# Minutes of the pre-bid meeting held in MRVC Conference Room on 12.03.2019 at 11.30 Hrs in connection with following work of Panvel -Karjat Double line Suburban Corridor.

#### Project: Mumbai Urban Transport Project -III

#### Contract title:

Construction of formation in Embankment and Cutting, Blanketing, Rock cutting, Construction of Major & Minor Bridges, RUBs, ROBs, Construction of Drain/ Retaining wall, Ballast Supply and Removal of Infringements in Panvel-Karjat section for Panvel Karjat double line Suburban Corridor Project.

## RFB No: MRVC/W/107 dated 28th February 2019

#### Members present:

#### Agencies participated:

SN	Name of the Representatives	Name of the Agency	Contact Details
1	Gammon Engineers & Contractors Pvt. Ltd. Mumbai	Shri Dinesh Kumar Bedi	dinesh.bedi@gammonengineers.com Mob. 9821499393 /022-61114000
2	J.M. Mahtre Infra Pvt. Ltd. Panvel	Shri Somnath Sutar	somnath.jmmipl@gmail.com Mob. 7506458619
3	ITD Cementation India Ltd. Mumbai	Shri Hemant Prabhu	hemant.prabhu@itdcem.co.in 9869130826 / 022-67680600
4	Thakur Infra Pvt. Ltd. Panvel	Shri M.P. Tyagi	mpt2865@gmail.com Mob. 9769409032
5	Saidutt Real Infra Pvt. Ltd. Virar	Shri Milind Masekar	milindmasdekar@ yahoo.com Mob. 9960698398
6	Niraj Cement Structurals Ltd. Mumbai	Shri Gulshan V. Chopra	gulshan@niraj.co.in Mob. 9820693839 / 022-6602 7100
7	S.N. Naik & Bros., Panvel	Shri Udit K. Naik	naikudit@gmail.com Mob., 9833393330 / 8976888889

#### **MRVC Officers:**

SN	Name of the Officer	Designation	
1.	Shri Vijay Nathawat	DP	
2.	Shri Harish Gupta	CSTE	
3.	Shri Vivek Gupta	CE	
4.	Shri Sanjay Kumar	FA&CAO-II	
5.	Shri Kanhaiya Jha	CPM-I	
6.	Shri Sunil Maske	CPM-II	
7.	Shri Vivek Dixit	CSTE	
8.	Shri Mukesh Kumar	Dy. CPM-I	
9.	Shri D.K. Choudhari	Dy. CE(HQ)	
10.	Shri A.V. Kulkarni	Dy. CPM-IV	
11.	Shri G R Singh	Dy FA&CAO-III	

SN	Name of the Officer	Designation
12.	Shri N.V. Joseph	Dy. CSTE-I
13.	Shri S.J. Chauhan	Dy. CSTE-II
14.	Shri K.L. Meena	Dy. CE

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- 1. At the outset Shri Vivek Kumar Gupta, Chief Engineer welcome all the participant. He further stated that provisions related to development of domestic industries has been added to the tender document. Therefore, all bidders shall ensure to certify the local content to be used in the works as required by the tender document.
- 2. Shri Mukesh Kumar, Dy. CPM-I explained the section details of Panvel–Karjat Section and explained scope of work of RFB No. MRVC/W/107. CPM-I stated that scope of the work, terms & conditions etc. described in detail in RFB document and requested to all bidders to go through in RFB document in detail and thereafter queries / doubts if any, can be asked. Bidders can ask quarries by e-mail up to 28th March 2019.
- 3. No query was asked by the bidder.

K Jha

Chief Project Manager-I

#### MUMBAI RAILWAY VIKAS CORPORATION LTD.

# ADDENDUM/CORRIGENDUM NO. 1 Date 03-04-2019

RFB No.	MRVC/W/107 Date: 28/02/2019
Name of the Work	Construction of formation in Embankment and Cutting, Blanketing, Rock cutting, Construction of Major & Minor Bridges, RUBs, ROBs, Construction of Drain/ Retaining wall, Ballast Supply and Removal of Infringements in Panvel-Karjat section for Panvel Karjat double line Suburban Corridor Project under MUTP-III.

The following changes are to be incorporated at the appropriate places in the **Bid Document:** 

Sl. No.	Page No.	Clause No.	Existing	Amended
			<b>(B)</b>	
1.	13	17.3	Deleted.	If a margin of preference applies as specified in accordance with ITB 33.1, domestic Bidders, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITB 33.1.
2.	37	38.1	A margin of preference for domestic bidder shall not apply.	Domestic Purchase preference as mentioned in BDS shall be applicable
			Section II – Bid Data Sheet (BDS)	
3.	49	ITB 17.3	Not Applicable	Delete this row from BDS
4.	53 after ITB 37.1	New Clause ITB 38.1 added	_	For the purpose of Development of Domestic Industries, Domestic Purchase Preference of 20 per cent shall be allowed as follows:  There has to be a local content of minimum of 50 per cent. To assess purchase preference, the

Sl. No.	Page No.	Clause No.	Existing	Amended
				following definition and value shall apply:
				Local Content: Means the amount of value added
				in India which shall be the total value of the items
				procured (Excluding net domestic indirect taxes)
				minus the value of imported content in the item
				(including all customs duties) as a proportion of the
				total value, in percent. The minimum local content
				shall be 50%.
				Local Supplier: Means a supplier or Service
				provider whose product or service offered for
				procurement meets the minimum local contents as
				prescribed above. If the local content of a tender
				submitted by a foreign registered firm/supplier
				amounts to greater than the 50% minimum Local
				Content, then the foreign tenderer will also qualify
				within the meaning of Local Supplier.
				'L1': Means the lowest tender which offers the
				lowest evaluated cost as adjudged in the evaluation
				process as per the tender or other procurement
				solicitation.
				Solicitation.
				Margin of Purchase Preference: Means the
				maximum extent to which the price quoted by a
				local supplier may be above the 'L1' for the
				purpose of purchase preference. The margin of

Sl. No.	Page No.	Clause No.	Existing	Amended
_				purchaser preference shall be 20%.
				The local suppliers (meeting the requirement of
				Local Supplier defined above) are required to
				make a Declaration of Local contents as follows:
				<ul> <li>(i) The Local Supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.</li> <li>(ii) The Bidder is also required to indicate local content % in bidding form of Local Content available in Section 4: Bidding Forms.</li> <li>(iii) After opening of financial bid, for a bidder who has declared that his local content is 50% and above as per (i) above, his total local content shall be calculated as per bidding form as (ii) above by taking quoted values of individual schedule and it should meet the minimum local content as % of overall value to qualify as local supplier i.e. 50% of total quoted tender</li> </ul>
				value.
				<b>Procedure for application of Purchase Preference</b>
				is detailed in Section III - Evaluation and
				Qualification Criteria (ii) Financial Part

