clause 4.4 (a) (i)	20 of 154	comply with any direction which the Engineer may give for the integration of the design of the Works with the design of any other part of the Project;	Deleted
205	2	GCC Clause 4.4 (b)	21 of 154	The Contractor shall undertake design co-ordination with other Contractors who are carrying out works forming part of the Project as described in the Employer's Requirements. At the end of each such co-ordination period, the Contractor and the other Contractor with whose works the interface period refers shall jointly state in writing that their design co-ordination activities are complete and that their respective designs are integrated and can be finalised without interference with each other's designs or the designs with which their designs have	Deleted

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				already been integrated. A copy of this joint written statement shall be provided to the Engineer within 7 days of the end of the said design co-ordination period. Unless and until copies of all relevant and necessary design co-ordination statements have been submitted to the Engineer, the Engineer shall be entitled to suspend any review or further review of the Contractor's or the other Contractor's design submissions. Such suspension shall not be grounds for the Contractor to claim nor shall be entitled to receive an extension of time or additional payments.	
206	2	GCC Clause 4.9 (a)	24 of 154	The Employer shall have made available to the Contractor with the Tender documents such relevant data in Employer's possession on hydrological and sub-surface conditions. The accuracy or reliability of the data/studies/reports and of any other information supplied at any time by the Employer or Engineer is not warranted with respect to the viability of his design and execution of Works and the Contractor shall be responsible for interpreting all such data. The Contractor shall conduct further investigations considered necessary by him at his own cost and any error, discrepancies if found in Employer's data at any stage will not constitute ground for any claim for extra time and costs.	The Employer shall have made available to the Contractor with the Tender documents such relevant data in Employer's possession on hydrological and sub-surface conditions. The accuracy or reliability of the data/studies/reports and of any other information supplied at any time by the Employer or Engineer is not warranted with respect to execution of Works and the Contractor shall be responsible for interpreting all such data. The Contractor shall conduct further investigations considered necessary by him at his own cost and any error, discrepancies if found in Employer's data at any stage will not constitute ground for any claim for extra time and costs.
207	2	GCC Clause 4.10	24 of 154	The Contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the Contract Price. Unless otherwise stated in the Contract, the Contract Price shall cover all his obligations under the Contract and all things necessary for the proper design, execution and completion of the Works, testing and commissioning (including Integrated Testing and Commissioning) and remedying of any defects.	The Contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the Contract Price. Unless otherwise stated in the Contract, the Contract Price shall cover all his obligations under the Contract and all things necessary for the proper execution and completion of the Works, testing and commissioning (including Integrated Testing and Commissioning) and remedying of any defects.
208	2	GCC Clause 4.13 (a)	25 of 154	the order in which the Contractor proposes to carry out the Works (including each stage of design, procurement, manufacture, delivery to Site, construction, erection, testing and commissioning);	the order in which the Contractor proposes to carry out the Works (including each stage of procurement, manufacture, delivery to Site, construction, erection, testing and commissioning);
209	2	GCC Clause 5	31 of 154	DESIGN	TECHNICAL STANDARDS, MANUALS AND DOCUMENTATION

