



डेडीकेटेड फ्रेट कोरीडोर

## **Bid Documents for**

**DESIGN AND CONSTRUCTION OF SIGNAL AND TELECOM WORKS FOR DOUBLE LINE RAILWAY INVOLVING TRAIN DETECTION SYSTEM, TRAIN PROTECTION & WARNING SYSTEM, ELECTRONIC INTERLOCKING IN STATIONS, AUTOMATIC SIGNALLING IN BLOCK SECTIONS, INTERLOCKING OF LEVEL CROSSING GATES, DISPATCH TELEPHONE SYSTEM, FIBER OPTIC COMMUNICATION SYSTEM, GSM(R) SYSTEM, DIGITAL ELECTRONIC EXCHANGE SYSTEM, MASTER CLOCK SYSTEM AND VIDEO SURVEILLANCE SYSTEM FOR REWARI – MAKARPURA SECTION AND TRAIN MONITORING AND DIAGNOSTIC SYSTEM FOR DADRI – JNPT SECTION INCLUDING TESTING AND COMMISSIONING ON DESIGN-BUILD LUMP SUM PRICE BASIS OF WESTERN DEDICATED FREIGHT CORRIDOR**

**SIGNALLING AND TELECOMMUNICATION WORKS CONTRACT  
(Rewari – Makarpura of Phase 1 and part of Phase 2)**

**CONTRACT PACKAGE - 5**

Issued on: April 15<sup>th</sup>, 2013

ICB No: ST P-5

**VOLUME - I (2/2)**

Employer:

**DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED  
(A GOVERNMENT OF INDIA ENTERPRISE)**

**MINISTRY OF RAILWAYS  
INDIA**

# **BID DOCUMENTS**

**For**

**Dedicated Freight Corridor Project  
(Western Corridor, Phase 1: Rewari – Vadodara)**

## **SIGNALLING AND TELECOMMUNICATION WORKS**

**Contract Package ST P-5**

**For**

**ICB No. ST P-5  
(Rewari – Makarpura of Phase 1 and Part of Phase 2)**

**VOLUME I (2/2)**

**SECTION 6 – FINANCIAL SUBMISSIONS**

**Employer:**

**Dedicated Freight Corridor Corporation of India  
(A Government of India Enterprise)**

**NK Consortium  
NK – JARTS – PBJ – NKI  
Consulting Engineers**

**BID DOCUMENTS**  
**FOR**  
**SIGNALLING AND TELECOMMUNICATION WORKS**  
**Contract Package 5**  
**for**  
**ICB No. ST P-5: Rewari – Makarpura of Phase 1 and Part of**  
**Phase 2**

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## Letter of Price Bid

Date: \_\_\_\_\_

Loan No.: *[insert No of Loan]*

Invitation for Bid No.: *[insert No of IFB]*

To: *[insert complete name of Employer]*

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bid Document, including Addenda No.: \_\_\_\_\_ issued in accordance with Instructions to Bidders (ITB) 8;
- (b) We offer to execute in conformity with the Bidding Document and Technical Bid submitted for the following Works: \_\_\_\_\_
- (c) The total price of our bid, excluding any discounts offered in item (d) below is: \_\_\_\_\_;
- (d) The discounts offered and the methodology for their application are: \_\_\_\_\_;
- (e) Our bid shall be valid for a period of *[specify the number of calendar days]* days from the date fixed for the bid submission deadline in accordance with the Bidding Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) If our bid is accepted, we commit to submit a performance security in accordance with the Bidding Document;
- (g) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and
- (h) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

**Bidder's Authorised Signatory:**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

Company: \_\_\_\_\_

Company Stamp \_\_\_\_\_

## Schedule 1: Schedule of Adjustment Data

- (i) Table A provides the coefficients to be used for local currency.
- (ii) [In Table B, the Bidder shall (a) indicate its proposed source and base values of indices for foreign currency elements of cost, and (b) derive its proposed weightings for foreign currency payment. In the case of very large and/or complex works contracts, it may be necessary to specify several families of price adjustment formulae corresponding to the different works involved.]

Table A. Local Currency

GC Sub-Clause 13.8: The coefficients estimated proportion of each cost element related to execution of works are provided in the tables below:

Fixed Component (a)	0.3
Labour (b)	0.3
Material (c)	0.25
Fuel & Power (d)	0.15

Note: The indices during the project implementation shall be taken from those published by Reserve Bank of India for all items and shall be as under:

For 'Labour': The All India Consumer Price Index for Industrial Workers

For 'Material': The Wholesale Price Index for All Commodities

For 'Fuel & Power' : The Wholesale Price Index for Fuel & Power

**Bidder's Authorised Signatory:**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

Company: \_\_\_\_\_

Company Stamp: \_\_\_\_\_

### Table B. Foreign Currency

**State type:** Japanese Yen/Other foreign tradable Currencies (not to exceed two)

Index code	Index description	Source of index (*1)	Base value and date	Bidder's related source currency in type/amount <sup>1</sup>	Bidder's proposed weighting
	A: Non-adjustable B: (to specify) C: (to specify) D: (to specify) : : (etc.)	—	—	—	A: 0.3 _____ B: _____ C: _____ D: _____
<b>Total</b>					<b>1.00</b>

Note: Coefficient 'A', 'B', 'C', 'D' ..... specified in 2<sup>nd</sup> column of table B above are the Foreign Currency components corresponding to the similar coefficients 'a', 'b', 'c', 'd' applicable for Local Currency as specified in table A.

#### Foreign Currency (Japanese Yen)

Note: \*1; Indices shall be selected from the “Corporate Goods Price Index, Export Price Index (Yen Basis)” published by the Bank of Japan for the Materials, Plant and Contractor’s Equipment, and

From “Labour Statistics” published by the Ministry of Health, Labour and Welfare in Japan (refer to HP address: <http://www.mhlw.go.jp/english/database/index.html> ) for employees.

#### Other Foreign Tradable Currencies

Bidder shall provide the Indices with relevant source.

<sup>1</sup> Bidder's related source currency in type and amount shall be indicated, if price adjustment payments are made in a currency other than the currency of the source of the indexed input.

#### **Bidder's Authorised Signatory :**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

Company: \_\_\_\_\_

Company Stamp: \_\_\_\_\_

## Schedule 2

### Preamble to Price Schedule

- 1 The Price Schedules shall be read in conjunction with the “Instructions to Bidders”, “General Conditions”, “Particular Conditions”, “Employer’s Requirement” and Specifications forming a part of these Bid Documents.
- 2 The Bidder shall quote a Lump Sum Price for the Works described in Employer’s Requirements, Vol. II and III and as per Clause 14.1 of the Conditions of Contract. The quoted Lump Sum Price shall be applicable to the Contract as a whole. The Bidder shall complete all Works under the Contract as per the quoted Lump Sum Price and within the time stipulated in the Bid Documents.
- 3 The Lump Sum Price shall cover all the items of the Works as detailed in the “Vol. II - Employer’s Requirements-General Specifications” and Vol. III - Employer’s Requirements- Particular Specifications and its attachments as well as conforming to all specifications and stipulations laid down in the Bid Documents including all addenda/corrigenda thereof issued before the last date of submission of Bids. The Lump Sum Price shall be for the whole of the Works for **design, supply, construction and integrated testing and commissioning of the Signalling and Telecommunication Works for the entire length of double line track inclusive of works on crossing and junction stations and connections to IR**, under the Contract. It shall be inclusive of all costs of design, drawings, reports, survey, site facilities, construction equipment, Plant, instruments, labour, supervision, materials, erection, testing, Temporary Works, site access, storage, safety, security, removal of utilities, defect rectification during the Defects Notification Period, license, inspection fees, profit, duties, taxes, levies, royalties as per applicable law together with all general risks, liabilities and obligations set out or implied in the Contract as on the date 28 days prior to the last date of submission of the Bid. The Contract Price shall not be adjusted to take account any unforeseen difficulties or costs, unless otherwise provided for in the Agreement. Unless otherwise stated in the Contract, the Contract Price covers Contractor’s all obligations under the Contract and all things necessary for proper investigations, design, construction and maintenance and remedying of any Defects in the Works during the Defect Notification Period. The premiums for various insurance required as per the Conditions of Contract shall be reimbursed as per actual under a provisional sum.
- 4 The Bidder is deemed to have taken full account of all requirements and obligations, whether expressed or implied, covered by all parts of the Contract and to have quoted the Lump Sum Price accordingly. The quoted Lump Sum Price shall include all incidental and contingent expenses and risks of every kind necessary to design, supply, construct, integrated testing and commissioning, and maintaining the whole of the Works in accordance with the Contract. Payment of all items will be made on a Lump Sum Price basis in accordance with the Conditions of Contract and as specified herein. The item descriptions, given in the Schedules, in no way limit the Contractor's obligations under the Contract to provide all the Works described in the Employer’s Requirements.
- 5 Value Added Tax will not be exempted for contractors or suppliers. The Value Added Tax shall be paid by the Contractor according to the Conditions of Contract in reference to VAT.

Corporation tax for the income from the Works shall be paid by the Contractor. Such corporation tax is not exempted for the Contractor or suppliers.

Import customs duties for all the items identified by the Contractor for import shall be paid by the Contractor.



- 6 The Works have been divided into sixteen Cost Centers along with their respective weightage percentages of the Contract Price in the Price Schedules. The value of each Cost Centre shall be based on a Lump Sum Contract Price applying the weightage assigned to the Cost Centre. For further estimating the interim payment, each cost centre has been broken into items of works with percentage weightages of the Contract Price for items of work / stages as indicated in Schedule 4.1 to 4.16.
- 7 The schedules shall be completed by the Bidder in respect of all the items listed in Schedules 4.1 to 4.16, for a full and comprehensive understanding by the Employer of the bid price for each item of the Works. The totals from the Price Schedules 4.1 to 4.16 shall be replicated in the Price Summary in Schedule 3.

**Note:**

The Price Schedules are to determine the Bid Price. However, the Lump Sum Bid Price as quoted by the Bidder in "Schedule 3 – Price Schedule – Lump Sum Bid Price shall be considered final and used for comparison of Bids.