Sl. No.	Page No.	Clause No.			Existing		Amended
5.	53 & 54	ITB 51.1	The procedures for making a Procurement-related Complaint are detailed in the AIIB's "INTERIM OPERATIONAL DIRECTIVE ON Procurement Instructions for Recipients (Annex IV)." If a Bidder wishes to make a Procurement-related Complaint, the Bidder shall submit its complaint following these procedures, In Writing (by the quickest means available, such as by email or fax), to:		addressed to the de procurement relate the Complaint hand at	related to procurement may be esignated official below. All ed complaints shall be addressed as per dling mechanism of MRVC available arailways.gov.in/mrvc_complaint.jsp?l	
			For the attention	:	Shri. K Jha	For the attention	: Shri. K Jha
			Title/position	:	Chief Project Manager - I	Title/position	: Chief Project Manager - I
			Employer	:	Mumbai Railway Vikas Corporation Ltd.	Employer	: Mumbai Railway Vikas Corporation Ltd.
			Street Address	:	Churchgate Station Building	Street Address	: Churchgate Station Building
			Floor/Room Number	:	2 <sup>nd</sup> Floor	Floor/Room Number	∶ 2 <sup>nd</sup> Floor
			City	:	Mumbai	City	: Mumbai
			Pin Code	:	400020	Pin Code	: 400020
			Country	:	India	Country	: India
			Telephone	:	+91-22-220521012	Telephone	: +91-22-220521012
			Email address	:	cpm1@mrvc.gov.in	Email address	: cpm1@mrvc.gov.in
			Fax number	:	+91-22-22096972	Fax number	: +91-22-22096972
			In summary, a Pr challenge any of		rement-related Complaint may following:		nd submitting false or misleading be dealt with in accordance with
			1. the terms of	f the	e Bidding Documents; and		graph 1.3/1.4 of the tender documents.
			<b>2.</b> the Employ	er's	decision to award the contract.	AIIB shall monito	or such complaints as per Annex IV of

Sl. No.	Page No.	Clause No.	Existing	Amended			
				Interim Operational Directives on Procurement Instructions for Receipt.			
	Section III – Evaluation and Qualification Criteria (EQC)						
1.	Technical Par	rt					
6.	70 & 71	4.2(a) – Specific Construction & Contract Management Experience	b) General Electrical Services excluding Escalator and Elevator- valid electrical license and have completed/substantially completed one work of General electrical services of minimum value of INR 18 Million OR 2 works each of minimum value of INR 11.00 Million.	b) General Electrical Services excluding Escalator and Elevator- valid electrical license and have completed/ substantially completed one work of General electrical services of minimum value of INR 20.00 Million OR 2 works each of minimum value of INR 12.00 Million.			
			c) <b>Signaling &amp; telecom Work</b> –have completed /substantially completed one signaling & telecom work on running lines of minimum value of INR <u>31 Millions</u> OR 2 works each of minimum value of <u>INR 19 Million</u> .	c) <b>Signaling &amp; telecom Work</b> –have completed /substantially completed one signaling & telecom work on running lines of minimum value of INR <u>33.00 Million</u> OR 2 works each of minimum value of INR <u>20.00 Million</u> .			
7.	77	1.5 Contractor's Representativ e and Key Personnel  Item No. 3 of table; Civil Engineer PSC Work- 3 Nos.	Relevant academic qualifications Degree/ Diploma in Civil/Mechanical Engineering	Relevant academic qualifications Degree/ Diploma in Civil Engineering			

Sl. No.	Page No.	Clause No.	Existing	Amended
8.	79	1.6 Equipment	-	Following additional equipment added.
				17. Underground Cable Detector/ 1 No Locator
				18. Nuclear Moisture Density Gauges 1 No
				19. Slope Compactor Vibratory 1 No Roller T-80 (Double Drum) Rope Start
				20. Slope Vibratory Compactor With 1 No 1000 Kg Drum Weight
2	. Financial Pai	rt		
9.	80	2.1 Margin of Preference	Not Applicable	2.1 Margin of preference shall apply as follows:
				Purchase preference shall be given to local suppliers in the manner specified hereunder:
				<ul> <li>i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is from a local supplier, the contract will be awarded to L1.</li> <li>ii. If L1 is not from a local supplier, the lowest bidder among the local suppliers, will be invited to match the L1 price subject to local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such local supplier subject to matching the L1 price.</li> <li>iii. In case such lowest eligible local supplier fails to match the L1 price, the local supplier with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be</li> </ul>

Sl. No.	Page No.	Clause No.	Existing	Amended
				awarded accordingly. In case none of the local suppliers within the margin of purchase preference matches the L1 price, then the contract may be awarded to the L1 bidder.
				Information submitted by the bidder in the Local content form i.e. Form $FIN - 3.5$ shall be used as the basis to qualify local content requirement.
			<b>Section IV - Bidding Form</b>	
Letter	of Bid – Tech	nical Part		
10.	84	(1)	Fraud and Corruption: We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption; and	Prohibited Practices: We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Prohibited Practices; and
11.	84	(m)	We also undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against <b>fraud and corruption</b> in force in India on date namely "Prevention of Corruption Act 1988".	We also undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against <b>prohibited practices</b> in force in India on date namely "Prevention of Corruption Act 1988".
12.	85	(o) New sub clause added	<u>-</u>	(o) We declare that our product and/or services offered for this tender meets /does not meet # (#choose one option) the minimum prescribed local contents and requirement of Local Supplier as per policy of development of Domestic industry mentioned in BDS clause 38.1 and a certificate to that effect has been attached as per para (i) of the said clause.
Appen	dix to Technic	cal Part		

Sl. No.	Page No.	Clause No.	Existing	Amended
13.		Add new form FIN 3.5		Form FIN 3.5: Form of Local Content
		•	Appendix to Financial Part - Bill of Quantit	ies (BOQ)
BOQ	- Part A: Civi	l Engineering Wo	orks	
14.	150	Schedule A-1: Item No.7 Note No.4 is modified.	Since the work is close to existing Panvel - Karjat track, only controlled blasting shall be permitted as per the advice and under the supervision of experts like Central Institute of Mining and Fuel Research (CIMFR), National Institute of rock mechanics etc. All necessary precautions will have to be taken to ensure safety of running traffic and all structures, apart from other safety precautions associated with blasting work.	Since the work is close to existing Panvel - Karjat track, only controlled blasting shall be permitted. The contractor has to submit the method statement and blast design and to get it approved from Employer. All necessary precautions will have to be taken to ensure safety of running traffic and all structures, apart from other safety precautions associated with blasting work.
15.	154	Schedule A-1: Item No. 12	Supplying and placing gabions of suitable size as per specifications with 2.7 mm dia wire coated with zinc and PVC sleeves as per specification with provision of partition at every meter interval and properly packed with approx 150 mm size boulders including transportation and placing at indicated places as per direction of Engineer in charge including with all contractor's materials, tools, plants, Labour etc including royalty charges complete with all respect including continuous stitching with GI wire / nylon rope. The rates shall be inclusive of carrying the materials by head load from nearest approaches point, involving crossing of running lines tacking all the safety precaution and in all adverse	Supplying and placing gabions of suitable size as per specifications with 2.7 mm dia wire coated with zinc and PVC sleeves as per specification with provision of partition at every meter interval and properly packed with approx 150 mm size boulders including transportation and placing at indicated places as per direction of Engineer in charge including with all contractor's materials, tools, plants, Labour etc including royalty charges complete with all respect including continuous stitching with GI wire / nylon rope. The rates shall be inclusive of carrying the materials by head load from nearest approaches point, involving crossing of running lines tacking all the safety precaution and in all adverse weather condition such as heavy rains muddy roads and