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
210	2	GCC Clause 5.1	31 of 154	Entire clause	Deleted
211	2	GCC Clause 5.2	32 of 154	Entire clause	Deleted
212	2	GCC Clause 5.4 First line	34 of 154	The design, the Construction and/or Manufacture Documents, the	The Construction and/or Manufacture Documents, the
213	2	GCC Clause 5.7 third line	35 of 154	Manuals in accordance with the Employer's Requirements and in	Manuals in accordance with the Technical Specifications and in
214	2	GCC Clause 6.3 (b)	37 of 154	(b) Employment of Retired Officer / Engineer of Employer / Engineer The Contractor either at the tendering stage or during construction stage will not employ any retired employee of Employer or Engineer of the Employer in any capacity unless such employee has completed at least two years post retirement period or has obtained the no, objection certificate from Employer for being employed with the Contractor. It will be responsibility of the Contractor to collect the Employer's no objection certification from such retired employee and submit the same back to the Employer.	(b) Employment of Retired or Ex-Officer / Engineer of Employer / Engineer The Contractor either at the tendering stage or during construction stage will not employ any retired or ex-employee of Employer or Engineer of the Employer in any capacity unless such employee has completed at least two years post retirement period or has obtained the no, objection certificate from Employer for being employed with the Contractor. It will be responsibility of the Contractor to collect the Employer's no objection certification from such retired employee and submit the same back to the Employer.
215	2	GCC Clause 10.2 (a)	49 of 154	The design of the Works;	Deleted
216	2	GCC Clause 11.3 (i) & (ii)	53 of 154	(i) The fixed Lump Sum Price shall be apportioned by the Contractor amongst the various Cost Centres. The amount thus apportioned under each Cost Centre will be further detailed amongst various items. The Contractor shall be entitled to submit to the Engineer requests for interim payments only upon the achievement of one or more of the Milestones described in the Cost Centre. (ii) At the beginning of each month. the Engineer shall issue to the Contractor certificate in respect of each Milestone due to be achieved in the preceding month stating: (a) the date on which the Milestone was achieved; or (b) the non-achievement of the Milestone.	Deleted

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
217	2	GCC Clause 11.3 (iii) (a)	54 of 154	the amount due in respect of items certified achieved by the Engineer under each Cost Centre;	the amount due in respect of items certified achieved by the Engineer;
218	2	GCC Clause 11.5 (c)	54 of 154	the Employer shall pay the amount certified in the Final Payment Certificate within 56 days from the date of issue of the Certificate. Payments shall be made into a bank account, nominated by the Contractor in Indian rupees in a bank in India unless otherwise permitted in Special Conditions of Contract. If payments are to be made in more than one currency, separate bank accounts may be nominated by the Contractor (or each currency, and payments shall be made by the Employer accordingly.	the Employer shall pay the amount certified in the Final Payment Certificate within 56 days from the date of issue of the Certificate.
219	2	GCC, Clause 12.4 (h) Seventh line	63 of 154	disagreement, the Contractor shall have no claim to be executed with	disagreement, the Contractor shall have no claim with
220	2	GCC, Clause 13.2.1 (k)	64 of 154	After termination, the Employer may complete the works and arrange for any other entities to do so at the risk and cost of the Contractor. The Employer and his entities may then use, the roads, the Contractor's documents and his design document made by or on behalf of the Contractor.	After termination, the Employer may complete the works and arrange for any other entities to do so at the risk and cost of the Contractor. The Employer and his entities may then use, the roads, the Contractor's documents and his document made by or on behalf of the Contractor.
221	2	GCC, Clause 13.2.3 First para	65 of 154	After termination under Sub-Clause 13.2.1, the Employer shall not be liable to make any further payments to the Contractor until the costs of design, manufacture, execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Employer, have been established.	After termination under Sub-Clause 13.2.1, the Employer shall not be liable to make any further payments to the Contractor until the costs of supply, manufacture, execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Employer, have been established.
222	2	GCC, Clause 15.1	69 of 154	Entire clause	Deleted
223	2	GCC, Clause 17.1, Second para, 1 st line	73 of 154	The Contractor shall keep such contemporary records as may be	The Contractor shall keep such contemporary records as may be
224	2	SCC, Clause 39	95 of 154	Entire Clause	Deleted

