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Hindustan Cables Limited
Turnkey Project Division
Regd. & Corporate Office
9, Elgin Road, Kolkata – 20

TENDER NO : HCL/TKP/ER/MALDA/OFC/BDAG-KEU/8 Date.05-06-2009
General Manager, Hindustan Cables Limited (HCL), Turnkey Project Division,
invites sealed tender from bonafide firms / companies having requisite experience and
financial capacity for Optical Fibre outdoor work including construction of service
buildings in Bonidanga-Kiul section of Eastern Railway .

Tender documents will be available from the above office or website
www.hindcables.com on payment of Rs. 3000/- (Rs. Three thousand Only)for
each tender by D.D. in favour of Hindustan Cables Limited , payable at Kolkata upto
30-06-2009 from 11:00 Hrs. to 14 : 00 Hrs. on all working days and tender will be
opened on 30-06-2009 at 15 : 30 Hrs.

General Manager (TKP) / C.O.

1.1 AVAILABILITY OF TENDER DOCUMENT

Tender documents can be obtained from 11.00 hours to 14.00hours on all working days upto 24-03-2008 from the office of General Manager, Hindustan Cables Limited, Turnkey Project Division, 9, Elgin Road, Kolkata 700 020 on payment (non-refundable) of Rs.3,000/- in cash or Demand Draft/Pay order drawn in favour of Hindustan Cables Limited, Kolkata towards the cost of one set of the tender documents. The tender documents shall be sold only to the persons authorised in writing by the firm, company or Joint venture. Tender documents can also be downloaded from HCL's web site www.hindcables.com and in such a case, the tenderer shall deposit the cost of tender documents alongwith submission of the tender, failing which his tender shall not be opened. The cost of tender documents shall be deposited in the form of demand draft/pay order in favour of Hindustan Cables Limited, payable in Kolkata and enclosed in the envelope containing the Earnest Money Deposit.

1.2 The tender documents shall be submitted in sealed packets

1.3 Completed tender documents along with the name of the work viz

"Tender for Optical Fibre outdoor work including construction of service buildings in Bonidanga-Kiul section of Eastern Railway due for opening on 30-06-2009 at 15:30 hours". should be deposited in the tender box at HCL's office at the following address before 15.00 hours of 30-06-2009.

Hindustan Cables Limited
116A,Rash Behari Avenue
Kolkata 700 029.

Tenders shall be opened at 15:30 hours on the same day in the presence of the tenderers or their authorised representatives intending to attend the opening. Any tender received later than the time and date of opening of tenders shall be rejected and returned to the tenderer unopened.

1.4 Tender shall be submitted as per "Instructions to Tenderers" forming a part of the tender document.

1.5 Any tender received without Earnest Money in the form as specified in tender documents shall not be considered and shall be summarily rejected.

1.6 HCL reserves the right to postpone the tender submission/opening date and to accept/reject any or all tenders without assigning any reasons thereof. HCL's assessment of suitability as per eligibility criteria shall be final and binding.

1.7 The validity of the offer shall be 120 days from the date of opening of the tender.

1.8 The transfer of tender documents purchased by one intending tenderer to another tenderer is not admissible. Tenderer can submit tenders only on the documents purchased by him.

1.9 STANDARD SCHEDULE OF RATES:

1.9.1 Schedule of tender paper lists out the standard schedule of rates, quantity and total rates for various items. The tenderer is advised to quote only the percentage below/at par/above against the S.O.R. in the Summary of prices schedule. The offers where more than one percentage has been given shall be rejected summarily.

For & on behalf of
HINDUSTAN CABLES LIMITED

General Manager(TKP)/ C.O.

- 2.0 Essential Qualifying Criteria
The Tenderer should possess following Qualifying Criteria:-
- 2.1 The Tenderer should have completed at least one similar single work/civil work for a minimum value of Rs.5.00 lacs in last three financial years.
- 2.2 The total contract amount received during the last three financial years & current financial year should be minimum of Rs.30.00 lacs for which the tenderer must submit authentic certificate from the employer /client .
- 2.3 The Tenderer shall submit the banker's solvency certificate of an amount equal to Rs. 5.00 lacs (Rs. Five Lacs).

3.1 SCOPE OF WORK:

The Scope of work of the contractors shall be Optical Fibre outdoor work including construction of service buildings in Bonidanga-Kiul section of Eastern Railway(ER). Testing of Cable using all the test and measuring instruments such as OTDR, Power Meter,(all Test and Measuring Instruments to be provided by the Contractor).

The scope of work also includes preparation and supply of design and documentation. The Contractor will prepare and submit all the proposed cable route plans to HCL for approval, and after obtaining approval the work from HCL/ER will be executed in accordance with the technical specifications.

After completion of the work the contractor shall prepare and submit the completion drawings. All the test protocols carried out during the OFC link Testing and commissioning shall be submitted for joint signature after testing and commissioning.

3.2 OFC cable and other stores materials will be issued to the contractor from ER and will have to be transported by the contractor to site of work at his own cost. All unused stores is also to be returned by the contractors at ER stores.

4.1 Procedure for Submission of Bids

The offer shall be submitted in sealed envelopes super scribing the tender no., Date of opening, Brief description of job. The entire envelope shall be addressed as follows and be dropped in the respective Tender box kept in the venue of opening as mentioned in the forwarding letter.

Hindustan Cables Limited
116A, Rashbihari Avenue
(Near Lake Market)
Kolkata-700029

The offer shall contain the following documents (must be legible) to be stamped & signed by the contractor as a certified true copy.

- A) Forwarding letter,
- B) Earnest money of Rs. 20,000/-(Rupees twenty thousand only) in the form of crossed demand draft drawn in favour of 'Hindustan Cables Limited', payable at Kolkata, without any spelling mistake.
- C) Copy of solvency certificate issued by a scheduled bank, issued not earlier than 1(one) year from the date of opening the tender.
- D) Latest I. Tax clearance certificate.
- E) Address of Communication/ Telephone Numbers/ Name of Contact Person and Telegraphic Code.
- F) Original Tender Booklet duly filled in, stamped and signed at all pages as a token acceptance of the same
- G) Declaration duly stamped & signed regarding name of relatives of the contractor working in HCL the enclosed format (Annexure-A)
- H) Declaration duly stamped & signed regarding contractors submission tender in the form of Tender.
- I) Experience Certificate / copy of work order for similar nature of job to meet essential qualifying criteria.

4.2 Deadline for submission of tender

4.2.1 The tender duly filled must be received by Employer at the address specified not later than the date and time mentioned in the "Notice Inviting Tender".

4.2.2 A tender received later than the deadline prescribed for submission of tender by Employer is liable to be rejected.

4.3 Tenders brought to the office of Employer later than the deadline prescribed but before the opening time mentioned in the bidding document shall be declared as delayed tenders and may be considered by Employer and decided on its merits. The decision of the Employer shall be final and binding.

4.4 Any tender received after opening of the tender shall be rejected and returned unopened to the tenderer.

4.5 Withdrawal of tender

4.5.1 No tender can be withdrawn after submission and during tender validity period.

4.6 Submission of a tender by a tenderer implies that he had read all the tender documents including amendments if any, visited the site and has made himself aware of the scope and specifications of the work to be done, local conditions and other factors having any bearing on the execution of the work.

4.7 Sealing and marking of tenders

4.8 The tenders shall be submitted on or before the due date and time as mentioned in Appendix to Tender .

4.9 Earnest Money and all other completed tender documents shall be sealed in an envelope super scribed with the name of the work .

4.10 In addition to the above, the envelope shall also contain the name and address of the tenderer to enable tender to be returned unopened if so required.

4.11. Bid opening and Evaluation

4.11.1 Tenders will be opened at the address mentioned in “Notice Inviting Tender” in presence of tenderers or authorised representatives of tenderers who wish to attend the opening of tenders.

4.11.2 Tenderers or their authorised representatives who are present shall sign register in evidence of their attendance.

4.11.3 Tenderer’s name, presence or absence of requisite Earnest Money, total cost of work quoted or any other details as Employer may consider appropriate will be announced and recorded at the time of bid opening.

4.12 Clarification of the tenders

To assist the examination, evaluation and comparison of the tenders, Employer may at his discretion ask the tenderers for any clarifications as considered essential. All such correspondence shall be in writing and no change in price or substance of the tender shall be sought or permitted. The above clarification for submission of the details shall form part of the tender and shall be binding on tenderer.

4.13 Preliminary examination of bids

The Employer shall examine the bids to determine whether they are complete, whether any computational errors have been made, whether the documents have been properly signed and whether the bids are generally in order.

4.14 Arithmetical errors shall be rectified on the following basis. If there is a discrepancy between the unit price and the total price, which is obtained by multiplying the unit price and quantity, or between subtotals and the total price, the unit or subtotal price shall prevail, and the total price shall be corrected. If there is a discrepancy between words and figures, the rate in words shall prevail.

4.15 Prior to the detailed evaluation, Employer shall determine whether each bid is of acceptable quality, is generally complete and is substantially responsive to the bidding documents. For purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions and specifications of the bidding documents without material deviations, objections, conditionality or reservation. A material deviation, objections, conditionality or reservation is one;

- i) that affects in any substantial way the scope, quality or performance of the contract.
- ii) that limits in any substantial way, inconsistent with the bidding documents, the Employers’ rights or the successful Bidder’s obligations under the contracts; or
- iii) whose rectification would unfairly affect the competitive position of other Bidders who are presenting substantially responsive bids.

4.16 If a bid is not substantially responsive, it shall be rejected by the Employer.

4.17 In case of tenders containing any conditions or deviations or reservations about contents of tender document, Employer may ask for withdrawal of such conditions/deviations/reservations. If the tenderer does not withdraw such conditions/deviations/reservations, the tender shall be treated as non-responsive. Employer’s decision regarding responsiveness or non-responsiveness of a tender shall be final and binding.

4.18 Evaluation and comparison of tenders

4.19 The Employer/Engineer reserves the right to negotiate the offer submitted by the tenderer to withdraw certain conditions or to bring down the rates to a reasonable level.

OFFER LETTER

To
General Manager(TKP),
Hindustan Cables Limited,
Turnkey Project Division,
9, Elgin Road, Kolkata 700 020.

Sir,

I/We ----- have read the various conditions of the tender attached thereto and hereby agree to abide by the said conditions. I/We also agree to keep this tender open for acceptance for a period of 90 days from the date fixed for opening the same and in default thereof . I/We will be liable for forfeiture of my/our SECURITY / DEPOSIT. I/We offer to do that work for the above, at the rates quoted to the attached schedules and hereby bind myself / ourselves to complete all the works as per clause of additional special condition of the contract. I/We also hereby agree to abide by the General and Special Conditions of Contract and to carryout the work according to the specifications for materials and works laid down by the HCL for the present contract.

2. A sum of Rs. 20,000.00 is herewith forwarded as Earnest Money, in addition to the sum of Rs. ----- as “SECURITY DEPOSIT” mentioned above. The full value of Earnest Money shall stand forfeited without prejudice to remedies if;
 - a) I/We do not execute the contract documents within fifteen days after receipt of notice issued by the HCL that such documents are ready or
 - b) I/We do not commence the work within ten days after receipt of orders to that effect.
3. Until a formal agreement is prepared and executed, acceptance of the tenders shall constitute a binding contract between us subject to modifications, as may be mutually agreed to between us and indicated in the letter of acceptance of my / our offer this work.
4. I/We further agree and declare that in case I/We fail to abide by the conditions of keeping open this offer for a period of 90 days. I/We shall have no objection to the forfeiture of earnest money deposit amounting to Rs. 20,000.00

Signature of the Tenderer(s)

Address -----

FORM OF BID

Name of the work :

Optical Fibre outdoor work including construction of service buildings in Bonidanga-Kiul section of Eastern Railway .

TENDER NO : HCL/TKP/ER/MALDA/OFC/BDAG-KEU/8

Date.05-06-2009

Sl No	Section No	Description Of Route		Quoted Tender Rates (% Bidding) At Per / Above(+)/Below(-)	
				(%) in Figure	(%) in Words
1	II	Shivanarayanpur-Bikramshila-Kahalgaon-Ekchari-Ghoga Route Km- 21.12 Estimated cost: Rs.2751650.92	Part-I		
			Part-II		
			Non-schedule item		
2	III/B	Sultangang-Gangani-khariaphra-Kalyanpur Road-Bariarpur-Ratanpur Route Km-22.48 Estimated cost: Rs.2913018.23	Part-I		
			Part-II		
			Non-schedule item		
3	IV/A & IV/B	Abhaipur-Kajra-Uren Uren-Dhanuri-Kiul Route Km-23.10 Estimated cost: Rs.2224784.71	Part-I		
			Part-II		
			Non-schedule item		

1. The Tenderer(s) should quote only one percentage (at per / above / below) over the total value of each schedule for all the items included in it.
Tenders received with different percentage for different items within the same schedule are liable to be rejected.
2. Conditional tender will also be summarily rejected.
3. Rates should inclusive of all Taxes & Duties

Signature of Tenderer(s)

FORM OF BID

Name of the work :

Optical Fibre outdoor work including construction of service buildings in Bonidanga-Kiul section of Eastern Railway .

TENDER NO : HCL/TKP/ER/MALDA/OFC/BDAG-KEU/5

Date.09-01-2008

Sl No	Section No	Description Of Route		Quoted Tender Rates (% Bidding) At Per / Above(+)/Below(-)	
				(%) in Figure	(%) in Words
1	IV/A	Abhaipur-kajra-Uren	Part-I		
			Part-II		
2	IV/B	Uren-Dhanuri-kiul	Part-I		
			Part-II		
3	II	Shivanarayanpur-Bikramshila-Kahalgaon-Ekchari-Ghoga	Part-I		
			Part-II		

1. The Tenderer(s) should quote only one percentage (at per / above / below) over the total value of each schedule for all the items included in it.
Tenders received with different percentage for different items within the same schedule are liable to be rejected.

2. Conditional tender will also be summarily rejected.
3. Rates should inclusive of all Taxes & Duties

Signature of Tenderer(s)

Name of work :Optical Fibre outdoor work including construction of service buildings in Bonidanga-Kiul section of Eastern Railway

SUMMARY

Sl. no.	Schedule	Amount
1	Schedule -A (Outdoor Execution)	3052609.20
2	Schedule -B (Outdoor Supply)	1412853.98
3	Construction of service building-Annexure-A	265362.58
4	Construction of service building-Annexure-BI	933701.88
5	Construction of service building-Annexure-BII	319059.2592
6	Construction of service building-Annexure-BIII	140896.422
	TOTAL OF PART-1	6124483.31
1	Part-II-New Item	782187.5
	TOTAL	6906670.81
	Total of Non-Schedule item	981025.94

Name of work : Construction of Service Building in connection with OFC work from Bonidanga to Kiul section in Malda division of Eastern Railway.

Annexure-A

Sl. No.	Description of work	Unit	Qty	Unit Rate in Rs.	Total in Rs.
1.	Supply & laying 20 mm thick (aprox) acid proof tiles of approved quality (floor/walls) etc. laid ovr 13 mm thick cement sand mortar (1:3) treated with two coats of primer including cleaning & polishing in all respect with all lead, lift ascent, descent, Labour materials (Except Cement which will be supplied separately).	m ²	117.2862	306	35889.58
2.	Earth filling from outside Rly. Land. Earth to be filled in layers not exceeding 300 mm including watering, ramming to achieve at least 80% dry density complete in all respect as per direction of Engineer at site.	m ³	1019.88	225	229473.00
Total cost					265362.58

PART-II, New Item

Sl. No.	Description of work	Unit	Qty	Unit Rate in Rs.	Total in Rs.
1	Laying of HDPE pipe duct 40/33 mm in trenches and in protective works already provided including pulling of monomode armoured optical fibre cable (24 fibre) through duct.	Km	62.575	12500	782187.5

Name of the Work :-

Supply and Execution of Outdoor work in connection with Optical Fibre Laying in Bonidanga - Kiul Section in Malda Division of Eastern Railway.

