

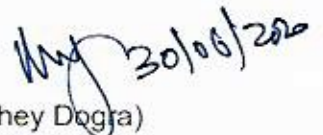
**RAIL COACH FACTORY KAPURTHALA**

MD35131

Date: 30.06.2020

**Sub: Issue of specification no. MDTS-24347 Rev-0 and Corrigendum of Schedule of Technical requirements of Design, Supply & Fitment of complete furnishing of AC-3T Garib Rath Coaches on Turnkey basis**

Please find enclosed a copy of MDTS-24347 Rev-0 and Corrigendum of Schedule of Technical requirements of Design, Supply & Fitment of complete furnishing of AC-3T Garib Rath Coaches on Turnkey basis, for information and necessary action at your end.

  
(Abhey Dogra)  
Dy CME/D-2

CQM, CPLE, CWE (Fur), CWE/Shell, CMM/HSQ, CMM/Tkj, Dy. CMM/Fur/LHB, Dy CMM/G CMT, Dy.CPLE-III,

SSE /LIB. Design

SSE / Records

Copy for kind information to:

CDE

## RAIL COACH FACTORY KAPURTHALA

MD35131

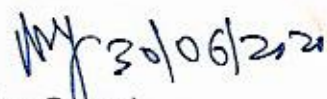
Date: 29.06.2020

**Sub: Corrigendum to specification no. MDTs-24347 Rev-0 of Schedule of Technical requirements of Design, Supply & Fitment of complete furnishing of AC-3T Garib Rath Coaches on Turnkey basis**

Following is corrigendum to MDTs-24347 Rev-0 of Schedule of Technical requirements of Design, Supply & Fitment of complete furnishing of AC-3T Garib Rath Coaches on Turnkey basis:

SN	Para	Remarks
1	4.3	All Electrical items listed in clause 7.2 may be read as "All Electrical items listed in clause 7.2 except para 7.2.5 & 7.2.6"
	7.1.iii.i	MCF spec. MMDTS-19020 rev-03 and MMDTS-19021 Rev-02, may be read as "MCF spec. MMDTS-19020 rev-03 with amendment slip no.1 and MMDTS-19021 Rev-03".  Firm may also offer silicon foam cushioning material, may be read as "Firm may also offer silicon foam cushioning material to RDSO's spec. no. RDSO/2013/CG-13 Rev-01"
2	7.3	In addition to given in para 7.3, following may also be added: "Items covered in this para shall be supplied by RCF and shall be fitted by the firm".
3	9.1	May be read as following:  Railways will provide painted coach shells fitted on diplotories in the furnishing shop. The firm shall make his own arrangement for movement of shells to the designated space allotted for furnishing of the coach:  Following assemblies shall be in the scope of supply of RCF and shall also be fitted by RCF: <ul style="list-style-type: none"><li>• Connection car body bogie</li><li>• Coupler mounting</li><li>• Mounting of electrical equipment on U/F</li><li>• Bulk supply mounting</li><li>• Grip and level mounting</li><li>• Decoupling elements for flooring</li><li>• Floor boards for flooring of coaches</li><li>• Step complete mounting</li><li>• Windows arrangement except lavatory windows</li><li>• Body side doors</li></ul>

		<ul style="list-style-type: none"> <li>• Intercar gangway mounting</li> <li>• Thermal insulation</li> <li>• Sound insulation paint ( Exterior and interior)</li> <li>• External painting/Fleet graphics</li> <li>• External marking/lettering</li> <li>• Air brake system</li> <li>• Electrical cables</li> <li>• Under slung water tank, Auxiliary water tank and piping between these two water tanks</li> <li>• Automatic Fire detection and alarm system ( Para 7.4)</li> <li>• Under frame fitted items like Pipes, Bio-Toilets etc. All under frame mechanical equipments like water pump etc. shall be provided by Railways.</li> </ul> <p>Following assemblies shall be in the scope of supply of RCF and fitted by firm, which shall require close coordination between firm and RCF:</p> <ul style="list-style-type: none"> <li>• PA System</li> <li>• GPS based PIS System</li> <li>• Set items for FRP tub for LHB AC coaches,</li> <li>• FRP top cover for AC 3 TIER coaches</li> <li>• Modified coach water inlet (connector) with strainer.</li> <li>• Vestibule Sliding Door</li> <li>• Roof Mounted AC package Unit</li> <li>• Emergency brake layout</li> </ul> <p>Any other furnishing assembly/item not mentioned shall be in the scope of supply and fitment of the firm.</p>
4	9.2	<p>Railways shall lower the coach on bogies may be read as "After complete furnishing of coach, Railways shall lower the coach on bogies".</p>

  
 (Abhey Dogra)  
 Dy CME/D-2

CQM, CPLE, CWE (Fur), CWE/Shell, CMM/HSQ, CMM/Tkj, Dy. CMM/Fur/LHB, Dy CMM/G CMT, Dy.CPLE-III,

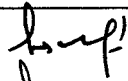

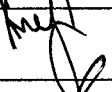

SSE /LIB. Design

SSE / Records

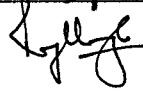
Copy for kind information to:

CDE

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 1 OF 23
-------------------------------------	--	---

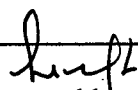
Designation	Name	Signature	Date	Level
SSE/Fur	Harish Kumar		03/06/2020	Prepared
ADE/Fur	Ravi Ranjan		03/06/2020	Agreed
Dy.CME/D-2	Abhey Dogra		03/06/2020	Reviewed
CDE	Manish Bhimte		4.6.20	<del>Approved</del> Reviewed

PCM E.R.K. Maipha



5.06.2020

Accepted

  
Prepared by

  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 2 OF 23
-------------------------------------	--	---

## 1. Introduction:

This specification covers scope of work as "Design, Supply & fitment of complete furnishing of AC 3 Tier Garib Rath Coaches by the firm on Turnkey Basis and eligibility criteria, general requirements & other guidelines regarding execution of work.

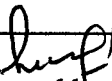
## 2. Eligibility criteria:

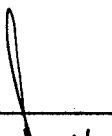
- 2.1. The tenderer(s) [or Associates in case of Consortium] should have undertaken Complete passenger interior furnishing of IR/International Railways coaches (preferably superior interior fittings and furnishings providing 'World Class' look for Railway coaches of coaching stock). The firm shall have undertaken similar complete interior furnishing of IR/International Railways coaches of **at least 25** coaches in the preceding 3 years. Documentary evidence of the same is to be furnished by submission of contract copy or documentation along with proof of satisfactory execution of work.