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
225	2	GCC, Clause 17.9 (a)	75 of 154	Matters to be arbitrated upon shall be referred to a sole Arbitrator if the total value of the claim is upto Rs. 5 million and to a panel of three Arbitrators if total value of claims is more than Rs. 5 million. The Employer shall provide a panel of three arbitrators for the claims upto Rs. 5 million and a panel of five Arbitrators for claims of more than Rs. 5 million. The Contractor shall have to choose the sole Arbitrator from the panel of three and/or one Arbitrator from the panel of five in case three Arbitrators are to be appointed. The Employer shall also choose one Arbitrator from this panel of five and the two so chosen will choose the third arbitrator from the panel only. The Arbitrator(s) shall be appointed within a period of 30 days from the date of receipt of written notice/ demand of appointment of Arbitrator from either party. Neither party shall be limited in the proceedings before such arbitrator(s) to the evidence or arguments put before the Engineer for the purpose of obtaining his decision. No decision given by the Engineer in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the arbitrator(s) on any matter, whatsoever, relevant to dispute or difference referred to arbitrator(s). The arbitration proceedings shall be held in Kolkata only. The language of proceedings that of documents and communication shall be English.	Matters to be arbitrated upon shall be referred to a sole Arbitrator if the total value of the claim is upto Rs. 5 million and to a panel of three Arbitrators if total value of claims is more than Rs. 5 million. The Employer shall maintain a panel of Arbitrators with requisite qualifications and professional experience who shall be from serving or retired engineers of Government Departments, or of Public Sector of Undertakings. The Employer shall provide a panel of three arbitrators for the claims upto Rs. 5 million and a panel of five Arbitrators for claims of more than Rs. 5 million. The Contractor shall have to choose the sole Arbitrator from the panel of three and/or one Arbitrator from the panel of five in case three Arbitrators are to be appointed. The Employer shall also choose one Arbitrator from this panel of five and the two so chosen will choose the third arbitrator from the panel only. The Arbitrator(s) shall be appointed within a period of 30 days from the date of receipt of written notice/ demand of appointment of Arbitrator from either party. Neither party shall be limited in the proceedings before such arbitrator(s) to the evidence or arguments put before the Engineer for the purpose of obtaining his decision. No decision given by the Engineer in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the arbitrator(s) on any matter, whatsoever, relevant to dispute or difference referred to arbitrator(s). The arbitration proceedings shall be held in Kolkata only. The language of proceedings that of documents and communication shall be English.
226	2	SCC, Clause 1, Sub-Clause 4.2	81 of 154	The forms of Performance Guarantee, Parent Company Undertaking, Parent Company Guarantee and warranty shall be in the formats given in the Schedules 2, 3, 4, 5 and 6 respectively to these Special Conditions of Contract	The forms of Performance Guarantee, Parent Company Undertaking, Parent Company Guarantee and warranty shall be in the formats given in the Schedules 2, 3 and 4 respectively to these Special Conditions of Contract.
227	2	SCC, Clause 2, Sub-Clause 4.5, Eighth para – 3 rd line	81 of 154	basis of outline design, design briefs and performance	basis of design briefs and performance

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228	2	SCC, Clause 4, Sub-Clause 4.9 Second para	82 of 154	The Contractor shall not be relieved from any risk or obligation imposed on or undertaken by him under the Contract on any such ground or on the ground that he did not or could not foresee any matter which may affect or have affected the execution of the Works, or compliance with his other obligations under the Contract.	<p>The Contractor shall not be relieved from any risk or obligation imposed on or undertaken by him under the Contract on any such ground or on the ground that he did not or could not foresee any matter which may affect or have affected the execution of the Works, or compliance with his other obligations under the Contract.</p> <p>The responsibility of Contractor under sub-clause 4.17 of General Conditions of Contract is full and final and no claim by the Contractor for additional payment or extension of time shall be allowed on the ground that of any misunderstanding or misapprehension by the contractor or that incorrect or insufficient information was given to the Contractor or that he failed to obtain correct and sufficient information</p>
229	2	SCC, Clause 6, Sub-Clause 4.13	82 of 154	In addition to the provisions of Clause 4.13 of the General Conditions of Contract, the Works Programme, Design Submission Programme and other documents specified in the Employer's Requirements shall be submitted within the period stipulated therein. The Works Programme, Design Submission Programme and any other document submitted as per requirements of the Tender documents along with the Tender shall not in any event be construed as a submission of the Programme under Employer's Requirements.	<p>In addition to the provisions of Clause 4.13 of the General Conditions of Contract, the Works Programme and other documents specified in the Employer's Requirements shall be submitted within the period stipulated therein. The Works Programme and any other document submitted as per requirements of the Tender documents along with the Tender shall not in any event be construed as a submission of the Programme under Employer's Requirements.</p> <p>The stations shall be handed over to the Contractor progressively.</p> <p>The Contractor shall prepare and submit his detailed Programme of Work so as to achieve key dates of various activities, if any achieved on time. The Contractor shall complete the work in a phased manner fixing priorities to the different stretches of the work to give access to other interfacing contracts as per the requirement of project from time to time and as milestone indicated below.</p> <p>Intermediate Milestones:</p> <ol style="list-style-type: none"> 1. Delivery schedule for Elevated stations for Architectural Finishes, Plumbing with E&M indicated in scope of works,

