

“DESIGN, SUPPLY, CONSTRUCTION, TESTING AND COMMISSIONING OF SIGNALLING, TELECOMMUNICATION AND ASSOCIATED WORKS OF DOUBLE TRACK RAILWAY LINES UNDER CONSTRUCTION ON A DESIGN BUILD LUMP SUM BASIS FOR MUGHALSARAI - NEW BHAUPUR SECTION OF EASTERN DEDICATED FREIGHT CORRIDOR”

CONTRACT PACKAGE CP- 203

RESPONSE TO PRE-BID QUERIES

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
1		<p>Please provide information regarding various types of equipment and their configuration pertaining to OFC system, Data Networking system, GSM-R based MTRS and Telephone system of CP-104, which are required to be interconnected with equipment's of this project at OCC, New Bhaupur station and at other stations.</p>	<p>CP 104 is a Design-Build Contract where the Contractor has to propose his own design and equipment based on specifications provided for in the Bidding Document (The Bidding Document of CP-104 along with amendments is available on DFCCIL website).</p> <p>The information regarding the equipment / configuration of different systems can only be known after the detailed design of these systems is undertaken by the Contractor of CP-104. As per the Employer requirement of CP-104, the contractor is free to choose any equipment / configuration for successful completion of the work. At this stage, therefore, when the exercise of detailed design for CP-104 has not even commenced, it would not be possible to furnish these details.</p> <p>It may be noted that as per Para 10.6.7 of General Specifications, Part 2, Section VI, Vol.1, the Contractor is required to interface with the</p>

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			Contractor of CP-104 for successful integration of Signalling & Telecom Systems.
2		Please provide the Networking Structure Diagram of OFC system, Data Networking System, Telephone system and GSM-R based MTRC system of CP-104.	<p>CP 104 is a Design-Build Contract where the Contractor has to propose his own design and equipment based on specifications provided for in the Bidding Document (The Bidding Document of CP-104 along with amendments is available in DFCCIL's website).</p> <p>As per Clause 10.6.7 of General Specifications, Part 2, Section VI, Vol.1, the CP-203 Contractor will be required to interface with CP-104 Contractor for integration of Signalling & Telecom System as per requirements.</p>
3		Please provide the Networking Structure, Base Station Locations, Communication Frequency Plan, Type and configuration of equipment being use, Tower structure and Antenna used, for the MTRC system provided by Indian Railways in Mughalsarai-Ghaziabad section	<p>The details of GSM-R of Indian Railway are given in Chapter-8 of PS / Telecommunication Works, Part-2, Section VI, Vol. 3.</p> <p>As per Para 10.6.9(2) of General Specifications, Part 2, Section VI, Vol.1, the CP-203 Contractor will be required to interface with Indian Railways for integration of GSM-R System as per requirement.</p>
4	<p>Para 5.1.3, Part 2, Sec.VI, Vol.3</p> <p>The OFC system shall be capable to transport all of the user communication</p>	Please give details of communication requirement of Contract Package CP-204.	As per Clause 10.6.6(6)[Table Item No. 9] of General Specifications, the CP-203 Contractor will be required to interface with CP-204 Contractor for ascertaining the communication requirements for CCTV, Traction SCADA and Auxiliary SCADA

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	<p>requirements. The OFC system shall provide sufficient bandwidth to cater for the communication requirements of various systems under this contract as well as under Contract Package CP-204.</p>	<p>Please also clarify, which kinds of nodes pertaining to CP-104, are to be connected with OFC system.</p>	<p>being provided under Contract Package CP-204.</p> <p>CP-104 is a Design-Build Contract where the Contractor has to propose his own design and equipment based on specifications provided for in Bidding Document (The Bidding Document of CP-104 along with amendments is available in DFCCIL's website).</p> <p>As per Clause 10.6.7 of General Specifications, Part 2, Section VI, Vol.1, the CP-203 Contractor will be required to interface with CP-104 Contractor for integration of Signalling & Telecom System as per requirements.</p>
5	<p>5.3.3.2 Part 2, Sec.VI, Vol.3</p> <p>Further, this First Network shall be taken to OCC by laying two additional optical fibre cables with route diversity from New Manauri Station to Subedarganj Station of IR and splicing through with two optical fibre cables, being laid from Subedarganj (IR) to OCC and terminated on ODFs in TERs at OCC under Contract Package CP-104.</p>	<p>According to this para it seems that OFC from New Manauri Station to Subedarganj Station of IR is to be laid under CP-104. But as it is a communication related cable it should be laid under telecom works of CP-203. Please clarify.</p>	<p>Provisions of Bidding Document are sufficiently clear.</p> <p>It is reiterated that two additional optical fibre cables with route diversity from New Manauri Station to Subedarganj Station of IR shall be laid by CP-203 Contractor.</p>
6	<p>5.3.3.1 Part 2, Sec.VI, Vol.3</p> <p>There shall be two separate optical fibre</p>	<p>Please confirm if according to this para, Four (4) optic fibre cables are to be laid with each having 25% spare fibres.</p>	<p>Bidder's understanding is correct.</p> <p>Requirement of spare fibres is defined in Para 5.3.3.5 of PS/ Telecommunication, Part 2, Section</p>