Or

The tenderer(s) [or Associates in case of Consortium] should have supplied major interior furnishing items comprises of Side wall Paneling, complete Ceiling and Lavatory Module of IR/International Railways coaches of **at least 25** coaches in the preceding 3 years (preferably superior interior fittings and furnishings providing 'World Class' look for Railway coaches of coaching stock).

- 2.2 The tenderer(s) [or Associates in case of Consortium] should have at least 4 Qualified Engineers/Supervisors and 20 skilled technicians employed on regular basis. The manpower, M&P and infrastructure should be available for design, supply and fitment and other coach fitment and trial related works during installation.
- 2.3 The Tenderer shall submit clause wise comments to this specification clearly bringing out the deviations, if any. Without submission of clause-wise comments, the offer is liable to be rejected.
- 2.4 Design Capability of the tenderer(s) [or Associates in case of Consortium]:
- The Design team of the firm should have Industrial designers from NID/IITs/IISC/other national reputed universities.
  - Design experience of more than 10 years in designing rolling stock/Automotives/consumers products with excellent understanding of aesthetics and graphics.
  - A digital walk through capability is necessary.
  - International design Collaboration with renowned Train designer will be preferred.

  
Prepared by

  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 3 OF 23
-------------------------------------	--	---

- 2.5 Mock Up facility -The tenderer (s) [or Associates in case of Consortium] should have in-house mockup studio with facilities of Clay Modeling, CMM machines, CNC machines and expertise in foam and fabric etc.
- 2.6 The tenderer shall submit the conceptual design along with offer for approval from competent authority. The bids submitted without conceptual design and technical detail shall not be entertained and summarily rejected.
- 2.7 The tenderer(s) [or Associates in case of Consortium] should be in a position to use materials which meet RDSO/RCF requirements laid down in the respective specification including Fire standards (Fire, Toxicity and Smoke). In case the firm offers materials compliance to fire characteristics as per EN-45545-2 and other parameters as per respective specification, same may be preferred.
- 2.8 The tenderer(s) [or Associates in case of Consortium] should give design& development cost, material supply cost and complete fitment cost for all items along with the technical bid. The design cost shall be payable to only the successful bidder whose Conceptual design, Design Capability and Mock-up Model will be approved by RCF.
- 2.9 The tenderer(s) [or Associates in case of Consortium] both shall preferably be IRIS certified. The tenders shall be ISO-9001 certified.

### 3. Salient features of the coach:

- 3.1 More passenger carrying capacity of 83 Nos. compared to 69 in existing ICF design Garib Rath AC 3 Tier Coach & 72 in LHB AC-3T coach.
- 3.2 Application of anti-graffiti coating for clean and user friendly toilets.
- 3.3 Aesthetically better interior paneling and moulding.
- 3.4 Aesthetically designed, light weight, durable and EN-45545-2 complied seats & berths.
- 3.5 Individual adjustable air conditioning vent opening on each berth
- 3.6 Under slung mounted Switch Board Cabinet
- 3.7 Pressurized flushing system in Toilets.
- 3.8 World class passenger amenities items like glass holder, snack tables, ladders, luggage racks, cabin mirror, toilet fittings, taps etc.

### 4. Scope of work:

- 4.1 Scope of work in which material is to be supplied and commissioned by the Firm for coach furnishing is detailed in clause 7.1 & 7.2. Drawing number of LHB 3Tier AC mentioned in this clause is only for reference of material and relevant RDSO/RCF specification. Firm must design all items for furnishing of coach interiors i.e. FRP Panels, Ceiling Panels, Partition Frame, Pillars, Seat and Berths accommodating electrical equipments as per approved quantities.

  
Prepared by

  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 4 OF 23
-------------------------------------	--	---

- 4.2 Firm should also provide the drawings of back pieces to be welded by RCF for fitment of all furnishing items. Drawings of these back pieces & all items should be submitted for approval from CDE/RCF.
- 4.3 All Electrical items listed in clause 7.2 are in the scope of the firm for supply and application in coach.
- 4.4 Contractor shall also deploy at least 01 dedicated supervisor to look after the material and also at least 01 supervisor to look after the issues related to the safety of his labour. This supervisor should train all the staff regarding the safety at work place and also maintain FAB (First Aid Box) exclusively for their work force. Names of all supervisors deployed by the firm shall be informed by the firm in writing to RCF before start of the work.

**5. General requirements:**

- 5.1 The Firm should ensure that majority of workman having experience in working on first prototype coach are not changed/replace till the execution of whole contract as per given PO.
- 5.2 If any alteration or change is required in design or on any other issue same shall be carried out as per advise of RCF. Only after prototype approval, bulk supply shall be required to be undertaken. Any modification arising out of change in layout shall be incorporated by the firm in bulk supply without any financial implication.
- 5.3 Drawings mentioned in para 7.1 & 7.2 are for reference only and if any change is required, the firm shall do the same on their own cost.
- 5.4 RCF shall have the right to take item/assembly supplied by the firm into Audit for checking of parameters as per laid down procedure.
- 5.5 Inspection clause: Inspection for the items to be supplied and applied by contractor, i.e. para 7.1 & 7.2 items, shall be by RITES as per approved QAP.
- 5.6 All coaches to be furnished as per production plan of RCF, firm shall depute adequate manpower to ensure the production targets.
- 5.7 Items to be procured from RDSO/RCF/ICF/MCF approved sources as per applicable drawings and specifications.
- 5.8 In case of any modification of drawing referred in tender condition document, the latest drawing shall be applicable and work shall be done accordingly.
- 5.9 Experience related to electrical work: Since electrical work is specialized in nature and pertaining to safety of the passenger, the tenderer shall have experience of electrical work

  
Prepared by

  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 5 OF 23
-------------------------------------	--	---

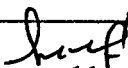
Electrical work related to production of LHB coach, MEMU, EMU, Power car or conventional coaches in Railway Production Units.

- 5.10 Firm should have valid class "A" electrical contractor license and same should be enclosed.