Sl. No.	Page No.	Clause No.	Existing	Amended
			weather condition such as heavy rains muddy roads and water logged are including all all lead and lift. Rates shall be inclusive of excavation in clay or loose soil up to 30 cm in depth where the gabion shall rest.	water logged are including all lead and lift. Rates shall be inclusive of excavation in clay or loose soil up to 30 cm in depth where the gabion shall rest.  Notes:
			guoton shan rest.	1. Contractor has to use stone/boulders released from Railway's cuttings/foundations after breaking them to required size, for which a deduction of Rs 500/- per cum will be made.
				2. In case released Railway stone/boulder is not available, outside stone/boulder can be used only with permission of Engineer-in-charge.
16.	155	Schedule A-1: Item No. 16	approved quality behind abutment, return wall, wing wall etc, with all contractor's stone materials, labours, tools and plants etc. including all taxes, royalty, all lead and lifts, transportation etc. complete as per Railway's specifications and direction of Engineer -in-charge.  (Note: Rs 500/- per cum will be deducted in case of Railway's area including rock cutting in foundation are used after breaking them to required size).	Providing backfilling with stone boulders of approved quality behind abutment, return wall, wing wall etc, with all contractor's stone materials, labours, tools and plants etc. including all taxes, royalty, all lead and lifts, transportation etc. complete as per Railway's specifications and direction of Engineer -in-charge.  Notes:  1. Contractor has to use stone/boulders released from Railway's cuttings/foundations after breaking them to required size, for which a deduction of Rs 500/- per cum will be made.  2. In case released Railway stone/boulder is not available, outside stone/boulder can be used only with permission of Engineer-in-charge.
17.	156	Schedule A-1: Item No. 20	Providing 300 mm thick dry-stone pitching with boulders. Stone of not less than 20 Kg each in weight with all contractor's stone, materials,	Providing 300 mm thick dry-stone pitching with boulders. Stone of not less than 20 Kg each in weight with all contractor's stone, materials, labour,
			labour, tools and plants etc. including all taxes,	tools and plants etc. including all taxes, royalty, all

Sl. No.	Page No.	Clause No.	Existing	Amended
			royalty, all lead & lift, transportation etc. complete as per specifications and direction of Engineer-in-charge.	lead & lift, transportation etc. complete as per specifications and direction of Engineer-in-charge.  Notes:  1. Contractor has to use stone/boulders released from Railway's cuttings/foundations after breaking them to required size, for which a deduction of Rs 500/- per cum will be made.  2. In case released Railway stone/boulder is not available, outside stone/boulder can be used only with permission of Engineer-in-charge.
18.	156	Schedule A-1: Item No. 21	Road work- Providing, laying and compacting hand packed dry rubble soling 250 mm thick without any special dressing of stone with contractor's road roller and keeping to template as directed by the Engineer. Rate includes all contractor's labours, materials, tools and plants etc. including all taxes, royalty, all leads & lift, transportation etc. complete as per specification.	Road work- Providing, laying and compacting hand packed dry rubble soling 250 mm thick without any special dressing of stone with contractor's road roller and keeping to template as directed by the Engineer. Rate includes all contractor's labours, materials, tools and plants etc. including all taxes, royalty, all leads & lift, transportation etc. complete as per specification.
				Notes: 1. Contractor has to use stone/boulders released from Railway's cuttings/foundations after breaking them to required size, for which a deduction of Rs 500/- per cum will be made. 2. In case released Railway stone/boulder is not available, outside stone/boulder can be used only with permission of Engineer-in-charge.
19.	160	Schedule A-1: Item No. 33	Random rubble masonry with hard stone in foundation and plinth including levelling up with concrete as per specifications, with contractor's boulder for drain, toe wall, catch water drain etc	Random rubble masonry with hard stone in foundation and plinth including levelling up with concrete as per specifications, with contractor's boulder for drain, toe wall, catch water drain etc in

Sl. No.	Page No.	Clause No.	Existing	Amended
			in cement mortar 1:6 mix for all heights and depth from above/below ground level with contractor's labour, tools and cement including all lead and lift etc. complete in all respect as per drawing and specification and as directed by the Engineer-in-charge.	cement mortar 1:6 mix for all heights and depth from above/below ground level with contractor's labour, tools and cement including all lead and lift etc. complete in all respect as per drawing and specification and as directed by the Engineer-incharge.
				Notes: 1.Contractor has to use stone/boulders released from Railway's cuttings/foundations after breaking them to required size, for which a deduction of Rs 500/- per cum will be made. 2. In case released Railway stone/boulder is not available, outside stone/boulder can be used only with permission of Engineer-in-charge.
20.	164	Schedule A-2: Item No. 1	Providing rubble soling in foundations, etc. with all contractor's stone, material, labour, tools & plants etc. including all lead & lift, transportation etc complete as per Railway's/MRVC specifications and direction of Engineer-incharge.	Providing rubble soling in foundations, etc. with all contractor's stone, material, labour, tools & plants etc. including all lead & lift, transportation etc complete as per Railway's/MRVC specifications and direction of Engineer-in-charge.
				Notes: 1. Contractor has to use stone/boulders released from Railway's cuttings/foundations after breaking them to required size, for which a deduction of Rs 500/- per cum will be made. 2. In case released Railway stone/boulder is not available, outside stone/boulder can be used only with permission of Engineer-in-charge.
21.	200	Schedule A-4: Item No.19	approved species by digging pits in all type of	Supplying & Planting of healthy plants of all season of approved species by digging pits in all type of soil/boulder/macadam etc & refilling with manure &

Sl. No.	Page No.	Clause No.	Existing	Amended
			with manure & soil & suitable proportion as directed by Engineer. Rates include contractors plants, material, tools & plants loading & taxes, duties octroi, all lead & lift etc complete. Note:-Payment will be made one month after plantation for those plants which survive and remain in healthy.`	soil in suitable proportion as directed by Engineer-in-Charge & Maintaining the plants for 2 years. Rates includes contractors plants, material, tools & plants, loading, all lead & lift etc complete.  Note: -  1.Payment for surviving trees after three months of plantation - 25%  2.Payment for surviving trees after six months of plantation - 25%  3.Payment for surviving trees after one year of plantation - 25%  4.Payment for surviving trees after two years of plantation - 25%
			Quantity = 6000 Nos	Quantity = 6712 Nos
22.	200	Schedule A-4: Item No.20	Supplying and laying lawn grass of approved species at site as directed by Engineer. The lawn grass should be developed and well grown and free from other type of grasses as directed by Engineer. Rates includes contractor's materials, tools and plants, loading and unloading, transport and fuel, labours, taxes, duties, octrai, all lead and lift etc. complete.	Turfing / planting with planted doob grass, including all lead and lift, and watering as required until properly rooted, with.  Note - Initially payment of only 40% will be made.  Balance 60% will be paid as under if the turfing is properly rooted:  1. After 1st monsoon - 20%  2. After one Year - 20%  3. After handing over of section to railways/another agency - 20%
			Quantity = 31000 Sqm	Quantity = 64000 Sqm
23.	222	Schedule A-5: Item No.1	Credit value of rubble generated from hard rock cutting vide relevant items of <b>Annexures</b> not required for Railways use and disposal of the same, outside of Railway limit by contractor's own means, with all lead, lift, transportation charges, and other incidental charges etc	Credit value of rubble generated from hard rock cutting vide relevant items of <b>Schedules</b> not required for Railways use and disposal of the same, outside of Railway limit by contractor's own means, with all lead, lift, transportation charges, and other incidental charges etc complete as directed.