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses																
					<p>complete shall be as below:</p> <table border="1"> <tr> <td>Salt Lake Stadium</td> <td>18 months from receipt of LoA</td> </tr> <tr> <td>Bengal Chemical with building for PDA</td> <td>15 months from receipt of LoA</td> </tr> <tr> <td>City Centre</td> <td>15 months from receipt of LoA</td> </tr> <tr> <td>Central Park</td> <td>15 months from receipt of LoA</td> </tr> <tr> <td>Karunamoyee</td> <td>15 months from receipt of LoA</td> </tr> <tr> <td>Salt Lake Sec- V with Building for PDA</td> <td>18 months from receipt of LoA</td> </tr> </table> <p>2. Delivery Schedule of (E&M) for Viaduct & ASS/TSS as indicated in Scope of works, complete shall be as below:</p> <table border="1"> <tr> <td>Viaduct for Six elevated stations</td> <td>22 months from receipt of LOA</td> </tr> <tr> <td>ASS/TSS</td> <td>18 months from receipt of LOA</td> </tr> </table>	Salt Lake Stadium	18 months from receipt of LoA	Bengal Chemical with building for PDA	15 months from receipt of LoA	City Centre	15 months from receipt of LoA	Central Park	15 months from receipt of LoA	Karunamoyee	15 months from receipt of LoA	Salt Lake Sec- V with Building for PDA	18 months from receipt of LoA	Viaduct for Six elevated stations	22 months from receipt of LOA	ASS/TSS	18 months from receipt of LOA
Salt Lake Stadium	18 months from receipt of LoA																				
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Salt Lake Sec- V with Building for PDA	18 months from receipt of LoA																				
Viaduct for Six elevated stations	22 months from receipt of LOA																				
ASS/TSS	18 months from receipt of LOA																				
230	2	SCC, Clause 7, Sub-Clause 4.16 and 6.7, first para, 3 rd line	83 of 154	based on the Outline Safety Plan. The Site Safety Plan shall	based on the KMRCL Safety, Health and Environment Manual. The Site Safety Plan shall																
231	2	SCC, Clause 8, Sub-Clause 4.17 (j), first line	86 of 154	Maintain dust control during working hours and clean track	Maintain dust control during working hours and clean track																
232	2	SCC, Clause 12, Sub-Clause 5.1, first line	88 of 154	The Design and Construction Standards shall be in conformity with	The Construction Standards shall be in conformity with																
233	2	SCC, Clause 17, Sub-Clause 6.9	89 of 154	Contractor shall establish/have a site office in Kolkata at no cost to the employer. Without prejudice to the generality of General Conditions of Contract Clause 6.9, the Contractor shall provide a team of	Contractor shall establish/have a site office in Kolkata at no cost to the employer. Without prejudice to the generality of General Conditions of Contract Clause 6.9, the Contractor shall provide a team of																

