



## KOLKATA METRO RAIL CORPORATION LIMITED

(A GOVERNMENT OF INDIA AND GOVERNMENT OF WEST BENGAL JOINT VENTURE)

HRBC BHAWAN,

(4th & 5th floor)

Munshi Prem Chand Sarani

Kolkata-700 021

Phone/Fax: 2213 4350

Memo No. CE-II/39/Track Tender/10

Dated: 21.09.2010

### **ADDENDUM-5** **TO CONTRACT TW**

**DESIGN, CONSTRUCTION, MANUFACTURING, SUPPLY, INSTALLATION, TESTING, COMMISSIONING OF TRACK WORK AND  
INSTALLATION OF THIRD RAIL**

**(SALT LAKE SECTOR V- HOWRAH MAIDAN INCLUDING WITHIN CENTRAL PARK DEPOT)**

To:-

- a) Consortium of Alstom Projects India Ltd, Premco Rail Engineers Ltd. and Alstom Transport S.A.
- b) ETF-Eurovia Travaux Ferroviaires –OCI/ Orascom Construction Industries Joint Venture
- c) Consortium of M/s Larsen & Toubro ECC and M/s Sagar Infra Rail International Limited
- d) IRCON International Limited
- e) ITD-ITD Cem Joint Venture
- f) Kalindee-TSO-Rahee JV

**Dear Sir(s),**

- 1. Following clauses have been modified / introduced in the Tender Document in Addendum 5 with respect to few of its clauses as tabulated below. If required hard copy of the Addendum may be obtained by the Tenderers from the following address:-**

Project Director,  
The General Consultant to the Employer  
Kolkata Metro Rail Corporation Limited,  
HRBC Bhawan (4th & 5th floor),  
Munshi Prem Chand Sarani,  
Kolkata-700 021,  
India

SL. NO.	REFERENCE		AS WAS EXISTING	AS REVISED
	Volume	Section and/or Clause		
1)	Volume 1	Form of Tender Appendix 15 Clause A	<p>A. The Tenderer shall submit certificate/s from user established Metro/ Railway system to the effect that the type of ballastless track structure and the Fastening system (which is being offered by the tenderer) is under trouble-free service for at least 5 years satisfactorily both in underground and elevated sections for a stretch of minimum 5 Track KM in each. The certificate should include, but not limited to the following:-</p> <p>I. Details of the User Metro/ Railway system such as, Name, address, telephone number, e-mail id, Fax No. etc;</p> <p>II. Name of the line in which the system has been in use for more than 5 years;</p>	<p>A. The Tenderer shall submit certificate/s from user established Metro/ Railway system to the effect that the type of ballastless track structure together with the Fastening system (which is being offered by the tenderer) is under trouble-free service for at least 5 years satisfactorily both in underground and elevated sections for a stretch of minimum 5 Track KM in each. The fastening system shall be of same type both for elevated and underground sections. The certificate should include, but not limited to the following:-</p> <p>I Details of the User Metro/ Railway system such as, Name, address, telephone number, e-mail id, Fax No. etc;</p> <p>II Name of the line in which the system has been in use for more than 5 years;</p>
2)	Volume 4	6.3.1.1	The Track structure should get accommodated with respect to as-built/under construction viaduct, elevated stations and underground civil structures duly complying with the Schedule of dimensions (S.O.D) of KMRCL (S.O.D is a part of Vol.7 of tender documents). For this purpose it should also be noted that the nominal difference in level between	The Track structure should get accommodated with respect to as-built/under construction viaduct, elevated stations and underground civil structures duly complying with the Schedule of dimensions (S.O.D) of KMRCL (S.O.D is a part of Vol.7 of tender documents). For this purpose it should also be noted that the nominal difference in level between