**6. Approval Cycle:**

- 6.1 The firm shall submit drawings required for installation/fitment of furnishings & fittings along with bill of material to RCF.
- 6.2 The firm shall submit design, pattern & colour scheme of all interior items /assembly for approval from CDE/RCF before fitment on first prototype Firm Shall also submit the assembly drawings and 3D CAD data for the evaluation of the interfaces with the shell. Firm shall submit mock-up of one cabin for approval before prototype coach.
- 6.3 If any alteration or change is required in design or on any other issue same shall be carried out as per advice of RCF. Any change/modification in layout shall be incorporated by the firm in bulk supply without any financial implication.
- 6.4 All the approved assemblies shall be fitted on first prototype coach. Only after prototype approval, bulk supply required to be undertaken.
- 6.5 Time Schedule:

S.N.	Activity	Responsible Agency	No of days
1	Tender finalisation	RCF	T
2	Submission of concept design drawings	FIRM	30
3	Approval of drawings	RCF	10
4	Final submission of assembly and detailed drawings	FIRM	10
5	Final approval of drawings	RCF	10
6	Submission of prototype sample of all items & mock-up of one cabin	FIRM	30
7	Approval of prototypes	RCF	7
8	Completion of First prototype coach	FIRM	21
9	Approval of first prototype coach	RCF	7
10	Total no of days for turn out of first approved prototype coach		T+125

  
Prepared by

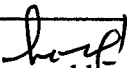
  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 6 OF 23
-------------------------------------	--	---

**7. Scope of working where Sub-assemblies are to be designed, supplied and applied in coach by Firm:**

**7.1 Mechanical Items:**

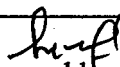
#	Description of items	Qty/ Coach	Drawings/
i)	Layout drawing no.		LE90067 Alt-b
ii)	<b>Flooring Arrangement:</b>  <b>Scope:</b> (i) PVC flooring as per the RDSO specification RDSO/2006/CG-12 (ii) Doorway area Chequerred Sheet or better alternative wear resistant, aesthetically pleasant material (iii) Fire retardant adhesive to MDTS-237 (iv) Skirting with extrusion  <b>Special Condition:</b> (i) The texture and colour of the PVC shall match with the interior furnishing. (ii) Firm may offer any better alternative design meeting all parameters specified in the relevant RCF/RDSO specification. (iii) Covering of PVC with tetron cloth etc, to avoid damage/scratches during working in coach.  <b>Requirement:</b> (i) Water seepage resistant (ii) Flatness of surface (iii) PVC joints shall be smooth and water proof	1 set  1 set  1 set 1 set	(i) LE41100 Alt-a (ii) Floor Covering- LA41115 Alt Nil
iii)	<b>Seats and Berths &amp; climbing arrangement</b>  <b>Scope:</b> (i) <b>Cushioning material:</b> MCF Spec MMDTS-19020 Rev-3 conforming to fire standard requirements to EN 45545 HL3 with suitable fire barrier cloth as per MMDTS-19021 Rev-2. Firm may also offer silicon foam cushioning material compliant to EN 45545 HL3. (ii) <b>Upholstery:</b> Vinyl Coated Upholstery Fabric (Artificial leather) with RDSO specification no. RDSO/2008/CG-07 Rev-Nil Amendment-05	1 set	As per drawing no. LE61009  Longitudinal berth should be designed in such a way that level of berth should be maintained in sleeping position.

Prepared by 

Agreed By 

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 7 OF 23
-------------------------------------	--	---


#	Description of items	Qty/ Coach	Drawings/
	<p>or superior synthetic fire resistant EN45545-2 complied cloth/fabric in aesthetically pleasing hues/colors design pattern and having better material properties as specified RDSO spec.</p> <p>(iii) <b>Berth Mounting Brackets:</b> Brackets shall be made of Stainless steel grade 409-M and shall be Powder coated of the colour matching to interior furnishing</p> <p><b>Special Conditions:</b></p> <p>(i) General arrangement of seat and berth fixing shall be as per the arrangement drawings.</p> <p>(ii) The weight of berth should not be more than similar existing berths.</p> <p>(iii) The design of Seat &amp; Berth shall be Ergonomic and modular.</p> <p>(iv) The seat frames may be made of suitable lighter weight material</p> <p>(v) The firm shall submit the test certificate for load testing of seats &amp; berth as per the para 7 of MDTS 114.</p> <p>(vi) The firm shall submit strength/stress analysis for alternate design.</p> <p>(vii) The firm may offer superior material for structural members, foam, upholstery or assembly. The firm shall submitted test certificates meeting criterion as laid down in the respective specification/ drawings.</p> <p>(viii) The firm shall submit prototype sample to RCF of seat and berth along with fittings, prior to fitment on coach for approval of color scheme , pattern, aesthetics etc. The firm shall incorporate necessary changes as suggested by RCF in the first prototype coach.</p> <p><b>Requirements:</b></p> <p>(i) Optimum utilization of space.</p> <p>(ii) Seat &amp; berth shall be designed in such a way that passenger of AC 3Tier Garib Rath Coach shall feel comfortable during long journey without fatigue (specially on the middle and upper berth).</p>		

Prepared by 

Agreed By 

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 8 OF 23
-------------------------------------	--	---

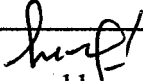
#	Description of items	Qty/ Coach	Drawings/
	(iii) Use of Indian anthropometric data (iv) Light weight and long lasting seat and berth. (v) Injury proof, corrosion resistance fitting. (vi) Uniform level of longitudinal berth in sleeping position		
iv)	<b>Doors:</b> <b>Scope:</b> (i) Compartment door (Pivoted) <b>Special Condition:</b> (i) Firm may offer superior alternative design meeting all parameters specified in the relevant specification. <b>Requirement:</b> (i) User friendly design (ii) Min. force requirement to open/close the door.	2 Nos.	LE56001: Door arrangement reference drawing (i) ICF/SK3-5-6-014 specification no. ICF/MD/S pec/268
v)	<b>Paneling and Ceiling:</b> <b>Scope:</b> (i) Sidewall panels and associated accessory for installation of the panels. (ii) Ceiling Panels and associated accessory required for installation. (iii) Mushroom head fastening device dual lock type 400 as per specification no.-MDTS 187 rev.00 shall be used to hold the panel. <b>Specification:</b> (i) All FRP panels shall be Gel coated as per MDTS 133 Rev-5 or latest with anti-graffiti measures having textured finish. <b>Special Conditions:</b> (i) Provision of cut outs for Modular Switch Panel on each berth having individual AC vents ,USB charging point, Reading light and switch shall be provided. (ii) A Foldable pocket in Side panel for keeping personal valuables on each berth similar to automobiles shall be provided. (iii) The thickness of the panel should be same or more as per reference drawing. (iv) The Design of the Panels shall be aesthetically	1 set  1 set  288 nos.	LE42114(Side wall panel) LE44320 LE44297