**SCHEDULE 3: PRICE SCHEDULE - LUMP SUM BID PRICE**

Bid Price for Signalling and Telecommunication Systems Works including Integration with IR existing Railway System and Testing & Commissioning on Design-Build Lump Sum Basis of Package ST P-5, Phase 1 of Western Dedicated Freight Corridor is as given below:

Name of payment currency	A Amount of currency	B Rate of exchange (Foreign currency per unit of Japanese Yen)	C Foreign currency equivalent C = A x B
Local Currency (INR) #			
Foreign currency Japanese Yen		1.00	
Foreign currency -2 #			
Foreign currency -3 #			
Equivalent BID PRICE [BP] (In Japanese Yen)-Y			
Equivalent Bid Price BP) in INR-X#			

# The exchange rate shall be as specified in ITB 34.1 (BDS)

We undertake to receive the payments against the completion of works under various Cost Centers in respective portions (as filled up by Contractor in Table given below) of Local (INR) and Foreign Currencies :-

**Name of bidder**

**Signature of Bidder**

Package 5: Signal & Telecom Works											Price Schedule		
Schedule 3-1, Price Summary													
No.	Cost Centre Description	Schedule	Q'ty	Unit	CIF	EX-FACTORY PRICE	INLAND TRANSPORT TO SITE	ERECTION/ INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
					(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1)+(4) +(6)	(9)=(2)+(3) +(5)+(7)
					FC #	LC INR	LC INR	FC #	LC INR	FC #	LC INR	FC #	LC INR
1	Total for Survey, Design & Documentation	4.1											
2	Total For TPWS	4.2											
3	Total For Electronic Interlocking (Stations)	4.3											
4	Total For Automatic signalling in Block section	4.4											
5	Total For Train Management & Diagnostic System	4.5											
6	Total for Interlocking of L.C. Gates	4.6											
7	Total for Despatch Telephone system	4.7											
8	Total for Fibre Optic Communication system	4.8											
9	Total for GSM(R) Communication system	4.9											
10	Total for Digital Electronic Exchange system	4.10											
11	Total for Master Clock system	4.11											
12	Total for Video Surveillance system	4.12											
13	Total for ISA certification of complete Signalling System	4.13											
14	Total for System Testing and Commissioning	4.14											
15	Total for Integrated Testing and Commissioning of Complete Contract	4.15											
16	Total for Supply of Spares, Tools & Instruments	4.16											
<b>Total of Items 1 to 16</b>													

# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.

NOTE:

- i. For the purposes of better appreciation of the Bidder's Lump Sum Price, the Bidder should indicate separately the rate of all the applicable taxes as on the base date and total amount of taxes included in his Lump Sum Price Bid. Post bid submission, DFCCIL will not admit any change in either the tax components or tax rates beyond the list given in bidder's price bid, unless dictated by law of the land as per PC 13.7. In case, any reduction in Taxes, Custom duty or any benefit like Deemed Export Benefit results due to any change in Laws or Interpretation of the existing Laws, the Contractor shall pass on the Financial benefit to the Employer. In order to facilitate the Employer to avail deemed export benefit the Contractor has to furnish the following documents:
  - (i) Disclaimer Certificate- in a Format approved by the Employer with regard to Contractor not claiming the Deemed Export Benefits.
  - (ii) Invoice/Bills of entry evidencing payment of Excise / Custom Duty.
  - (iii) Any other Document required as per Foreign Trade Policy (FTP)
- ii. Cost percentage of Items imported from Japan towards STEP [Special Terms for Economic Partnership] in terms of total offer price -----  
% (to be filled up by the Bidder).
- iii. In case of any discrepancy between Schedule 4, Schedule 3 and Schedule 3-1, the provisions in Schedule 3 : PRICE SCHEDULE - LUMP SUM BID PRICE, shall prevail and Schedule 3-1 and Schedule 4 shall be corrected accordingly.
- iv. The prices shall be CIF for Imported Components and Ex-Factory for Local Components.

## **SCHEDULE 4:**

# **Price Schedules - Breakdown of Lump Sum Price Bid**

Package 5: Signal & Telecom Works											Price Schedule		
<b>Schedule 4.1</b>													
No.	Cost Centre Description and (% of Contract Price)	% of Cost Centre Price	Sch. Ref.	Unit	CIF	EX-FACTOR Y PRICE	INLAND TRANSP-ORT TO SITE	ERECTION/ INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
					(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1)+(4)+(6)	(9)=(2)+(3)+(5)+(7)
					FC	LC	LC	FC	LC	FC	LC	FC	LC
					#	INR	INR	#	INR	#	INR	#	INR
1	<b>Reonnaissance Survey, Design and Documentation (2.5%)</b>		4.1										
1.1	Inception Report	3%											
1.2	Data Validation	3%											
1.3	Management plans - Lot 1	5%											
1.4	Management plans - Lot 2	6%											
1.5	Management plans - Lot 3	5%											
1.6	Basic Systems Design	20%											
1.7	Detailed Designs	25%											
1.8	Equipment layout Designs	10%											
1.9	As Builts and O&M manuals	20%											
1.10	Any other document	3%											
<b>Total for Schedule 4.1</b>													
# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.													

Package 5: Signal & Telecom Works Price Schedule

<b>Schedule 4.2</b>														
No.	Cost Centre Description and (% of Contract Price)	% of Cost Centre Price	Sch. Ref	Q'ty	Unit	CIF	EX-FACTORY PRICE	INLAND TRANSPORT TO SITE	ERECTION/INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
						(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1)+(4)+(6)	(9)=(2)+(3)+(5)+(7)
						FC	LC	LC	FC	LC	FC	LC	FC	LC
						#	INR	INR	#	INR	#	INR	#	INR
<b>2</b>	<b>TPWS</b>		4.2											
2.1	Installation of On-Board equipment - Cabinet, DMI, Antenna, tachometer etc.	5.00	4.2.1											
	Ready for shipment in Japan after FAT	60%												
	Receipt at Loco manufacturing unit	30%												
	Completion of installation	5%												
	Completion of testing	5%												
2.2	Installation of Line side Equipment - LEU, Balise, Cabling between LEU & Balise etc.	5.00	4.2.2											
	Ready for shipment in Japan after FAT	50%												
	Receipt at Site office	20%												
	Completion of installation	25%												
	Completion of testing	5%												
2.3	Software and Data	5.00	4.2.3											
	Ready for shipment in Japan after FAT	40%												
	Receipt at Site office, uploading in Locos & testing	30%												
	Receipt at Site office, uploading in Balise & testing	30%												
	<b>Total for TPWS</b>		<b>4.2</b>											
# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.														

Package 5: Signal & Telecom Works													Price Schedule	
<b>Schedule 4.3</b>														
No.	Cost Centre Description (% of Contract Price)	% of Cost Centre Price	Sch. Ref	Qty	Unit	CIF	EX-FACTORY PRICE	INLAND TRANSP-ORT TO SITE	ERECTION/ INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
						(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1) +(4)+(6) )	(9)=(2)+ (3)+ (5)+(7)
						FC	LC	LC	FC	LC	FC	LC	FC	LC
		%				#	INR	INR	#	INR	#	INR	#	INR
<b>3</b>	<b>Electronic Interlocking (Stations)</b>		4.3											
3.1	Installation of Signal Equipment Room & ASM office Equipment (Except MSDAC)	<b>4.30</b>	4.3.1											
	Ready for shipment in Japan after FAT	50%												
	Receipt at Site office	20%												
	Completion of installation including wiring	30%												
3.2	Installation of MSDAC	<b>4.32</b>	4.3.2											
	Ready for shipment in Japan after FAT	50%												
	Receipt at Site office	20%												
	Completion of installation, wiring and testing.	30%												
3.3	Installation of Power Supply System including battery	<b>1.56</b>	4.3.3											
	Receipt at Site	70%												
	Completion of installation including wiring & testing	30%												
3.4	Installation of Point machines	<b>0.60</b>	4.3.4											
	Receipt at site office	70%												
	Completion of installation including wiring & testing	30%												
3.5	Supply and laying of outdoor signalling & power cables	<b>5.00</b>	4.3.5											
	Receipt at site office	65%												
	Provision of ducts and cable Laying	25%												
	Meggering & termination of laid cables	10%												
3.6	Installation of signals & Location boxes	<b>0.60</b>	4.3.6											
	Receipt at Site office	70%												
	Completion of installation including wiring, focussing & testing	30%												
3.7	Software and Data	<b>1.00</b>	4.3.7											
	Ready for shipment in Japan after FAT	60%												
	Receipt at Site, uploading & Completion of testing	40%												
<b>Total for Electronic Interlocking (Stations)</b>			<b>4.3</b>											

# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.



Package 5: Signal & Telecom Works Price Schedule

<b>Schedule 4.4</b>															
No.	Cost Centre Description (% of Contract Price)	%	% of Cost Centre Price	Sch. Ref	Q'ty	Unit	CIF	EX-FACTORY PRICE	INLAND TRANSPORT TO SITE	ERECTION/ INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
							(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1) +(4)+(6) )	(9)=(2)+(3) +(5)+(7)
							FC	LC	LC	FC	LC	FC	LC	FC	LC
							#	INR	INR	#	INR	#	INR	#	INR
<b>4</b>	<b>Automatic signalling in Block section</b>			4.4											
<b>4.1</b>	Installation of Equipment in Auto Location Huts (Except MSDAC)	<b>1.00</b>		4.4.1											
	Ready for shipment in Japan after FAT		50%												
	Receipt at Site office		20%												
	Completion of installation including wiring		30%												
<b>4.2</b>	Installation of MSDAC	<b>9.97</b>		4.4.2											
	Ready for shipment in Japan after FAT		50%												
	Receipt at Site office		20%												
	Completion of installation including wiring		30%												
<b>4.3</b>	Installation of Power Supply System including battery	<b>2.92</b>		4.4.3											
	Receipt at Site		70%												
	Completion of installation including wiring & testing		30%												
<b>4.4</b>	Supply and laying of outdoor signalling & power cables	<b>9.00</b>		4.4.4											
	Receipt at site office		65%												
	Trenching and cable Laying		20%												
	Meggering & termination of laid cables		15%												
<b>4.5</b>	Installation of signals & Location boxes	<b>1.11</b>		4.4.5											
	Receipt at Site office		70%												
	Completion of installation including wiring, focussing & testing		30%												
<b>4.6</b>	Software and Data	<b>1.00</b>		4.4.6											
	Ready for shipment in Japan after FAT		60%												
	Receipt at Site, uploading & Completion of testing		40%												
<b>Total for Automatic signalling in Block section</b>				<b>4.4</b>											

# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.