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	cable backbone networks namely First Network and Second Network. Each of these two networks shall be formed by two outdoor single mode optical fibre cables. The normal and protected routes of these networks shall be routed through different fibre cables with route diversity.		VI, Vol. 3.
7	-	Please indicate where the main and backup clock (Frequency) synchronization signals, are acquired by OFC system's SDH equipment.	The Query is not clear.
8	6.1.2 Part 2, Sec.VI, Vol.3 This Wide Area Network (WAN) shall also provide sufficient bandwidth to cater for the Packet Data Communications requirements of EDFC Phase-2 for other applications such as Freight Operation Information System (FOIS), Crew Management System (CMS) and Wagon Management System (WMS).	Please specify the node locations and specific Bandwidth requirements for FOIS, CMS and WMS.	The WAN shall provide sufficient bandwidth to cater for FOIS, CMS and WMS between Layer-3 Switches Locations mentioned in Clause 6.3.1 of PS/Telecommunication Works, Part 2, Section VI, Vol. 3. It is clarified that bandwidth requirement of FOIS, CMS and WMS will be met with Layer-3 Switches mentioned in Clause 6.3 of PS /Telecommunication Works, Part 2, Section VI, Vol. 3.
9	8.3.4.2 Part 2, Sec.VI, Vol.3 The call hand-over execution time shall not exceed 300 milliseconds, which is	In our opinion requirements of 300 milliseconds is too stringent and really not necessary and 500 milliseconds should be	Provisions of Bidding Document shall prevail.

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	measured form receipt of "handover command" to the receipt of "UA" after 'physical info' on the new channel.	acceptable. Please consider.	
10	<p>8.5.1.2 Part 2, Sec.VI, Vol.3</p> <p>Mobile Switching Centre of IR for Ghaziabad-Mughalsarai section shall be suitably upgraded/augmented for additional capacity of 600 Mobile Equipment (Cab Radio, OPH & GPH) and 6 radio Dispatcher Consoles.</p>	<p>Please clarify, whether BSC in this package is to be accessed by "Mobile Switching Centre of IR for Ghaziabad-Mughalsarai section". Please indicate the location of MSC of IR and how it is connected with BSC.</p>	<p>Please refer to Clause 8.2.3 of PS/Telecommunication Works, Part 2, Section VI, Volume 3, accordingly Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section shall also be used for MTRC System of EDFC Phase-2.</p> <p>The Location of, Mobile Switching Centre(MSC) of Network Sub-system(NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section, will be advised during Design Stage.</p> <p>The connectivity (Communication Link) between BSS of EDFC Phase-2 and Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section shall be provided by Employer. Please refer to Amended Clause No.8.5.1.2 of PS /Telecommunication Works, Part 2, Section VI, Vol. 3.</p> <p>(Addendum No.3, Sr.No.28).</p>
11	<p>Para 2.1 m, Part-1, Sec. III, Evaluation and Qualification, Annexure-I</p>	<p>It is understood that manufacturers authorization is required for Electronic Interlocking Equipment only</p>	<p>Please refer to Clause 2.5 of Part 1 Sec III of the Bidding document, where it is clearly mentioned that the Manufacturer's Authorization is required to be submitted for all Plant and Equipment/component/ software supplied and/or installed which the Bidder does not manufacture</p>