Prepared by 

Agreed 

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 9 OF 23
-------------------------------------	--	---

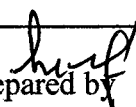
#	Description of items	Qty/ Coach	Drawings/
	<p>pleasant &amp; colour scheme to suit overall ambience with flooring / seat &amp; berth etc. The contours and curves shall be such to provide maximum space envelop to the passenger.</p> <p>(v) The headroom space for the upper berth passenger shall be optimum and not less than the existing.</p> <p>(vi) All joints in Panel shall be suitably designed to have continuous appearance.</p> <p>(vii) Roller Sliding mechanism for window curtains.</p> <p>(viii) The Bidder may offer a suitable design for the panels, which should be modular, have suitable noise and heat insulation characteristics.</p> <p>(ix) Panels and ceilings shall have necessary cut outs /back pieces for luminaries fitting as to be provided by RCF.</p> <p>(x) There shall be no sharp edges/corners/ protrusions.</p> <p>(xi) The side panel shall have suitable sunk in space for fixing of the mirror on transverse side.</p> <p>(xii) All paneling shall be with screw less design, easy to fit and replace, does not give drumming effect due to vibrations induced by the motion of the coach. There should be no gaps and if unavoidable it should be uniform at the interfaces of side wall panels, roof ceiling and partition frames.</p> <p>(xiii) There shall be no loss of air conditioning through joints.</p> <p>(xiv) Bidder may submit alternative material options superior to existing arrangement in the light of availability of World Class Interiors.</p> <p>(xv) There shall be suitable mechanism for opening of the panels for maintenance purpose.</p> <p>(xvi) Sunk in type bottle holder built in the FRP panel shall be provided for each berth.</p> <p>(xvii) The back pieces required for mounting of the Panels &amp; Ceiling shall be in the scope of the Firm. The firm shall submit the location drawing of backpieces for approval before fitment.</p>		

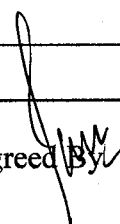
Prepared by 

Agreed by 

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 10 OF 23
-------------------------------------	--	--

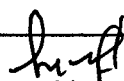
#	Description of items	Qty/ Coach	Drawings/
	<b>Requirement:</b> (i) Light weight (ii) Aesthetically pleasant (iii) No gaps in side wall and roof ceiling should be visible to passengers.		
vi)	<b>Doorway &amp; Gangway Paneling:</b>  <b>Scope:</b> (i) Set of Door frame panels (ii) Door guidance covering complete (iii) Non AC Area ceiling  <b>Special Conditions:</b> (i) The bidder may use alternate material than specified in the reference drawing. The panels shall be long lasting, aesthetically pleasant and no screws should be visible. Cut out for fixing of CCTV, smoke sensors, lights, switches and other accessories are to be provided. (ii) There shall be no gaps at corner and Edges. gaps shall not be visible at the joints. The Surface at the edges shall be smooth and merging to the mating panels. (iii) Panel shall be Modular and suitable maintenance window with square key lock of M/s Southco or Dirak make shall be provided in the Doorway Panels (iv) Light weight design, meeting load characteristics shall be given preference.  <b>Requirement:</b> (i) Light weight (ii) Aesthetically pleasant (iii) No gaps in side wall and roof ceiling should be visible to passengers.	1 set 2 Nos. 1 set	LE43001 2 10113.0.21.420. 124 LE44005
vii)	<b>Partition Frames &amp; Pillar assembly:</b>  <b>Scope:</b> (i) The Aluminum honeycomb partition frame laminated with both sides decorative HPL Panel Or Any with Al-fr panel or other composite material having better strength to weight ratio	1 set	LE10011 alt-f & LE61009

Prepared by 

Agreed By 

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 11 OF 23
-------------------------------------	--	--


#	Description of items	Qty/ Coach	Drawings/
	<p>may be offered by the bidder.</p> <p>Pillar Assembly of Stainless-steel grade 409M and shall be Powder Coated of the colour matching to interior furnishing</p> <p>(ii) Upper Berth Climbing Arrangement: It shall be made of stainless steel grade 409 M and shall be Powder Coated of the colour matching to interior furnishing.</p> <p><b>Special Condition:</b></p> <p>(i) The thickness of composite partition frame shall be as per layout with aluminum honeycomb</p> <p>(ii) Pillar assembly may be integrated with upper berth climbing arrangement.</p> <p>(iii) The firm should provide a safe, comfortable and user-friendly upper berth climbing arrangement comprising of ladders and handholds suitable for all age, weight &amp; physique of passengers as per arrangement drawing.</p> <p>(iv) Climbing arrangement and berth mounting brackets shall be injury free and shall have minimum protrusion. The bidder shall submit the detailed design of climbing arrangement.</p>	16 Nos.	
viii)	<p><b>Lavatories &amp; sanitary facilities:</b></p> <p><b>Scope:</b></p> <p>(i) FRP Lavatory Module with Euro bowl &amp; Orient bowl as per layout having Internal Wash basin, Internal &amp; external Dustbin, Sanitary facilities, inside Mirror &amp; Fire extinguisher.</p> <p>(ii) Electro pneumatic Pressurizer flushing as per MMDTS-19027 with provision of bypass incase of failure of air or electric power. It should be compatible with retention tanks and coach interfaces.</p> <p>(iv) Odour control system as per RDSO specification No.: RDSO 2008/CG-12</p> <p>(v) Exhaust fans to spec. no. EDTS-331, (Latest) shall be provided to exhaust air from the lavatories.</p>		LE63006

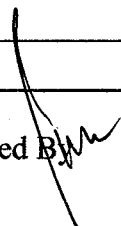
Prepared by 

Agreed by 

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 12 OF 23
-------------------------------------	--	--