Sl. No.	Page No.	Clause No.	Existing	Amended
			Note:  (1) Quantity will be calculated based on the actual quantity generated and measured by cutting hard rock under relevant item in relevant Annexures.  (2) The amount for this item will be deducted from each running bill.  (3)Taxes and Royalty charges have to be borne and paid by the tenderer / contractor.	Notes:  (1) Quantity will be calculated based on the quantity generated and measured as per cross section measurements of cutting hard rock under relevant items in relevant Schedules.  (2) deduction for stone/rubbles utilized for Railway use (Item No. 12, 16, 20, 21 & 33 of Sch A and Item No. 1 of Sch-A2) will be done based on measured quantities of those items, where released stone/ rubbles have been used, duly adjusted for 16% voids.  (3) The amount for this item will be deducted from each running bill.  (4) Taxes and Royalty charges if payable have to be borne and paid by the tenderer / contractor.
24.	224	Schedule B: Item No. 1 (Note No. 1 & 2 are modified)	Notes: -  1. Rate for this item is to be quoted as percentage of total cost of Work. For example, total cost of the work under Schedule A is Rs. 100 Million and rate quoted by the tenderer is 1% then total payment under this item will be Rs 1 Million. Payment against this item will be made at quoted percentage of value of work done & billed in each Interim payment Certificate/on account Bill.  2. Separate SHE organization/team shall be deployed for each LOT.	Notes: -  1. Rate for this item is to be quoted as percentage of total cost of <b>Civil Engineering Work (Schedule A-1 to A-6)</b> . For example, total cost of the civil work under Schedule A is Rs. 100 Million and rate quoted by the tenderer is 1% then total payment under this item will be Rs 1 Million. Payment against this item will be made at quoted percentage of value of work done & billed in each Interim payment Certificate/on account Bill.

Sl. No.	Page No.	Clause No.	Existing	Amended		
BOQ	BOQ - Part B: Electrical Engineering.					
25.	229 & 230	Item no. B 1.1	Item no. B 1.1 Supply of all material, multiple loading/unloading, storing, Installation, testing, commissioning of following type of earthing with RCC/ brick chamber, funnel covered with C.I/ RCC cover, bolts, nuts for connection to pipe, alternate layer of salt & charcoal at height/depth of 150 mm all around as required: 50 mm medium class perforated GI Pipe earthing complete relevant IS Specification// Railway requirement: (Erection)	Item no. B 1.1 Supply of all material, multiple loading/ unloading, storing, Installation, testing, commissioning of 50 mm medium class perforated GI Pipe earthing complete relevant IS Specification// Railway requirement with RCC/ brick chamber, funnel covered with C.I/ RCC cover, bolts, nuts for connection to pipe, alternate layer of salt & charcoal at height/ depth of 150 mm all around as required. (Erection)		
26.	230	Item no. B 1.2	Item no. B 1.2 Copper earth plate 600mm x 600mm x 3mm thick earthing complete relevant IS Specification/ Railway requirement (Erection)	Item no. B 1.2  Supply of all material, multiple loading/unloading, storing, Installation, testing, commissioning of Copper earth plate 600mmx600mmx3mm thick earthing complete relevant IS Specification/Railway requirement with RCC/brick chamber, funnel covered with CI/RCC cover, bolts, nuts for connection to copper plate with alternate layer of salt & charcoal at height/depth of 150mm all around as required.  (Erection)		
27.	257	Schedules of Part – B: Payment terms for Electrical Engineering		New note points added at the bottom of page no. 257  1 PAYMENT "On account payment'  The Contractor shall be entitled to be paid from time to time by way of "On-account" payments, only for		

Sl. No.	Page No.	Clause No.	Existing	Amended
		items added.		such work as in the opinion of the Engineer, contractor has executed in terms of the Contract.
				1.1 Unit prices for materials:
				The unit prices indicated in the BOQ is inclusive of the prices for supplying of materials required under the particular item of schedule, multiple loading/ unloading, storing, handling, erection testing and commissioning of installation in conformity of specification, Latest Indian Electricity Act and rules. The unit price is also inclusive of all incidental charges for transport, loading/unloading and handling of materials, commission for arranging dispatch direct from manufacturer's factory/ authorized dealer/ supplier and completing all necessary formalities in this respect, such as submission of forwarding notes, all insurance premium, bankers charges for bank guarantee, indemnity bonds inclusive of cost of stamps, etc. The unit prices shall include all incidental charges duties and levies except GST (As applicable) for works contract for Railways which notified by Govt. of India @12% at present will be paid by MRVC on
				production of Tax invoice.
				1.2 Unit prices for erection:
				The unit indicated in the Explanatory Note or as per electrical technical specification given in the tender papers and also cover all cost of administration of the contract, insurance premium, banker's charges for guarantees, cost of stamps, cost of storage, loading and unloading and handling of materials and

Sl. No.	Page No.	Clause No.	Existing	Amended
				for carrying materials between his depot/s and site of work. The unit price includes cost of works and adjustments necessary to be done by the Contractor during or after the tests carried out. Prices for erection indicated in the BOQ are inclusive of cost of erection and material testing to be done by the Contractor to the extent. The unit prices shall include all incidental charges duties and levies on except GST (As applicable) for works contract for Railways which notified by Govt. of India @12% at present will be paid by MRVC on production of Tax invoice.  For distribution boards, panel, meter box, the complete set as indicated in the particular item of schedule and with quantities required for erection, Testing & commissioning based on its approved design/ drawing and not in piecemeal shall be
				considered for payment.  2.1 Stages of payment:
				(a) Supply:
				80% on supply of materials (80% of the accepted cost of the supply items of the schedule duly inspected by the nominated Inspection Authority) will be paid on receipt of the equipment/material by the consignee. The payment will be made after arrival of material at site and receipt of the invoice & other documents mentioned below and their verification. Since the materials will be in the possession of the contractor, the contractor shall arrange irrevocable indemnity bond for the payment. Contractor's certificate that all material has been

Sl. No.	Page No.	Clause No.	Existing	Amended
				supplied against schedule.
				Supplier's Challan and manufacturer's challan.
				Inspection certificate granted by Client's/RITES representative.
				Certificate of receipt of materials in good condition at Contractor's depot/s duly accepted by the Client's Engineer.
				Comprehensive Insurance on supply.
				Indemnity Bond. (Copy enclosed)
				10% on successful erection (10% of the accepted cost of the supply items).
				Alternatively 10% supply payment will be released on completion of one year from the date of 80% payment of particular item of schedule against equivalent amount fresh B.G. against this payment, issued by a Schedule bank valid till the date of commissioning of project.
				Balance 10% of cost of supply on provisional acceptance of installation.
				(b) Erection:
				90% of erection charges on successful erection of various items.
				Balance 10% of cost of erection on provisional acceptance of installation.
				(c) Final Settlement:
				On Successful completion of defects liability period and issue of certificate of final acceptance of entire installations, the performance security will be refunded /returned to the contractor after adjustment

Sl. No.	Page No.	Clause No.	Existing	Amended
				of any dues payable by the contractor to the client.  (d) Inspection charges for the items requiring inspection of RITES will be paid directly to RITES by MRVC. Inspection call shall be given 10 days in advance from the date of inspection date.
BOQ	- Part C: Sign	nal and Telecom F	Engineering.	
28.	262	Part C: Signal	Schedule A – Supply of materials	Schedule C – Supply of materials
29.	273	Part C: Signal	Schedule B - Execution	Schedule D - Execution
30.	284	Schedules of	-	New note points added at the bottom of page no. 284
		Part – C:		Payment Conditions:
		Payment terms for Signaliing and Telecom items added.		<ul> <li>a. 80% of the accepted cost of the supply items of the Schedule [duly inspected by the nominated Inspection Authority] will be paid on receipt of the equipment by the Consignee.</li> <li>b. 10% of the accepted cost of supply (in addition to the 80% released above) shall be paid after installation / erection of that particular equipment.</li> <li>c. Balance 10% cost of the material supplied shall be paid after commissioning of the station.</li> <li>d. 100% will be paid for spares and for items, which are not required to be erected by the contractor on receipt of the equipment and no loss certificate by the consignee.</li> </ul>