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	Volume	Section and/or Clause		
			<p>a) Top of base concrete in bored tunnel,</p> <p>b) Top of structural slab in cut and cover tunnels (including ramp)</p> <p>c) Top of precast deck unit on centre line of elevated viaducts</p> <p>And plane of top of lower running rails, both for East-bound and West-bound lines is nominally 500mm. The track structure consisting of track plinth/slab, fastening system and rails shall be designed to match this dimension. However the Contractor shall interface with Designated contractor for underground work-UG1 and UG2 for Final design. Also, for elevated, the Dead load of the double line tracks including plinth/slab and the two Third rails should be kept within 3.5 t/metre length.</p>	<p>a) Top of base concrete in bored tunnel,</p> <p>b) Top of structural slab in cut and cover tunnels (including ramp)</p> <p>c) Top of precast deck unit on centre line of elevated viaducts</p> <p>And plane of top of lower running rails, both for East-bound and West-bound lines is nominally 500mm for items (a) and (c) and 600mm for item (b) above . The track structure consisting of track plinth/slab, fastening system and rails shall be designed to match this dimension. However the Contractor shall interface with Designated contractor for underground work-UG1 and UG2 for Final design. Also, for elevated, the Dead load of the double line tracks including plinth/slab and the two Third rails should be kept within 3.5 t/metre length.</p>
3)	Volume 4	Cl. 10.2.1.1 Top paragraph	Ballastless Track shall be laid on cast in situ/precast reinforced plinth or slab, hereinafter referred to as the 'track slab'. The track slab shall be designed as plinth beam or slab type ballast less track structure with RCC derailment guards, in case of viaduct. It shall accommodate the base plates of the fastening system. The minimum depth below	Ballastless Track shall be laid on cast in situ/precast reinforced plinth or slab, hereinafter referred to as the 'track slab'. The track slab shall be designed as plinth beam or slab type ballast less track structure, with RCC derailment guards in case of viaduct. It shall accommodate the base plates of the fastening

SL. NO.	REFERENCE		AS WAS EXISTING	AS REVISED
	Volume	Section and/or Clause		
			the base plate should be decided based upon characteristics of underlying base and the design of the fastening system. In general, track slab on which the fastening and rail are to be fitted shall:	system. The minimum depth below the base plate should be decided based upon characteristics of underlying base and the design of the fastening system. In general, track slab on which the fastening and rail are to be fitted shall:
4)	Volume 4	10.8.2	<p>10.8.2 A testing program shall be developed to ensure that the rail fastener assembly will achieve the following electrical property per rail pad in one rail :</p> <ul style="list-style-type: none"> <li>i) 100 megaohm DC resistance when dry ;</li> <li>ii) 1 megaohm DC resistance when wet ;and</li> <li>iii) AC resistance must be compatible with the frequencies used by the signalling system.</li> </ul> <p>Note: The above requirements shall supersede the requirement as provided at Sl. No. 4 of the Table under Clause 4.5 of 'Performance Criteria of Fastening System' Vide Annexure B of this Volume.</p>	10.8.2 Deleted.

SL. NO.	REFERENCE		AS WAS EXISTING	AS REVISED
	Volume	Section and/or Clause		
5)	Volume 4	Annexure C Clause 6.0 4 <sup>th</sup> sub-paragraph	<ul style="list-style-type: none"> <li>• A testing program shall be developed to ensure that the rail fastener assemblies will achieve the following electrical properties per rail pad in one rail.               <ul style="list-style-type: none"> <li>i) 100 mega ohms DC resistance when dry.</li> <li>ii) 1 megaohm DC resistance when wet</li> <li>iii) AC resistance must cope up with the frequencies used by Signaling system.</li> </ul> </li> </ul> <p>Note:- The above requirements shall supersede the requirement as provided at Sl. No. 4 of the Table under Clause 4.5 of 'Performance Criteria of Fastening System' Vide Annexure B of this Volume</p>	Deleted.

All corrigenda and addenda will form part of Tender Documents.

Sd/-  
**(K.Gangopadhyay)**  
 Chief Engineer-II  
 Kolkata Metro Rail Corporation Limited