SCHEDULE -B (OUTDOOR SUPPLY)

SL. NO.	DESCRIPTION	QTY	UNIT	Rate(Rs)	Amount(Rs)
1.	Supply of Optical Fibre Cable splice closure (24 Fibre) as per Tec Specification No. G / OJC - 02 / 01 Mar'99 with latest amendment including all miscellaneous items and consumable for Fibre splicing.	32	SETS	1237.5	39600.00
2.	Supply of Optical Fibre Termination Box (24 Fibre) as per Tec Specification No. G/FTB - 01/02 Mar'99 with latest amendment including all miscellaneous items and consumables for Fibre splicing. It should have the capacity to terminate 2 Nos. 24 Fibre OFC through separate entry holes and to take out and terminate 24 pigtails through separate exit holes.	11	SETS	1548	17028.00
3.	Supply of Fibre distribution Frame (24 Fibre) as per TEC Specification No. G/FDF-01/01 Jan'93 with latest amendment including all miscellaneous items and consumables for Fibre splicing and 24 No. FC/PC connector.	22	NOS.	6192	136224.00
4.	Supply of Pig Tail (10m long) as per Tec Specification No. G/OFJ- 01 / 03 Jun'99 with latest amendment. INSPECTION :- CONSIGNEE	258	NOS.	283.5	73143.00
5.	Supply of Patch Chord (10m Long) as per Tec Specification No. G/OFJ-01/03 Jun'99 with latest amendment.	62	NOS.	361.8	22431.60
6.	Supply of Krone Type CT Box Out Door type with Anno-Dised Aluminium cover of different sizes as per RDSO Specn. No. IRSTC18-75 (latest) INSPECT - CONSIGNEE				0.00
(i)	20 PAIR	6	NOS.	1035	6210.00
(ii)	10 PAIR	28	NOS.	720	20160.00
(iii)	100 PAIR	10	NOS.	3924	39240.00
7.	Supply of Themoshrink jointing kit for 10/20 pair PIJF Cable and 4 Quad Cable as per jointing Technique using thermoshrink issued by RDSO.			0	0.00
a)	TSF 1 for 10/20 pair PIJF Cable for straight through joint as per RDSO specification No. IRS: TC-77-2000	5	NOS.	517.5	2587.50
b)	TSF 2 for 4 Quad Cable for straight through joint as per RDSO Specification No. IRS;TC-77-2000 or latest.	39	NOS.	1651.5	64408.50
8.	Supply of GI Pipe with threaded collars as per IS: 1239 medium grade, 100 mm dia. INSPECT - CONSIGNEE	641.25	MTRS	427.5	274134.38
9.	Supply of double wall Corrugated Pipe (DWC) dia 120 mm outer dia & inner dia 103.5 along with Socket Coupler as per BSEN 50086-2-4, IS : 14930. INSPECT - CONSIGNEE	446	MTRS	207	92322.00

Name of the Work :-

Optical Fibre outdoor work including construction of service buildings in Bonidanga - Kiul section in malda division of Eastern Railway.
Schedule -A (Outdoor Execution)

SL. NO.	DESCRIPTION	QTY	UNIT	Rate (Rs)	Amount(Rs)
1.	Final location survey, cable route survey, preparation of cable route plan, system design and equipment layout plan as per technical supplement.	66	K.M	675	44550.00
2.	Excavation of trenches including clearing of roots of trees etc. upto a depth of 1.2 metre and 260 mm. Width at the bottom for all types of soil including morrium but excluding hard/rocky soil in the entire section partial back filling after laying of OFC Cable and final back filling after laying of 4 Quad/PIJF Cable etc. ramming of the soil in trenches and cosolidation of soil as well as the disposal of the soil if any including supply and laying of bricks 8 (Eight) per metre and covering the cables and provision of cable route markers in station section. This includes all required protective work to suit the site conditions as detailed in technical specification enclosed and advised by engineer at site.				
(a)	Excavation with supply and laying of bricks 8 (Eight) per metre.	16	KM	35100	561600.00
(b)	Excavation without suply and laying of bricks.	33	KM	16200	534600.00
3.	Excavation of trenches including clearing off roots of trees etc. upto a depth of 1.2 metre and 260 mm. Width at the bottom by chiseling even where Hard/Rocky Soil is encountered after a depth of 0.5 mtr. Or up to a depth of 0.8 mtr. And width 260 mm. then placing RCC Hume Pipe section with collar as per drawing on sieved soil of 30 mm over cable and concreting through-out the length up to layer of 75 mm (1:2:4). Then back filling the trench by digging and carrying earth from a lead of maximum 30 mtrs. and then ramming of soil after cable laying (RCC Pipe to be supplied by the contractor as per site requirement). Note : The payment will be made as per Pro-rate basis if required depth is not available at site if the depth of the trench is not uniform in a span of 100 mtr. or shorter length if site condition demands along the cable run minimum depth will be taken for that particular stretch for payment	0.558	KM	346500	193347.00
4.	Excavation as in item 2 above for concrete Platform/Pucca Roads and refilling with the earth inclndg levelling of trenches and repairing to the original condition, supply of cement and other materials required for repairing excavated Platform/Roads to be supplied by the tenderer.	2	KM	99000	198000.00
5.	Excavation of trenches under Railway Track up to a depth of 1.2 Mtr. And 260 mm. Width at the bottom and refilling with the earth after cable laying and restoring balast. This should be done in co-ordination with P-way gang under supervision of Engineer-in-charge. Note : The payment will be made as per pro-rate basis if required depth is not available at site, if the depth of the trench is not uniform in a span of 100 mtr. or shorter length if site condition demands along the cable run, minimum depth will be taken for that particular stretch for payment	1	KM	94500	94500.00
6.	Site condition demands along the cable run, minimum depth will be taken for that particular stretch for payment. Under Road/Platformas per Drg. No. RDSO/TCDO/COP-2 at Annexure -5.2 and SGW/T/5/SDAH/01/97 AT Annexure - 5.9 or at places advised by the Engineer-in-charge. Suitable G.I. Clamps for fixing the G.I. Pipes will be supplied by the Tenderer. This includes performance of G.I. Pipes, transportation of G.I. Pipes from the Railway store to the place of	0			
	i) Fixing & Laying 100 mm dia G.I. Pipe.	0.7	KM	229878	160914.60
	ii) Fixing & Laying 50 mm. Dia G.I. Pipe	0.2	KM	229878	45975.60
7.	Placing of DWC Pipe at track crossing at a depth of 1.2 Mtr. This includes transport of DWC Pipes from the Railway store to the place of laying and returning left over materials to the Railway store. i) 100 mm dia DWC Pipe.	0.5	KM	54000	27000.00

Name of the Work :-

Optical Fibre outdoor work including construction of service buildings in Bonidanga - Kiul section in malda division of Eastern Railway.
Schedule -A (Outdoor Execution)

SL. NO.	DESCRIPTION	QTY	UNIT	Rate (Rs)	Amount(Rs)
8.	Cutting the masonry wall to the depth of 0.75 m. At places to be indicated by the Engineer In-charge by placing the flexible G.I. Pipe and repairing masonry wall and cement plastering after the cable is taken inside and fixing of G.I. Pipes as per RDSO Drg. No. RDSO/TCDO/COP-6 at Annexure - 5.6 including the supply of flexible G.I. Pipe, clamp and other materials required for plastering, G.I. clamp will be fixed at one Mtr. interval, on the structure. This includes transportation of G.I. Pipes from the Railway store to the place at laying and returning leftover materials to the Railway store	10	NOS.	1530	15300.00
9.	Excavation of Pit For Cable Jointing Of Size 1.5m X 1.5m X .1.2m For All Types Of Soils In The Section. Back Filling The Pit And Ramming After Jointing. Provision Of Brick Walling The Four Walls And Bottom Of Pit With 1:6 Plaster, Covering The Pit With Rcc Slab, Back Filling With Earth And Ramming As Per Drawing At Annexure - 3.1. N.B. All The Materials Including Cement Required For The Above Will Be	24	NOS.	3060	73440.00
10.	Laying of following cable including their transportation from the Railway store to the place of laying and returning of Cable Drums with or without left over cable to the Railway store as detained in technical specifications enclosed and advised				
	i) 24 Fibre Monomode, Armoured Optic Fibre Cable.	70	KM.	3060	214200.00
	ii) 4/6 Quad Armoured Screened Cable of 0.9 mm conductor dia.	50	KM.	5040	252000.00
	iii) 20 Pair U/G Armoured PIJF Telecom Cable of 0.63mm dia.	3	KM.	3060	9180.00
	iv) 10 Pair U/G Armoured PIJF Telecom Cable of 0.63mm dia.	6	KM.	3060	18360.00
11.	Jointing, Terminating & Splicing of 24 Fibre Optic Fibre Cable and fixing of Termination Box/FDF/Placing of jointclosures in the pit required at various locations including transportation of all the jointing & terminating materials from Railway store to the work site and returning left over materials to the Railway store. The rate should all jointing materials other than that indicated in the supply	55	NOS.	3577.5	196762.50
12.	Jointing of 4/6 Quad/PIJF Cable using thermoshrink jointing kit as per approved cable jointing procedure. The rates include transportation of jointing kit from the Railway store to the work site. All other consumable and tools etc. required for jointing are to be arranged by the Tenderer.				
	i) Straight through joint for 4 Quad (0.9 mm dia) Cable	14	NOS.	1224	17136.00
	ii) 10/20 pair (0.63 mm dia)PIJF Cable	5	NOS.	810	4050.00
	iii) Derivation Joint for 4/6 Quad(0.9 mm dia) Cable	30	NOS.	1530	45900.00
13.	Installation of CT Box at Work Site as per Drg. No. SGW/T/4/SDAH/02/97 At Annexure - 5.11 and Termination of 4 Quad/PIJF Cable Inside CT Box both in and out as per approved procedure. All Materials and Tools for Installation of CT Box and Termination of Cables to be arranged by the Tenderer. This rates include Transportation of CT Box from the Railway Store and returning left over				
	i) 20 Pair	10	NOS.	405	4050.00
	ii) 10 pair	10	NOS.	360	3600.00
	iii) 100 Pair	5	NOS.	720	3600.00
14.	Testing of all Fibres of the Optic Fibre Cable, Quad, PIJF Cable, ADMS, MUX and other accessories installed above and final commissioning of Optic Fibre communication link conforming to RailWay's specification including end to end testing for realization of Optic Fibre system.	10	STNS	5130	51300.00

Name of the Work :-

Optical Fibre outdoor work including construction of service buildings in Bonidanga - Kiul section in malda division of Eastern Railway.

Schedule -A (Outdoor Execution)

SL. NO.	DESCRIPTION	QTY	UNIT	Rate (Rs)	Amount(Rs)
15.	Fabrication & Erection of emergency socket post complete with emergency socket boxes as per DRG. No. S & T/C-12(NKG) and its wiring along side the Railway track. This shall include painting of the post with a coat of red oxide paint and then painting with alternate white and black strips of 250 mm width. The emergency socket box to be painted with grey paint. Only enamel paint of ISI spec. shall be used, the painting shall be of two coats through the post, socket this shall include termination of cable on the one side of termination strip and wiring between termination strip and socket with flexible wire. Sufficient loose flexible wire (3 Mtrs) shall be kept for future repairs. This include supply of all materials required for the work. This also includes cutting of Rail Post to size, Rail Post & EMC Socket will be supplied by the Railways.	70	NOS.	2043	143010.00
16.	Supervision of maintenance for a period of one year from the date of commissioning of whole system.	0.2833	JOB	495000	140233.50
	GENERAL NOTE :				
i)	All Smithy / Masonary Material including Cement, Bolts Bars, Angles etc. required for the execution shall be supplied by the Contractor.				
ii)	All supply materials for which inspecting authority has not been indicated in Tender schedule but will be used for installation is required to be inspected by the Railway authorised representative of CSTE/Works/E. Rly. Before they are either processed for manufacture as per schedule or used directly.				
iii)	The Material supplied by the Contractor should be transported at site free of				
iv)	The material supplied by the Railway from SE/SIG/CON/MLDT's store at sahbganj will be transported by the contractor at site free of cost other than where specially mentioned in the schedule.				
v)	Execution Of Work And Supply Of Materials, Instruction / Specifications Are Mentioned In Tender Documents.				
vi)	Varnish, wherever required for carpentry works as per requirement of Railway shall be supplied by the Contractor.				
vii)	The Execution related items of schedule-'B' will be utilised for execution of schedule - 'A' items.				
viii)	Each materials supplied by the Contractor should bear the Contract No. Embossed/Painted/Written by permanent ink on these, Contractor should make necessary arrangement to comply this.				
TOTAL					3052609.20

Name of the Work :-

Supply and Execution of Outdoor work in connection with Optical Fibre Laying in Bonidanga - Kiul Section in Malda Division of Eastern Railway.

SCHEDULE -B (OUTDOOR SUPPLY)

10.	Supply of PVC insulated U/G Telecom Cable dia .63 mm RDSO Spec. TC-41-97			0	0.00
	(a) 10 PAIR	6.8	KM	46800	318240.00
	(b) 20 PAIR INSPECTION :-RDSO	3.4	KM	70200	238680.00
11.	Supply of 6-Pin emergency Plug&Socket with protection Box RDSO Spec. TC 42-87 INSPECT - CONSIGNEE	71	NOS.	832.5	59107.50
12.	Supply of 4W EMG control portable Phone INSPECT - CONSIGNEE	5	NOS.	1867.5	9337.50
	GENERAL NOTE:-				
(i)	All Smithy / Massonary Materials including Cement, Bolts, Bars, Angles etc. required for the Execution shall be supplied by the Contractor.				
(ii)	All supply materials for which inspecting authority has not been indicated in tender schedule but will be used for installation is required to be inspected by the railway authorised representative of CSTE/Works/E.Rly, before they are either processed for manufacture as per				
(iii)	The material supplied by the contractor should be transported at site free of cost other than where specifically mentioned in the schedule.				
(iv)	The material supplied by the Railway from SE/SIG/CON/MLDT's store at Sahibganj will be transported by the contractor at site free of cost other than where specifically mentioned in the schedule.				
(v)	Execution of work and supply of Materials, Instructions/Specifications are mentioned in Tender				
(vi)	Varnish, wherever required for carpentry works as per requirement of Railway shall be supplied by the				
(vii)	The execution related items of schedule - 'B' will be utilised for execution of schedule - 'A' items.				
(viii)	Each Materials supplied by the Contractor should bear the Contract No. Embossed/Painted/Written by permanent ink on these. Contractor should make necessary arrangement to comply this.				
TOTAL					1412853.98

GENERAL CONDITIONS OF CONTRACT

1.0 GENERAL

1.1 The “Work or Works”- shall mean all or any of the items of the work for which the contractor has tendered according to the specifications, drawings and schedules here to annexed or to be implied there from or incidental there to or to be hereafter specified or required in such explanatory instructions and drawings and schedules and also such instructions and drawings, additional to the aforementioned, as may from time to time during the progress of the work hereby contracted, be supplied by the Chief Signal & Telecom, Engineer(Con). Eastern Railway or his representative or General Manager (TKP)/C.O, Hindustan Cables Ltd (HCL) or his representative.