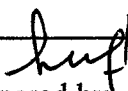
#	Description of items	Qty/ Coach	Drawings/
	<p><b>Special condition:</b></p> <p>(i) Lavatories should be FRP modular toilet (MDTS 214 Rev-07 or latest) with gel coated suitably sloped floor and with anti-graffiti coating surface finish panel with improved toilet seat mounting arrangement and all the amenities like mirror, water tap, soap dispenser and tissue paper dispenser. Light and mirror of lavatory shall be sunk-in type.</p> <p>(ii) Lavatory fittings should have suitable hydrophobic coating.</p> <p>(iii) All sanitary facilities including piping connection from auxiliary water tank shall be in scope of supplier. However, Underslung water tank, Auxiliary water tank and piping between these two water tanks shall be in scope of RCF.</p> <p>(iv) Dustbin integrated with outside wash basin and fire extinguisher pocket merged with corner of the lavatory.</p> <p>(v) Large view mirror above the washbasin in lavatory</p> <p>(vi) All the lighting arrangements of lavatory shall be in scope of supplier.</p> <p>(vii) Attachment wall shall be integral part of lavatory and there should be no visible gap in joints. There shall be a maintenance window with square key opening.</p> <p>(viii) Lavatory window to drg. no. LW54188. Bidder may also offer any other elegant swing type window design with frosted glass and SS grill.</p> <p>(ix) All sanitary facilities including water taps, soap dispenser, dustbin, flushing valves shall be foot operatable.</p> <p>(x) The lavatory door shall have hand free mechanism for opening and closing of door and shall have foot operated locking mechanism</p> <p><b>Requirements:</b></p> <p>(i) No water clogging</p> <p>(ii) failure proof working of flushing system with clogging</p>		

Prepared by 

Agreed By 

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 13 OF 23
-------------------------------------	--	--

#	Description of items	Qty/ Coach	Drawings/
	(iii) No water clogging (iv) No dust ingress on the fittings (v) Neat and clean toilets during whole journey time		
ix)	<b>Air Circulation System &amp; Duct:</b>  <b>Scope:</b> (i) Complete ducting arrangement for conditioned air and return air circulation inside the sitting compartment area.  <b>Special condition:</b> (i) Suitable ducting arrangement with provision of effective diffuser with controllable air flow for each seat. (ii) There shall be provision of individual opening on each berth with provision of air vent. If the bidder intends to provide a small duct/panel fan at the opening of the branches of AC ducts in each cabin, the technical data of the fan along with interface requirements for electrical connections/routing of cables/power requirements shall be submitted by the bidder at the time of tendering so that necessary interfaces in the body shell may be provided accordingly. The return duct have suitable anti-bacterial filter without effecting flow of air. (iii) The bidder shall provide the CFD analysis of Air-conditioning. (iv) Firm may use any alternate superior material for duct (v) Firm will provide suitable insulation for the duct to minimize the losses.  <b>Requirement:</b> (i) Uniform air flow. (ii) No heat zones (iii) No pressure drops for ensuring comfortable journey.	1 set	LE44117 & MI007461
x)	<b>Passenger Amenity Items:</b>  <b>Snack Table:</b> (i) Suitable Foldable sunk in Snack table should be	11 Nos.	LW64218 Alt f

Prepared by 

Agreed By 

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 14 OF 23
-------------------------------------	--	--

#	Description of items	Qty/ Coach	Drawings/
	provided in each cabin it shall bear minimum 80Kg weight at the end/100Kg weight in the center of the table. (ii) Concealed snack table for the longitudinal berths (iii) Shall have hydrophobic dust proof surface finish. (iv) Dimension of snack table shall be minimum of 300X 350 mm (v) Odour Control units to RDSO Spec. RDSO/2008/CG-12 shall be provided in the AC compartment area. <b>Other amenities to be provided in each cabin are:</b> (i) Coat hook (ii) Luggage rack (iii) Cabin Mirror (iv) Mobile holder near charging sockets All the amenities shall be designed to suite the complete aesthetic of the cabin. All the amenities shall be of sunk in type with minimum protrusion and crashworthy features (No injury in case of derailment and other accidents).	3 Nos.	& LE61009  LE64171
		22 Nos. 11 Nos. 11 Nos. 83 Nos.	CC64254 alt'e' LA62102 alt 'g' LW64136 alt c'
xi)	<b>Layout of lettering inside:</b> (i) Complete interior Stickers and Notices	1 Set	LE64013 alt 'c'
xii)	<b>CCTV Camera:</b> (i) Procurement to be made from approved Sources of ICF/MCF/RCF only. (ii) Scope of Supply shall be as per Drawing ICF/SK3-9-0-161 alt-c. It shall be in form of Set consisting 6 cameras in each set with associated accessories as per drawing.	1 Set	ICF/MD/SPEC-269 REV.05 AND MD22131 DTD. 24.08.16. ICF/SK3-9-0-161 alt-c

## 7.2 Electrical Items:

**7.2.1 Light Fittings:-** The following types of Light fittings shall be provided in coaches. Exact design, type, Model and Layout to be described in the offer.

Reference Document No. RDSO/PE/SPEC/TL/0091-2016, Rev.1 (or latest)

#	Description	Qty/Coach	Drawing No.
1	LED Light Fitting for Corridor, Doorway & Gangway for LHB AC Coaches Type-B1 (9 W) (Cabin Area)	11	CC76453

*[Signature]*  
Prepared by

*[Signature]*  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 15 OF 23
-------------------------------------	--	--

2	LED Light Fitting with Night light for LHB AC Coaches Type-M ( 9W + 1W) (Corridor Area)	5	LW76091
3	LED Light Fitting for LHB Type AC Coaches Type-N (9W) (Doorway/Gangway area)	11	LW76099
4	LED light fitting for mirror/lavatory area Type-D (9W)	4	LW76092
5	Emergency light unit	4	
6	LED Light Fitting for Passenger Alarm Chain Indication Type-I ( 5 W)	2	LW76098
7	LED Light Fitting for Toilet Indication in LHB AC Coaches Type-H1 ( 1 W)	4	LW76097
8	LED Light Fitting for Reading Light for LHB type AC Coaches, Type-F1 to F4 ( 2 W)	83	LW76093 LW76094 LW76095 LW76096
9	Foot step Light	4	*

\* Suitable for outdoor applications, IP-67 protected of reputed make. Make/Model to be got approved from CEDE/RCF.