Package 5: Signal & Telecom Works													Price Schedule			
Schedule 4.5																
No.	Cost Centre Description (% of Contract Price)	% of Cost Centre Price	Sch. Ref	Qty	Unit	CIF	EX-FACTORY PRICE		INLAND TRANSPORT TO SITE		ERECTION/ INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
							(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1) +(4)+(6)	(9)=(2)+ (3)+ (5)+(7)	
						FC	LC	LC	FC	LC	FC	LC	FC	LC	FC	LC
		%				#	INR	INR	#	INR	#	INR	#	INR	#	INR
5	<b>Train Management &amp; Diagnostic System (TMS)</b>		4.5													
5.1	<b>TMS - Phase 1</b>															
5.1.1	Installation of OCC Equipment - Application servers, Mimic Indication panel, work stations, printers etc.	6.00	4.5.1													
	Ready for shipment in Japan after FAT															
	Receipt at Site office															
	Completion of installation including wiring															
5.1.2	Installation of Station & other location equipment - FIUs, VDUs, work stations etc.	1.00	4.5.2													
	Ready for shipment in Japan after FAT															
	Receipt at Site office															
	Completion of installation including wiring															
5.1.3	Installation of Auto Location Hut equipment - FIUs, VDUs, work stations etc.	1.00	4.5.3													
	Ready for shipment in Japan after FAT															
	Receipt at Site office															
	Completion of installation including wiring															
5.1.4	Software and Data	2.00	4.5.4													
	Ready for shipment in Japan after FAT															
	Receipt at Site, uploading & Completion of testing															
	<b>Total for TMS - Phase 1</b>		<b>4.5</b>													
5.2	<b>TMS - Phase 2</b>															
5.2.1	Installation of OCC Equipment - Mimic Indication panel, work stations, printers etc.	2.50	4.5.5													
	Ready for shipment in Japan after FAT															
	Receipt at Site office															
	Completion of installation including wiring															
5.2.2	Installation of Station & other location equipment - FIUs, VDUs etc.	0.60	4.5.6													
	Ready for shipment in Japan after FAT															
	Receipt at Site office															
	Completion of installation including wiring															
5.2.3	Installation of Auto Location Hut equipment - FIUs, VDUs etc.	0.60	4.5.7													
	Ready for shipment in Japan after FAT															
	Receipt at Site office															
	Completion of installation including wiring															
5.2.4	Software and Data	1.40	4.5.8													
	Ready for shipment in Japan after FAT															
	Receipt at Site, uploading & Completion of testing															
	<b>Total for TMS - Phase 2</b>		<b>4.5</b>													
	<b>Total for Train Management &amp; Diagnostic System</b>		<b>4.5</b>													
	# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.															

Package 5: Signal & Telecom Works													Price Schedule		
<b>Schedule 4.6</b>															
No.	Cost Centre Description (% of Contract Price)	%	% of Cost Centre Price	Sch. Ref	Qty	Unit	CIF	EX FACTORY PRICE	INLAND TRANSPORT TO SITE	ERECTION/ INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
							(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1)+(4)+(6)	(9)=(2)+(3)+(5)+(7)
							FC	LC	LC	FC	LC	FC	LC	FC	LC
							#	INR	INR	#	INR	#	INR	#	INR
<b>6</b>	<b>Interlocking of L.C. Gates</b>			4.6											
<b>6.1.</b>	Installation of Electric Lifting barrier including Gate control panel, power supply etc.	<b>0.005</b>		4.6.1											
	Receipt at Site		70%												
	Completion of installation including wiring & testing		30%												
<b>Total for Interlocking of L.C. Gates</b>				<b>4.6</b>											
# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.															

Package 5: Signal & Telecom Works													Price Schedule	
<b>Schedule 4.7</b>														
No.	Cost Centre Description (% of Contract Price)	% of Cost Centre Price	Sch. Ref	Q'ty	Unit	CIF	EX-FACTORY PRICE	INLAND TRANSPORT TO SITE	ERECTION/INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
						(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1)+(4)+(6)	(9)=(2)+(3)+(5)+(7)
						FC	LC	LC	FC	LC	FC	LC	FC	LC
		%				#	INR	INR	#	INR	#	INR	#	INR
<b>7</b>	<b>Dispatch Telephone System</b>		4.7											
7.1	Installation of dispatch telephone equipment in OCC, Stations & way side locations etc.	<b>0.46</b>	4.7.1											
	Receipt of complete equipment at Site office	70%												
	Completion of installation including cabling and wiring	30%												
	<b>Total for Dispatch Telephone System</b>		<b>4.7</b>											
# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.														

Package 5: Signal & Telecom Works													Price Schedule	
<b>Schedule 4.8</b>														
No.	Cost Centre Description (% of Contract Price)	% of Cost Centre Price	Sch. Ref	Q'ty	Unit	CIF	EX-FACTORY PRICE	INLAND TRANSPORT TO SITE	ERECTION/INSURANCE AND COMMISSION		SERVICES		TOTAL	
						(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1)+(4)+(6)	(9)=(2)+(3)+(5)+(7)
						FC	LC	LC	FC	LC	FC	LC	FC	LC
						#	INR	INR	#	INR	#	INR	#	INR
<b>8</b>	<b>Optical Fibre Communication System</b>		4.8											
8.1	Installation of SDH transmission equipment in TERS at OCC, stations and porta huts along the WDFC Route	<b>0.66</b>	4.8.1											
	Receipt of complete equipment at Site office	80%												
	Completion of installation including wiring	20%												
8.2	Supply of Optical Fiber cables, HDPE Ducts etc and laying of Optical Fiber cable network	<b>4.37</b>	4.8.2											
	Receipt of all cables, ducts and accessories at Site office	60%												
	Provision of Ducts and laying of Optical Fiber Cables	40%												
	Splicing, termination and testing of Optical Fiber Cables													
8.3	Installation of Data Networking System WAN and LAN at OCC, Stations etc	<b>0.60</b>	4.8.3											
	Receipt of complete equipment at Site office	70%												
	Completion of installation including wiring & testing	30%												
8.4	Installation of 48 Volt DC Battery Backup System	<b>0.85</b>	4.8.4											
	Receipt of complete equipment at Site office	80%												
	Completion of installation including wiring & testing	20%												
<b>Total for Optical Fibre Communication System</b>			<b>4.8</b>											
# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.														

Package 5: Signal & Telecom Works													Price Schedule		
Schedule 4.9															
No.	Cost Centre Description (% of Contract Price)	% of Cost Centre Price	Sch. Ref	Q'ty	Unit	CIF	EX-FACTORY PRICE		INLAND TRANSPORT TO SITE	ERECTION/INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
							(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1)+(4)+(6)	(9)=(2)+(3)+(5)+(7)
						FC	LC	LC	FC	LC	FC	LC	FC	LC	
						#	INR	INR	#	INR	#	INR	#	INR	
<b>9</b>	<b>GSM(R) Radio Communication System</b>		<b>4.9</b>												
9.1	Installation of GSMR BTS, RDW equipment and Handportable radio sets	<b>3.44</b>	4.9.1												
	Receipt of complete equipment at Site office	80%													
	Completion of installation including wiring	20%													
9.2	Installation of GSM(R) MSC Control System equipment	<b>0.65</b>	4.9.2												
	Receipt of complete equipment at Site office	80%													
	Completion of installation including wiring	20%													
<b>Total for GSM(R) Radio Communication System</b>			<b>4.9</b>												
# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.															

Package 5: Signal & Telecom Works													Price Schedule	
<b>Schedule 4.10</b>														
No.	Cost Centre Description (% of Contract Price)	% of Cost Centre Price	Sch. Ref	Q'ty	Unit	CIF	EX-FACTORY PRICE	INLAND TRANSPORT TO SITE	ERECTION/INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
						(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1)+(4)+(6)	(9)=(2)+(3)+(5)+(7)
						FC	LC	LC	FC	LC	FC	LC	FC	LC
						#	INR	INR	#	INR	#	INR	#	INR
<b>10</b>	<b>Digital Electronic Exchange System</b>		<b>4.1</b>											
10.1	Installation of EPABX and telephone cables and telephones	<b>0.96</b>	4.10.1											
	Receipt of complete equipment at Site office	70%												
	Completion of installation including wiring	30%												
	<b>Total for Digital Electronic Exchange System</b>		<b>4.1</b>											
# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.														

Package 5: Signal & Telecom Works													Price Schedule	
<b>Schedule 4.11</b>														
No.	Cost Centre Description (% of Contract Price)	% of Cost Centre Price	Sch. Ref	Q'ty	Unit	CIF	EX-FACTORY PRICE	INLAND TRANSPORT TO SITE	ERECTION/ INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
									(4)	(5)	(6)	(7)	(8)=(1)+(4)+(6)	(9)=(2)+(3)+(5)+(7)
						(1)	(2)	(3)	FC	LC	FC	LC	FC	LC
						#	INR	INR	#	INR	#	INR	#	INR
<b>11</b>	<b>Master Clock System</b>		4.11											
11.1	Installation of Master Clock System equipment	<b>0.06</b>	4.11.1											
	Receipt of complete equipment at Site office	70%												
	Completion of installation including wiring	30%												
	<b>Total for Master Clock System</b>		<b>4.11</b>											
	# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.													