Sl. No.	Page No.	Clause No.	Existing	Amended
				ii) Execution items:
				<ul><li>a. 90% on account payment will be made on the basis of the measurements recorded.</li><li>b. The balance 10% will be paid after commissioning of the station.</li></ul>
				iii) For mixed items
				a. where supply and erection/installation cost is taken together, 90% payment will be made on installation of the item and balance 10% will be paid on commissioning of the station.
			Section VII – Works Requirement	
(i)	General Spec	rifications:		
31.	297	(xvii) of Scope of Work	Relocation/shifting of all the utilities related to signalling and telecommunication, electrical general and OHE in Panvel - Karjat section.	Relocation/shifting of all the utilities related to signalling and telecommunication, electrical general and OHE in Panvel - Karjat section. Brief scope of Electrical General Services and S&T work are enclosed as Annexure-I to scope of work.
32.	297	Add new Clause (xxi) to Scope of Work	-	Following Clause (xxi) is added  (xxi): Alignment from CH:14650 to CH:15150, from CH:22450 to CH:22900 and from CH:25900 to CH:26125 is in tunnels and is not part of this tender.
33.	301	2	Scope of Work	Brief Description of Work
34.	303	2.2 (A)	Scope of works for items in schedule of quantities generally covers the following	Works for items in schedule of quantities generally covers the following

Sl. No.	Page No.	Clause No.	Existing	Amended
35.	310	4.1 (Line – 2)	Quadrupling of Virar-Dahanu Road section & Panvel Karjat Suburban Corridor will	Panvel Karjat Suburban Corridor will
36.	379	75: Controlled Blasting		Following Sub Clause l is added in Clause No.75 Sub Clause l: The contractor has to submit the method statement and blast design and get it approved by employer before starting the blasting work.
(ii)	<b>Technical Spe</b>	ecifications:		
37.	442	2. SPECIFICA TIONS FOR BLANKET	2. vi) Minimum Ev <sub>2</sub> – 100 Mpa determined from 2 <sup>nd</sup> step plate load test on top of compacted blanket layer. (Ref: German Code DIN 18134-2001).	
38.	413	WORK (TECHNIC AL)	5. It is mandatory to mix various materials in wet mix plant to produce blanketing material as per specification given above.  MDD (Maximum dry Density) of blanket material shall be more than 1.8 gm/cc	5. It is mandatory to mix various materials in wet mix plant to produce blanketing material as per specification given above. MDD (Maximum dry Density) of blanket material shall be more than 2.10 gm/cc
39.	685	No. A	Item no. A1.1,A1.2& A2	Item no. A.1.1 to A.2.2
40.	688	В	Item no. B 3	Item no. B 3.2
41.	688	В	Item no. B 4	Item no. B.4.2
42.	689	С	Item no. C 1	Item no. C.1.1,C.1.2,C.1.3,C.1.5 &C.1.9
43.	689	С	Item no. C 2	Item no. C.2.3 & C.2.4
44.	689	С	Item no. C.3 & C.4	Item no.C.3.4, C.3.8,C.4.1,C.4.2,C.4.4
45.	693	D	Item no. D 1 to D 5	Item no. D.1.2.1 & D.3
46.	702	L	Item no. L 10 to L 12	Item no. L.10.1, L.10.2, L.11.3 & L.12.5
47.	706	N	Item no. N2.1 The price shall include the cost of Design,	Item no. N.2.1.5 The price shall include the cost of Design, supply,
			supply, multiple loading, unloading transportation, erection, testing &	multiple loading, unloading transportation, erection, testing & commissioning of various capacity

Sl. No.	Page No.	Clause No.	Existing	Amended
	Page No.	Clause No.	commissioning of various capacity distribution transformer as per schedule of quantity, indoor/outdoor type as per latest MSEDCL/ Railway requirement / BIS and BEE rated energy efficient specification with latest amended, weather proof HT cable box, LT cable termination box, disconnecting chamber minimum 8 mm thick CRCA sheet, non magnetic gland plate Connecting HT / LT incoming and outgoing cables shall be with proper termination and clamping. The cost also includes 10% extra oil in non returnable drum for topping up as required. (The transformer shall be subject to all tests specified in the specifications and test certificates shall be produced).  The rate shall include the dehydration and filtration of transformers to achieve desired results for transformer oil dielectric strength, conducting necessary pre-commissioning tests and commissioning of transformer.  The transformer being indoor, floor mounted type, there shall be no need of special foundation	distribution transformer as per schedule of quantity, indoor/ outdoor type as per latest MSEDCL/ Railway requirement / BIS and BEE rated energy efficient specification with latest amended, weather proof HT cable box, LT cable termination box, disconnecting chamber minimum 8 mm thick CRCA sheet, non magnetic gland plate Connecting HT / LT incoming and outgoing cables shall be with proper termination and clamping. The cost also includes 10% extra oil in non returnable drum for topping up as required. (The transformer shall be subject to all tests specified in the specifications and test certificates shall be produced).  The rate shall include the dehydration and filtration of transformers to achieve desired results for transformer oil dielectric strength, conducting necessary pre-commissioning tests and commissioning of transformer.  The transformer being indoor/ outdoor, floor mounted type, there shall be no need of special foundation arrangement. However, price shall include the cost of mounting transformer on steel channels (grouted in concrete floor) and locking
			arrangement. However, price shall include the cost of mounting transformer on steel channels (grouted in concrete floor) and locking	transformer at place, including supply of necessary material, bolts, nuts, etc.

Sl. No.	Page No.	Clause No.	Existing	Amended
			transformer at place, including supply of	
			necessary material, bolts, nuts, etc.	
48.	707	N	Item no. N5 & N6	Item no. N.5.1.2
49.	708	N	Item no. N7	Item no. N.7.1.2, N.7.2.1 & N.7.3.2
50.	709	О	Item no. O1 to O3	Item no. O.1.1 to O.1.3
51.	711	Q	Item no. Q 4	Item no. R 4
52.	712	Q	Item no. Q 5	Item no. R5
53.	712	Q	Item no. Q 6	Item no. R 6
54.	715	T	Item no. T 6	Item no. T.6.1 & T.6.2
55.	715	T	Item no. T7	Item no.T 7.1
56.	715	T	T 10. Distribution class lighting arrestors	T.10.1 Distribution class lighting arrestors
			assembly.	assembly.
			The price shall include the cost Supply, multiple	The price shall include the cost Supply, multiple
			loading/ unloading, storing, installation/	loading/ unloading, storing, installation/
			erection/fixing, testing & commissioning of	erection/fixing, testing & commissioning of various
			various capacity distribution class lighting	capacity distribution class lighting arrestors
			arrestors assembly as per schedule of quantity,	assembly as per schedule of quantity, Thyrite
			Thyrite magnet valve type/silicon oxide type,	magnet valve type/silicon oxide type, one set
			one set consisting of three nos. of LA for three	consisting of three nos. of LA for three phase
			phase suitable for 11/2.2 KV HT supply with	suitable for 33/22/11/2.2 KV HT supply with
			necessary ancillary for HT substation including	necessary ancillary for HT substation including
			fixing channel, clamp, nut bolt etc. and	fixing channel, clamp, nut bolt etc. and connection
			connection to earthing station. The 11/2.2 KV	to earthing station. The 33/22/11/2.2 KV lightening
			lightening arrestor shall be conforming to IS-	arrestor shall be conforming to IS-3070 (latest). The
			3070 (latest). The cost of nuts, check nuts,	cost of nuts, check nuts, washers necessary
			washers necessary hardware etc. for installation	hardware etc. for installation & commissioning, as
			& commissioning, as per power supply utility's	per power supply utility's Specification is included