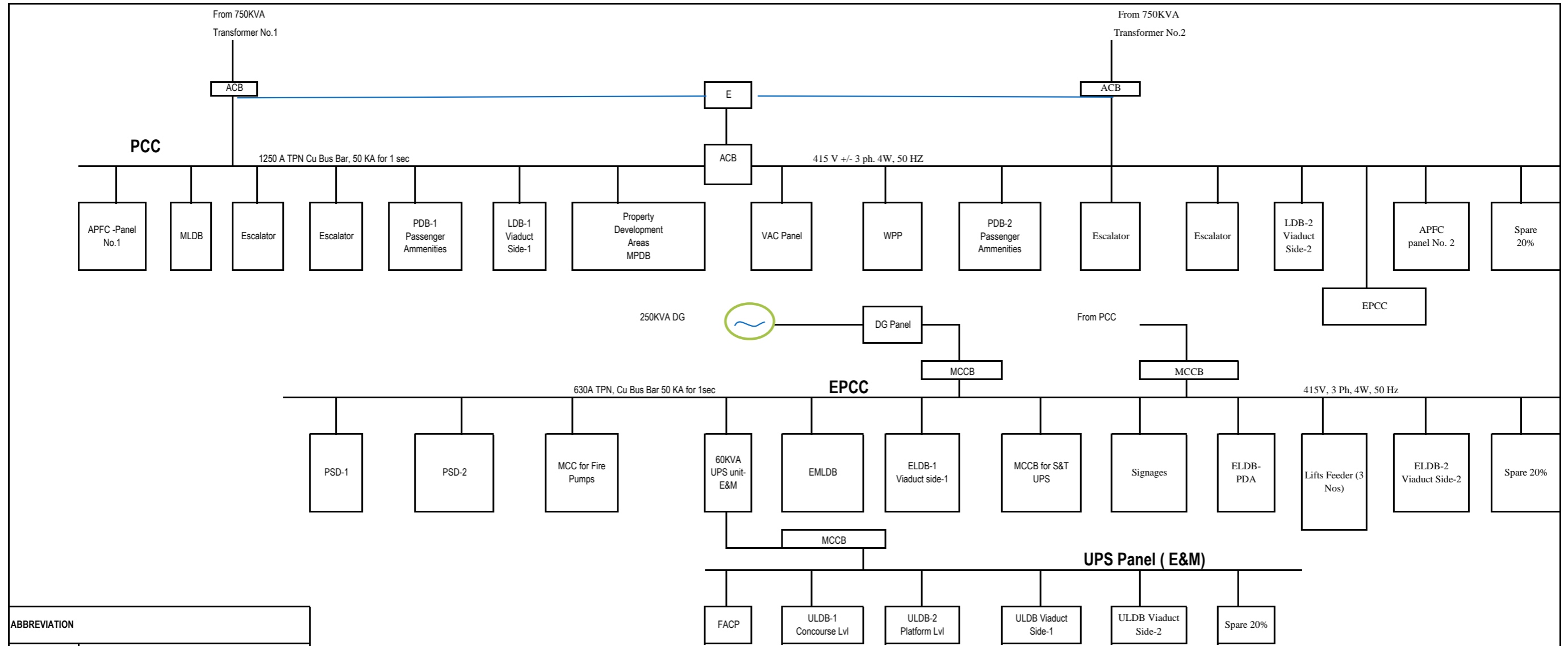
Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
				<p>suitably qualified and experienced staff to manage and supervise the Contract throughout the execution of the Works. All members of staff on the management/site supervision team (refer to as the Team in this Clause) must be under the direct employment of the Contractor. The Team shall comprise sufficient number of suitably qualified and experienced staff in the following disciplines but not limited to the following staff:</p> <ul style="list-style-type: none"> a) Team Leader (Engineer) b) Project Management Expert/Project Manager c) Electrical Engineer (E&M) d) Mechanical Engineer (E&M) e) Fire and safety engineer f) Building Management Expert g) Quality Control Expert h) Testing & Commissioning Engineer (Electrical) <p>Members of staff on the Team are prohibited to be given a sub-contract to any part of the Works or to have a vested interest in any of the Sub-Contractors under this Contract. Within 14 days of the commencement of the Contract, the Contractor shall submit to the Engineer a list of staff with all necessary details which comprised the Team referred to in sub-clause (1) of this Clause. The Contractor shall provide documentary proof on the employment status of the staff on the Team, such as employment contracts, tax returns, payment of salaries and the like upon request by the Engineer. The employment terms for the staff on the Team shall include a “consent to disclosure” clause in accordance with the data.</p> <p>If any member of staff on the team refuses to give consent to the disclosure of the required information pursuant to this Clause, the Contractor shall make a formal declaration to the effect that such a staff is indeed under the direct employment of the Contractor. The declaration shall be signed by a person authorized to sign tenders on behalf of the Contractor</p> <p>With the exception of the Project Director, all members of staff in the Team shall be full time on Site during site working hours.</p>	<p>suitably qualified and experienced staff to manage and supervise the Contract throughout the execution of the Works. All members of staff on the management/site supervision team (refer to as the Team in this Clause) must be under the direct employment of the Contractor. The Team shall comprise sufficient number of suitably qualified and experienced staff as per Annexure D of ITT.</p> <p>Members of staff on the Team are prohibited to be given a sub-contract to any part of the Works or to have a vested interest in any of the Sub-Contractors under this Contract.</p> <p>The Contractor shall inform the Engineer forthwith of any changes made to any of the staff on the Team. Change in key staff without prior consent of the Engineer is not allowed.</p> <p>The Contractor shall establish an office in Kolkata for co-ordination within 28 days from the date of commencement of the Works.</p>