2.0 GENERAL ORGANISATION OF THE CONTRACTOR SUPERVISION OF ERECTION AND CONTRACTOR’S ATTENDENCE AT WORK SITE:

2.1 (a) The Supervision of Erection according to specification shall be done by the contractor and for this purpose the contractor shall employ competent representatives to supervise the erection and the carrying out the works at all stages. The said representative shall be present on the site during hours and any written orders or instructions which Railway may give to the said representative of the contractor shall be deemed to have been duly given or communicated to the contractor.

(b) The Contractor or his representative shall accompany the Railway’s Engineer on inspection tour or proceed to their offices any time he is called upon to do so.

(c) Any Staff, workmen or officers detailed by contractor to execute the work shall be deemed to be the agents or employees of the contractor for the purpose of fixing responsibility and determining liability for any loss or damage occasioned by any act of omission or commission on the part of such staff, workmen or officers while working under the supervision of the contractor.

3.0 RAILWAY NOT TO PROVIDE QUARTERS FOR CONTRACTOR :

3.1 No quarters shall normally be provided by the railway for the accommodation of the contractor or any of his staff employed on the work. In exceptional cases where accommodation is provided to the contractor at the railway’s discretion, recovery shall be made at such rates as may be fixed by the railway for full rent of the building and equipments their in as well as charges for electric current, water supply and conservancy at the rates applicable.

4.0 OCCUPATION AND USE OF LAND :

4.1 No land belonging to or the possession of the Railway shall be occupied by the contractor without the permission of the railway. The contractor shall not use or allow to be used,

site for any purpose other than that of executing the works. Land rent, where necessary should be paid by the contractor.

4.2 When work is executed within the limits of any Station Committee, or where conservancy work is being systematically done by the Railway, the contractor will be liable to pay any conservancy water or any other cases levied by such committee or the Railways.

5.0 STORAGE OF MATERIAL :

5.1 The storage of materials, tools and machinery used by the contractor shall be done in an orderly manner and anything used by the contractor for the execution of the work should in on way cause a danger or hindrance to the working of the Railway or to the movement of its staff or passengers.

5.2 Temporary depot for tools and equipments of any kind can only be opened in Railway premises after prior permission has been granted by authorized Railway's representative.

6.0 CONVEYANCE OF STAFF AND CARRIAGE OF MATERIALS OF CONTRACTOR :

6.1 The Railway shall not render any assistance to the contractor in the matter of obtaining required permits, priorities for procurement of materials etc. for execution of works.

6.2 No Railway pass or concessional facilities be granted either to the contractor or their agents/labours for execution of the work. The contractor's materials required for execution of contract will have to be carried out at the public rate of Railway freight in force time to time and no concessional rate of Railway freight will be applicable.

7.0 CONTRACTOR TO OBTAIN APPROVAL BEFORE EXECUTION OF WORK :

7.1 Before proceeding to execute any work, the contractor shall obtain from the Railway's Engineer or his authorized representative, approval in writing in which the contractor proposes to execute each portion of the work.

7.0 ASSIGNMENT OR SUBLETTING OF CONTRACT :

7.1.1 The contractor shall not assign or sublet contract or any part thereof or allow any person to become interested therein in any manner whatsoever without the special permission of the railway. Any breach of this condition shall entitle the railway to rescind the contract and also tender the contractor liable for payment to the Railway in respect of any loss or damage arising or ensuring from such cancellation provided always that execution of details of the works by petty contract under the direct and personal supervision of the contractor or his agent shall not be deemed to be subletting under these clauses. The

permitted subletting of the work by the contractor shall not establish any contractual relationship between the sub-contractor and the railway and shall not relieve the contractor of any responsibility under the contract.

8.0 WORKS CARRIED OUT BY THE RAILWAY IN PRESENCE OF SEVERAL CONTRACTORS AT SITE :

8.1 It should be noted that other works outside the scope of this contract may be undertaken simultaneously by the Railway or any other contractor at various work sites. The contractor shall afford every facility to the Railway or to other contractor to execute their works simultaneously. The contractor shall prefer no claim for the delay or hindrance, if there be any, caused in this process to his work. The contractor shall comply with the instructions that may be given to him in order to permit simultaneous execution of his portion of the work and those undertaken by other contractor of the Railway without being entitled on this account to any extra charge. The contractor shall also not be entitled to any extra payment due to hindrance resulting normal Railway operation.

9. CONTRACTOR TO EXECUTE WORK WITH DILIGENCE & EXPEDITION :

9.1 The contractor shall execute the work with due diligence and expedition. Should he refuse or neglect to comply with any reasonable orders given to him in writing by the Railway in connection with the work or contravenes the provisions of the contract, the Railway shall be at liberty to give 7 (seven) days notice in writing to the contractor, requiring to make good the neglect or contravention complained of and should the contractor fail, to comply with the requisition made in the notice within 7 days, from the date of receipt if shall be lawful for the Railway to take the work wholly or in part out of the contractor's hands and without any further reference and get the work or any part thereof, as the case may be, completed by other agencies at the expense of the contractor without prejudice to any other right to remedy of the Railway.

10. CONTRACTOR TO MAKE GOOD THE DEFICIT FOR THE FAILURE TO COMPLY WITH THE WORK:

In the event of any loss to the Railway on account of execution and/of completion of the work or any part thereof by agencies other than the contractor in terms of above clause, the contractor shall be liable to reimburse the loss to the Railway without prejudice to other rights and remedies of Railway and reimbursement shall be at the option of the Railway, from out of all or any of the following sources viz:

- a) Any amount due and payable to the contractor by the Railway on account whatsoever.
- b) The contractor's security deposit in the hands of the Railway, as far as available.
- c) Any other assets whatsoever of the contractor.

In the event of reimbursement from out of sources (a) and / or (b) mentioned above, the Railway shall have the right of appropriate suomoto.

11. CONTRACTOR'S RESPONSIBILITY FOR ALTERNATION OF WORK:

11.1 The contractor shall be responsible for and shall pay for any alternation of the works due to any discrepancies, errors or omissions that may arise from drawings or particulars have been approved by him, whether such drawings or particulars have been approved by the Railway or not. If any dimensioned figures are to be taken as correct. All dimensions, weights and measures shall be in metric units with British Standard Equivalents in bracket.

12. CONTRACTOR'S RESPONSIBILITY FOR PROPER EXECUTION OF WORK:

12.1 The contractor shall be solely responsible for the correctness of all works according to approved drawings, specifications notwithstanding that he may have been assisted by the Railway in setting out the same.

13. CONTRACTOR'S ACCESS TO THE WORK-SITE AND RAILWAY'S POWER TO REFUSE ADMISSION TO CONTRACTOR'S REPRESENTATIVE TO THE SITE OF WORK:

13.1 Access to possession of the site for the purpose of the contract shall be afforded to the contractor by the Railway at all reasonable times.

13.2 The Railway or its authorized representative shall have the right to refuse admission to the work site any person employed by the contractor whom the Railway or its authorized representative may consider undesirable.

14. REMOVAL OF PERSONS APPOINTED BY CONTRACTORS ON GROUND OF MISCONDUCT, INCOMPETENCE OR NEGLIGENCE:

14.1 The Railway shall be at liberty to object to the presence of any representative or other person employed by the contractor in or about the works, on the ground of misconduct; the contractor on receipt of notice of such objection in writing from the Railway shall forthwith remove the person so objected to.

15. CONTRACTOR'S RESPONSIBILITY:

15.1 a) The contractor shall during the progress of the work remain answerable and liable for all accidents or injuries which may arise from or be occasioned by the acts of omissions of contractor or his representative or agents or workmen. All losses or damages arising from such incidents or injuries aforesaid shall be made good in the most complete and substantial manner at site by and at the cost of the contractor, in all respect, to the entire satisfaction of the Railway.

- b) Until the officials tests have taken place and the contract works have been finally accepted by the Railway, the contractor shall be solely responsible for all the contract works whether such be in use for train operation, or for the purposes of testing under construction during tests, or in use of Railway's service.
- c) The contractor shall make such tests as may be necessary to demonstrate to the satisfaction of the railway that the works are executed in accordance with the requirements of the specification and contract.

16. SECURITY DEPOSIT :

Total amount of Security Deposit for the fulfillment of contract will be Rs. 152857.00 for Sec-III/B , Rs80665.00 for Sec-IV/A &IV/B. The amount of security deposit will be recovered from the progressive bills of the contractor @ 10% , till it reaches the required value for Sec-III/B, Sec-IV/A ,Sec-IV/B.

Total amount of Security Deposit for the fulfillment of contract will be Rs. 144232.00 for Sec-II Rs. 144232.00. Out of total security deposit of Rs. 144232.00 for Sec-II , security deposit of Rs. 75,000.00 has to be paid either in cash or in the form of fixed deposit receipts , Pay Orders , Demand drafts payable at kolkata or Guarantee bond executed by any Nationalised Bank or scheduled bank and the remaining amount of security deposit will be recovered from the progressive bills of the contractor @ 10% , till it reaches the required value.

The tenderer should take necessary action for extension of validity of bank guarantee / fixed deposit receipts towards security deposit one month before the expiry of same and submit the extension of the validity of bank guarantee / fixed deposit receipts to the administration for keeping in their custody during the currency of the contract.

17. INSURANCE :

17.1 The contractor shall take out and keep in force a policy or policies in insurance against all liabilities of the contractor or the Railway at common head or under any status in respect of accidents to persons who shall be employed by the contractor in or about the site or the contractor's works or office for the purpose of carrying out of the contract works or to the works of other tenders against all recognized rights to the office accommodation and storage for which he is liable and hold the Railway Administration free from all responsibilities in these respects. The contractor shall also arrange insurance of all materials till the commissioning of the work at each station and taking over the Railways. Such insurance shall in all respects be on approval of the Railway and be affected jointly in the name of the contractor and the Railway Administration and lodged with the Engineer.

17.2 The contractor shall take out and keep enforce a policy or policies of Insurance for all materials being supplied by him till these are placed in service and handed over to the Railways. For Equipment be handed over to him at rate of 3 stations at a time and insurance shall be taken for items which shall be for the period of installation/completion as given in the tender.

- 17.3 The contractor shall be liable for losses/damages to the materials either used up in the portion of work done or the material kept for use at site if it is proved to be due to his negligence.
- 17.4 The contractor should however, insure the store brought to site against risks in consequence of war and invasion, as required under the Emergency Risk (goods) Insurance Act Force.
- 17.5 The contractor shall take out all insurance covers in connection with this contract preferably with the General Insurance Corporation of India.
- 18 CONTRACTOR LABOUR :**
- 18.1 The contractor shall not employ children below the age of 15 years as labour directly or through petty contractor or sub contractor for the execution of the works.
- 18.2 The contractor will be responsible for pay and allowance and claims under the factory act, payment of wages act and Workmen's compensation Acts in respect of the labour supplied by him, the contractor will be responsible for their technical direction and supervision, out-turn of work both as regards quantity, quality and progress accuracy of erection of installation and for any defects arising out of the work done by labour.
- 18.3 The contractor shall comply with the provisions of the Contract Labour (Regulation & Abolition) Act, 1970 and the Contract Labour (Regulation & 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.
- 18.4 The Contractor should enclose their existing Contract Labour licence along with their offer failing which it is considered as an incomplete offer.
- 18.5 In case if any notice is received from the concerned State Governments for any violation of any clause of Contract Labour (Regulation and Abolition) Act, 1970 and the Central Rules 1971 during the currency of the Contract and if any amount is payable as per Contract Labour Act to the staff employed the same will be deducted from their on Account/Final Bills without any intimation unless the tenderer submits the clearance certificates from the concerned department of the State/Central concerned for non deduction of the same from their on Account/Final Bill.
- 18.6 The contractor shall be responsible for the safety of all employees employed by him directly or indirectly on the works and shall report serious accident to any of them however and wherever occurring on the works to the engineer's representative and shall make every arrangement to render all possible assistance.
- 18.7 The contractor shall indemnify and protect the Railway against all actions, suits, claims, demands, costs charges or expenses arising in connection with any death or injury

sustained by any person or persons within the Railway premises by the acts or omissions of the contractor, his agents or his staff during the execution of this contract, irrespective of whether such liability arises under the Workmen's Compensation Act, 1923 or the Fatal Accidents Act or any other statute in force for the time being.

19 SAFETY MEASURES :

- 19.1 The contractor shall take all possible precautions to ensure that none of his workers knowingly or otherwise cause interference to the circuits or equipments in use and give rise to unsafe conditions or dislocation of traffic.
- 19.2 No work shall be began above or under or adjacent to any line of the Railway, in consequence of which it may become necessary to foul any such line or it may in any way prejudice the same for safe passage of traffic until look out men and hand signal men as required by the Engineer or his representative shall have taken their duties.
- 19.3 The contractor shall take all precautionary measures in order to ensure the protection of their own personal moving about or working in the Railway Premises, which shall conform to the rules and regulations of the Railway. If and when, in the course of the works, there is likely to be any danger to persons in the employment of the contractor due to running traffic while working in the Railway sidings and premises, the contractor shall apply in writing to the Railway to provide flagmen or look out men for protection of such persons. The Railway will, however, decide as to whether it is necessary to post such flagmen for various types of work and also the number of such men required to protect the gang or gangs of contractor's staff working at site.
- 19.4 The Railway shall remain indemnified by the contractor, in the event of any accident occurring in the normal course of work, arising out of the failure of contractor or his men to exercise reasonable precautions at all places of work, whether or not the Railway has posted flagmen at any particular site of work. The Flagmen will be appointed by the Railway and no expense on this account will be charged to the contractor.
- 19.5 While working within station limits, especially on passenger platforms, the contractor shall ensure that at all times sufficient space as per Railway's Schedule of Dimension as left for free movement of passenger traffic. He must cover and/or barricade the excavations carried out in such areas and continue to maintain these, till the work is completed with a view to avoid any accident to public or a Railway Staff.
- 19.6 The works must be carried out most carefully without any infringement of the Indian Railways Act or the General and Subsidiary Rules in force on the Railway, in such a way that they do not hinder railway operation nor affect the proper functioning of or damages any Railway Land, Equipment, Structure or Rolling Stock except as agreed to by the Railway, provided that all damage and disfiguration caused by the Contractor to any Railway or Public property must be made good by the Contractor at his own expenses failing which cost of such repairs shall be recovered from the Contractor.

- 19.7 If safety of track etc. is affected, as a consequence of works undertaken by the Contractor, the Contractor shall take immediate steps to restore normal conditions. In case of delay, the Railway shall, after giving due notice to the contractor in writing take necessary steps and recover the cost from the contractor.
- 19.8 The Contractor shall be held responsible for any damage to Railway property like telephone lines, cables or any other Railway gears & equipment, which may be caused by any of his action in connection with or in the execution of the work. All costs, damages or expenses which the Railway may have paid, for which under the contract, the contractor is liable, may be either deducted by the Railway at its discretion from any moneys due or to become due or refundable to the contractor under the contract, or may be recovered by actions at law or otherwise from the contractor under this contract and to set off the same against all claims whether arising out of this contract or out of any other transaction whatever against the contractor.

20 ISSUE OF MATERIALS FROM RAILWAY STORES :

- 20.1 If any material other than those specified, supplied by the Purchaser either at the Contractor's request or suo-moto in order to prevent any possible delay in the execution of the works likely to occur due to the Contractor's inability to make adequate arrangements for supply thereof or otherwise, recovery will be made from Contractor's bill at the issue rate or market rate prevailing at the time of supply, whichever is higher, plus 5% on account of initial freight and 2% on account of incidental charges together with supervision charges at 12.5% of the total cost inclusive of material, freight and incidental charges or Schedule rate, whichever is higher, freight between the Purchaser's source of supply and the Contractor's depot or RE siding shall be to the Contractor's account. If, however, the material required by the Contractor is not available in Purchaser's stock or the Purchaser decides not to supply the same, be that for whatever reason, the Purchaser shall not be bound to arrange for the supply at cost quoted above or at any other cost nor will this fact be accepted as an excuse for delay in execution of works.