Package 5: Signal & Telecom Works													Price Schedule		
<b>Schedule 4.12</b>															
No.	Cost Centre Description (% of Contract Price)		% of Cost Centre Price	Sch. Ref	Q'ty	Unit	CIF	EX-FACTORY PRICE	INLAND TRANSPORT TO SITE	ERECTION/INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
										(4)	(5)	(6)	(7)	(8)=(1)+(4)+(6)	(9)=(2)+(3)+(5)+(7)
							(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1)+(4)+(6)	(9)=(2)+(3)+(5)+(7)
							FC	LC	LC	FC	LC	FC	LC	FC	LC
		%					#	INR	INR	#	INR	#	INR	#	INR
<b>12</b>	<b>Video Surveillance System</b>			4.12											
12.1	Installation of Video Surveillance system equipment	<b>0.04</b>		4.12.1											
	Receipt of complete equipment at Site office		70%												
	Completion of installation including wiring		30%												
	<b>Total for Video Surveillance System</b>			<b>4.12</b>											
# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.															

Package 5: Signal & Telecom WORKS													Price Schedule	
Schedules 4.13 to 4.16														
No.	Cost Centre Description (% of Contract Price)	% of Cost Centre Price	Sch. Ref	Q'ty	Unit	CIF	EX FACTORY PRICE	INLAND TRANSPORT TO SITE	ERECTION/ INSURANCE AND COMMISSIONING		SERVICES		TOTAL	
						(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(1) +(4)+(6) )	(9)=(2)+ (3)+ (5)+(7)
						FC	LC	LC	FC	LC	FC	LC	FC	LC
						#	INR	INR	#	INR	#	INR	#	INR
13	<b>ISA Certification of Signalling system</b> Receipt of ISA Certificate for complete installation of Signalling system	10.0	4.13											
	<b>Total for Schedule 4.13</b>													
14	<b>System Test and Commissioning (Sections)/Training/Mockup &amp; Prototypes (1.00%)</b>	1.0	4.14											
	<b>Total for Schedule 4.14</b>													
15	<b>Integrated Testing and Commissioning of Complete Contract (0.50%)</b>	0.5	4.15											
	<b>Total for Schedule 4.15</b>													
16	<b>Supply of Spares, Tools &amp; Instruments (1.50%)</b>	1.5	4.16											
	Signalling spares, tools & Instruments	70%												
	Telecom spares, tools & Instruments	30%												
	<b>Total for Schedule 4.16</b>													

# Japanese Yen / other Tradable Foreign Currencies (not exceeding two). Bidder to specify.

## **SCHEDULE 5**

### **Payment Schedule**

- 1 General
- 1.1 Interim payments shall be made on pro-rata basis for the work done against each item of the Works in accordance with the provisions of Sub-Clause 14.4 of the Conditions of Contract.
- 1.2 The Employer shall make Interim Payments to the Contractor in accordance with the provisions of Sub-Clause 14.4 of Conditions of Contract, as certified by the Engineer on the basis of the progress achieved for the items of works/ stages of the works estimated in accordance with the weightage (in percentage) of the Contract Price assigned to each item of work in accordance with the provisions of Schedules 4.1 to 4.16.
- 1.3 The Contractor shall base its claim for interim payment as per GCC Sub-Clause 14.3 for each stage for various items of work on the basis of actual progress of work executed till the end of the month for which the payment is claimed in relation to the Contractor's total estimated quantity, supported with documents and updated programme in accordance with the Employer's Requirements.
- 1.4 The Employer may carry out necessary test checks either directly or through an independent agency, of the Works done by the Contractor for which the payment has been accepted and certified by the Engineer. The payment shall depend upon the outcome of such test checks.
- 1.5 Variation under Clause 13 of the Conditions of Contract shall be valued with respect to the approved designs/drawings and any additions or subtractions to the Contract Price, as the case may be, shall be done in accordance with the provisions of Sub-Clause 13.3 of Conditions of Contract.
- 1.6 Adjustment for changes in cost shall be made in accordance with Sub-Clause 13.8 of Conditions of Contract.
- 1.7 The Price Schedules shall be filled in with indelible ink or be type written. The person authorized to sign on behalf of the Bidder (Authorised Signatory) shall sign in full with the date at the bottom of all pages of all Schedules.

**Note:**

The contract envisages retention of money for satisfactory fulfillment of obligations under the defect notification period. For this, deductions towards Retention Money shall be made as per the provisions specified in ATB 14.3(c) and ATB 14.9 in Volume I (1/2).

#### 2.0 Procedure for Payment of Bills

- 2.1 Responsibility of preferring the bill and entering the details shall vest with the Contractor. It is his responsibility to ensure that under no circumstances the payment claimed is more than the amount equivalent of Work done. If it is discovered or otherwise during the check by the Engineer or the Employer, then a warning will be issued. If the instance is repeated then an amount equivalent to 10% of the excess claim shall be forfeited besides denying the extra claim.
- 2.2 Format for bill submission shall be agreed between the Engineer and the Contractor.

- 2.3 While submitting the bills all supplementary details of physical work executed during the month supporting the break up provided in the Price Schedule. The sketches, drawings, approvals, calculations etc. shall accompany the bill so that payment can be substantiated and certified by the Engineer and submitted to the Employer.
- 2.4 Even if no work is executed during the month or contractor does not choose to prefer a bill a 'NIL' bill shall be submitted by him.
- 2.5 Methodology of claiming payment:-
- The Contractor shall prepare his monthly bill in the agreed format as per para 2.2 above in four hard copies and a soft copy. This shall be accompanied by supplementary details in four hard copies and a soft copy. All hard copies shall bear the original signatures of the Contractor or its authorized signatory and submitted to the Engineer.
  - If these are found in order then Engineer shall forward two certified copies of the bill and along with certified supplementary details with his recommendations for payment to the Employer, otherwise return back all documents to the Contractor for rectification and resubmission.
- 2.6 The Employer may deploy external agencies, other than the Engineer, to cross check the work done by the Contractor. If at a later stage it is discovered that excess payment has been released to the contractor or the work is found to be defective then suitable recoveries would be affected from the first available bill of the contractor.
- 2.7 In case of payments to be made under Schedules 4.2 to 4.16 for supply of Materials, following procedures shall be adopted;
- a) For Imported Capital Equipment such as Electronic Interlocking, TPWS, TMS etc. where provision for payment on shipping has been made :-
    - Payments on Shipping on Bill of Lading shall be made for the materials as provided in the Schedules by submitting proof of Insurance for the consignment and a bank guarantee for the amount of payment claimed in favour of the Employer valid till the equipment is installed in the Permanent Works.
  - b) For supply of materials & equipment in Contractor's Depot or at site of Permanent Works as specified, payment shall be made as provided in the Schedule by submitting a bank guarantee for the amount of payment claimed in favour of the Employer for the duration until these are incorporated in Permanent Works.
  - c) The contractor shall produce evidence that the materials & equipment are as per specifications, and have met all the requirements of checks and tests.
  - d) The materials shall have been handled with care and delivered to site undamaged and also when brought to Contractor's Depot or at site of Permanent Works are properly stored against loss & pilferage, damage and deterioration.
  - e) Proper up to date records on receipt, storage and use in the permanent works are maintained by the Contractor and are available for inspection by the Engineer.