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
				The Contractor shall inform the Engineer forthwith of any changes made to any of the staff on the Team. Change in key staff without prior consent of the Engineer is not allowed. The Contractor shall establish an office in Kolkata for co-ordination within 28 days from the date of commencement of the Works.	
234	2	SCC, Clause 18, Sub-Clause 7.0, First para	90 of 154	Within 28 days of the issue of the Notice to Proceed, the Contractor shall submit to the Engineer, for his consent, his proposed Site Quality Plan based on the Outline Quality Plan and the Employer's Requirements. The quality manual should address the quality system as required by ISO 9001-2000. Any supplement to the Site Quality Plan shall be submitted at least 28 days before commencement of the relevant work.	Within 28 days of the issue of the Notice to Proceed, the Contractor shall submit to the Engineer, for his consent, his proposed Site Quality Plan based on Technical Specifications. The quality manual should address the quality system as required by ISO 9001-2000 or otherwise mentioned in respective item in BOQ. Any supplement to the Site Quality Plan shall be submitted at least 28 days before commencement of the relevant work.
235	2	SCC, Clause 42	96 of 154	Deployment of Personnel by Employer The Contractor shall deploy personnel sponsored by the Employer during the Contract Period in all areas, such as Design, Manufacture and Factory Acceptance Tests at the Manufacturer's/sub-contractors Works Offshore and in India, as stipulated in the Employer's Requirements. The travel expenses, salary and allowances, boarding and lodging expenses of these sponsored personnel shall be borne by the Employer but the Contractor shall provide other facilities required for the purpose of performing their duties.	Deployment of Personnel by Employer The Contractor shall deploy personnel sponsored by the Employer during the Contract Period in all areas, such as Manufacture and Factory Acceptance Tests at the Manufacturer's/sub-contractors Works Offshore and in India, as stipulated in the Technical Specifications. The travel expenses, salary and allowances, boarding and lodging expenses of these sponsored personnel shall be borne by the Employer but the Contractor shall provide other facilities required for the purpose of performing their duties.
236	2	SCC, Clause 42A – Additional Clause	96 of 154		42A - Additional Clause - Provision of inspection vehicle The Contractor shall provide 1 (One) Air-conditioned inspection vehicle having more than 2000 CC engine capacity including driver, fuel, lubricants and all incidental charges like taxes, insurances etc. for inspection of Employers and Engineers official in Kolkata. The duty hours for the vehicle will generally be 12 hrs (8 AM to 8 PM or otherwise directed by Employer) on all working days and holidays. The limit of travel of the vehicle shall be 2500 km per month. No additional payment for this service will be paid and