Sl. No.	Page No.	Clause No.	Existing	Amended	
			Specification is included in the item.	in the item.	
57.	716	T	Item no. T 14: AAC/AAAC/ASCR The price shall include the cost of Supply, multiple loading/ unloading, storing, installation/ erection/ string, testing & commissioning of various sizes AAC/AAAC/ASCR conductor as per schedule of quantity including nuts, check nuts, washers necessary hardware etc., as per power supply utility's Specification/IS specification.	Item no. T.14.1,T.14.2, T.14.4 & T.14.5 AAC/AAAC/ACSR The price shall include the cost of Supply, multiple loading/ unloading, storing, installation/ erection/ string, testing & commissioning of various sizes AAC/AAAC/ACSR conductor as per schedule of quantity including nuts, check nuts, washers necessary hardware etc., as per power supply utility's Specification/IS specification.	
58.	718	Т	Item no. T 21	Item no. T.21.1 & T.21.2	
59.	718	T	Item no. T 22	Item no. T.22.2 & T.22.3	
60.	718	T	Item no. T23	Item no. T.23.2	
61.	719	T 26.1 & 26.2 New added	-	T.26.1 & T.26.2  Transportation, multiple loading/ unloading of dismantled / released un-usable/ Scrap material from various sites in the section to nominated depot of Power supply / Railways authority LT/HT Conductors.	
62.	724	4.1	"Supply, Installation, Testing, & ShiftingMumbai Division under MUTP-III	"Shifting of existing cables/location boxes/ signals/ Emergency Sockets in Panvel-Karjat section which may infringe due to the Engg. Work mentioned in the subject work.	
63.	725 & 726	5.0		Deleted	
64.	732	8.11	WORKING ON SUBURBAN SECTION IN Locations between CSTM-Kasara and Kalyan-Karjat Section of Mumbai Division.	WORKING ON SUBURBAN SECTION IN Locations between Panvel-Karjat Section of Mumbai Division.	

Sl. No.	Page No.	Clause No.	Existing Amended					
Section VIII – General Conditions of Contract								
65.	895	15.6	Fraud and Corruption	Prohibited Practices				
66.	934	6.9 (e)	based on reasonable evidence, is determined to have engaged in <u>Fraud and Corruption</u> during the execution of the Works	based on reasonable evidence, is determined to have in <b>Prohibited Practices</b> during the execution of the Works				
67.	973	15.2 (g)	based on reasonable evidence, has engaged in Fraud and Corruption as defined in <b>paragraph</b> 2.2 of the Appendix B to these General Conditions, in competing for or in executing the Contract	based on reasonable evidence, has engaged in Prohibited Practices as defined in the <b>Appendix B</b> to these General Conditions, in competing for or in executing the Contract				
			Section IX – Particular Conditions of Co	ntract				
68.	1021	3.1 (b) (ii)	Variations resulting in an increase of the Accepted Contract Amount in excess of 1% of the contract price in each case at a time and all variations in excess of gross total value of 10 (Ten) percent of the contract Price in aggregate shall require prior approval of the Employer.	Variations resulting in an increase of the Accepted Contract Amount in excess of 1% of the contract price in each case at a time and all variations in excess of gross total value of 10 (Ten) percent of the contract Price in aggregate or variation leading to introduction of NS items shall require prior approval of the Employer.				
69.	1023	6.4 (3) (A)	Contractor is to abide by the provision of Payment of Wages Act & Minimum Act. In order to ensure the same, an application has been developed and hosted on website <a href="https://www.shramikkalyan.indianrailways.gov.in">www.shramikkalyan.indianrailways.gov.in</a> . Contractor shall register his firm/company, etc. and upload requisite details of labour and their payment in this period. These details shall be available in public domain. The Registration/updation of Portal shall be done as under:	Contractor is to abide by the provision of Payment of Wages Act & Minimum Wages Act. In order to ensure the same, an application has been developed and hosted on website <a href="https://www.shramikkalyan.indianrailways.gov.in">www.shramikkalyan.indianrailways.gov.in</a> . Contractor shall register his firm/company, etc. and upload requisite details of labour and their payment in this period. These details shall be available in public domain. The Registration/updation of Portal shall be done as under:				

Sl. No.	Page No.	Clause No.	Existing	Amended	
70.	1026	13.5 (b) (ii) SCC	5%	10%	
71.	1026 & 1027	13.8	Price Adjustment:  The contract is subject to price adjustment in accordance with G.C.C. Clause 13.8 and following information regarding coefficients does apply.  Price Adjustment:  The contract is subject to price adjustment in accordance with G.C.C. Clause 13.8 and for information regarding coefficients does apply		
			The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate schedule of BOQ and certified in Payment Certificates, shall be determined from formulae as below:  The adjustment to be applied to the amount otherwise payable to the Contractor, as valued accordance with the appropriate schedule of and certified in Payment Certificates, shall determined from formulae as below:		
			$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		
			"P <sub>n</sub> " is the adjustment multiplier to be applied to the value of the work done (Excluding GST) against which Interim Payment has been made.	"P <sub>n</sub> " is the adjustment multiplier to be applied to the value of the work done (Excluding GST) against which Interim Payment has been made.	
			"a" is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;	"a" is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;	
			"b", "c", "d", are coefficients representing the estimated proportion of each cost element related to the execution of the Works, as stated in the Table of adjustment data at Appendix 2; such tabulated cost elements	"b", "c", "d", are coefficients representing the estimated proportion of each cost element related to the execution of the Works, as stated in the Table of adjustment data at Appendix 2; such tabulated cost elements may be indicative of	

Sl. No.	Page No.	Clause No.	Existing	Amended
			may be indicative of resources such as labour, equipment and materials;	resources such as labour, equipment and materials;
			"L <sub>n</sub> "[Labour], "E <sub>n</sub> "[Equipment], "M <sub>n</sub> "[Material], are the current cost indices or reference prices for period "n", each of which is applicable to the relevant tabulated cost element [Labour, Equipment, Steel, Cement, Fuel/Lubricants, Bitumen, others] taken on a date 28 days prior to the last measurement date for that particular interim payment Certificate; and	"L <sub>n</sub> "[Labour], "E <sub>n</sub> "[Equipment], "M <sub>n</sub> "[Material], are the current cost indices or reference prices for period "n", each of which is applicable to the relevant tabulated cost element [Labour, Equipment, Steel, Cement, Fuel/Lubricants, Bitumen, others] taken on a date 28 days prior to the last measurement date for that particular interim payment Certificate; and
			"L <sub>0</sub> ", "E <sub>0</sub> ", "M <sub>0</sub> ",are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the	"L <sub>0</sub> ", "E <sub>0</sub> ", "M <sub>0</sub> ",are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.
			Base Date.  The Price Adjustment shall be done in accordance with Tables 1&2 of Adjustment Data given in Appendix 2. The base and current price of the following items shall be based on the source indicated below:	The Price Adjustment shall be done in accordance with Tables 1&2 of Adjustment Data given in Appendix 2. The base and current price of the following items shall be based on the source indicated below:
			<ul><li>(i) Diesel: Selling price of IOC depot at Mumbai.</li><li>(ii) Bitumen: Selling Price of Bitumen from</li></ul>	<ul><li>(i) Diesel: Selling price of IOC depot at Mumbai.</li><li>(ii) Bitumen: Selling Price of Bitumen from the IOC refinery at Mumbai.</li></ul>
			the IOC refinery at Mumbai.	200 remery at manieur.
			The price Adjustment payment will be done bill wise. The value of the work done	The price Adjustment payment will be done bill wise. The value of the work done considered for working out price adjustment shall be exclusive