<b>Schedule 5 - PAYMENT SCHEDULE SUMMARY (ST P-5)</b>				
S. No.	Cost Centre	Percentage of Contract Price (%)	Schedule	
<b>1</b>	<b>Reconnaissance Survey, Inception Report, Validation of Survey Data, Simulation of train operation, Designs &amp; Drawings: Basic, Construction and As Built</b>	2.500	<b>4.1</b>	
<b>2</b>	<b>TPWS</b>		<b>4.2</b>	
2.1	Installation of On-Board equipment - Cabinet, DMI, Antenna, tachometer etc.	5.000	4.2.1	
2.2	Installation of Line side Equipment - LEU, Balise, Cabling between LEU & Balise etc.	5.000	4.2.2	
2.3	Software and Data	5.000	4.2.3	
	<b>Total For TPWS</b>	<b>15.000</b>		
<b>3</b>	<b>Electronic Interlocking (Stations)</b>		<b>4.3</b>	
3.1	Installation of Signal Equipment Room & ASM office Equipment (Except MSDAC)	4.300	4.3.1	
3.2	Installation of MSDAC	4.320	4.3.2	
3.3	Installation of UPS including battery	1.560	4.3.3	
3.4	Installation of Point machines	0.600	4.3.4	
3.5	Supply and laying of outdoor signalling & power cables	5.000	4.3.5	
3.6	Installation of signals & Location boxes	0.600	4.3.6	
3.7	Software and Data	1.000	4.3.7	
	<b>Total for Electronic Interlocking (Stations)</b>	<b>17.380</b>		
<b>4</b>	<b>Automatic signalling in Block section</b>		<b>4.4</b>	
4.1	Installation of Equipment in Auto Location Huts (Except MSDAC)	1.000	4.4.1	
4.2	Installation of MSDAC	9.895	4.4.2	
4.3	Installation of UPS including battery	2.920	4.4.3	
4.4	Supply and laying of outdoor signalling & power cables	9.000	4.4.4	
4.5	Installation of signals & Location boxes	1.110	4.4.5	
4.6	Software and Data	1.000	4.4.6	
	<b>Total for Automatic signalling in Block section</b>	<b>24.925</b>		
<b>5</b>	<b>Train Management &amp; Diagnostic System (TMS)</b>		<b>4.4</b>	
<b>5.1</b>	<b>TMS - Phase 1</b>			
5.1.1	Installation of OCC Equipment - Application servers, Mimic Indication panel, work stations, printers etc.	6.000	4.5.1	
5.1.2	Installation of Station & other location equipment - FIUs, VDUs, work stations etc.	1.000	4.5.2	
5.1.3	Installation of Auto Location Hut equipment - FIUs, VDUs, work stations etc.	1.000	4.5.3	
5.1.4	Software and Data	2.000	4.5.4	
	<b>Total for TMS - Phase 1</b>	<b>10.000</b>		
<b>5.2</b>	<b>TMS - Phase 2</b>			
5.2.1	Installation of OCC Equipment - Mimic Indication panel, work stations, printers etc.	2.500	4.5.5	
5.2.2	Installation of Station & other location equipment - FIUs, VDUs etc.	0.600	4.5.6	
5.2.3	Installation of Auto Location Hut equipment - FIUs, VDUs etc.	0.600	4.5.7	
5.2.4	Software and Data	1.400	4.5.8	
	<b>Total for TMS - Phase 2</b>	<b>5.100</b>		
<b>6</b>	<b>Interlocking of L.C. Gates</b>		<b>4.6</b>	
6.1	Installation of Electric Lifting barrier including Gate control panel, power supply etc.	0.005	4.6.1	
	<b>Total for Interlocking of L.C. Gates</b>	<b>0.005</b>		
<b>7</b>	<b>Dispatch Telephone System</b>		<b>4.7</b>	
7.1	Installation of dispatch telephone equipment in OCC, Stations & way side locations etc.	0.460	4.7.1	
	<b>Total for Dispatch Telephone System</b>	<b>0.460</b>		
<b>8</b>	<b>Fiber Optic Communication System</b>		<b>4.8</b>	
8.1	Installation of SDH transmission equipment in TERs at OCC, stations and porta huts along the	0.660	4.8.1	
8.2	Supply of Optical Fiber cables, HDPE Ducts etc and laying of Optical Fiber cable network	4.370	4.8.2	
8.3	Installation of Data Networking System WAN and LAN at OCC, Stations etc	0.600	4.8.3	
8.4	Installation of 48 Volt DC Battery Backup System	0.850	4.8.4	
	<b>Total for Fiber Optic Communication System</b>	<b>6.480</b>		
<b>9</b>	<b>GSMR Radio Communication System</b>		<b>4.9</b>	
9.1	Installation of GSMR BTS, RDW equipment and Handportable radio sets	3.440	4.9.1	
9.2	Installation of GSMR MSC Control System equipment	0.650	4.9.2	
	<b>Total for GSMR Radio Communication System</b>	<b>4.090</b>		
<b>10</b>	<b>Digital Electronic Exchange System</b>			
10.1	Installation of EPABX and telephone cables and telephones	0.960	4.1	
	<b>Total for Digital Electronic Exchange System</b>	<b>0.960</b>	<b>4.10.1</b>	
<b>11</b>	<b>Master Clock System</b>			
11.1	Installation of Master Clock System equipment	0.060	4.11	
	<b>Total for Master Clock System</b>	<b>0.060</b>	<b>4.11.1</b>	
<b>12</b>	<b>Video Surveillance System</b>			
12.1	Installation of Video Surveillance system equipment	0.040	4.12	
	<b>Total for Video Surveillance System</b>	<b>0.040</b>	<b>4.12.1</b>	
<b>13</b>	<b>ISA Certification of Signalling system</b>	10.000	<b>4.13</b>	
<b>14</b>	<b>System Test and Commissioning (Sections)/Training/Mockup &amp; Prototypes</b>	1.000	<b>4.14</b>	
<b>15</b>	<b>Integrated Testing and Commissioning of Complete Contract</b>	0.500	<b>4.15</b>	
<b>16</b>	<b>Supply of Spares, Tools &amp; Instruments</b>	1.500	<b>4.16</b>	
	<b>Grand Total</b>	<b>100.000</b>		

I/We accept the above percentage as filled in column 3 by the Employer for the apportionment of the Contract Price for completion of the Works corresponding to the items given above and for estimating Interim Payments in accordance with schedule- 4.1 to 4.16 and Sub-Clause 14.4 of Conditions of Contract. The aforesaid percentages are fixed and not negotiable.

<b>Name of Bidder</b>	
<b>Signature of Bidder</b>	

Schedule 4.1						
Basis of Payment for Interim Payments for Reconnaissance Survey, Inception Report, Validation of Survey Data, Designs & Drawings: Basic, Detailed, Equipment layout, As Built and Manuals						
Cost Centre	Item of Work	Item No.	Payment Event	Weightage %	Cost	Payment Procedure
Validation of Survey Data, Designs and Drawings : Basic, Detailed, Equipment layout, As Built and Manuals.	Inception Report	4.1.1	Reconnaissance Survey and Inception Report.	5%	2.5 % of the Contract Price	The Unit of measurement shall be for each station and Block section. Payment of each stage will be made on pro-rata completion of each unit as per weightage given in this Schedule
	Validation of Survey Data, Preliminary alignment and Right Of Way.	4.1.2	Report on Site Investigation of Feasibility and verification of data furnished by the Employer.	5%		
	Management plans - Lot 1	4.1.3	Project plan, Quality Plan, Safety plan, Design plan.	5%		
	Management plans - Lot 2	4.1.4	Interface management plan, System Integration Management plan, Certification Management Plan, Software Quality Assurance Plan, Design Verification and Validation Plan, Health and Safety Documentation, Environmental Qualities Management Plan, Environmental Mitigation Implementation Schedule, EMC plan, Supply plan, Factory Acceptance Testing plan, Installation plan, Commissioning plan.	6%		
	Management plans - Lot 3	4.1.5	Operation & Maintenance Manuals plan, Training and knowledge/skills transfer plan, Spare parts & consumable management plan, Defect liability management plan.	5%		
	Finalization of Basic System Designs	4.1.6	Approval by Engineer of Basic designs as per details given in Employer's Requirements of Bid documents, System Designs of compatibility of Signal & Telecom installations and Earthing and Bonding of the System.	20%		
	Finalisation of Detailed Designs	4.1.7	Approval by Engineer of Detailed designs as per details given in Employer's Requirements of Bid documents.	25%		
	Equipment layout designs	4.1.8	Approval by Engineer of Equipment layout designs as per details given in Employer's Requirements of Bid documents.	10%		
	As Built Designs, Drawings and Manuals	4.1.9	No objection to as Built Designs, Drawings, O&M Manuals as per details given in Employer's Requirements of Bid documents and all residual Works.	20%		

Schedule 4.2.1 - Basis of Payment for Interim Payments for Construction of TPWS On-Board equipment: Cabinet, DMI, Antenna, tachometer etc.							
Cost Centre	Item of Work	Item No.	Payment Event	Weightage %	Cost	Payment Procedure	
TPWS - 4.2	Schedule 4.2.1	TPWS On-Board equipment	4.2.1.1	TPWS On-Board equipment including Cabinet, PCBs, DMI, Antenna, tachometer, connecting cables etc ready for shipment from abroad on receipt of a Bill of Lading.	60%	5% of the Contract Price	Cost of equipment on per Loco basis.
			4.2.1.2	On receipt of TPWS On-Board equipment at Loco manufacturing unit.	30%		
			4.2.1.3	On completion of Installation	5%		
			4.2.1.4	On completion of Testing	5%		
			TOTAL	100%			
						Name of Bidder	
						Signature of Bidder	

<b>Schedule 4.2.2 - Basis of Payment for Interim Payments for Construction of TPWS Line side Equipment - LEU, Balise, Cabling between LEU &amp; Balise etc.</b>							
<b>Cost Centre</b>	<b>Item of Work</b>	<b>Item No.</b>	<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>	
<b>TPWS - 4.2</b>	<b>Schedule 4.2.2</b>	<b>TPWS Line side equipment</b>	4.2.2.1	TPWS Line side equipment including LEU & its power supply, Balise, LEU to Balise connecting cable etc ready for shipment from abroad on receipt of a Bill of Lading.	50%	<b>5% of the Contract Price</b>	The Unit of measurement shall be for each station and Block section. Payment of each stage will be made on pro-rata completion of each unit as per weightage given in this Schedule.
			4.2.2.2	On receipt of TPWS Line side equipment at site office and acceptance by the Engineer.	20%		
			4.2.2.3	On completion of Installation.	25%		
			4.2.2.4	On completion of Testing.	5%		
			TOTAL		100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		



<b>Schedule 4.2.3 - Basis of Payment for Interim Payments on Construction of TPWS: Software and Data provision</b>							
Cost Centre		Item of Work	Item No.	Payment Event	Weightage %	Cost	
TPWS - 4.2	Schedule 4.2.3	TPWS: Software and Data	4.2.3.1	FAT of TPWS Software and Data completed with no major outstanding modification and ready for shipment from abroad.	40%	5 % of the Contract Price	Payment shall be per Station/Block section for item No. 4.2.3.1 and 4.2.3.3. It shall be per Loco. for item No. 4.2.3.2.
			4.2.3.2	On receipt of Software and Data at site, uploading in Locos and completion of Testing.	30%		
			4.2.3.3	On receipt of Software and Data at site, uploading in Balise and completion of Testing.	30%		
			Total		100%		
				Name of Bidder			
				Signature of Bidder			



<b>Schedule 4.3.2 - Basis of Payment for Interim Payments on Construction of Electronic Interlocking(Stations): Installation of MSDAC at Stations</b>							
<b>Cost Centre</b>		<b>Item of Work</b>	<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>	
<b>Electronic Interlocking (Stations)- 4.3</b>	<b>Schedule 4.3.2</b>	<b>Installation of MSDAC at Stations.</b>	4.3.2.1	MSDAC Equipment including Cabinets, cards, associated Power supply modules, Resetting modules, track devices, Fuses, Lightning protection modules, connecting cables etc. ready for shipment from abroad on receipt of a Bill of Lading.	50%	<b>4.32% of the Contract Price</b>	<b>Payment shall be on per Station basis.</b>
			4.3.2.2	On receipt of MSDAC Equipment at site office and acceptance by the Engineer.	20%		
			4.3.2.3	On completion of Installation, wiring and testing.	30%		
			Total		100%		
<b>Name of Bidder</b>							
<b>Signature of Bidder</b>							