SI. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
					the Contractor shall consider it within the Contract price. For all other purposes, this vehicle will be treated as “Contractors Equipment”.
237	2	SCC, Clause 43 (g)	98 of 154	<p>(g) Management of the Fund The fund shall be managed and administered by the following two committees. The Standing Committee and case to case committee consists of following:</p> <p>Standing Committee</p> <ul style="list-style-type: none"> (i) Chief Engineer – Chairman (ii) General Manager (Administration) – Secretary (iii) FA & CAO – Member (iv) Chief Signal & Telecommunication Engineer – Member (v) Chief Electrical Engineer – Member (vi) Contractor’s Representative (Major works in any particular year) (vii) Any other representative considered necessary by MD <p>Case to Case Committee</p> <ul style="list-style-type: none"> (i) GM (Administration) – Chairman (ii) Chief Engineer – Secretary (iii) FA & CAO (iv) Contractor’s Representative – Member <p>The above are the Standard Committee and Case-to-case sub-committee. However, the Managing Director may at his discretion change the above constitution.</p>	<p>(g) Management of the Fund The fund shall be managed and administered by the following two committees. The Standing Committee and case to case committee consists of following:</p> <p>Standing Committee</p> <ul style="list-style-type: none"> (i) Chief Engineer – Member (ii) General Manager (Administration) – Member (iii) FA & CAO – Member (iv) Chief Signal & Telecommunication Engineer – Member (v) Chief Electrical Engineer – Member (vi) Contractor’s Representative (Major works in any particular year) (vii) Any other representative considered necessary by MD <p>Case to Case Sub-Committee</p> <ul style="list-style-type: none"> (i) GM (Administration) – Convenor (ii) Concerned Chief Engineer/CEE/CE (S&T) (iii) FA & CAO (iv) Concerned Contractor’s Representative – Member <p>The above are the Standard Committee and Case-to-case sub-committee. However, the Managing Director may at his discretion change the above constitution.</p>
238	2	SCC, Clause 48, Sub-Clause 1.3	100 of 154	Entire clause	Deleted
239	2	SCC, Clause 52, Sub-Clause 4.9	101 of 154	Entire clause	Deleted

Sl. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
240	2	SCC, Clause 53, Sub-Clause 4.11, 4.12	101 of 154	Entire clause	Deleted
241	2	SCC, Clause 54, Sub-Clause 4.13	102 of 154	Entire clause	Deleted
242	2	SCC, Clause 65, Sub-Clause 6.6	109 of 154	Entire clause	Deleted
243	2	SCC, Clause 73, Second para, 1 st line	118 of 154	For Plumbing works, the Contractor shall guarantee the performance of	For Plumbing and E&M works, the Contractor shall guarantee the performance of
244	2	SCC Schedule 2	128 of 154	PERFORMANCE GUARANTEE (SCC Clause 5 refers)	PERFORMANCE GUARANTEE (SCC Clause 1 refers)
245	2	SCC Schedule 4	133 of 154	PARENT COMPANY GUARANTEE (SCC Clause 5 refers)	PARENT COMPANY GUARANTEE (SCC Clause 1 refers)
246	2	SCC Schedule 1	122 of 154 to 126 of 154	Entire Schedule 1	Existing Schedule 1 replaced by new Schedule 1 as per Annexure 1
247	4	BOQ Schedule B – Sl. No. 10.3	3 of 8		<p>Note at the end of the Description of Item :</p> <p>Note: for use of other size of tiles, rate will be adjusted as following:</p> $1547 \times \frac{\text{Item rate of correspondng vitrified tile size in PWDSOR 2014}}{\text{Item rate of } 500 \times 500 \text{ vitrified tile size in CPWDSOR 2014}}$ <p>[For the purpose of determination of rate exactly same specification will be used at numerator and denominator apart from size]</p>






SI. No	Volume	Clause No.	Page	Existing Clause to be replaced	New Clauses replacing existing Clauses
248	3 (Part-2)	Section E.00 – Electrical Works, Clause 1.1.1 – First line	4	Design, detail engineering, preparation of detailed drawings & documents, manufacture,	Engineering for preparation of detailed drawings & documents, manufacture,



ABBREVIATION	
APFC Panel	Auto Power Factor Correction Panel
MLDB	Main Lighting Distribution Board
MPDB	Main Power Distribution Board
PCC	Power Control Centre
MCC	Motor Control Centre
EPCC	Emergency Power Control Centre
EMLDB	Emergency Main Lighting Distribution Board
VAC panel	Ventilation & air-conditioning Panel
UPS	Uninterrupted Power supply
PDB	Power Distribution Board
LDB	Lighting Distribution Board
ULDB	Lighting Distribution Board (UPS)
WPP	Water Pump Panel
PDA	Property Development Area
AFC	Automatic Fare Collection
PSD	Platform Screen Door
ATS	Auto Transfer Source