The above light fittings shall be procured from RCF/ICF/MCF approved sources only by the contractor and provided in coaches keeping the fixing/interface requirements as per existing design. The area of application of the above mentioned luminaries is as per the existing scheme being followed in LHB design coaches however the contractor may design illumination scheme with any type of above mentioned light fittings for illumination of interiors of the coach. However, prototype design approval for general layout arrangement of light fittings shall be taken from CEDE/RCF. Alternatively for improved performance/aesthetics/safety standards, the contractor may provide own design lighting fixtures duly complying with the requirements of the specification for 'LED based luminaries' to spec. no. RDSO/PE/SPEC/TL/0091-2016, Rev.1 (or latest)

### 7.2.2 The Switch Plate Assembly or the panel housing:-

Reference Document No.- EDML-064 (Latest), IS:3854 & IS:1293 (Latest)

Push buttons (Push-ON, Push-OFF) of M/s IDEC/WERNER make shall be provided for switching of light fittings and 5 pin/USB charging points. All berths shall be provided with individual USB charging points and in addition to this, two nos. 5 pin sockets in inside the cabin and 1 no. 5-pin socket on corridor side shall be provided at suitable locations. The USB charging points may be integrated with Berth Reading Lights. The overall general arrangement of electrical amenities for furnishing the coach shall be got approved from CEDE before start of the work at RCF. All switches and sockets/USB Charging sockets shall be tested according to relevant IS/International standards. Certificates in this regard shall be submitted by the firm.

  
Prepared by

  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 16 OF 23
-------------------------------------	--	--

- 7.2.3 The switches/sockets will be developed/designed blending the interiors of the coach and will get it approved. The switches and sockets/USB chargers shall be proven world class products suitable for application in Coaches/Rolling stock. Test protocols for USB charging sockets shall be submitted and got approved from CEDE/RCF before supply. I/P supply to USB charger module is to be 110V.

Total no. of USB Mobile Charger with 'ON-OFF' switch = 83

Total no. of 5 pin Mobile Charging Sockets = 31

Total no. of Switches – Light Points-31, 5-pin Charging Points-31

#### 7.2.4 Berth Reading Lights:-

The design of berth reading lights shall be flush mounted with the FRP paneling by integration of light fittings in FRP panels. and shall be procured from RCF/ICF/MCF approved sources only. Alternatively for improved performance/aesthetics/safety standards, the contractor may modify the design by integrating USB Mobile Charging Socket with Berth Reading Lights as mentioned above. The prototype design approval for OGA/fixing arrangement of BRLs shall be taken from CEDE/RCF.

Total no. of Berth Reading Lights with ON-OFF switch = 83

#### 7.2.5 PA System:-


PA System as per Specification no. EDTS-292, Corr-1 shall be in the scope of supply of RCF, however, the fixing arrangement of speakers and required interfaces shall be incorporated in the FRP panels in AC and Non AC areas. The speakers shall be accessible for maintenance purpose.

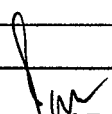
#### 7.2.6 GPS based PIS System

Passenger Information System shall be in the scope of supply of RCF as per RDSO specification no. RDSO/PE/SPEC/AC/0087-2008, Rev-1 for AC 3-Tier Coaches (excluding item 1.2.7, 1.2.8, 1.2.10, 1.2.11, 1.2.12) & display Panel as per SKED-713. The firm shall make provision above compartment door for fitment of PIS display similar to Humsafar Coaches. The contractor shall be responsible for fitment of complete system.

- 7.3 These are the some intermediate fittings between coach shell body, Electrical and coach interior fittings which will require close coordination between firm and RCF. These are given below:

S.N.	Description of items	QPC
i.	Set items for FRP tub for LHB AC coaches	2
ii.	FRP top cover for AC 3 TIER coaches	2
iii.	Modified coach water inlet (connector) with strainer. CAMTECH.M.COACH WATERING-08-S with MDTS-203 Revision 05	4

  
Prepared by

  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 17 OF 23
-------------------------------------	--	--

iv.	Vestibule Sliding Door	2
v.	Roof Mounted AC package Unit	2

7.4 Automatic Fire detection and alarm system shall be supplied and applied by RCF under the guidance of the Turnkey agency. Close interaction may be needed between agency and RCF for this purpose.

**8. General terms and Conditions:**

8.1. All tools & machineries required for the furnishing and fitment items will be provided by the tenderer.

8.2 Requirement of material for additional back pieces in coach shall be in the scope of firm. Fitment of new back pieces/modifications to the existing back pieces or any minor alterations in the coach, shall be made with the approval of RCF.

8.3 It shall be noted that there may be minor variations in dimensions of the coach due to fabrication. The same shall be taken into consideration.

8.4 During installation of all items under the scope of firm, it shall be ensured to control vibrations of items so that reliability/life is not affected and no damages take place. All interior fittings should have aesthetic look and flush with the interior decor. Sharp edges shall be avoided. All the interior fittings should have anti-pilferage feature.

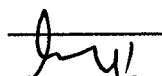
8.5 The composition and finish of all the materials covered under firm scope of supply shall meet respective specification requirements as covered in the relevant drawings/specifications.

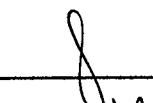
8.6 The connections of all electrical amenities for furnishing i.e. light fittings/charging points done by the Firm shall be firm & in accordance with the code of practice of wiring i.e. EL/SPEC/EOG/001,002 and the Firm shall handover the coach in fully functional condition after conducting HV & IR testing for QC clearance by Quality department. Final electrical clearance shall be accorded by Dy.CEE/EP.

8.7 All hardware and accessories required for the installation of the items mentioned in para 7.1 & 7.2 will be in the scope of the tenderer.

8.8 The installation and commissioning work of the items listed in para 7.1 & 7.2 has been kept in the scope of the tenderer. If the situation arises RCF reserve the Right to reduce the installation and commissioning work from the scope of work of Tenderer.

8.9 The quantity distribution between successful bidders can be changed based on the performance in due course of the turn key project. The firm lagging in completion of work

  
Prepared by

  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 18 OF 23
-------------------------------------	--	--

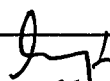
or with poor quality shall be penalized with reduced quantity as decided by the competent authority.

- 8.10 It will be the sole responsibility of firm to timely arrange all the material (either that item belongs to RDSO or RCF approved source) those are mentioned in the scope of supply and commissioning. After placing the PO, if firm fails to furnish the coach as per agreed schedule of production due to lack of material supply/manpower scarcity, RCF shall have full right to cancel the PO placed on firm.
- 8.11 In case of any damage to RCF property, Coach item or Shell during commissioning, the same shall be repaired/replaced by the Firm. In case any alternation in shell is required, prior approval of competent authority is required.
- 8.12 Any item supplied by firm got damaged during commissioning or before final dispatch of coach (Gate Out), the same is to be replaced by the firm as free of cost.
- 8.13 Raw material such as special upholstery for seats, special paint with specified shades should readily available with the firm for repair and maintenance.
- 8.14 Firm shall submit a complete catalogue for items, fittings instruction including trouble shooting for easy maintenance by the Railways.