<b>Schedule 4.3.3 - Basis of Payment for Interim Payments on Construction of Electronic Interlocking(Stations): Installation of Power Supply System at Stations and OCC</b>							
<b>Cost Centre</b>		<b>Item of Work</b>		<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>
<b>Electronic Interlocking (Stations)- 4.3</b>	<b>Schedule 4.3.3</b>	<b>Installation of Power Supply System at Stations and OCC.</b>	4.3.3.1	On receipt of Power Supply System Equipment including batteries at site and acceptance by the Engineer.	70%	<b>1.56% of the Contract Price</b>	Payment shall be on per Station/OCC basis.
			4.3.3.2	On completion of Installation, wiring and testing.	30%		
			Total		100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		

<b>Schedule 4.3.4 - Basis of Payment for Interim Payments on Construction of Electronic Interlocking(Stations): Installation of Point machines at Stations</b>							
Cost Centre		Item of Work		Payment Event	Weightage %	Cost	Payment Procedure
Electronic Interlocking (Stations)- 4.3	Schedule 4.3.4	Installation of Point machines at Stations.	4.3.4.1	On receipt of Point Machines including Clamp Locks, Rod connections, Crank handle Interlocking arrangement etc at site office and acceptance by the Engineer.	70%	0.6% of the Contract Price	Payment shall be on per Station basis.
			4.3.4.2	On completion of Installation, wiring and testing.	30%		
			Total		100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		

<b>Schedule 4.3.5 - Basis of Payment for Interim Payments on Construction of Electronic Interlocking(Stations): Supply and laying of signalling cables at Stations</b>							
<b>Cost Centre</b>	<b>Item of Work</b>	<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>		
<b>Electronic Interlocking (Stations)- 4.3</b>	<b>Schedule 4.3.5</b>	<b>Installation of signalling cables at Stations.</b>	4.3.5.1	On receipt of all outdoor signalling cables including Axle counter and power supply cables at site office as per approved cable plan and acceptance by the Engineer.	65%	<b>5.0% of the Contract Price</b>	Payment shall be on per Station basis.
			4.3.5.2	On provision of ducts and laying of cables as per approved cable plan.	25%		
			4.3.5.3	On completion of meggering, submission of meggering test records and termination of all cables.	10%		
			Total		100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		

<b>Schedule 4.3.6 - Basis of Payment for Interim Payments on Construction of Electronic Interlocking(Stations): Installation of Signals and Location boxes at Stations</b>							
<b>Cost Centre</b>	<b>Item of Work</b>	<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>		
<b>Electronic Interlocking (Stations) - 4.3</b>	<b>Schedule 4.3.6</b>	<b>Installation of Signals and Location boxes at Stations.</b>	4.3.6.1	On receipt of all types of Signals including main, shunt, calling-ON, LED units, complete posts and Location boxes of required sizes at site office and acceptance by the Engineer.	70%	<b>0.6% of the Contract Price</b>	Payment shall be on per Station basis.
			4.3.6.2	On completion of Installation, wiring, focussing of signals and testing.	30%		
			Total		100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		

<b>Schedule 4.3.7 - Basis of Payment for Interim Payments on Construction of Electronic Interlocking(Stations): Software and Data provision</b>							
<b>Cost Centre</b>		<b>Item of Work</b>	<b>Item No.</b>	<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>
<b>Electronic Interlocking(Stations)- 4.3</b>	<b>Schedule 4.3.7</b>	<b>Software and Data</b>	4.3.7.1	FAT of Electronic Interlocking Software and Data completed with no major outstanding modification and ready for shipment from abroad.	60%	<b>1 % of the Contract Price</b>	Payment shall be on per Station basis.
			4.3.7.2	On receipt of Software and Data at site, uploading and completion of Testing.	40%		
			Total		100%		
<b>Name of Bidder</b>							
<b>Signature of Bidder</b>							



<b>Schedule 4.4.1 - Basis of Payment for Interim Payments for Automatic signalling in Block section: Installation of Signal Equipment in Auto Location Hut (Except MSDAC)</b>							
<b>Cost Centre</b>	<b>Item of Work</b>	<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>		
<b>Automatic signalling in Block section- 4.4</b>	<b>Schedule 4.4.1</b>	<b>Installation of indoor Electronic Interlocking Equipment in Auto Location Hut.</b>	4.4.1.1	On receipt of Indoor Electronic Interlocking Equipment including Cabinets, cards, associated Power supply modules, Cable Termination racks, relays, Fuses, Lightning.protection modules, Air Conditioning, connecting cables etc ready for shipment from abroad on receipt of a Bill of Lading.	50%	<b>1.0 % of the Contract Price</b>	Payment shall be on per Auto Location Hut basis.
			4.4.1.2	On receipt of Indoor Electronic Interlocking Equipment at site office and acceptance by the Engineer.	20%		
			4.4.1.3	On completion of Installation including wiring.	30%		
			Total		100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		



Schedule 4.4.3 - Basis of Payment for Interim Payments on Construction of Automatic signalling in Block section): Installation of Power Supply System at Auto Location Huts							
Cost Centre		Item of Work		Payment Event	Weightage %	Cost	Payment Procedure
Automatic signalling in Block section- 4.4	Schedule 4.4.3	Installation of Power Supply System at Auto Location Huts.	4.4.3.1	On receipt of Power Supply System Equipment including batteries at site and acceptance by the Engineer.	70%	2.92% of the Contract Price	Payment shall be on per Block section basis.
			4.4.3.2	On completion of Installation, wiring and testing.	30%		
			Total		100%		
					Name of Bidder		
					Signature of Bidder		



<b>Schedule 4.4.5 - Basis of Payment for Interim Payments on Construction of Automatic signalling in Block section: Installation of Signals and Location boxes</b>							
<b>Cost Centre</b>		<b>Item of Work</b>		<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>
<b>Automatic signalling in Block section- 4.4</b>	<b>Schedule 4.4.5</b>	<b>Installation of Signals and Location boxes in Block sections.</b>	4.4.5.1	On receipt of Signals including LED units, complete posts and Location boxes of required sizes at site office and acceptance by the Engineer.	70%	<b>1.11 % of the Contract Price</b>	<b>Payment shall be on per Block section basis.</b>
			4.4.5.2	On completion of Installation, wiring, focussing of signals and testing.	30%		
				Total	100%		
				<b>Name of Bidder</b>			
				<b>Signature of Bidder</b>			

<b>Schedule 4.4.6 - Basis of Payment for Interim Payments on Construction of Automatic signalling in Block sections: Software and Data provision</b>							
<b>Cost Centre</b>		<b>Item of Work</b>	<b>Item No.</b>	<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	
						<b>Payment Procedure</b>	
<b>Automatic signalling in Block section- 4.4</b>	<b>Schedule 4.4.6</b>	<b>Software and Data</b>	4.4.6.1	FAT of Software and Data of Interlocking of Automatic signalling in Block section completed with no major outstanding modification and ready for shipment from abroad.	60%	<b>1 % of the Contract Price</b>	Payment shall be on per Block section basis.
			4.4.6.2	On receipt of Software and Data at site, uploading and completion of Testing.	40%		
			Total		100%		
<b>Name of Bidder</b>							
<b>Signature of Bidder</b>							

<b>Schedule 4.5.1 - Basis of Payment for Interim Payments for Train Management &amp; Diagnostic System (TMS): Installation of OCC Equipment for Phase 1</b>							
<b>Cost Centre</b>	<b>Item of Work</b>	<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>		
<b>Train Management &amp; Diagnostic System (TMS) Phase 1- 4.5</b>	<b>Schedule 4.5.1</b>	<b>Installation of OCC Equipment for Phase 1.</b>	4.5.1.1	On receipt of OCC Equipment including Application Servers, cards, associated Power supply modules, Mimic Indication Panel, Work stations, printers, connecting cables etc ready for shipment from abroad on receipt of a Bill of Lading.	50%	<b>6.0 % of the Contract Price</b>	Payment shall be on basis of complete OCC equipment for Phase 1.
			4.5.1.2	On receipt of OCC Equipment at site office and acceptance by the Engineer.	20%		
			4.5.1.3	On completion of Installation including wiring.	30%		
				Total	100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		

<b>Schedule 4.5.2 - Basis of Payment for Interim Payments for Train Management &amp; Diagnostic System (TMS): Installation of Station &amp; Other Locations Equipment for Phase 1</b>							
<b>Cost Centre</b>		<b>Item of Work</b>		<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>
<b>Train Management &amp; Diagnostic System (TMS) Phase 1- 4.5</b>	<b>Schedule 4.5.2</b>	<b>Installation of Station &amp; Other Locations Equipment for Phase 1.</b>	4.5.2.1	On receipt of TMS Equipment including FIUs, VDUs, associated Power supply modules, Work stations, printers, connecting cables etc ready for shipment from abroad on receipt of a Bill of Lading.	50%	<b>1.0 % of the Contract Price</b>	Payment shall be on basis of TMS equipment per station/location for Phase 1.
			4.5.2.2	On receipt of TMS Equipment at site office and acceptance by the Engineer.	20%		
			4.5.2.3	On completion of Installation including wiring.	30%		
			Total		100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		



<b>Schedule 4.5.3 - Basis of Payment for Interim Payments for Train Management &amp; Diagnostic System (TMS): Installation of Auto Location Hut Equipment for Phase 1</b>							
<b>Cost Centre</b>		<b>Item of Work</b>		<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>
<b>Train Management &amp; Diagnostic System (TMS) Phase 1- 4.5</b>	<b>Schedule 4.5.3</b>	<b>Installation of Auto Location Hut Equipment for Phase 1.</b>	4.5.3.1	On receipt of TMS Equipment including FIUs, VDUs, associated Power supply modules, Work stations, connecting cables etc ready for shipment from abroad on receipt of a Bill of Lading.	50%	<b>1.0 % of the Contract Price</b>	Payment shall be on basis of TMS equipment per Block section for Phase 1.
			4.5.3.2	On receipt of TMS Equipment at site office and acceptance by the Engineer.	20%		
			4.5.3.3	On completion of Installation including wiring.	30%		
			Total		100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		