Sl. No.	Page No.	Clause No.	Existing	Amended
			considered for working out price adjustment shall be exclusive of GST.	of GST
72.	1027 & 1028	14.2	10% Percentage of the Accepted Contract Amount payable in the currencies and proportions in which the Accepted Contract Amount is payable. Advance shall only be payable on submission of unconditional Bank Guarantee in the format given in section X from a nationalized or Scheduled Bank in India. A foreign institution providing a guarantee shall have a correspondent financial institution located in the Employer's Country.	Mobilisation advance equal to 10% Percentage of the Accepted Contract Amount payable in the currencies and proportions in which the Accepted Contract Amount is payable. Mobilisation Advance shall only be payable on submission of unconditional Bank Guarantee in the format given in section X from a nationalized or Scheduled Bank in India. A foreign institution providing a guarantee shall have a correspondent financial institution located in the Employer's Country.
73.	1038	Sub-Clause 14.6 Issue of Interim Payment Certificates	The following is added to the third paragraph as (c):  (a) if the Contractor was, or is, failing to perform any ESHS obligations or work under the Contract, the value of this work or obligation, as determined by the Engineer, may be withheld until the work or obligation has been performed, and/or the cost of rectification or replacement, as determined by the Engineer, may be withheld until rectification or replacement has been completed. Failure to perform includes, but is not limited to the following:	The following is added to the third paragraph as (c):  (c) if the Contractor was, or is, failing to perform any ESHS obligations or work under the Contract, the value of this work or obligation, as determined by the Engineer, may be withheld until the work or obligation has been performed, and/or the cost of rectification or replacement, as determined by the Engineer, may be withheld until rectification or replacement has been completed. Failure to perform includes, but is not limited to the following:
74.	1057 to 1061	Appendix 1	Page Nos. 1051 to 1054	Page No. 1051 to 1054 and Continued from Page No. 1057 to 1061.
75.	1055	Appendix 2: is revised	-	Table 1 & Table 2 of Appendix 2 are revised as enclosed.

Sl. No.	Page No. Clause No. Existing		Existing	Amended				
	Section X – Contract Forms							
76.		New Form	-	Standing indemnity bond for on account payments/				
		added		payments is added as enclosed.				

K Jha Chief Project Manager - I

FIN 3.5 Form of Local Content Local content % for various components of the Work (For Panvel Karjat)

		Schedules (Reference Number) ([Description of each schedule is given below] and % of Local Content*									
S. No	Item		A	В		(	C - I		C - II	C-III	
5,110	Category	Weigh	Local**	Weightag	Local**	Weightag	Local**	Weighta	Local**	Weighta	Local**
		tage	Content %	e	Content %	e	Content %	ge	Content %	ge	Content %
1.	Fixed	15		15		15		15		15	
2.	Labour [L]	20		30		30		35		20	
3.	Steel [S]	10		20		10		-		10	
4.	Cement [C]	10		-		-		-		-	
5.	Plant & Equipment	10		-		20		15		20	
	spares [E]										
6.	Diesel [D]	10		5		5		15		10	
7.	Bitumen [B]	-		-		-		-		-	
8.	Others[O]	25		10		20		20		25	
9.	Copper [Cu]	-		5		-		-		-	
10.	Aluminium [A]	-		15		-		-		-	
	Total	100%		100%		100%		100%		100%	

<sup>\*</sup> While indicating local content % in above table, the bidder has to indicate value of local content for various categories as above in each schedule as % of total value quoted for that category. Percentage of local content based on rate quoted for that schedule shall be verified after opening of financial bid to ascertain whether it meets the minimum local content to be eligible for Local Supplier if so claimed by the bidder. Formula to arrive at total value of local content shall be:

#### (% of local content for an item category in a schedule) X (Total Value of the schedule) X (Weightage %)

For example, a bidder has quoted 50% local content for Steel for schedule A-I having steel weightage of 10% and total value of schedule quoted by the bidder is 200 crores. Than local content shall be  $50/100 \times 200 \times 10/100 = 10 \text{ crore}$ .

The total value of Local Content shall be calculated by adding local content of all the schedules.

## **BOQ Schedules**

A : Civil Engineering Works - Schedule A-1 to A-6 & Schedule B of Part A of BOQ

B : Electrical – General Service Works - Part B of BOQ

C-I : Signalling Material Supply - Schedule C of Part C of BOQ
C-II : Signalling – Execution - Schedule D of Part C of BOQ

C-III : Telecommunication - Schedule A & B of Part C of BOQ

<sup>\*\*</sup> For calculating local content %, please refer clause 38.1 of BDS.

Annexure 'I'

#### BRIEF INTRODUCTION OF ELECTRICAL GENERAL SERVICES:-

Along the proposed suburban project between PANVEL-KARJAT (MUTP-III), there are several electrical installations i.e. 33KV/22KV HT/ LT Overhead aerial lines, U/G Cables and Transformer etc of MSEDCL, Service Building, Rly Qts, LC Gates, Relay rooms etc. Many of these installations fall in the infringement area of the proposed work of two additional new Tracks along with existing track between Panvel-Karjat. These electrical installations belong to MSEDCL, Rly. etc. The infringing installations are required to be relocated as per the approved plan and scheme.

A preliminary and tentative list of such infringements is furnished as under:

	LT and HT line infringement									
Infring. no.	Rly Km	Name of Location	Infringement detail							
HT/LT-1	JNPT 69	Usrali	HT Infringement (MSEDCL)							
Panvel city										
HT/LT-2	6981	Usrali-Barwai	HT Infringement (MSEDCL)							
Panvel –II SO	7081	Usrali-Barwai	LT Infringement (MSEDCL)							
HT/LT3	8390	Nadhal- Bhilvale	HT Infringement (MSEDCL)							
Khalapur SO	8386	Nadhal-Chowk	LT Infringement (MSEDCL)							
HT/LT-4	Karjat BUD Road to 98	Deulwadi – Mudre Budruk	HT Infringement (MSEDCL)							
Karjat SO	Right side towards Badlapur road	Vanjhale	LT Infringement (MSEDCL)							

The above list is preliminary and tentative. The successful tenderer shall identify all electrical infringements. The infringements and the relocation scheme shall be prepared and approval of stake holders shall be taken. Necessary coordination with the respective agency shall be done by the successful tenderer. MRVC officials shall extend necessary help in this exercise. Deposition of statutory charges to MSEDCL or respective agencies for supervision would be done by MRVC. However, co-ordination, follow up, filling up the necessary forms, complete the formalities, execution work of relocation/removal of complete infringement as per stake holders specification and requirement under the supervision/ inspection of MSEDCL stake holders shall be responsibility of the successful tenderer. The area wise infringement plan and scheme shall be prepared for the approval of MRVC in coordination with MSEDCL/ Rly/ stake holder.