NOTE:-

- 1 THIS DRAWING IS TENDER PURPOSE ONLY.
- 2 THIS GIVES A TENTATIVE OVERALL OUTLINE OF POWER DISTRIBUTION OF PROPOSED WORK FOR ELEVATED STATION
- 3 POWER SUPPLY (415V) ARRANGEMENT (MPDB) FOR PROPERTY DEVELOPMENT AREA (PDA)- ONLY IN BENGAL CHEMICAL & SALT LAKE SECTOR- V STATION
- 4 THE UNINTERRUPTED POWER SUPPLY FOR AFC SHALL BE FED FROM S&T'S UPS PANEL
- 5 AUTO TRANSFER SOURCE SYSTEM WITH NECESSARY INTERLOCKING BETWEEN INCOMER 1 & 2 OF EPCC

TENDER DRAWING			
		KOLKATA METRO RAIL CORPORATION LTD (KMRCL)	
General Consultants			
		  	
PROJECT	ELEVATED STATIONS/VIADUCT/ASS-TSS		
TITLE-	POWER DISTRIBUTION BLOCK RISER DIAGRAM (TYPICAL)- ELEVATED STATIONS		
DRG. NO	KMRCL/E&M/ELEV./001	REV	R1

*** SCHEDULE 1****CONTRACT AGREEMENT**

(Refer Clause 29.0 of "Instructions to Tenderers")

This Agreement is made at Kolkata on the _____ day of _____ 201__ Between Kolkata Metro Rail Corporation Limited, KMRCL Bhawan, HRBC Office Complex, Munshi Premchand Sarani, Kolkata 700 021 hereinafter called "the Employer" of the one part and _____ (Name of Contractor) (Address of Contractor) _____ of _____ hereinafter called "the Contractor" of the other part.

Whereas the Employer is desirous that (***) certain Goods and Services should be provided and) the Works should be executed, viz. _____ (Name of work as mentioned under Clause 01 of NIT) hereinafter called "the Works" and has accepted a Tender by the Contractor for the execution and completion of such works (***) as well as guarantee of such works) and the remedying of defects therein. NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
 - (a) Notice Inviting Tender (NIT)
 - (b) Instructions to Tenderers (ITT) (Including Annexures)
 - (c) Special Conditions of Contract (SCC)
 - (d) General Conditions of Contract (GCC)
 - (e) Technical Specifications
 - (f) Bill of Quantities
 - (g) Form of Tender with Appendix
 - (h) Letter of Acceptance (LOA)
 - (i) Addendums issued and Reply to query, if any
 - (j) Other conditions agreed to and documented as listed below
 - (i) Tenderer's Work Schedule as amended if required
 - (ii) Details of Quality Assurance System and Organization
 - (iii) Guarantee for the system offered
 - (iv) Any other item as applicable
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the works by ** _____ and remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying of defects therein, the Total Contract Price of **Rs _____ being the sum stated in the letter of acceptance subject to such additions thereto or deductions there from as may be made under the provisions of the Contract at the times and in the manner prescribed by the Contract.

5. OBLIGATION OF THE CONTRACTOR

The contractor shall ensure full compliance with tax laws of India with regard to this contract and shall be solely responsible for the same. The contractor shall submit copies of acknowledgements evidencing filing of returns every year and shall keep the Employer fully indemnified against liability of tax, interest, penalty etc. of the contractor in respect thereof, which may arise.

6. JURISDICTION OF COURT

The Courts at Kolkata have the exclusive jurisdiction to try all disputes arising out of this agreement between shall the parties.

IN WITNESS WHEREOF the parties hereto have caused their respective Common Seals to be hereunto affixed / (or have hereunto set their respective hands and seals) the day and year first above written.

For and on behalf of the Contractor

For and on behalf of the Employer

Signature of the authorized official

Signature of the authorized official

Name of the official

Name of the official

Stamp/Seal of the Contractor

Stamp/Seal of the Employer

SIGNED, SEALED AND DELIVERED

By the said

By the said

_____ Name

_____ Name

on behalf of the Contractor in the presence of:

on behalf of the Employer in the presence of:

Witness _____

Witness _____

Name _____

Name _____

Address _____

Address _____

Note:

* To be made out by the Employer at the time of finalisation of the Form of Agreement.

** Blanks to be filled by the Employer at the time of finalisation of the Form of Agreement.

*** To be deleted if not applicable