<b>Schedule 4.5.4 - Basis of Payment for Interim Payments for Train Management &amp; Diagnostic System (TMS): Software and Data provision for Phase 1</b>						
Cost Centre	Item of Work	Item No.	Payment Event	Weightage %	Cost	Payment Procedure
Train Management & Diagnostic System (TMS) Phase 1- 4.5 Schedule 4.5.4	Software and Data	4.5.4.1	FAT of Software and Data of Train Management & Diagnostic System (TMS) Phase 1 completed with no major outstanding modification and ready for shipment from abroad.	60%	2 % of the Contract Price	Payment shall be on basis of complete TMS for Phase 1.
		4.5.4.2	On receipt of Software and Data at site, uploading and completion of Testing.	40%		
		Total		100%		
<b>Name of Bidder</b>						
<b>Signature of Bidder</b>						

<b>Schedule 4.5.5 - Basis of Payment for Interim Payments for Train Management &amp; Diagnostic System (TMS): Installation of OCC Equipment for Phase 2</b>							
<b>Cost Centre</b>		<b>Item of Work</b>	<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>	
<b>Train Management &amp; Diagnostic System (TMS) Phase 2- 4.5</b>	<b>Schedule 4.5.5</b>	<b>Installation of OCC Equipment for Phase 2.</b>	4.5.5.1	On receipt of OCC Equipment including Application Servers, cards, associated Power supply modules, Mimic Indication Panel, Work stations, printers, connecting cables etc ready for shipment from abroad on receipt of a Bill of Lading.	50%	<b>2.5% of the Contract Price</b>	Payment shall be on basis of complete OCC equipment for Phase 2.
			4.5.5.2	On receipt of OCC Equipment at site office and acceptance by the Engineer.	20%		
			4.5.5.3	On completion of Installation including wiring.	30%		
			Total		100%		
						<b>Name of Bidder</b>	
						<b>Signature of Bidder</b>	

**Schedule 4.5.6 - Basis of Payment for Interim Payments for Train Management & Diagnostic System (TMS): Installation of Station & Other Locations Equipment for Phase 2**

Cost Centre	Item of Work	Payment Event	Weightage %	Cost	Payment Procedure
Train Management & Diagnostic System (TMS) Phase 2- 4.5	Schedule 4.5.6 Installation of Station & Other Locations Equipment for Phase 2.	4.5.6.1 On receipt of TMS Equipment including FIUs, VDUs, associated Power supply modules, Work stations, printers, connecting cables etc ready for shipment from abroad on receipt of a Bill of Lading.	50%	0.6% of the Contract Price	Payment shall be on basis of TMS equipment per station/location for Phase 2.
		4.5.6.2 On receipt of TMS Equipment at site office and acceptance by the Engineer.	20%		
		4.5.6.3 On completion of Installation including wiring.	30%		
		Total	100%		
					Name of Bidder
					Signature of Bidder

<b>Schedule 4.5.7 - Basis of Payment for Interim Payments for Train Management &amp; Diagnostic System (TMS): Installation of Auto Location Hut Equipment for Phase 2</b>							
<b>Cost Centre</b>		<b>Item of Work</b>		<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>
<b>Train Management &amp; Diagnostic System (TMS) Phase 2- 4.5</b>	<b>Schedule 4.5.7</b>	<b>Installation of Auto Location Hut Equipment for Phase 2.</b>	4.5.7.1	On receipt of TMS Equipment including FIUs, VDUs, associated Power supply modules, Work stations, connecting cables etc ready for shipment from abroad on receipt of a Bill of Lading.	50%	<b>0.6 % of the Contract Price</b>	Payment shall be on basis of TMS equipment per Block section for Phase 2.
			4.5.7.2	On receipt of TMS Equipment at site office and acceptance by the Engineer.	20%		
			4.5.7.3	On completion of Installation including wiring.	30%		
			Total		100%		
				<b>Name of Bidder</b>			
				<b>Signature of Bidder</b>			

<b>Schedule 4.5.8 - Basis of Payment for Interim Payments for Train Management &amp; Diagnostic System (TMS): Software and Data provision for Phase 2</b>						
Cost Centre		Item of Work	Item No.	Payment Event	Weightage %	Cost
Train Management & Diagnostic System (TMS) Phase 2- 4.5	Schedule 4.5.8	Software and Data	4.5.8.1	FAT of Software and Data of Train Management & Diagnostic System (TMS) Phase 2 completed with no major outstanding modification and ready for shipment from abroad.	60%	1.4 % of the Contract Price
			4.5.8.2	On receipt of Software and Data at site, uploading and completion of Testing.	40%	
			Total		100%	
<b>Name of Bidder</b>						
<b>Signature of Bidder</b>						

**Schedule 4.6.1 - Basis of Payment for Interim Payments on Construction of Interlocking of L.C. Gates: Installation of Electric Lifting barrier**

Cost Centre	Item of Work	Payment Event	Weightage %	Cost	Payment Procedure	
Interlocking of L.C. Gates- 4.6	Schedule 4.6.1 Installation of Electric Lifting barrier	4.6.1.1	On receipt of Electric Lifting barrier including Gate control panel, power supply etc. at site and acceptance by the Engineer.	70%	0.005% of the Contract Price	Payment shall be on per L.C. Gate basis.
		4.6.1.2	On completion of Installation, wiring and testing.	30%		
		Total		100%		
				Name of Bidder		
				Signature of Bidder		

Schedule 4.7.1- Basis of Payment for Interim Payments on Construction of Dispatch Telephone System: Installation at Stations, OCC and other operationally important locations							
Cost Centre		Item of Work	Payment Event	Weightage %	Cost	Payment Procedure	
Dispatch Telephone System- 4.7	Schedule 4.7.1	Installation of Dispatch Telephone System at Stations, OCC and other locations.	4.7.1.1	On receipt of Dispatch Telephone System equipment and associated accessories at site and acceptance by the Engineer.	70%	0.44% of the Contract Price	Payment shall be on per Station (including operationally important locations)/ OCC basis.
			4.7.1.2	On completion of Installation, wiring and testing.	30%		
			Total		100%		
						Name of Bidder	
						Signature of Bidder	



Schedule 4.8.1- Basis of Payment for Interim Payments on Construction of SDH Transmission equipment: Installation at Stations, OCC and porta hut locations						
Cost Centre	Item of Work	Payment Event	Weightage %	Cost	Payment Procedure	
Optical Fibre Communication System– 4.8	Schedule 4.8.1	Installation of SDH Transmission equipment at Stations, OCC and other BTS locations	4.8.1.1	On receipt of SDH transmission equipment including STM Multiplexers, Access Multiplexers, Terminating and interconnecting equipment, cabinets racks and cubides, other installation materials and associated accessories for stations and BTS locations at site and acceptance by the Engineer.	60%	0.63% of the Contract Price
			4.8.1.2	On receipt of SDH transmission equipment including STM Multiplexers, Access Multiplexers, NMS, Terminating and interconnecting equipment, cabinets racks and cubides, other installation materials and associated accessories for OCC at site and acceptance by the Engineer.	10%	
			4.8.1.3	On completion of Installation, wiring and testing for stations/BTS locations.	25%	
			4.8.1.4	On completion of Installation, wiring and testing for OCC.	5%	
			Total			
Name of Bidder						
Signature of Bidder						

Schedule 4.8.2- Basis of Payment for Interim Payments Supply and laying of Optical Fiber Cables: Installation at and between Stations, OCC, Depot, porta hut locations and other locations like TSSs, SPs, SSPs, ATs etc							
Cost Centre		Item of Work		Payment Event	Weightage %	Cost	Payment Procedure
Optical Fibre Communication System– 4.8	Schedule 4.8.2	Installation of Optical Fiber Cable networks	4.8.2.1	On receipt of Optical Fiber Cables, Fiber management equipment, HDPE pipes, cabinets, racks and other installation materials and associated accessories at site and acceptance by the Engineer.	60%	4.17% of the Contract Price	Payment shall be on per Block Section including adjoining station basis.
			4.8.2.2	On completion of Installation, wiring and testing.	40%		
			Total		100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		

Schedule 4.8.3- Basis of Payment for Interim Payments on Construction of Ethernet Data networks: Installations at Stations, OCC and other locations							
Cost Centre		Item of Work		Payment Event	Weightage %	Cost	Payment Procedure
Optical Fibre Communication System– 4.8	Schedule 4.8.3	Installation of Ethernet Data networks	4.8.3.1	On receipt of Ethernet switching and routing equipment, cables, connectors and associated accessories at site and acceptance by the Engineer.	70%	0.58% of the Contract Price	Payment shall be on per Station (including relevant locations)/ OCC basis.
			4.8.3.2	On completion of Installation, wiring and testing.	30%		
			Total		100%		
					Name of Bidder		
					Signature of Bidder		

Schedule 4.8.4- Basis of Payment for Interim Payments on Construction of 48 Volt DC Battery Backup System: Installations at Stations, OCC and other BTS locations							
Cost Centre		Item of Work		Payment Event	Weightage %	Cost	Payment Procedure
Optical Fibre Communication System – 4.8	Schedule 4.8.4	Installation of Battery Backup System	4.8.4.1	On receipt of SMPS equipment, Batteries, battery mounting racks, power cables, power distribution cabinets and associated accessories for stations and other BTS locations at site and acceptance by the Engineer.	60%	0.81% of the Contract Price	Payment shall be on per station/BTS location basis.
			4.8.4.2	On receipt of SMPS equipment, Batteries, battery mounting racks, power cables, power distribution cabinets and associated accessories for OCC at site and acceptance by the Engineer.	10%		Payment shall be on OCC basis.
			4.8.4.3	On completion of Installation, wiring and testing for station/BTS locations.	25%		Payment shall be on per station/BTS location basis.
			4.8.4.4	On completion of Installation, wiring and testing for OCC.	5%		Payment shall be on OCC basis.
			Total				100%
				Name of Bidder			
				Signature of Bidder			