The successful tenderer shall also carry other electrical works, if any, in connection with the work of removal of infringement for the work of quadrupling. The work shall be executed as per the GCC, SCC, technical specifications and explanatory notes as per the tender document.

#### BRIEF INTRODUCTION OF S&T WORKS:-

The scope of the work is "Shifting of existing cables/ location boxes/ signals/ Emergency Sockets in Panvel-Karjat section which may infringe due to the Engg. Work mentioned in the subject work.

# Appendix 2

#### Tables of Adjustment Data

(Cl. 13.8 of GCC)

Table 1: Coefficients governing the adjustment for changes in cost

S. No.	Coefficients Name	Symbol	Schedules (Reference Number) [Description of each schedule is given below]				
			A	В	C - I	C - II	C-III
1.	Fixed	a	15	15	15	15	15
2.	Labour [L]	b	20	30	30	35	20
3.	Steel [S]	С	10	20	10	-	10
4.	Cement [C]	d	10	-	-	-	-
5.	Plant & Equipment spares [E]	e	10	-	20	15	20
6.	Diesel [D]	f	10	5	5	15	10
7.	Bitumen [B]	g	-	-	-	-	-
8.	Others[O]	h	25	10	20	20	25
9.	Copper [Cu]	i	-	5	-	-	-
10.	Aluminium [A]	j	-	15	-	-	-
	Total		100%	100%	100%	100%	100%

## **BOQ Schedules**

A : Civil Engineering Works - Schedule A-1 to A-6 & Schedule B of Part A of BOQ

B : Electrical – General Service Works - Part B of BOQ

C-I : Signalling Material Supply - Schedule C of Part C of BOQ
C-II : Signalling – Execution - Schedule D of Part C of BOQ
C-III : Telecommunication - Schedule A & B of Part C of BOQ

Table 2: Cost Indices and Reference Prices (applicable for specific items) for adjustment in contract prices [as per GCC 13.8]. WPI with base 2011-2012 = 100 on the Base Date

Base Date = 28 Days prior to Deadline for submission of bids

S.	Cost Element	Symbol	Indices or Cost on the Base Date	Index for adjustment	Sources of Index
No.		·			
513	[0]	[0]	543	[6]	
[1]	[2]	[3]	[4]	[5]	[6]
1.	Fixed	a	T TILL C D	I CDV 1 1 1 1 1 20 1	I I D Marin CI I
2.	Labour	b	Lo- all India average Consumer Price	Ln-CPI on the date which is 28 days	Labour Bureau, Ministry of Labour and
			Index(CPI) Number for Industrial	prior to the last measurement date for	Employment, Government of India.
			Workers for Mumbai centre1 (Base 2001 = 100) on the base date.	that interim payment certificate.	http://labourbureaunew.gov.in/LBO_in dnum.htm
3.	Steel	c	So – Whole-sale Price Index (WPI) for	Sn-WPI on the date which is 28 days	Economic Advisor, Ministry of
			Steel [Mild Steel Long Products]	prior to the last measurement date for	Commerce and Industry, Government
				that interim payment certificate	of India.
					http://eaindustry.nic.in/home.asp
4.	Cement	d	Co-WPI for Ordinary Portland Cement	Cn-WPI on the date which is 28 days	Economic Advisor, Ministry of
				prior to the last measurement date for	Commerce and Industry, Government
				that interim payment certificate	of India
5.	Plant &		Eo-WPI for Manufacture of machinery	En – WPI on the date which is 28 days	http://eaindustry.nic.in/home.asp  Economic Advisor, Ministry of
3.	Equipment	e	for mining, quarrying and construction	prior to the last measurement date for	Commerce and Industry, Government
	spares		Tor mining, quarrying and construction	that interim payment certificate	of India
	spares			that intermi payment certificate	http://eaindustry.nic.in/home.asp
6.	Diesel2	f	Do-Unit Cost from the identified depot	Dn-Unit Cost on the date which is 28	From the Indian Oil Corporation (IOC)
0.	Dieseiz	•	on the base date	days prior to the last measurement	Depot at Mumbai Depot.
				date for that interim payment	https://www.iocl.com/Product_Previou
				certificate	sPrice/DieselPreviousPriceDynamic.as
					px
7.	Bitumen3	g	Bo-Unit Cost from the identified refinery	Bn- Cost per unit quantity on the date	From IOC Refinery at Mumbai
		_	on the base date	which is 28 days prior to the last	https://www.iocl.com/Products/Bitume
				measurement date for that interim	n.aspx
				payment certificate	
8.	Others	h	Oo- All India Wholesale Price	On- All India WPI for all commodities	Economic Advisor, Ministry of
			Index(WPI) for all commodities	on the date which is 28 days prior to	Commerce and Industry, Government

<sup>&</sup>lt;sup>1</sup> The Centre to be specified should be the relevant one for which CPI is published by the Labour Bureau.

<sup>&</sup>lt;sup>2</sup> The PCC specifies the identified depot for the rate of diesel for the base date and the applicable date for price adjustment.

<sup>&</sup>lt;sup>3</sup> The PCC specifies the identified refinery for the rate of Bitumen for the base date and the applicable date price adjustment.

S. No.	Cost Element	Symbol	Indices or Cost on the Base Date	Index for adjustment	Sources of Index
				the last measurement date for that interim payment certificate	of India http://eaindustry.nic.in/home.asp
9	Copper	i	Cu <sub>o</sub> -IEEMA copper wire rod prices for manufacturing Insulated cable	Cu <sub>n</sub> . IEEMA copper wire rod prices for manufacturing of Insulated cable one month prior to the last measurement date for that interim payment certificate	Indian Electrical & Electronics manufacturing association (IEEMA) https://www.ieema.org
10	Aluminium	j	A <sub>o</sub> - IEEMA LME average settlement price for ingots for manufacturing Insulated cable	A <sub>n</sub> . IEEMA LME average settlement price for ingots for manufacturing Insulated cable one month prior to the last measurement date for that interim payment certificate	Indian Electrical & Electronics manufacturing association (IEEMA) https://www.ieema.org

IPC – Interim Payment Certificate

## STANDING INDEMNITY BOND FOR ON ACCOUNT PAYMENTS/ PAYMENTS

(On paper of requisite stamp value)

We, M/sdo hereby undertake to hold at our stores Depot(s)/ sub Depot(s) worksite at/between for and on
behalf of the President of India acting in the premises through the Chief Electrical Engineer (Project), MRVC, Mumbai (hereinafter referred to as employer) all
materials for which 'On Account payments/'Payments have been made to us against the Contract
vide letter of Acceptance No datedor contract agreement No
materials are duly erected or otherwise handed over to him.
We shall be entirely responsible for the safe custody and protection of the said materials against all risk till they are duly delivered as erected equipment to the
employer or as he may direct otherwise and shall indemnify the employer against any loss, damage or deterioration whatsoever in respect of the said materials while in
our possession and against disposal of surplus materials. The said materials shall at all times be open to inspection by any officer authorized by the <u>Chief Electrical</u>
Engineer (Project), Mumbai Railway Vikas Corp. Ltd. Mumbai.
Should any loss, damage or deterioration of materials occur or surplus materials disposed off and refund becomes due, the employer shall be entitled to
recover from us the full cost as per price included in Schedule (BOQ) to the Contract and also compensation for such loss or damage if any along with the
amount to be refunded without prejudice to any other remedies available to him by deduction from any sum due or any sum which at any time hereafter
becomes due to us under the said or any other Contract.
Dated thisday of
For and behalf of
Signature of witness
Name of witness in Block Letters
Address.