NOTE : If the Contractor runs short of materials and such materials are available in Purchaser's stock, the material may be supplied by the Purchaser in exceptional cases with the specific approval of the Project In-charge/Chief Sig. & Telecom Engineer (Works) on loan to the Contractor, who will return these on receipt supplies or within two months whichever is earlier. The value of the loaned material would be computed by the Purchaser based on Schedule rates and hire charges @18% per annum would be charged from the subsequent progress payments due to the contractor. In case the Contractor fails to return the material within the stipulated two months period from the date of loaning of material, the material loaned earlier would be treated as sold. The recovery of the value of the sold material would be on the basis of the issue rate or market rate prevailing at the time of supply or market rate at the end of two months period, whichever is higher, plus 5% freight charges and 2% incidental charges together with supervision charges at 12.5%

of the total cost inclusive of material, freight and incidental charges or schedule-3 rates whichever is higher. This recovery would be made from any bill submitted by the Contractor subsequently either 'On Account' or 'Progress payment'.

If prevailing market rates are not available, the recovery rates may be worked out by escalating the last purchase rate @10% escalation per annum. The last purchase rate shall, however, not be more than one year old.

21 LIQUIDATED DAMAGES :

- 21.1 If the contractor fails to execute and complete the work within the time specified in the Agreement or within the period of extension granted except in so far as the delay is on the purchaser's account, the contractor shall accept reduction in the total amount payable to him by the purchaser for the amount fixed by Eastern Railway and will be back to back basis. This penalty for delay in completion will be applicable separately for each stage of completion of stations when two or more stage of completion are specified in the contract. The Railway shall, at its sole discretion specify a time limit within which the unfinished portion of the work shall be completed, after serving on the contractor a notice of purchaser's intention to recover the said penalty. In the event of failure of the contractor, the purchaser shall be at liberty to take action in accordance with provisions in para 21.1 and 21.3.
- 21.2 The contractor shall execute the work with due diligence and expedition, keeping to the approved time schedule. Should he refuse or neglect to comply with any reasonable orders given to him in writing by the Purchaser's Engineers in connection with the work or contravene the provision of the contract or the progress of work lags persistently behind the time schedule due to his negligence the purchaser shall be at liberty to give seven days notice in writing to the contractor requiring him to make good the neglect or contravention complained of and should the contractor fail to comply with the requisitions made in the notice within seven days from the receipt thereof, it shall be lawful for the purchaser to take the work wholly or in part out of the contractor's hands without any further reference and get the work or any part thereof, as the case may be, completed by other agencies at the expense of the contractor without prejudice to any other right or remedy of the purchasers.
- 21.3 In the event of any loss to the purchaser on account of execution and/or completions of the work of any part thereof by agencies other than the contractor, in terms of para 21.2 the contractor shall be liable to reimburse the loss to the purchaser without prejudice to the other rights and remedies of the purchaser, and the reimbursement in full or in part as the case may be shall be met, at the option of the purchaser, from out of all or any of the following sources viz:
- a) i) Any amount due and payable to the Contractor by the purchaser on any Account whatsoever;
 - ii) The Contractor's security in the hands of the purchaser as far as available and

- iii) Any other assets whatsoever of the contractor:
- b) In the event of re-imburement from out of source (i) and/or (ii) mentioned above the purchaser shall have the right of appropriation suo-moto.

22 FORCE MAJEURE CLAUSE:

- 22.1 If at any time, during the continuance of this contract, the performance, in whole or in part, by either party, of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, act of the public enemy, Civil Commotion, Sabotage, Fibres, Floods, Earth Quakes, Explosions, Strikes, Lockouts, any statute, statutory rules, regulations, order or requisitions issued by any Government Department or competent authority of acts of God (here-in-after referred to as 'event') then provided notice of the happening of any such, event is given by either party to the other within twenty one days from the date of occurrence thereof neither party shall by reason of such event be entitled to terminate this Contract nor shall either party have any claim for damage against the other in respect of such non-performance or delay in performance, and the obligations under the Contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, PROVIDED FURTHER that if the performance in whole or part of any of any obligation under this contract is prevented or delayed by reason of any such event beyond a period as mutually agreed to by the Railways and the Contract after any event or 60 days in the absence of such an agreement which ever is more, either party may at its option terminate the Contract provided also that if the Contractor is so terminated under this clause the Railways may at the time of such termination take over from the contractor at prices as provided for the Contract, all works executed or works under execution.

23. RESPONSIBILIGY FOR CONTRACTOR MATERIAL:

- 23.1 The Railway administration will not be responsible for loss or damage to the Contractor's materials, equipment, tools & plants due to floods, thefts or any other cause or causes whatsoever.

24 RESPONSIBILITY FOR CONTRACT WORKS :

- 24.1 The contractor shall be responsible for and shall without delay make good all damages occurring to the contract works or to any materials or equipments forming or intended to form part thereof until acceptance of the same by the Railway's Engineers in reinstating the same at his own expense in all respect (including the cost of transport by sea and rail of any materials, equipment and things and the customs duties thereon). Provided that the Contractor shall not be responsible for such damage occurring in the site as may be due in the opinion of the Railway, to the improper use thereof by the Railway or to the negligence of the Railway or any other Contractor employed by the Railway on the site.

24.2 It is possible that certain defects may appear in the work during commissioning. The Contractor shall be responsible to rectify these defects to the satisfaction of the Railway even at this stage. Any delay on this account will not be a claim for extension of delivery period.

24.3 While undertaking the test of the Contractor's portion of the work and while testing the entire installation the Contractor shall make such tests as would be necessary to demonstrate to the satisfaction of the Railway that the work as has been completed by him, is in accordance with the specification of the contract. The contractor shall provide such instruments and apparatus as may be necessary for making these tests.

25.0 TERMS OF GUARANTEE:

25.1 After the installation is placed in service by the Railway, after the proving test as per above, the contractor shall supervise maintenance of the installation for 3 months and be responsible for the proper functioning of his portion of the work for a period of 12 months from the date of completion of the last portion of the main work. Any lacunas noticed in the functioning of the work as a result of any design/fabrication/erection feature shall be rectified by the contractor free of cost during this period. Till the installation at each station/site is placed in service and completion certificate for that portion is issued the security of the materials outside the Railway Buildings shall be the responsibility of the contractor. The Equipments inside Railways buildings, after commissioning even individually shall be taken over by the Railway for necessary security.

25.2 During the period of guarantee the contractor shall keep all materials, tools and other requisite equipment readily available and shall carry out at his own expense all modifications, additions or substitutions, that may be considered necessary for satisfactory working of the contracted work or equipments supplied by him. Final decision in respect of unsatisfactory working of the contracted work or equipment or faulty design or workmanship, etc. shall rest with the Chief Signal & Telecom. Engineer/Con/Eastern Railway/Kolkata/Dy. Chief Signal & Telecom Engineer/Con/Eastern Railway/ -----/ Divisional Signal & Telecom Engineer (Con)/-----

25.3 The contractor shall furnish an Indemnity Bond as per requirement of Eastern Railway for materials supplied by the Railway Administration direct to the contractor for works from the time he commences taking delivery of the materials to the time the works are completed at site and the quantities finally reconciled.

26. PAYMENT TERMS :

26.1 For all items involving supply in the rate schedule, 90% of the supply rate quoted in the rate schedule shall be paid to the contractor as on account bills only on receipt of the

materials in good condition at the stores of SE/Con/TELE/SIG/ -----
----- on production of the following documents :

- a) Inspection Certificate issued by R.D.S.O/Railway representative in respect of items where-ever necessary, else inspection waiver certificate issued by Eastern Railway.
 - b) Bill should be prepared in Rly. Format based on the measurement Book, showing the Description of each items, quantities as per measurement taken by site supervisor from time to time.
 - c) Store receipt certificate issued by Railway Official/Representative as per enclosed format.
 - d) Manufacturer's inspection certificates for large value items where-ever necessary and as decided by the Railway Engineer, that the materials are in accordance with the specifications in the contract
- 26.2 For all items involving either installation only or supply and installation, 85% of the installation rate quoted in the rate schedule shall be paid to the contractor as on account bills only on production of certificate by the Site Engineer that relevant portion of installation has been completed.
- 26.3 The tender/s should note that payment against proof of dispatch of materials can be considered but will be restricted to 90% of rate schedule against each supply item.
- 26.4 The balance 10% of the supply rate and 15% of the installation rate quoted against each item involving both supply and installation or installation only and 100% of the rate quoted in respect of item involving installation and commissioning shall be paid on completion of the installation/erection and on issue of the completion certificate by the authorized Railway Official/Representative on submission of Final Bill in Rly. Format along with Measurement Book duly measured by site supervisor.
- 26.5 For items involving only supply such as Test and Measuring Instruments, Tools & Plants accessories if any etc. which do not have any installation element, 100% shall be paid on receipt of the same in the store against the documents given at (a), (b), (c) & (d) (if applicable) of para 26.1 above.
- 26.6 All payments shall be made on the certificate of the Engineer within a reasonable time of the submission of the necessary bills by the contractor.
- 26.7 All above payments and recoveries shall be made on realisation from Eastern Railway on back to back basis.
- 27 **MOBILISATION ADVANCE :**
- 27.1 This will be operated as per guideline fixed by Railway and decision of Railway / HCL will be final in this regard.

27.2 DEDUCTION :

27.2.1 Payment as in clause 26.1 to 26.5 above shall be subject to deductions of any amount for which the Contractor is liable under the contract against this tender or any other contract in respect of which the President of India is the Purchaser.

27.3 FOREIGN EXCHANGE AND IMPORT LICENCE :

27.3.1 Any foreign exchange if required for the supply of goods and services under the contract will have to be arranged by the tenderer. Railway shall make all payments under this contract only in Indian Rupees.

27.3.2 The successful tenderer will have to apply to the proper Government authority for grant of requisite import licence/foreign exchange for such items as required import and coordinate with all Government, agencies in these matters directly.

27.4 RECOVERY OF INCOME TAX :

27.4.1 Income tax as applicable on date or levied subsequently by the Government during the currency of the contract on the gross amount payable to the Contractor will be recovered from all bills in terms of Section 194(C) of the Income Tax Act, 1961 as introduced with Finance Act, 1972 unless the exemption certificate issued by the Income Tax Department is produced during the currency of the contract and will be back to back basis.

28 DETERMINATION OF CONTRACT :

28.1 RIGHT TO RAILWAY TO DETERMINE CONTRACT :

During the execution of the work the Railway shall be entitled to determine and terminate the contract at any time shedule, in the Railway's opinion, the cessation of work become necessary owing to paucity of funds or from any other cause whatever the value of approved materials at site and the work done to date by the contractor will be paid for in full at the rates specified by the contract. Notice in writing from the Railway such determine and the reason therefore shall be conclusive evidence thereof.

28.2 PAYMENT ON DETERMINATION OF CONTRACT :

Should the contractor be determined under sub-clause 28.1 of this clause and the contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the Railway shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer.

The Railway's decision on necessity and property of such expenditure shall be final and conclusive.

29. REFUND OF DEPOSITS :

29.1 The security deposit unless forfeited in whole or in part according to terms and conditions, will be refunded after the warranty period against any item of work on receipt of certificate from the Engineer concerned to the effect that the work has been satisfactorily completed in all respects as per "Technical Specification, Instruction, Drawings" and receipt of 'No Claim' certificate from the Contractor duly countersigned by Engineer.

30. RESCINDING OF CONTRACT :

30.1 While rescinding the contract as envisaged in clause 17 (4) of the General conditions of the contract 1969 for Engineering Department with upto date modifications, the Railway shall, besides forfeiting the Security Deposit, be entitled to make further recoveries from the contractor as envisaged in clause 62 of the General Conditions of the contract 1969 of Engineering Department with upto date modifications.

30.2 Under clause 17(2) and 17(3) of the General Conditions of the contract 1969 for Engineering Department with upto date modifications, the extension of time envisaged therein for completion of contract shall be given if a specific request is made by the contractor in writing one month advance in this regard.

30.3 All notices should be addressed to the President of India through Chief Signal & Telecommunication Engineer/Con, Eastern Railway, Kolkata-700 001.

30.4 All disputes in respect of the contract lie within the jurisdiction of Hon'ble High Court, Kolkata/Patna/Allahabad.

31. SETTLEMENT OF DISPUTES

All disputes or differences of any kind whatsoever that may arise between the Employer/Engineer and the Contractor in connection with or arising out of the contract or subject matter thereof or the execution of works, whether during the progress of works or after their completion, whether before or after determination of contract shall be settled as under:-

31.1 Mutual Settlement

All such disputes or differences shall in the first place be referred by the Contractor to the Employer in writing for resolving the same through mutual

discussions, negotiations, deliberation etc. associating representatives from both the sides and concerted efforts shall be made for reaching amicable settlement of disputes or differences.

31.2 Conciliation/Arbitration

31.2.1 It is a term of this contract that Conciliation/Arbitration of disputes shall not be commenced unless an attempt has first been made by the parties to settle such disputes through mutual settlement.

31.2.2 If the Contractor is not satisfied with the settlement by the Employer on any matter in question, disputes or differences, the Contractor may refer to the Managing Director of the Employer in writing to settle such disputes or differences through Conciliation or Arbitration provided that the demand for Conciliation or Arbitration shall specify the matters, which are in question or subject of the disputes or differences as also the amount of claim, item wise. Only such dispute(s) or difference(s) in respect of which the demand has been made, together with counter claims of the Employer shall be referred to Conciliator or Arbitrator as the case may be and other matters shall not be included in the reference.

31.2.3 Managing Director of the Employer may himself act as Sole Conciliator/Sole Arbitrator or may at his option appoint another person as Sole Conciliator or Sole Arbitrator, as the case may be. In case, Managing Director of the Employer decides to appoint a Sole Conciliator/Sole Arbitrator, then a panel of at least three names will be sent to the Contractor. Such persons may be working/retired employees of the Employer who had not been connected with the work. The Contractor shall suggest minimum two names out of this panel for appointment of Sole Conciliator/ Sole Arbitrator. Managing Director of the Employer will appoint Sole Conciliator/Sole Arbitrator out of the names agreed by the Contractor.

31.2.4 In case, the Contractor opts for settlement of disputes through Conciliation at first stage and if the efforts to resolve all or any of the disputes thorough Conciliation fails, the Contractor may refer to the Managing Director of the Employer for settlement of such disputes or differences through Arbitration. The appointment of Sole Arbitrator shall be done by the Managing Director of the Employer as per the procedure described above. No disputes or differences shall be referred to Arbitration after expiry of 60 days from the date of notification of failure of Conciliation.

31.2.5 The Conciliation and/or Arbitration proceedings shall be governed by the provisions of the Indian Arbitration and Conciliation Act 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the conciliation and arbitration proceedings under this clause.

31.2.6 The language of proceedings, documents or communications shall be in English and the award shall be made in English in writing.

31.2.7 The conciliation/arbitration proceedings shall be held at a place decided by Conciliator/Arbitrator.

31.2.8 The fees and other charges of the Conciliator/Arbitrator shall be as per the scales fixed by the Employer and shall be shared equally between the Employer and the Contractor.

31.3 Settlement through Court

It is a term of this contract that the Contractor shall not approach any Court of Law for settlement of such disputes or differences unless an attempt has first been made by the parties to settle such disputes or differences through clauses 31.1 and

31.4 No suspension of work

The Obligations of the Employer, the Engineer and the Contractor shall not be altered by reasons of conciliation/arbitration being conducted during the progress of works. Neither party shall be entitled to suspend the work on account of conciliation/arbitration and payments to the Contractor shall continue to be made in terms of the contract.