Schedule 4.9.1- Basis of Payment for Interim Payments on Construction of GSM(R) radio base station equipment and station dispatcher equipment: Installation at Stations and along the DFC route							
Cost Centre	Item of Work	Payment Event	Weightage %	Cost	Payment Procedure		
GSM(R) Radio Communication System- 4.9	Schedule 4.9.1	Installation of GSMR base station equipment at Stations and along the DFC route	4.9.1.1	On receipt of BTS, RDW equipment, Cab Radio equipment, Handportable radio sets, Radio towers & accessories, porta huts and associated accessories at site and acceptance by the Engineer.	80%	4.11% of the Contract Price	Payment shall be on per BTS location basis.
			4.9.1.2	On completion of Installation, wiring and testing.	20%		
			Total		100%		
						Name of Bidder	
						Signature of Bidder	

Schedule 4.9.2- Basis of Payment for Interim Payments on Construction of GSM(R) MSC equipment and RDW equipment: Installation at OCC							
Cost Centre		Item of Work		Payment Event	Weightage %	Cost	Payment Procedure
<b>GSM(R) Radio Communication System- 4.9</b>	<b>Schedule 4.9.2</b>	<b>Installation of GSMR MSC and RDWs</b>	4.9.2.1	On receipt of GSMR MSC and RDW equipment and associated accessories at site and acceptance by the Engineer.	80%	<b>0.42% of the Contract Price</b>	Payment shall be on OCC basis.
			4.9.2.2	On completion of Installation, wiring and testing.	20%		
			Total		100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		

<b>Schedule 4.10.1- Basis of Payment for Interim Payments on Construction of EPABX Telephone System: Installation at Stations and OCC</b>							
<b>Cost Centre</b>		<b>Item of Work</b>	<b>Payment Event</b>	<b>Weightage %</b>	<b>Cost</b>	<b>Payment Procedure</b>	
<b>Digital Electronic Exchange System- 4.10</b>	<b>Schedule 4.10.1</b>	<b>Installation of EPABX Telephone System at Stations and OCC .</b>	4.10.1.1	On receipt of EPABX equipment complete with NMS, MDF/IDF, telephone sets, indoor & outdoor telephone and power cables, VMS, VRS, cabinets, endlosures and racks and acceptance by the Engineer.	70%	<b>0.83% of the Contract Price</b>	Payment shall be on per Station/OCC basis.
			4.10.1.2	On completion of Installation, cabling, wiring and testing.	30%		
			Total		100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		

<b>Schedule 4.11.1 - Basis of Payment for Interim Payments on Construction of Master Clock System: Installation of Master Clock system equipment at Stations and OCC</b>							
Cost Centre	Item of Work		Payment Event	Weightage %	Cost	Payment Procedure	
<b>Master Clock System- 4.11</b>	<b>Schedule 4.11.1</b>	<b>Installation of Master clock System equipment at Stations and OCC.</b>	4.11.1.1	On receipt of Master Clock System equipment at site and acceptance by the Engineer.	70%	<b>0.06% of the Contract Price</b>	Payment shall be on per Station/OCC basis.
			4.11.1.2	On completion of Installation, wiring and testing.	30%		
				Total	100%		
					<b>Name of Bidder</b>		
					<b>Signature of Bidder</b>		



Schedule 4.12.1- Basis of Payment for Interim Payments on Construction of Video Surveillance System: Installation at OCC								
Cost Centre		Item of Work		Payment Event	Weightage %	Cost	Payment Procedure	
Video Surveillance System- 4.12	Schedule 4.12.1	Installation of Video Surveillance System at OCC	4.12.1.1	On receipt of Video Surveillance equipment including video cameras, VDU and storage, associated cables and accessories at site and acceptance by the Engineer.	70%	0.04% of the Contract Price	Payment shall be on OCC basis.	
			4.12.1.2	On completion of Installation, wiring and testing.	30%			
			Total					100%
					Name of Bidder			
					Signature of Bidder			

<b>Schedule 4.13 - Basis of Payment for Interim Payment for ISA Certification of Phase 1 Signalling system</b>					
<b>Cost Centre</b>		<b>Item of Work</b>	<b>Stage Payment</b>	<b>Cost</b>	<b>Payment Procedure</b>
<b>ISA Certification of Signalling system- 4.13</b>	<b>Schedule 4.13</b>	<b>ISA Certification of Phase 1 Signalling system</b>	After receipt of ISA Certification of complete Phase 1 Signalling system with no major outstanding item.	<b>10% of the Contract Price</b>	Payment shall be released after receipt of ISA Certification of complete Phase 1 Signalling system with no major outstanding item. .
				<b>Name of Bidder</b>	
				<b>Signature of Bidder</b>	

Schedule 4.14 - Basis of Payment for Interim Payment for : System Test and Commissioning, Training, mock-up & prototypes							
Cost Centre		Item of Work	Payment Event	Weightage %	Cost	Payment Procedure	
System Test and Commissioning, Training, mock-up & prototypes-4.14	Schedule 4.14	Testing and Commissioning/ Training/mock-up & proto types	4.14.1	After successful completion of Testing and Commissioning of Signalling Works, Training, Mockup and Prototypes.	50%	1.0% of the Contract Price	Payment for Testing and Commissioning shall be released after successful completion of respective Testing and Commissioning of complete Works & certification by Engineer and training.
			4.14.2	After successful completion of Testing and Commissioning of Telecom Works, Training, Mockup and Prototypes.	50%		
				TOTAL	100%		
						Name of Bidder	
						Signature of Bidder	

<b>Schedule 4.15 - Basis of Payment for Interim Payment for System Integrated Testing and Commissioning for the Entire Project</b>					
<b>Cost Centre</b>		<b>Item of Work</b>	<b>Stage Payment</b>	<b>Cost</b>	<b>Payment Procedure</b>
<b>Integrated Testing and Commissioning of complete contract- 4.15</b>	<b>Schedule 4.15</b>	<b>Integrated Testing and Commissioning</b>	After successful completion of Integrated Testing and Commissioning of the whole of the Works.	<b>0.50% of the Contract Price</b>	Payment for Integrated Testing and Commissioning shall be released after successful completion of Integrated Testing and Commissioning of Works and certification by Engineer.
				<b>Name of Bidder</b>	
				<b>Signature of Bidder</b>	



## SCHEDULE 6

### Spares, Special tools, Diagnostic Equipment and Test Instruments required to be supplied as a part of the Contract

List of Items to be provided to DFCCIL after completion of works and before taking over by DFCCIL.

The table below shall be filled in by the Bidder as specified in Chapter 27 of Volume II, Chapter 13 of Volume III (Signalling) and Chapter 17 of Volume III (Telecom) of Bid Documents. This list shall be agreed by the Employer.

S. No.	A. Spares	Unit	Quantity
	<b>B. Special tools</b>		
	<b>C. Diagnostic Equipment</b>		
	<b>D. Test Instruments</b>		

The above items in good condition shall be handed over to the nominated official of the Employer at a location indicated by the Employer.

**Bidder's Authorised Signatory:**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

Company: \_\_\_\_\_

Company Stamp

## **SCHEDULE 7**

### **Anticipated Cash Flow for the Works**

- (a) Bidders shall provide in this Form an anticipated Cash Flow for the whole period of execution of the Works.
- (b) The cash flow shall be prepared in both graphic histogram and (S-Curve) format and also in tabulated format.
- (c) The cash flow shall be prepared in separate sheets to clearly show each anticipated payment over the period of the Contract (including the Defects Notification Period) for
  - (i) foreign currency portion
  - (ii) local currency portion
  - (iii) combined currency expressed in Japanese yen
- (d) All required documents must be included in the envelope marked “**PRICE BID DOCUMENTS**” with the submitted Bid Documents clearly identified as Part of the Volume I (2/2) Section 6, Financial Submissions.
- (e) This Form shall not be submitted separately for each Partner or separately for each Specialist Subcontractor. The submission with all supporting documents shall be reviewed and coordinated by the Bidder and provided as one overall combined submission.

**Bidder’s Authorised Signatory :**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

Company: \_\_\_\_\_

Company Stamp

## SCHEDULE 8

### List of Foreign Cost Components

Bidders shall nominate cost of all components to be procured from Japan and / or from countries other than Japan, which have already been counted into the foreign cost component in the Price Schedule.

No.	Description	Unit	Quantity	FC Amount of Components to be procured from Japan (Yen)	FC Amount of Components to be procured from Countries Other than Japan (FC in Other Tradable Foreign Currencies (not exceeding two))	
					FC1	FC2
<b>Total</b>						

- Note: Cost components to be listed for the following;
- (1) Supervisory staff, foreman, technician, and any other specialty who are Japanese and / or other national (as the case may be).
  - (2) Cost of construction equipment and appliances imported from Japan and /or from countries other than Japan (as the case may be). Unit will be “day” or “hour” for operation during site mobilization. Amount shall include depreciation, operation & maintenance (Japanese mechanic and spare parts imported from Japan and / or from countries other than Japan, as the case may be) and annual management costs of equipment.
  - (3) Imported materials from Japan and / or from countries other than Japan, as the case may be) which are incorporated in the Works.

**Bidder’s Authorized Signatory:**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

Company: \_\_\_\_\_

Company Stamp



## SCHEDULE 9

### List of Local Cost Components

For the part of the Works to be funded under the JICA Special Terms for Economic Partnership (STEP) loan, the Bidder shall nominate the cost of all components to be procured from India which have already been counted into the local cost component in the Price Schedule.

No.	Description	Unit	Quantity	Amount (INR)
<b>Total</b>				

Note: Cost components to be listed for the following;

- (1) Major Goods, services and materials for Temporary Works to be exclusively used for this Contract to be procured in India,
- (2) Cost of the Bidder's Equipment, its appliances and spare parts for Temporary Works procured in India. Unit of equipment will be "day" or "hour" for operation during site mobilization. Amount shall include depreciation, operation & maintenance (Indian equipment and spare parts procured in India) and annual management costs of equipment to be incurred in India.
- (3) Components or assemblies procured through Indian vendors.

**Bidder's Authorised Signatory :**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

Company: \_\_\_\_\_

Company Stamp