**9.0 Facilities to be provided by Railways to Contractor :-**

The contractor shall be provided free of charge, the following facilities during the operation of the Contract at RCF :-

- 9.1 Railways will provide the coach shells fitted with Air brake system. Under frame fitted items like pipes under frame mounted water tanks, Bio-Toilets, CBC etc. All under frame mechanical equipments like water pump etc. shall be provided by Railways. Painting of the shell an external marking/lettering will be done by Railway.
- 9.2 Railways shall lower the coach on bogies. Final testing of coach shall be done by Railways.
- 9.3 Power supply, Compressed Air and water near the site of work. However, the tenderer is advised to examine the actual site conditions for the last mile arrangements which is to be done by the firm for taking the compressed air and water from nearest tapping point (of compressed air and water) provided by Railways to the site and quote the rates, keeping in view these costs. All other facilities to be arranged by contractor himself.
- 9.4 Railways shall provide limited space inside covered shed (not enclosed) to the Contractor for keeping the material & tools required for day to day work. Contractor shall construct a

  
Prepared by

  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 19 OF 23
-------------------------------------	--	--

temporary shed in the factory premises for bulk material and tools. This will serve as a temporary office of the firm at RCF.

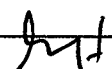
The space making temporary shed shall be provided close/nearby the existing covered shed in the factory premises. Cleanliness of the temporary shed shall be the responsibility of the contractor.

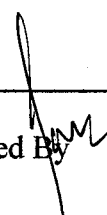
**10. Documentation:** The Tenderer shall submit the following documents:

- a) All the drawings required for installation/fitment of furnishings & fittings.
- b) All 3D CAD data of the items in universal format
- c) Bill of materials.
- d) Sources of supply with approximate cost (more than one alternative indigenously sources)
- e) Operations, Instructions & Installation manuals (3 copies)
- f) Maintenance manuals (3 copies)
- g) Any other documentation, as required, by RCF
- h) All design and drawings of successful bidder as approved by RCF shall be the property of the RCF. RCF shall have the proprietary rights of these design and drawings. RCF may use these design and drawings in future.

**11. Statutory terms and conditions :-**

- 11.1 The Contractor shall comply with the provision of the contract labour (Regulation and Abolition) Act, 1970 and the Contract labour (Regulation and Abolition) Central Rules 1971 as modified from time to time, wherever applicable and shall also indemnify the Railway from and against any claims under the aforesaid Act and the Rules. Contractor shall abide by all laws of the land including, Factories Act 1948, Labour Laws (ESI, PF BONUS Income Tax, Service Tax or any other extra taxes levied by the Government) Companies Act, TAX deduction liabilities, Welfare measures of its employees and all other obligations that enjoin in such cases and are not essentially enumerated and defined herein, though any such onus shall be the exclusive responsibility of the Contractor, and it shall not involve the Railway in any way what – so ever.
- 11.2 The contractor shall obtain a valid license under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid license until the completion of the work. Any failure to fulfil the requirement shall attract the penal provision of the Contract arising out of the resultant non-execution of the work.
- 11.3 All the contract labour has to come to the factory with Personnel Protective Equipments such as safety shoes and helmets. Contractor has to ensure that no worker is without PPE. All the labour of the contractor should have identity cards & no labour shall be allowed to work without having the Identity cards. It is the responsibility of the contractor to ensure safety of its staff by taking suitable measures.

  
Prepared by

  
Agreed By

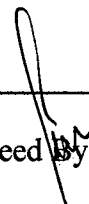
Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 20 OF 23
-------------------------------------	--	--

- 11.4 The firm shall take all precautionary measures in order to ensure the protection of their own personnel moving out or working on the Railway premises and should confirm to the Rules and Regulations of the Railway and the Factory Act.
- 11.5 The Contractor shall take all precautionary safety steps to prevent and untoward incident inside the Railway premises. The contractor shall note that no compensation due to any loss of life/material or any other account shall be given by the Railways and contractor shall have to pay all compensation in case of any accident, injury to the labour.
- 11.6 The following set of registers should be maintained at the worksite by the contractor and should be shown to the Statutory Authority (i.e. the Labour Enforcement Officer. Etc.). Wage Register be witnessed by the respective RCF supervisor.

SN	Form No.	Registers
1	Form XIII	Register of workmen employed by Contractor
2	Form XIV	Employment card
3	Form XVI	Muster Roll
4	Form XVII	Register of wages
5	Form XVIII	Form of Register of wages cum muster roll
6	Form XIX	Wage slip
7	Form XX	Register of deductions for damage or loss
8	Form XXI	Register of fines
9	Form XXII	Register of advances
10	Form XXIII	Register of Overtime

- 11.7 Payment to labourers has to be made, as per the Minimum Wages Act, revised from time to time. Payment to the labourers should be made through Bank payment systems (A/c payee cheques) and necessary documentary evidence for the same must be provided to the executing department i.e. Dy. CME/Fur/RCF. Wage Register must be witnessed by the respective RCF Supervisor.
- 11.8 The firm shall apply for and obtain necessary permit for the staff and labourers for working inside the factory area. The normal working hours shall be between 08:00 hrs to 17:30 hrs from Monday to Friday with lunch break between 12:00 hrs and 13:00 hrs. On Saturday, the working hours will be from 08:00 hrs to 13:00 hrs. However, if required the contractor may take permission to work in other timings as well depending on the work load and also on Sundays and holidays. Contractor staff has to work on Sunday or Holiday, if required.
- 11.9 The firm shall meet the Environmental Management System requirements in accordance with the rules and regulations of the railway and the Factory Act.

  
Prepared by

  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 21 OF 23
-------------------------------------	--	--

11.10 Environment protection: The contractor shall ensure that all Environmental Protection Laws of Central and State Government are unscrupulously followed during the operations and waste disposal.