31.5 Award to be binding on all parties

The award of the Sole Arbitrator, unless challenged in court of law, shall be binding on all parties.

32. JURISDICTION OF COURTS:

Jurisdiction of courts for dispute resolution shall be **KOLKATA**.

33. FORFEITURE OF SECURITY DEPOSIT :

33.1 The security deposit shall, however, be liable to be forfeited wholly or in part in case of any breach by the contractor of any of the conditions of the contract or for non completion of full contract, without prejudice to the other rights and remedies of the Railway whether specifically provided or hereinafter or otherwise.

34. RESPONSIBILITY FOR COMPLETENESS :

34.1 Any fittings or accessories which may not be specifically mentioned in the specifications but which are usual or necessary, are to be provided by the Contractor without extra charge, and the equipment must be complete in all details.

34.2 In all cases where the contract provides for tests at site, the purchaser except where otherwise specified, shall provide, free of charge, such labour, materials, fuels, stores, apparatus and instruments as may be requisite from time to time and as many reasonably be demanded, efficient to carry out such tests of the plant, materials or workmanship etc., in accordance with the contract.

34.3 In the case of contracts requiring electricity for the completion of the works and for test on site, such electricity, where available, may be supplied free to the Contractor at the voltage of the ordinary supply. However, this is not binding on the Railway. The Contractor shall abide by the Indian Electricity Act as amended from time to time.

34.4 The bidder shall if required without fail, indicate the total number of supervisors, skilled technicians and unskilled personnel to be provided by the Railway for installation. In case of schedule for supervision of installation and commission is provided, this information shall be taken into account for evaluation purposes.

35. **IDEMNITY :**

35.1 The contractor shall indemnify and save harmless the Railway/HCL from and against all actions suits, proceedings, losses, costs, damages, charges, claims and demands of every nature and description brought or recovered against the Railway by reason of and act of omission of the contractor, his agent or employees, in execution of the works in the guarding of the same. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of the Railway without reference to the actual loss or damage sustained, and whether or not any damage shall have been sustained.

36. **REPORTING OR ACCIDENTS TO LABOUR :**

36.1 The contractor shall be responsible for the safety of all employees employed by him directly or indirectly on the works and shall report serious accidents to any of them however and wherever occurring on the works to the Engineer's representative and shall make every arrangement to render all possible assistance.

37. **DETERMINATION OF CONTRACT OWING TO DEFAULT OF CONTRACTOR :**

37.1 If the contractor should :

- i) become bankrupt or insolvent or
- ii) make an arrangement with or assignment in favour of his creditors, or agree to carry out the contract under a committee of inspection of his creditors, or
- iii) being a company or corporation, go into liquidation (other than a voluntary liquidation for the purpose of amalgamation or reconstruction), or
- iv) have an execution levied on his goods or property on the works, or
- v) assign the contract or any part thereof otherwise than as provided in clause 8.1 of GCC, or

- vi) abandon the contract, or
- vii) persistently disregard the instructions of the Railway's Engineer or contravene any provision of the contract, or
- viii) fail to adhere to the agreed programme of work by a margin of 10% of the stipulated period, or
- ix) fail to remove materials from the site or to pull down and replace work after receiving from the engineer's notice to the effect that the said materials or works have been condemned or rejected, or
- x) fail to take steps to employ competent or additional staff and labour as required under clause 2.1 (a,b,c) or GCC, or
- xi) fail to afford the Engineer or Engineer's representative proper facilities for inspecting the works or any part thereof as required under clause 2.1 (a,b,c) of GCC, or
- xii) promise offer or give any bribe, commission, gift or advantage either himself or through his partner, agent or servant to any officer or employee of the Railway or to any person on his or on their behalf in relation to the execution of this or any other contract with the Railway, then and in any of the said cases, the engineer on behalf of the railway may serve the contractor with a notice in writing to that effect and if the contractor does not, within 7 days after the delivery to him of such notice, proceed to make good his default in so far as aforesaid to the entire satisfaction of the engineer, the railway shall be entitled after giving 48 hours notice in writing under the hand of the engineer to rescind the contract as a whole or in part or parts (as may be specified in such notice) and adopt either or both the following courses :
 - a) to carry out the whole or part of the work from which the contractor has been removed by the employment of the required labour and materials, the cost of which shall include lead, lift, freight, supervision and all incidental charges :
 - b) to measure up the whole or part of the work from which the contractor has been removed and to get it completed by another contractor, the manner and method in which such work is completed shall be the entire discretion of the engineer whose decision shall be final; and in both the cases (a) and (b) mentioned above the railway shall be entitled. (i) to forfeit the whole or such portion of the security deposit as may consider fit and (ii) to recover from the contractor the cost of carrying out the work in excess of the sum which would have been payable according to the certificate of the Engineer to the contractor if the works had been

carried out by the contractor under the terms of the contract, such certificate being final and binding upon the contractor,

provided, however, that such recovery shall be made only when the cost incurred in excess is more than the security deposit proposed to be forfeited and shall be limited to the amount by which the cost incurred in excess exceeds the security deposit proposed to be forfeited. The amounts thus to be forfeited or recovered may be deducted from any money then due or which at any time thereafter may become due to the contractor by the Railway under this or any other contract or/otherwise.

37.2 Provided always that in any case in which any of the powers conferred upon the Railway by sub-clause above shall have become exercisable and the same shall not be exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions thereof and such power shall notwithstanding be exercisable in the event of any future case of default by the contractor for which his liability for past and future shall remain unaffected.

38. **RIGHT OF RAILWAY AFTER DETERMINATION OF CONTRACT OWING TO DEFAULT OF CONTRACTOR:**

In the event of any several of the courses, referred to on clause 37.1 above being adopted.

38.1 The contractor shall have no claims to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any commitments or made any advances on account of or with a view to the execution of the works or the performance of the contract and contractor shall not be entitled to recover or be paid any sum for any works thereto not actually performed under the contract, unless or until the engineer shall have certified the performance of such work and the value payable in respect thereof and the contractor shall only be entitled to be paid the value so certified.

38.2 The Engineer or the Engineer's representative shall be entitled to take possession of any materials, tools, implements, machinery and buildings on the works or on the property on which these are being or ought to have been executed, and to retain and employ the same in the further execution of the works or any part thereof until the completion of works without the contractor being entitled to any compensation for the use and employment thereof or for wear and tear or destruction thereof.

38.3 The Engineer shall, as soon as may be practicable after removal of the contractor, fix and determine experts or by or after reference to the parties or after such investigation or enquiries as he may consider fit to make or institute and shall certify what amount (if any) has at any time of determination of the contract been reasonably earned by or would reasonably accrue to the contractor in respect of the work then actually done by him under the contract and what was the value of any un-used or partially used materials, any constructional plant and any temporary works upon the site.

38.4 The Railway shall not be liable to pay to the contractor any money on account of the contract until the expiration of the period of maintenance and thereafter until the cost of completion and maintenance damages for delay in completion (if any) and all other expenses incurred by the Railway have been ascertained and the amount thereof certified by the Engineer. The contractor shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of determination of the contract. The contractor shall then be entitled to receive only such sum or sums (if any) as the Engineer may certify would have been due to him upon due completion by him after deduction of the said amount; but if such amount shall exceed the sum which would have been payable to the contractor, then the contractor shall upon demand pay to the Railway the amount of such excess and it shall deemed debt due by the contractor to the Railway and shall be recoverable accordingly.

39. CONTRACTOR TO MAKE GOOD THE DEFECTIVE EQUIPMENT :

39.1 If the completed equipment or any portion thereof, before it is taken over, be found to be defective or the contractor otherwise fails to fulfill the requirements of the contractor and/or its purpose, the Railway shall give the contractor notice, setting for the particulars of such defects or failure and the contractor shall forthwith make the defects good or alter the same to make it comply satisfactorily with the said requirements. Should the contractor fail to do so within a reasonable time after the service of the said notice upon him, the Railway may reject and replace the whole or part of such defective equipments as the case may be at the cost of the contractor, such replacements shall be carried out by or at the instance of Railway within a reasonable time and as far as reasonably practicable, the same specification and under competitive conditions. The contractor's full liability under this clause shall be satisfied by the payment to the Railway of the total cost, if any, such replacement delivered and erected as provided for in the original contract, such extra cost being the ascertained difference between the cost of equipment purchased and replaced by the Railway under the provision mentioned above for such replacement and contract price for the plant so replaced, plus sum, if any paid by the Railway to the contractor in respect of such defective equipment. Should the Railway not so replace the rejected equipment within a reasonable time, the contractor's liability under this clause shall be satisfied by the repayment by the contractor of all money paid by the Railway to him in respect of such rejected equipment.

40 SUPERVISION OF ERECTION/MAINTENANCE & CHARGE THEREOF :

40.1 Where supervision of erection/testing/commissioning is a scheduled item of the contract the contractor shall depute his competent erection engineer to supervise all works of the installation and who shall be responsible for testing and final commissioning of the installation to the entire satisfaction of the Railway.

40.2 Where supervision of maintenance after commissioning of the installation (for a specified period solely at the discretion of the Railway) is a schedule item of the contract, the contractor shall depute his competent Engineer who shall supervise the entire installation for the specified period, solely at the discretion of the Railway from the date of commissioning of the installation. During this period, he shall rectify any defect that may arise in the work executed due to bad workmanship on the part of the contractor or otherwise, defect in the equipments or due to any other reason and shall repair the defect or replace the defective equipment at the cost of contractor. The Railway Engineer's decision in this regard is final and binding on the contractor.

40.3 Charges quoted in the schedule/s and accepted on account of supervision of erection/maintenance done during the month or part thereof shall be claimed after expiry of the concerned calendar month on production of the certificate from the Railway.

41. **SUPPLY OF RAILWAY MATERIALS FROM RAILWAY GODOWNS :**

41.1 Stores will be supplied by Railway at SE/CON/TELE/SIG/-----
----- 's stores godown. The quantity required would be determined by the Railway according to the quantum of work to be done. The contractor shall be responsible for checking before taking delivery that all materials given to him are in good conditions. The left over/un-used materials if any, shall be returned to Railway Depot by the contractor for which no extra charges shall be paid by the Railway.

41.2 The contractor shall return all the excess or un-used materials supplied to him by the Railway including cement bags, empty cable drum, wooden crates, other packing materials use or all released materials to the authorized representative, Railway representative at stores godown from where the materials were drawn by the contractor. If the contractor fails to return any excess un-used Railway materials, the cost thereof shall be recovered from him as per the extent rules and their on-account Bill/final Bill will not be passed without the receipt of the excess materials by SE/Sig/Tele/Con concerned.

42. **RESPONSIBILITY FOR COMMISSIONING :**

42.1 Until the contract works have been provisionally accepted by the Railway, the contractor shall be entirely responsible for the works, whether under construction, during the tests or in use of the Railway's service in respect of preservation, guarding, safe running of trains and maintenance. The contractor shall keep attendants constantly on the sites during the period until Railway's provisional acceptance.

43. **NIGHT WORK :**

43.1 If the Railway is however, satisfied that the work is not likely to be completed in time except by restoring to night work by special order, the contractor would be required to

carry out the work even at night, without conferring any right on the contractor for claiming compensation.

44. EXECUTION OF NON-SCHEDULE ITEM OR VARIATION OF QUANTITIES OF THE SCHEDULE BEYOND 25% :

44.1 Where the variation in the quantities of the schedule/s will be beyond 25% or where items not covered by the schedules are to be executed due to addition/alternation/modification deemed essential by the Railway, the rate for such variations in the quantities of schedules beyond 25% or for such non-itemised work will be negotiated and accepted by the Railway before commencement of such works or get executed through any other agency solely at discretion of the Railway Administration.

45. VARIATION IN QUANTITIES :

45.1 The variation of quantities will be restricted as per guidelines specified by Eastern Railways. However, variation of quantity will be restricted upto (+/-) 25 % as per Railway norms and same will be operated on back to back basis.

46. INSPECTION :

46.1 The contractor should bear the cost of inspection of all materials both unfinished and finished products at his or at the manufacturer's premises by the Railway's representative. The correctness and quality of the various items shall be checked by the Railway's representative before installation is commenced. If required, they should take necessary measures to ensure that the work at various stage are in order and to the specification prescribed by Railway.

Railway's Engineer appointed for this purpose will inspect and test the various portions of the equipment per relevant specifications given in the tender and the Railways Engineer may inspect the work at all stages and shall have full powers to reject all or any that he may consider to be defective or inferior in quality or material or Workmanship or design to what is called for in the specification. The Contractor shall carry such tests at his works as are necessary in the opinion of the Railway to ensure that specifications in the correct are being complied with.

46.2 The contractor shall provide at the point of production, apparatus and labour for making the required tests under the supervision of the Railway or its representatives.

46.3 Tests may be made at the point of production or on samples submitted and may also be made at the destination.

46.4 All the Inspections will be carried out by the Inspecting Authority at the original manufacturer's premises only who are supplying these items, but not any other places in case of important and large value items. The cost of stay of the Railway inspecting official shall be borne by the Railway.

- 46.5 If the product which arrives at the destination does not meet the requirements of the specifications it may be rejected.
- 46.6 During the execution of the contract, samples may be taken from all the materials employed for the purpose of test and/or analysis under the conditions laid in specification, such samples to be prepared for testing and forwarded to the works laboratory selected by the Railway free of cost of Railway.
- 46.7 The cost of all tests and/or analysis effected at the manufacturer or contractor's works shall be borne by the CONTRACTOR for all the tests required as per tender specification.
- 46.8 The contractor will be called upon to pay all the expenses incurred by the Railway in respect of any work or materials found to be defective or of inferior quality, adulterated or otherwise unacceptable.
- 46.9 The inspecting authority shall be the Railway's own Engineer or any other authority such as RDSO, as shall be nominated by the Railway. In case inspection is waived, the waiver certificate shall be issued within 10 days of receipt of call notice.
- 46.10 For the service rendered by the RITES for inspection of materials supplied by the contractor in works contract, inspection charges @1% of the cost of materials including all taxes, excise duty etc. are to be borne by the contractor.

47. **WARRANTY :**

- 47.1 The work done and executed by the Contractor shall be guaranteed against defects and to conform to parameters in the technical specifications for a period of 12 months from the date of issue of completion certificate as stated in clause 48 of standard General conditions of Contract or 18 months from the date of supply of the last vital/main equipment in contract, whichever is later. However, for the items involving only supply the warranty shall be for 18 months from the date of supply even if the order is split separately into supply and execution portions for benefit of the Railway.
- 47.2 During the period of warranty the Contractor shall remain responsible to arrange replacement and for setting at his own cost any equipment installed by him which is of a defection manufacture or design or workmanship or becomes unworkable due to any cause whatsoever. The defective equipment shall be made available at the Inspector's Store at -----.
The decision of the Railway in this regard to direct the Contractor to attend to any damage or defect or in work or arrange replacement of any part thereof shall be final and binding on the Contractor.

47.3 **WARRANTY AGAINST DEFECTS :**

- 47.3.1 After the equipment/system has been taken over under clause 18 and during the period of warranty the Contractor shall be responsible to the extent expressed in this clause for any defects that may develop under the conditions provided for by the contract and under proper use, arising from faulty materials, design or workmanship of the plant, or from faulty erection of the plant by the Contractor, but not otherwise and shall rectify such

defects at his own cost when called upon to do so by the purchaser who shall state in writing in what respect the portion is faulty.

- 47.3.2 If it becomes necessary for the Contractor to replace or renew any defective portions of the Equipment/System under this clause the provisions of this clause shall apply to the portions of the plant so replaced or renewed until the expiry of 12 months from the date of such replacement or renewals or until the end of the warranty period whichever may be later. If any defects is not remedied within a reasonable time not exceeding three (3) months the Railway may proceed to do the work at Contractor's risk and expense, but without prejudice to any other rights which the Railway may have against the Contractor in respect of such defects.
- 47.3.3 If the replacement, or renewals are of such a character as may affect the efficiency of the Equipment/System the Railway shall have right to give notice to the Contractor, within one month from such replacement or renewal , in writing, to conduct tests as done at the time of acceptance, should such tests show that Equipment/System sustains the guarantees given in the contract, the cost of the tests shall be borne by the Railway. Should the guarantees not be sustained, the cost of test shall be borne by the Contractor.
- 47.4 All inspections, adjustments, replacements, or renewals carried out by the Contractor during the warranty period shall be subject to the same Conditions of the Contract.
- 47.5 Until the issue of the final certificate the contractor shall have the right of entry at his own risk and expense, himself or his duly authorized representative, whose name shall have previously been communicated in writing to the purchaser at all reasonable working hours upon all necessary parts of the works for purpose of inspecting the working and the records of the plant and taking notes therefrom and, if he desires at his own risk and expenses, making any tests subject to the approval of the Purchaser which shall not be unreasonably withheld.

48. **PRICE VARIATION :**

This will be regulated as per guideline fixed by Eastern Railway and mode of operation will be back to back basis.

SPECIAL CONDITIONS OF CONTRACT

1. GENERAL

The following Special Condition shall apply to contractor for supply of plant and machinery and manufactured equipment and for services in connection with Transportation, Installation, Commissioning. But where they differ from the General Conditions of Contract the Special Conditions shall over-ride the General Conditions of Contract.

- 1.1 The Tender's attention is drawn to the fact that major deviations to any clause shall not be permissible.

2. SCOPE OF THE WORK :

- 2.1 As given in Tender Documents and Schedule of Rates.

3.0 SPECIFICATIONS AND DRAWINGS :

- 3.1 Specifications, drawings, requisites and requirements referred to in the body of these specification from an essential part thereof.
- 3.2 After the contract is awarded, the Railway/HCL shall furnish to the contractor free of charge, a reasonable number of prints of Railway's approved Drawings that form an essential part of this specification.

4.0 DRAWINGS AND SURVEY REPORTS

- 4.1 For the approval of the Railway the contractor shall furnish to the Railway corrected tracing of the drawings furnished by him along with five copies of such corrected drawings.
- 4.2 After the completion of the work the following drawings, in addition to the other drawing mentioned elsewhere, should be supplied to the Railways in five copies.
- i) System Design which will include detailed Technical Literature of Equipments, Components & Parts thereof. Users & maintenance Guide/Manual.
 - ii) Cable Route Diagram with position of Joints, Locations Huts and Cabins etc. indicated.
 - iii) Wiring Diagram of Equipment/Components/Modules/Parts.
- 4.3 Writing diagrams and other Plans shall be uniform in size and the size shall be preferably to an overall Dimension of A2 Size.
- 4.4.1 If the Contractor shall have any doubt as to the meaning of any portion of the conditions of the specifications, drawings, or plans, he shall (before submitting the tender) set forth

the particulars thereof and submit them to the PURCHASER in writing, in order that any such doubt may be removed.

- 4.5 The Contractor shall be responsible for any shall pay for any alterations of the works due to any discrepancies, errors or omissions in the drawings or other particulars, whether they have been approved by the PURCHASER or not, provided that such discrepancies, errors or omissions are not due to inaccurate information or particulars furnished to the Contractor on behalf of the PURCHASER. If any , dimensions figured upon a drawing or plan differ from those obtained by sealing the drawing or plan, the dimensions as figured upon the drawing or plan shall be taken as correct.
- 4.6 After completion of the work the contract should arrange and submit detailed completion drawings specified in para above as approved by Railways in 1 + 6 copies including polyester sheet as original.

5.0 EQUIPMENT AND SERVICES TO BE OFFERED :

- 5.1 In order to enable the Signaling/Telecommunication system to be brought into position the equipment for the entire system as in this tender are required to be provided by the TENDERER as per the Schedule of Rates. The detailed scope of the work is as per the Schedule of Rates read in conjunction with the technical specification and drawings as listed as listed herewith.
- In case in the specifications, brand names/model no of a single manufacturer have been given, equivalent models from other reputed and standard sources are also acceptable if already in use in the S&T department of Indian Railways for similar purposes except where specifically a particular uniform make/brand has been given for convenience of maintenance. Full technical details and pamphlets are required to be furnished along with the comparative technical features in juxtapositions to prove the technical equivalence. This shall be submitted without fail along with the offer, as also documentary proof that the equivalent item being quoted is satisfactorily in use. Where the brand names of 2 or 3 manufacturers have been given, the offer shall be from amongst one of those given in the specifications. Where batteries, battery chargers, Voltage Stabilizers, writing material, cables etc. have been included in the tender of various capacities such items of different capacities shall be from only one source/manufacturer unless specifically permitted in the tender otherwise. This is to ensure uniformity in maintenance, to facilities procurement of spares and for training of technician and for keeping record of failure of equipment of each manufacturer during the life of the assets. This clause is mandatory.
- 5.2 The complete circuit diagram, instruction manual, Maintenance manual of all the Electrical Equipment and accessories such as Power Supply Panel, Battery Chargers, UPS, DG set, Voltage Stabilizers etc. as applicable for execution of the project shall accompany the offer.

6.0 TIME SCHEDULE :

- 6.1 The item for completion of the entire work is of utmost importance. The complete system at all stations is required to be fully operational within specified months from the date of issue of letter of acceptance. Tenderer is required to provide adequate detail of the activities involved, to substantiate their claim of being able to meet the above dead line for handing over the system to the Railways for regular operational use.
- 6.2 Time is essence of the contract and the time schedule fixed by Eastern Railway , Kolkata shall be the basis for contract administration except due to Force Majeure Clause.
- 6.3 The contract covered by this Tender shall be deemed to commence from the date of issue of Letter of Acceptance.

7.0 VARIATION :

- 7.1 No alteration, amendments, omissions, additions, suspensions or variations of the work (hereinafter referred to as “Variations”) under the contract as shown by the drawings of the specifications shall be made by the contract except as directed in writing by the Engineer, but the Engineer shall have full power, subject to the provision hereinafter contained, from time to time, during the execution of the contract, by notice in writing to instruct the contractor to make such variations without prejudice to the contract, and the contractor shall carry out such variations and be bound by the same conditions, so far as applicable, as though the said variations occurred in the specifications. If any suggested variation would, in the opinion of the contractor, if carried out, prevent him from fulfilling any of his obligations, or guarantees under the contract, he shall notify the Engineer thereof in writing and the Inspector shall decide forthwith, whether or not they shall be carried out. If the Engineer confirms his instructions, the Contractor’s obligations and guarantees shall be modified to such an extent as may, in the opinion of the Engineer, be justified. The difference of cost, if any, occasioned by any such variations shall be added to or deducted from the contract price as the case may require. The amount of such difference, if any, shall be ascertained as determined in accordance with the rates specified in the schedules of prices, so far as the same may be applicable, and where the rates are not contained in the said schedules or not applicable they shall be settled by the PURCHASER and Contractor jointly. But the PURCHASER shall not become liable for the payment of any such variations unless the instructions for the performance of the same have been given in writing by the Engineer.

8.0 INSPECTION OF INSTALLATION :

- 8.1 The Engineer or his representative may inspect and test the various portions of the work at all stages and shall have full power to reject all or any portion of the work that he may consider to be defective or inferior in that he may consider to be defective or inferior in quality or material, workmanship, or design in comparison to what is called for in the specification. In the event of rejection of any work already executed which is not in accordance with specifications as in this Tender Papers and/or as determined by the

- Engineer or which the contractor has been apprised, the contractor shall carry out alterations/replacements/ to such works to the satisfaction of the Engineer for which no additional expenses will be borne by the Railway.
- 8.2 The Contractor shall carry out such tests at his own expenses as are necessary in the opinion of the Engineer to determine that the contract is being complied with and that the contractor is entitled to payment in respect thereof.
Any Tools/any other materials/Plants/Manpower required for such tests shall be arranged by the Contractor.
- 8.3 Even if the Engineer's Representative remained associated or supervised the progress of works at various stage, a joint inspection, for each item of works, by Engineer's Representative and Contractor's representative will be carried out to check that the work has been done as per specification and measurement taken accordingly.
- 8.4 Before casting of foundation, if any, the contractor's representative and the Engineer's representative shall jointly inspect the quality and depth of pits, quality of bricks, concrete mix etc. and ensure compliance with the Drawings and specification.
- 8.5 The Contractor shall advise the Railway Ten(10) days in advance of the time when his portion of the work will be completed by him in a progressive manner on the section and be ready for inspection. The Railway will make the test soon after the advice is received from the contractor.

9.0 MEASUREMENT :

- 9.1 The measurement of quantities for the purpose of payment to the Contractor shall be undertaken jointly by the representative of the Railway /HCL Engineer and the contractor in the course of and/or on completion of all works included in Schedule of Rates item wise to the satisfaction of Railway /HCL Engineer.
- 9.2 The measurement of quantities shall be made only after ensuring conformity with specifications and various clause of the supplement "Technical Specification."

10.0 WORK PERFORMANCE GUARANTEE:

- 10.1 Since the supply and execution of the work by the contractor is to achieve the end objective of providing suitable equipment and facilities to the specifications given in the tender for the ultimate objective as detailed in the tender, the tenderer shall give unqualified and unconditional guarantee that the supply of materials and work as designed and/or executed by him will achieve the desired objective and that in the event of the performance of the system not complying with the end objective or with the specifications, he shall provide further inputs to enable the Railways to realize the end objective with full compliance of the specifications contained in these documents and no additional payment will be made to the contractor for the supply of any additional inputs required in this regard.

10.2 The certificate is as per the enclosed format , shall accompany the quotations. Quotations which do not contain this guarantee in the format are liable for rejection.

11.0 RATES INCLUDE ALL TAXES:

11.1 The work being nearly on a turnkey basis, evaluation shall be done on the basis of the supply and execution portions taken together even through the Railway reserves the option to supply some of the items. Accordingly, the contractor shall not be entitled normally to get any works contract Sale Tax from the Railway Administration for the supplied of materials. However in case any taxes/duties are extra, the exact rate and firm applicability and any certificate/forms if any to be given by the Railway will have to be specified in respect of the various items as per Schedule of rates.

11.2 Sales Tax on Works – The tender should be well conversant with the Sales Tax regulations enacted by the concerned State Govt. where the works are located. In case Sales Tax is payable to works contract also, the Tenderer should take into account the same at the time of quoting the tender and shall specify the rate at which include in his offer without fail. The tenderer is liable for the default of such payments and hold the Railway Administration free from all responsibilities in these from such obligations and pay the Sales Tax amount directly to the concerned States Govt. commercial officer. In case, if any notice is received from the concerned State Govt. for no payment of Sales Tax against the tenderer during the currency of the contract the same will be deducted from their ‘ON ACCOUNT BILLS’/Final Bill’ without any intimation unless the tender submits clearance certificate from the concerned commercial Tax Officers of State concerned for non deduction of the same for the payments due from Railways. An undertaking to the effect that, in case works contract Sales Tax is applicable the same shall be paid by the tenderer and no claim shall be made on the purchaser, shall be submitted without fail.

12.0 EXECUTION AT SITE :

12.1 The Contractor shall abide by all the Railway rules relating to safety of personnel and Railway operation.

12.2 The Contractor shall not do any work that any interfere with traffic until protection has been provided by the Railway.

12.3 The Railway will promptly arrange to protect traffic upon request of the Contractor, when required.

12.4 The contractor shall ensure that his technical Engineer/Supervisor is always available at the site of work during the execution period till commissioning and during the period of the maintenance supervision to ensure that no time is lost in correspondence. Any written

orders or instructions which the Railway Engineers may give to such representative of the contractor shall be deemed to have been duly given or communicated to the contractor.

- 12.5 In respect of important items of work the contractor's representative should be present at site at least for the execution and supervision of Maintenance period (if applicable) and under his supervision the installation of the work & Tests should be completed in all respect to the satisfaction of Railway officials concerned.
- 12.6 The cable laying, if included in the schedule shall be as per Annexure-D, certain guidelines are given at Annexure-L for the contractor to comply with during the progress of the work.
- 12.7 Before proceeding to execute any work, the contractor shall obtain from the Railway's Engineer or his authorized representative, approval in writing in the manner in which the contractor proposes to execute each portion of the work.

13.0 COMPLIANCE TO PROVISIONS OF APPRENTICES ACT. 1961 :

- 13.1 The contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act, 1961 as modified upto date and the Rules & Orders issued there under from time to time in respect of apprentices directly or through petty contractors or Sub-contractors employed by him for the purpose of carrying out the contract.
- 13.2 If the contractor directly or through petty contractor or Sub-contractors fail to do so, his failure will be breach of contract and the Railway may in its discretion reseed the contract. The contractor shall also be liable for any liability arising on account of any violation of the provisions of the Act.

14.0 OMISSIONS AND DISCREPENCIES & CLARIFICATION :

- 14.1 Should a tenderer find discrepancies in, or omission fro the drawings, or any of Tender papers/specifications/or he has any doubt to their meanings, he should at once notify the Chief Signal & Telecom Engineer (construction), Eastern Railway, 14, Strand Road Kolkata-700 001 who may send a written instruction to all tenderer. It shall be understood that every endeavour has been made to avoid any error which can materially affect the basis of the tender and the successful tenderer shall take upon himself and provide for risk of any error which may subsequently be discovered and shall make no subsequently be discovered and shall make no subsequent claim on account thereof.
- 14.2 Any clarifications required may be obtained from the Chief Signal & Telecom Engineer (construction), Eastern Railway, 14, Strand road, Kolkata-700 001, until one working day before the last day of closing of tender.

15.0 PROCUREMENT OF SUPPLY ITEMS :

- 15.1 All items supplied to Railway should be procured from the list of firms approved by RDSO wherever applicable must accompany along with these items. All such items should be procured by the tenderer from the list of RDSO approved Manufacturers or

their Distributors with inspections to be done at the premises of the original manufacturer.

- 15.2 In case, if any supply item is not in the list of R.D.S.O. approved firms, prior approval of C.S.T.E./Con for such items from other sources are necessary. In case I.R.S. specification are not available for items, the materials should conform to Bureau of Standard Institute (Latest) (i.e. I.S.I) wherever the specifications are available; otherwise the prior approval of these items specifications by C.S.T.E/CON is necessary.
- 15.3 The Contractor shall be held responsible for the execution of the works according to the time schedule given above in full compliance of the specifications and the various clauses of Technical specifications, Instructions and drawings. Failure to comply with any of these will be dealt with as per provision laid down in the General Condition of Contract and Instructions for tenderer of the Engineering Department of Eastern Railway.
- 15.4 It should be clearly understood that it is entirely contractor's responsibility and liability of find, procure and use of machineries, tools, plants and their spare parts that are required for efficient and methodical execution of work. Delay in procurement of such items due to non-availability or import difficulties or any other causes what so ever will not be taken as an excuse for slow and non performance of work.
- 15.5 All materials in the tender documents shall be supplied by the contractor at site. These shall include the materials in additions to any other minor items such as bolts, nuts, brackets, support materials which may be considered necessary for execution of the work according to the specifications.
- 15.6 All instruments required, for testing shall be arranged by the contractor and shall remain his property.

16.0 RESPONSIBILITY FOR CONTRACTOR MATERIAL :

- 16.1 The Railway /HCL Administration will not be responsible for loss or damage to the contractor's material, equipment, tools & plants due to floods, thefts or any other cause or causes whatsoever.
- 16.2 The contractor shall be held responsible for any damage to Railway property like telephone lines, cables which may be caused by any of his action connection with or in the execution of the work.
- 16.3 CLAIMS :
- 16.3.1 The contractor will indemnify the Railways from all claims made in respect of loss or injury suffered by the contractor's representatives at site.