11.11 Preservation of peace: The contractor shall take requisite precautions and use his best endeavours to prevent any riotous or unlawful behaviour by or amongst his workmen and other employed directly or through the petty contactors or sub-contractors on the works and for the preservation of peace and protection of the inhabitants and security of property in the neighbourhood of the works. In the event of the railway requiring the maintenance of a special Police Force at or in the vicinity of the site during the tenure of works expenses thereof shall be borne by the contractor and if paid by the Railway shall be recoverable from the Contractor.

11.12 Final authority: GM/RCF/KXH shall be the final authority for settling the disputes, if any.

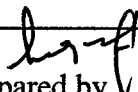
## **12. Payment terms:**

12.1 Payment of 70% of value of material cost shall be done once the entire material as per scope of supply by firm is received and accepted by Dy.CME/Furnishing. However, such payments can be processed only in the multiple of 10 coach set material.

12.2 Payment of the remaining 30% of the material cost will be made after successful completion in multiple of 10 coaches & gate out from RCF on the submission of "work completion certificate" for Mechanical and Electrical portion issued by Dy.CME/Furnishing & Dy.CEE/Production respectively. Before releasing of 30% payment firm has to submit performance guarantee to the value of 10% of the total contract value for certified coaches in any of the following:

- a) A deposit of Cash;
- b) Irrevocable Bank guarantee;
- c) Government securities including State Loan Bonds at 5% below the market value;
- d) Deposit receipts, Pay Orders, Demand Drafts and Guarantee Bonds. These forms of Performance Guarantee could be either of the State Bank of India or any of the nationalized banks;
- e) Guarantee bonds executed or Deposits Receipts rendered by all Scheduled banks;
- f) A Deposit in the post office saving bank;
- g) A deposit in the National savings certificates;
- h) 12 years National defense certificates;
- i) 10 years defense deposits;
- j) National Defense Bonds and
- k) Unit Trust Certificate at 5% below market value or at the face value whichever is less.

Also, FDR in favour of FA&CAO (free from any encumbrance) may be accepted.

  
Prepared by

  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 22 OF 23
-------------------------------------	--	--

Note: Performance Guarantee will be released after completion of warranty period (Scope of work). Release of Performance Guarantee shall be done after clearance from respective depot nominated by Zonal Railway for the coach for attending warranty.

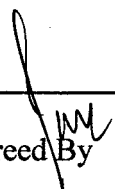
### 13. Penalty Clause:

- 13.1 Penalty for non-completion of the coach work. Penalty of Rs.3000 per day per coach shall be levied upon the contractor if he/she is not able to fit/install the material supplied and clear the coach from the Quality deptt. for the scope of work.
- 13.2 If any safety instruction is not adhered to and if any of the contract workers is found without PPE, penalty for the same shall be applied @ Rs. 500/person/day.
- 13.3 Smoking, chewing of Pan/Gutka/ any intoxicant is strictly prohibited at work place, ignoring this penalty @ Rs 500/person shall be applied.
- 13.4 100% trouble free/Breakdown free operation of Vendor supplied items is to be ensured in warranty period during running of train from Primary maintenance depot. A free period of 36 Hrs. from time of information to time of attention will be given, beyond which penalty of 500 Rs. per coach per 24 Hrs. will be levied.

### 14. Miscellaneous Term and Conditions:

- 14.1 The Firm shall arrange for suitable crane ,Material Handling Equipments and fork lifters with driver for handling of materials.
- 14.2 The Contractor shall maintain prescribed Quality of work and good workmanship. If any quality deviation is identified, necessary corrective and preventive actions shall be taken by the Contractor at the first instance of identification. If the Contractor fails to maintain the required quality standards and gets repeated rejection/rework, the contract will be terminated duly disqualifying the firm from quoting for future Tenders.
- 14.3 The contractor shall coordinate with concerned departments and other agencies of RCF/KXH connected to this and have to work in close liaison with them. The contractor shall maintain close co-ordination with the officers of Furnishing shops for instructions on production plan etc.
- 14.4 Stage Inspection of application work shall be carried out by the Dy. CME/Fur or his authorized Engineer. However, final clearance of coach shall be done by Quality Department of RCF/KXH or their nominated agency. Any scope of the entire work may however be inspected by any competent authority of RCF including CMT lab/ Planning/ Design etc. from time to time.

  
Prepared by

  
Agreed By

Rail Coach Factory Kapurthala	Technical specifications of Design, Supply & Fitment of Complete Furnishing of AC-3T Garib Rath Coaches on Turnkey Basis	MDTS-24347 Rev.00 Date: 01.06.2020 Page 23 OF 23
-------------------------------------	--	--

- 14.5 The contractor shall offer for inspection in writing after completion of work duly indicating the date of work and Shell number. Any inspection points raised on the installation work done till the dispatch of the coach, shall be cleared by the Contractor before turning out of coach.
- 14.6 The contractor shall maintain proper record of all activities in the register which will be checked on daily basis by concerned supervisor of RCF/KXH.
- 14.7 If found satisfactory Dy CME-Fur/any such person deputed by the competent authority shall issue the completion certificate for the work which should be submitted by the firm with the bill for claiming payment.
- 14.8 All the tools machines viz. Drilling Machines etc. and Lighting arrangement inside the coach etc. and work bench, ladder & working platform etc. as required to execute work as per scope of work shall be arranged by the contractor. The contractor shall use safe tools. Proper extension boards shall be used. Extension wires with joints and without insulation shall not be used. All the tools should have proper electrical plugs.
- 14.9 The contractor shall ensure cleaning of coach before handing over to Railways.
- 14.10 Contractor staff will not dump sweepings, garbage here and there. It will be dumped in nominated bins.
- 14.11 The contractor shall be solely responsible for the orderly and proper conduct of his staff during the period of work inside the RCF/KXH. The staff should be polite and courteous. No food items shall be allowed at the work place. All the food to be consumed in canteen.
- 14.12 Errors, Omission and Discrepancies: The tenderer(s) shall not take advantage of any misinterpretation of the conditions due to typing or any other error and if any doubt shall bring it to the notice of the Engineer without delay in case of any contradiction. Only the printed rules and books should be followed and no claim for the misinterpretation shall be entertained.
- 15. Warranty & Spares:**
- 15.1 Warranty claims will be applicable as per IRS terms and conditions. Warranty complaints/issues to be attended at respective depot.
- 15.2 Preventive maintenance of all the items in the scope of turnkey is to be carried out by the contractor for a period specified in IRS condition at the primary maintenance depot from the date of dispatch of coach from RCF.

-X-X-X-X-X-X-

  
Prepared by

Agreed By 