17.0 SITE CLEARANCE :

- 17.1 At the end of the work at each location the contractor shall as a part of his contractual obligation, leave the area completely cleared of rubbish and obstructions of all kinds according to the instructions of the Railway's representative. Besides, he shall take all necessary steps in the course of the execution of work to avoid the presence of loose

earth and ballast on platforms, in drains, on the track formation and pathways in the vicinity. If within a fortnight of a completion of the particular item of site work, the refuse is not cleared, the Railway will arrange to get them removed at the cost of the contractor. However, before the Railway actually gets the site cleared intimation in writing shall be sent to the contractor.

18.0 CONSIGNEE :

18.1 The contractor should consign, if need be, all materials to 'Self' to the nearest stations where materials can be booked for stacking before erection. For such items, as admit part payment on receipt by the Railways, the materials can be booked to Signal Inspector/Telecom Inspector/Con Depart at where from the materials shall be handed over to the contractor for installation. However all handling charges for each such items shall be borne by the contractor.

19.0 PATENTS :

19.1 The tenderer is prevented from using any patented detailed drawings, process or patents without the previous consent of the owner of such patent etc. The tenderer for the use of such patented drawings, process should bear to royalties payable to the patents.

19.2 The tenderer is also required to indemnify the Railways against all costs and expenses arising from any claim or action being brought against the Railways for infringement of letters or patents.

SPECIFICATION FOR INSTALLATION OF CABLE ROUTES

(Authority : CSTE's Technical Circular No. : 30)

1.0 SCOPE :

- 1.1 This Specification covers the basic requirement for cable laying in an area where signal control circuits are carried in cables. They do not include particular requirements of any type of signaling or the particular requirement of a Geographical area.

2. GENERAL :

- a. The contractor shall provide and install all cable routes, where referred to as main or subsidiary.
- b. The design of the cable material (Trunking, bick covering, cover slabs, marker posts etc.) shall be as laid down in these specifications any alteration should have the specific approval of the Engineer-in-charge.
- c. Where it is necessary to provide or conduct underline crossings these will be installed by the Railways' Civil Engineering Staff. If cable bridges are found to be necessary, under special circumstances, these also will be provided by the Railways.
- d. Where required in Platforms the Railways will provide routes ducts and access chambers.
- e. The Railways will negotiate and way leaves for cable routes which lie outside the Railway Boundary.
- f. The Contractor shall ensure that the complete cable route is available by the stipulated date. The Contractor shall co-operate as far as possible, in laying the signaling cables at the same time as the Telecommunication Cables or any other type of underground cable, in order to reduce the number of occasions on which covers on the cable route are disturbed or to avoid digging of a separate trench for the Telecommunication cable.
- g) Some subsidiary routes may not be definable until later stages of planning but the contractor shall install these as may be found necessary, and additional payment for such cases shall be the subject of negotiation.

3. TYPE OF MAIN CABLE ROUTES :

A. Signaling Cables :

Unless otherwise stated specifically. Signaling cables shall be laid as follows :

- i) Signaling Cables should normally be buried direct in the ground. However, where special conditions exist such as in vulnerable areas or in the Suburban section, other methods as listed below may be adopted. Within the station yards between Home Signals, the cable laid underground shall be protected by bricks laid widthwise on the cables after the cables have been covered by a layer of 1.50mm. of stone free earth.
- ii) In the case of suburban section, RCC turnking or RCC pipe shall be laid at surface level throughout. However, if disturbance due to theft is anticipated, the turnking shall be laid with the top of the cover 300mm. below the ground level.
- iii) In vulnerable areas of non-suburban section or in major yards the method (ii) above may be adopted.
- iv) In cases like bridges, culverts platforms, tracks & level crossings, special arrangement as described in relevant paras shall be provided.
- v) Where specifically required, full round or half round pipes or RCC Asbestos Cement, Polythene, Fibreglass, Pitch Fibre or Metal may be used.

b) Telecommunication Cables :

Unless otherwise stated in specification, Telecommunication main or subsidiary cables shall be laid as follows :

- i) Within the Station yards between Home Signals on other than suburban section cables shall be laid in RCC turnking. Where convenient, the cables may be laid in the same turnking along with signaling cables but in a separate compartment.
- ii) Beyond Home Signals on other than Suburban section, the cables shall be laid underground. Where the cables are laid alongwith signaling cables or where disturbance due to digging expected, RCC covers shall be laid over the cables as protection.
- iii) In the case of Suburban section, the cables shall be laid in RCC turnking throughout. Where convenient the cables may be laid in the same turnking

alongwith signaling cables, but in a separate compartment. If disturbance due to theft is anticipated, the turnking shall be laid with the top of the cover 300mm. below ground level.

- iv) Where it is not convenient to use turnking at surface level between Home Signals, the cables may be buried underground and RCC covers provided as a protection.
- v) In case like Bridge, Culverts, Platform, Track and Level Crossings, Special arrangements shall be provided.
- vi) Where Telecommunication cable is laid in the same trunk as Signaling cable, the two types of cable shall be separated by 200 mm. by a brick placed at intervals of 2 metres. The Telecommunication cable shall be provided on the field side and in addition be provided with suitable identifying marks near each brick.
- vii) When specified full round or half round piece of RCC, Asbestos Cement, Polythene, Fibrechips, Pitch Fibre or Metal may be used.

4. BURIED ROUTES :

- a) Where cables are required to be buried direct in the ground, this shall be done at a minimum depth of 800 mm. from the ground level to the bottom of the trench.
- b) Where the route is being installed on an uneven ground, reasonably long sections of consistent grading shall be dug, rather than following every undulation of the ground.
- c) Normally the trench shall be dug at a distance of 3100 mm. from the center of the track to center of the track to center of the trench.
- d) The size of the trench shall be sufficient to accommodate all the Signaling cables to be installed and shall allow for the laying at the time of the Signaling cables of one Telecommunication cable approximately 50 mm. in diameter.
- e) Where excavation is being carried out adjacent to the track, Soil shall not be placed on the walking pace. Excavation must be suitably protected where necessary e.g. at places where public or staff of the Railway have authorized access.
- f) The bottom of the trench shall be reasonably compacted and leveled with a view to obviating voids forming under the cables.

- g) Where required concrete cover slabs in accordance with approved samples or design shall be provided throughout the width sufficient to overlap the ground of cables by at least 50 mm. on either side.
- h) Where specified the cables shall be covered with 'A' class bricks placed width wise, approximately 9 bricks per meter. Before placing the bricks, the cables shall be covered with 150 mm. of fine stone free earth.
- i) If at any place, excavation is necessary within 2200 mm. of the nearest running rail, the permission of the Divisional Engineer shall be obtained before the work is started, and any stipulations that he may make with regard to protection of the excavation or track must be strictly observed.
- j) The attention of the Sr. DSTE/SDTE/ASTE shall be drawn to any unusual ground found during the excavation i.e. rough ashes or water logged ground. Sand filling or any other treatment as he considers necessary shall be done.
- k) The backfilling will normally take up all soil but if at any place it is necessary to dispose of any soil this shall be done.
- l) The line of the cable route shall be indicated by concrete or steel posts of approved design fixed at a minimum spacing of one Telegraph post or OHE must or any intermediate points where deviations or branch routes are made.
- m) Location boxes will be situated adjacent to the track and where it is necessary to bring cables from the main route to those locations, they shall be buried in the cutting or embankment slopes as specified above. The method of entry into the Location Box base shall be in accordance with the approved drawings.

5. GROUND LEVEL ROUTE : RE-INFORCED CONCRETE TRUNKING :

- a. Unless otherwise stated the main cable route shall comprise concrete trunking laid in the ground so that the top of the trunking (less lid) is 30 mm. above mean ground level except where instructed by the Sr. DSTE/DSTE to the contrary. In general a single route shall be installed. Sufficient room in the cable route to accommodate one Telecommunication cable approximately 50 mm. dia shall be allowed.
- b. Unless specified otherwise, only re-inforced concrete trunking shall be used. The trunking shall be as per the approved design or approved sample.
- c. The units shall be placed together with a good butt joint.

- d. Grouting between units shall not normally be necessary, but where this may be considered, desirable, it shall be performed so that the duct is rendered with a smooth face across the joint. Grouting shall also be carried out in this manner where it may be necessary to make slight bends in the route by placing the units at a slight angle at each other. In these cases special lead shall be cast at site to suit the angle of bend of the route.
- e. The covers shall be laid so that their joints are mid way along the duct sections and the completed route shall be left free of ballast or other extraneous material.

6. ARRANGEMENTS FOR CABLES CROSSING TRACKS AND FOR SUBSIDIARY CABLES :

- a. Where main cable route crosses the track(s), the Railway will provide an underline crossing and necessary manholes connected therewith. The contractor shall arrange to connect the cable route he is providing to the underline crossing at the entrance/exit manholes. Not more than two cables shall be drawn through any pipe and where more cables are to be laid additional pipes shall be installed.
- b. For subsidiary cable crossing the track(s) the contractor shall provide and install a surface trunking route. This surface trunking shall not exceed an overall dimension of 100 mm. x 100 mm. and shall be constructed of Metal or Fibreglass. The trunking shall be closed box cross section and shall be sited centrally in sleeper bays. The contractor shall state in his tender the type of cable trunking proposed for track crossing routes which type shall be subjected to the approval of the Sr. DSTE/DSTE.
- c. As an alternative to Metal or Fibreglass, Pitch Fibre pipes of Polythylene tube of 75 mm. itenal dia. and 2 mm. wall thickness (Hestalen or similar) may be used.
- d. The pipe of trunking shall be secured at either end and also in the center to prevent movement.

7. CABLE ROUTES ACROSS ROADS :

- a. when a cable laid under ground crosses a road a RCC or CI pipe should be used. The pipe should be anchored at the ends and project 12 mtr. on either side of the edges of the edges of the road.
- b. For crossing a cable laid in surface trunking, alignment should be curved down to meet the pipe. A proper brick or concrete joint should be made between the pipe and the trunking.

8. CABLE ROUTES OVER STEEL BRIDGES :

- a. For laying cables along steel bridges, steel pipes or trunking is used which is carried on channels securely anchored to the girders. In case more than one cable is laid, the steel pipe or trunking shall be large enough to contain all the cables.
- b. Where cables are carried over Bridges subject to server vibrations, the trunking shall be filled with suitable shock absorbing materials such as sand or soft compound of insul wool.
- c. The trunking should be fitted on top with bituminous compound as an antitheft measure and to prevent overheating of the cable.

9. CABLE ROUTES OVER RCC OR MASONARY CULVERTS :

For laying cables along culverts, a brick channel should be built along top of the parapet wall or by the side. Alternatively a RCC or steel pipe should be laid on the bed of the culvert along the side of the parapet. The arrangement adopted should have the approval of the Engineering Department.

10. CABLE ROUTES ON ROCKY SOIL OR ON PLATFORMS :

Cable shall be laid in chassis cut in the rock or concrete platform. Sharp edges on the sides should be smoothed out and bottom of the chassis leveled by cement plaster. The size and shape of the chassis shall be as per the approved design.

11. CABLES LAID ALONGSIDE PLATFORMS:

The edge of the platform where cables will come in contact shall be cement plastered to avoid damage to the sheath. After the cables are laid, half round RCC, Asbestos, Fibre Glass or Metal pipes shall be provided covering the cable. The pipes shall be supported by special clamps to be approved by the Sr. DSTE/DSTE. The Contractor shall state in his tender the type of protective pipe going to be used.

LAYING OF SIGNALING CABLES

(Authority : CSTE's Technical Circular No. 39)

Introduction :

Life and performance of a signaling cable depend to a large extent on the care taken in installation the cable and its jointing. It has been observed that adequate care is not being exercised in handling and laying the cable as a result of which such cables have developed faults within a few months of their installation.

The following instructions are accordingly issued for laying down a uniform practice for correct procedure of laying signaling cables which should be followed by all concerned. Whenever laying of cables is entrusted to contractors, these instructions should be brought home to them as special conditions in the tender paper. While supervising the cable laying work to be done by the contractor, the field inspectors and officers shall ensure compliance :

1. Planning :

- 1.1.1 While planning for cabling on a route, the number of conductors required, depending upon the circuits required should be first determined.
- 1.1.2 Spare conductors to a minimum of 20% of the total conductors used shall be provided in each cable between the outermost facing point and minimum of 10% of the total conductors, in each cable between the point area and outermost signals.
- 1.1.3 Where a number of cables have been laid along a route, the circuits shall be so distributed that cables can be disconnected for maintenance purpose with the least possible dislocation to traffic. In a double line section, it will be preferable to use separate cables for UP and DN line.
- 1.1.4 After deciding the size the number of conductors in the different types of cables to be used on a route, a foot by foot survey along the track should be done to determine best route for the cable.
- 1.1.5 The desired route should be shown clearly on a cable route plan, showing the actual alignment of track, giving offsets from permanent way or permanent structures. The diagram should preferably indicated the various road and track crossing with power cables, water and sewage mains and other points of importance.
- 1.1.6 A cable core distribution plan should be drawn in respect of each installation. In the case of core distribution plan, all the cables should be numbered in ascending order from right hand side of the plan. If there is necessary to lay any extra cable higher numbers can be

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Signature & Seal of Tenderer

used without disturbing the existing numbering arrangement. The cables are numbered as follows : say the number is 0112(4) the extreme left two digits 01-indicates cable No. 1 , the next two digits 12-indicates total No. of the crores of the cable, the digit in bracket(4)- indicate the No. of spare crore is available.

The trail cable is also numbered in the similar fashion with the insertion of the letter 'T' after the extreme left two digits.

- 1.1.7 All the cables should be given distinctive numbers when the cables are initially laid. The number should be punched on lead sleeve and the sleeve should wrapped round the cable every 3 mtrs. The numbering should be in a row one place and not put haphazardly.
- 1.1.8 Circuit route termination chart should be drawn in respect of each circuit starting from beginning to end. The route of circuit should be shown in each location but concerning it. All the cores of the existing cable should be numbered with plastic markers. These markers should generally tally with the terminal numbers. This core numbering is essential so that under no circumstances a wrong connection can take place.

2.0 Cable Laid Underground :

- 2.1 Cable should be laid underground, either directly in the trench, in ducts, in cement troughs or in pipes.
- 2.2 Laying the Cables in Ducts :
 - 2.2.1 In yards where a large number of cables are required to be laid in connection with Panel/RRI Installation, the cables may be laid in RCC Ducts or Brick Channels with removable top cover. In such cases the cable shall be laid in a serial order with one or two rows as necessary taking care to avoid crossing of the cable inside the duct and at the entry to the cable termination room. The location of cable duct should be so decided that in case of derailment there is no possibility of damage of the cable inside the duct by the derailed vehicles.
 - 2.2.2 Laying of the cables inside the ducts is subject to a special check to ensure that the area is not theft prone.
 - 2.2.3 The ducts shall have suitable covers capable of being removed for inspection.
 - 2.2.4 Whenever the cable is laid in the duct there shall be holes on the bottom of the ducts for draining away any water that may collect.
 - 2.2.5 Ducts shall be kept close to the surface of the ground so that the cover can be removed easily without digging the earth.

- 2.2.6 When cables are laid in rocky areas, it is desirable to protect them with split RCC Duct.
- 2.2.7 Where several cables of different categories have to be laid in the same trench, they shall be placed as far as possible in the following order starting from the main track side, so that in the event of failures the maintenance staff may easily recognize the damaged cables.
- i) Derivation Cable for Axle Counter.
 - ii) Signaling Cable or Cables.
 - iii) L. T. Power Cables (less than 660 Volts) (if necessary).
- 2.2.8 Telecom Cable or cables belonging to Deptt. Of Telecom (DOT) or cables or Electrical Department must not be laid in the same trench along with Signal cable. However, laying of derivation cable for Axle Counter and L.T. Power Cable for signaling circuit is permitted in the same trench along with signal cable. However, laying of derivation cables along with signaling cable as a special case. The signaling cables must be separated from Power Cables by a row of bricks between them.

3.0 Installation :

3.1 Testing of Cable Before Laying :

- 3.1.1 Before the cable is laid, visual inspection of cable shall be made and it shall be tested for insulation and continuity of the cores.
- 3.1.2 Bedding and armoring shall also be inspected shall also be inspected to see that there has been no damage during transit or in storage.
- 3.1.3 Before the cable is unwound from the drum, it's insulation must be measured after removing the end seals. No cable having insulation lower than that specified in the specification shall be laid.

Paying out the Cables :

- 3.1.4 For paying out cables, the cable drum shall be mounted on cable wheels.
- 3.1.5 The drum on the wheel shall be brought to one end of the trench and the end of the cable freed and laid in the trench.

- 3.1.6 The cable wheel shall then be drawn along the road or track.
- 3.1.7 A party of labourers shall follow the drum and guide the cable from the road into the trench carefully so that the cable is not damaged or bent unduly.
- 3.1.8 In cases where the wheels are not available, the drums shall be mounted on an axes at one end of the trench and cable paid out and carried by labourers.
- 3.1.9 In no case, shall the drum be rolled off on to the road for laying the cable and the cable dragged on the ground for laying purposes.
- 3.1.10 It should be ensured that no Kink is formed while paying out the cable.
- 3.1.11 In no case shall the cable drum be laid flat on the ground and cable unrolled from the drum by twisting the cable. The procedure may cause permanent damage to the cable.

Laying :

- 3.2 Cables shall be laid generally as per standard instructions. Special precautions shall be taken in the station yards etc. where a number or other utilizes may be existing.
- 3.2.1 The cable laid parallel to the track and between home signal of a station shall be laid at a depth of 1 metre. Cable laid across the track shall be 1 metre below the rail flanges. Cable laid beyond the home signal in a yard, automatic signals area or IBS or level crossing gates must be a depth of 1-2 metre. At station yards, which are thefts prone, the cable shall be laid at 1-2 metre depth.
- 3.2.2 The width of the cable trench shall normally be 0.5 metre. The bottom of the cable trench shall be leveled and got rid of any sharp materials.

A layer of shifted earth or sand of 0.075 metre (3") thickness shall be spread over the ground before laying the cable. The cable shall be covered with a layer of sand or shifted earth of 0.075 metre (3") thickness.

Laying of Bricks (fully burnt country bricks) :

Whenever power cables are laid along with other cables, bricks are to be laid between the Power Cable and other cables for separation at the rate of 5 bricks per metre, placed lengthwise.

Bricks shall be laid over the cable laid, at the rate of 10 bricks per running metre, placed breadth wise.

There shall be no gap between successive bricks.

3.2.3 Cable Crossing :

3.2.4 When a cable has to cross the track, it should be ensured that :

- i) The cable crosses the track at right angles.
- ii) The cable does not cross the track under points and crossing and
- iii) The cable is laid in concrete/GI/CI pipes or suitable ducts while crossing the track.
- iv) In no case Cable should be laid without ends having been sealed to avoid water entering through bare end and damaging the cables.

3.2.5 When cables have to be laid along culverts they shall be suitably protected and supported. These shall be taken either (a) on the culvert through G.I pipe not less than 2” dia or (b) taken in the bed of the culvert provided the vier or gutter remains dry most of the season. When taking cable through pipe along the bridge, it should be suitably supported. In addition the entry and exit ends of the cable from the pipe to diversion point of the cable shall be laid in concrete duct this being the most vulnerable portion of the cable run.

Note : Extreme care should be taken to ensure that outer PVC insulation and armouring of the cable are not damaged while taking cables through pipes. Size of the pipe should be to cater to the number of cables laid.

3.2.6 When cables have to be laid along a metallic bridge, they should be placed inside a metallic through which may be filled as an antitheft measure with sealing compound. The cable should be supported across the bridge in a manner which would involve minimum vibration to the cable and which will facilitate maintenance work. In AC electrified areas where suitable return path may not available for traction current; an additional thick conductor must be laid along with signaling cable and should be earthed at both ends. At extra length of about 6 metre should be kept at both ends in the form of coils in case it is laid along culvert of bridge.

3.2.7 In theft-prone areas cable markers must not be provided but the route plan should clearly indicate the offsets from reference marks.

3.2.8 While laying the cables in accordance with the above instructions, the following precaution should be adhered to for the safety of the track:

- i) Outside the station limits, the trenches shall preferably be dug at a distance not less than 3 metre from the center of the track, width of track being outside the 3 metres distance.
- ii) At each end of the main cable, an extra loop length of not less than 5 metres shall be kept.

- 3.2.9 It is desirable that the excavation of the trenches is not done in long lengths and does not remain uncovered overnight. It is preferable that trenches are dug, cable laid and refilling done on the same day.
- 3.2.10 The inspecting official, who supervises the excavation work, shall have the shoring materials ready in hand so that in banks where ashes or loose materials are encountered, shoring can be adopted.
- 3.2.11 Back filling of the trench should be done properly rammed and consolidated.
- 3.2.12 During excavation, the earth of the trenches shall not be thrown on the ballast. The earth shall be thrown by the side of the trenches away from the track.
- 3.2.13 In places where cables are to be laid close to the track, through preliminary digging upto 0.50 metre may be done excavation to the full depth should be done only just before the laying of the cables in presence of an official from Engineering Department, caution order, messages may be issued wherever considered necessary.
- 3.2.14 The work shall be supervised at site personally by an official of the Signal & Telecommunication Department not below the rank of signal Inspector Gr. III.
- 3.2.15 Jointing of Cables in 25 KV AC Electrified Area :

When underground straight through joints are made, special care must be taken to maintain the electrical continuity of the sheath and armouring. For jointing PVC cables, EPOXY cable jointing kit similar to M-Seal kit No. S/II, S/III & S/V should be used.

4.0 Junction Box :

Precautions to be taken for installation of junction boxes are indicated below :

- a) The installation of junction boxes for cable terminations are to be restricted strictly between the Home Signals of a station.
- b) The junction boxes should only be installed where different conductor capacities of cables are to be put through or for connecting main cable to the tail cables.
- c) For putting through two main cables of similar conductor capacities, only underground joints are to be made. Underground joints must be Epoxy joint to similar to M-Seal type.

- d) Beyond the Home Signal of a station where termination of the main cables are required for connecting to track point or signal control, location boxes only should be installed and not junction boxes.
- e) The cable leading into the junction box suitably protected by GI pipes.
- f) The bolt heads of the junction box covers shall be invariably reverted.

5.0 Cables leading to Signal Post :

Cables leading to the signal posts should be taken through the post if the signal post is tubular. In case of any other type of signal posts such as lattice type or joint type cables should be taken through pipes.

6.0 Cables leading to Cabin/Station building/Relay Room/Goomties :-

- 6.1 In case of cables leading to Cabin/Station Building/Relay Rooms/Goomties the floor of which are considerably higher, they should be taken through GI pipes by giving off sets. A number of cables should not be tightly filled in one pipe. Extreme care should be taken outer PVC insulation or armour of the cable is not damaged while these are taken through GI pipes.
- 6.2 In the Cabin/Relay Room/Goomties/Location Hut the entry point of cable from the outdoor should be protected by suitably missionary and plaster to guard against physical damage as well as entry of water and insects.

The area enclosing the base of the cable should be filled up with layer of sand. In addition a thin layer of cement plaster with good top finish should be provided. The cement plaster layer should be such that in case of necessity, the same can be easily broken for repair of cables or for laying additional cables.

This arrangement is to be adopted in respect of both existing and future installation.

7.0 Maintenance :

- 7.1 Cable routes should be checked by walking along the route to ensure that there is no feasibility of cable exposure on account of any excavation work over the cable route or due to soil erosion. If necessary earth work to be done over the cable route to ensure that there is no possibility of accumulation of rain water over the cable route due to the formation of drain on account of sinkage of soil. The cable route should also be kept free from jungle growth, etc., so that in case of necessity, execution work can be undertaken by S&T staff without difficulty.
- 7.2 Should an existing cable be exposed due to making of a drain, the same should be protected by two channel of irons of adequate length to cover the exposed length. The

channel irons should be firmly secured with clamps and revetted with bolts. The inter distance between two clamps should not exceed one metre. The end of the channel should be concerted.

- 7.3 Should there be heavy soil erosion over a portion of cable route and it is not possible to cover the same with earth, the effected portion of the cable route should be concerted taking precaution that the cable is not damaged on account of concreting.
- 7.4 Before any excavation work is undertaken by Engineering or S&T officials affecting the cable route, signaling staff should be posted at site to guide the excavating party so that cable is not exposed or damaged. It must be ensured that such excavation work is not undertaken by any party without the express permission of the concerned signal Inspector, Copies of the cable route plan should be given to IOW, PWI, Electrical foreman etc. as necessary so that possibility of damage to cable by inadvertent excavation is avoided. The path for diversion of cable shall be decided by the maintenance inspector after a joint inspection.

The cost of Damages, if done, to the existing cables shall be DEBITED TO AGENCY CARRYING OUT THE WORK through the executive officials.

8.0 Measurement of Inspection Resistance of the Cable :

The insulation resistance of the Main Cable should be measured atleast once in a year. The insulation resistance of Tail Cable should be measured at least once in a six months.

The insulation resistance should be measured strictly as per procedure mentioned in CSTE's Technical Circular No. :33. The test results should be recorded in a register according to the proforma supplied along with above circular. The defective cable, if any, should be rectified at the earliest. The details of all joints in a cable should also be mentioned in the register in addition to mentioning them in the cable route plan.

DECLARATION

I DON'T HAVE ANY RELATIVE IN HCL EXCEPT THE FOLLOWING :

SL. NO. NAME OF RELATIVE DESIGNATION RELATION

- 1.
- 2.
- 3.
- 4.

DATE :

PLACE :

SIGNATURE & SEAL OF TENDERER

ENCLOSURE : LIST OF RELATIVES

LIST OF RELATIVES

1. FATHER
2. MOTHER(INCLUDING STEP MOTHER)
3. SON (INCLUDING STEP SON)
4. SON'S WIFE
5. DAUGHTER(INCLUDING STEP DAUGHTER)
6. FATHER'S FATHER
7. FATHER'S MOTHER
8. MOTHER'S MOTHER
9. MOTHER'S FATHER
10. SON'S SON
11. SON'S SON'S WIFE
12. SON'S DAUGHTER
13. SON'S DAUGHTER'HUSBAND
14. DAUGHTER'HUSBAND
15. DAUGHTER'S SON
16. DAUGHTER'S SON'S WIFE
17. DAUGHTER'S DAUGHTER
18. DAUGHTER'S DAUGHTER'S HUSBAND
19. BROTHER(INCLUDING STEP BROTHER)
20. BROTHER'S WIFE
21. SISTER(INCLUDING STEP SISTER)
22. SISTER'S HUSBAND

ANNEXURE-B

FORMAT OF BANK GURANTEE (UNCONDITIONAL)

(To be executed on non-judicial stamp paper of value of Rs.100.00)

To
Hindustan Cables Limited
Turnkey Project Division
Regd & Corp Office
9, Elgin Road ,Kolkata – 700 020

Bank Guarantee No. _____

Contract Ref. No. _____

Amount of Guarantee _____

WHEREAS _____ *[name and address of contractor]* (hereinafter called “the Contractor”) has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ *[name of Contract and brief description of Works]* (hereinafter called “the Contract.”);

AND WHEREAS it has been stipulated by you in the said Contract that the contractor shall furnish you with a Bank Guarantee by a scheduled bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ *[amount of Guarantee]*, _____ *[amount in words]*, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ *[amount of Guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification. This guarantee shall be valid upto _____ (a date 12 months from the date of completion of the work).

SIGNATURE AND SEAL OF THE GUARANTOR

Name of Bank:

Address:

Date:

ANNEXURE-C

To

Hindustan Cables Limited
Turnkey Project Division
Regd & Corp Office
9, Elgin Road ,Kolkata – 700 020

Sub : INDEMNITY BOND FORM.

INDEMNITY BOND FOR MATERIALS SUPPLIED TO CONTRACTOR BY HINDUSTAN CABLES LIMITED

We,(hereinafter called the contractor) do hereby undertake that we shall hold in our custody for and on behalf General Manager , Hindustan Cables Limited , Turnkey Project Division , 9, Elgin Road, Kolkata-700 020 or his successor (hereinafter referred to as ‘HCL’) and as his property in trust for him all imported and indigenous materials which have been handed over to us against the contract for Optical Fibre Outdoor work including construction of service buildings in Bonidanga-Kiul section in Malda division of Eastern Railway on the sections Bonidanga-Kiul for letter of acceptance No.....and materials/such as 24 F OFC,4/6Quad cable, HDPE duct and other materials of schedule–B for supply items handed over to us by the Railway for the purpose of Execution of the said contract, until such time the materials are duly installed and/or erected or otherwise handed over to the Railway.

We shall be entirely responsible for the safe custody and protection of the said materials against all risk till they are duly delivered as installed and/or erected equipments to the Railway or as directed otherwise and shall indemnify the Railway 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 time be open to inspection by the Chief Signal & Telecom. Engineer (Works)/Eastern Railway/Kolkata or his successor.

Should any loss, damage or deterioration of materials occur or surplus materials disposed off and a refund becomes due, HCL, shall be entitled to recover from us the full cost and compensation determined in terms of the contract for such loss or damage if any, alongwith 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.

In the event of any loss or damage as aforesaid the assessment of such loss or damage and the assessment of the compensation there for would be made by General Manager , Hindustan Cables Limited , Turnkey Project Division , 9, Elgin Road, Kolkata-700 020 or his authorized nominee shall be final and binding upon us.

Signed at on this day of, 2007

Signature witness :

(Name & Address of Contractor)

Name of witness :

Address -

FORM OF AGREEMENT
(To be executed on requisite value of stamp Papers)
AGREEMENT

THIS AGREEMENT made on _____ day of _____ (Month/year) between HINDUSTAN CABLES LIMITED, TURNKEY PROJECT DIVISION, REGD. & CORP OFFICE, 9- ELGIN ROAD, KOLKATA – 700 020, acting through (Project Head and name/address of the Project) (hereinafter called “the Employer /Engineer ”) of the one part and _____ (name and address of the Contractor) (hereinafter called “the Contractor”) of the other part. WHEREAS the Employer is desirous that certain works should be executed by the Contractor viz. Contract No. _____ (hereinafter called “the Works”, and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement:
 - a) Letter of Acceptance of Tender
 - b) Notice Inviting Tender
 - c) Instructions to the Tenderers
 - d) Form of Tender and Form of Bid
 - e) Special Conditions of the Contract
 - f) General Conditions of Contract
 - g) General Specifications and Railways requirements
 - h) General Technical Specifications
 - i) Relevant codes and Standards
 - j) Drawings
 - k) Bill of Quantities
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract. IN WITNESS whereof the parties hereto have caused this Agreement executed the day and year first before written.

(Name, Designation and address of the authorised signatory)

(Name, Designation and address of the authorised signatory)

Signed for and on behalf of the Employer in the presence of:

Signed for and on behalf of the Contractor in the presence of :

Witness:

- 1.
- 2.

Witness:

- 1.
- 2.

Name and address of the witnesses to be indicated.