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	Manufacture's Authorization form		or otherwise produce and/or install. The requirement is, thus not confined to Electronic Equipment only.
12	<p>CI-16.3 & Form SUP, Pg-18 & 84</p> <p>For major items of supply or services as listed by the Employer in Section III, Evaluation and Qualification Criteria, which the Bidder intends to purchase or subcontract, the Bidder shall give details of the name and nationality of the proposed Subcontractors, including manufacturers, for each of those items.</p>	<p>For those items of materials /equipments proposed to be procured from RDSO approved suppliers as per RDSO Specifications, is it necessary for the Bidder to give names of the suppliers in "Section IV Form SUP" at 1st Stage Technical Proposal.</p>	<p>In Part-1, Bidding Procedures, Section IV, Form SUP, the Bidder is required to give names of the proposed subcontractors, including manufacturers of major items of supply & services, which the bidder intends to purchase or subcontract, even if they happen to be RDSO approved.</p>
13	<p>CI-ITB 13.1, Pg-41</p> <p>Bidders are not permitted to propose any technical alternatives.</p>	<p>Advance Signalling System will enable alternative method of working of Automatic Signal in Block section.</p> <p>We suggest that Bidder may be permitted to submit alternative technical system to DFCC in the 1st Stage Technical Proposal</p>	<p>Provisions of Bidding document shall prevail.</p>
14	<p>CI-2.3.2 (6)(b), Pg-343</p> <p>The TMS shall provide the Crew Management System functionality for the management of crew running on</p>	<p>Kindly indicate the functions of Crew Management System are available in TMS Terminals.</p>	<p>Provisions of Bidding documents are sufficiently clear.</p>

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	<p>Mughalsarai-New Bhaupur section of EDFC. Terminals of Crew Management System shall be provided at Crew Control Lobbies/Crew Booking points. In addition some functions of Crew Management System shall be available in TMS Terminals of Chief Controller, Dy. Chief Controller, Traffic Controller and Station Master.</p>		
15	<p>CI-2.3.2 (6)(d), Pg-343</p> <p>The Crew Management System shall have provision for creating database records of Train Running Crew. The database records for train crew shall normally consist of fields like crew member name, emergency contact (phone, mobile number), qualifications etc. The database shall also have all the information related to Personnel, Safety and training (like refresher due) of all Train Running Crew.</p>	<p>Please brief about the Personnel, Safety & Training information of the train running crew database.</p>	<p>Details are to be formulated in consultation with the Engineer during design stage.</p>
16	<p>Part 2, Volume 3, CI-8.2.2</p> <p>MTRC System is being provided by Indian Railways in Mughalsarai-Ghaziabad section of Indian Railways (IR)...</p>	<p>In case the supplied BSS Controller (BSC) & TRAU in EDFC Phase-1 (CP-104) is capable to expand to cater Phase-2 BSS requirements. Under such scenario Bidder should be allowed to expand the existing system.</p>	<p>Please refer to amended Clause 8.2.2 [Addendum No.3, Sr.No.19] and 8.2.4 [Addendum No.3, Sr.No.20] of PS/Telecommunication Works, Part 2, Section VI, Vol. 3.</p>

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			Please also refer to amended Clause 8.2.7.1(3)[Addendum No.3, Sr.No.21], Clause 8.2.7.1(4) [Addendum No.3, Sr.No.22] and Clause 8.5.1.1(1) [Addendum No.3, Sr.No.27] of PS/Telecommunication Works, Part 2, Section VI, Vol. 3.
17	Part 2, Volume 3, CI-8.2.4 Radio NMS	In case the supplied Radio NMS in EDFC Phase-1 is capable to expand to cater Phase-2(CP-203) requirements. Under such scenario, Bidder should be allowed to expand the existed system.	Please refer to Amended Clause 8.2.2 [Addendum No.3, Sr.No.19] and 8.2.4 [Addendum No.3, Sr.No.20] of PS/Telecommunication Works, Part 2, Section VI, Vol. 3. Please also refer to amended Clause 8.2.7.1(3) [Addendum No.3, Sr.No.21], Clause 8.2.7.1(4) [Addendum No.3, Sr.No.22] and 8.5.1.1(1) [Addendum No.3, Sr.No.27] of PS/Telecommunication Works, Part 2, Section VI, Vol. 3.
18	Part 2, Volume 3, CI-8.4.6 Interoperability Requirements	This clause refers to interoperable of Cab Radio and Hand Portable Mobile supplied to other GSM-R networks of DFCCIL. Please confirm?	Provisions of Bidding Document are sufficiently clear.
19	Part 2, Volume 3, CI-8.5.1.1(4) VRS	In case the supplied VRS in EDFC Phase-1 (CP-104) is capable to expand to cater Phase-2 (CP-203) requirements. Under such	Provisions of Bidding Document are sufficiently clear.

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		scenario Bidder should be allowed to expand the existed system.	
20	Part 2, Volume 3, CI-8.5.1.1(5) SMSC	In case the supplied SMSC in EDFC Phase-1 (CP-104) is capable to expand to cater Phase-2 (CP-203) requirements. Under such scenario Bidder should be allowed to expand the existed system.	Provisions of Bidding Document are sufficiently clear.
21	Part 2, Volume 3, CI-8.2.4 It is envisaged that all operation and maintenance activities of new Base Station Subsystem (BSSs) of DFCCIL for EDFC Phase-2 shall be managed from Radio Network Management System(Radio NMS) to be provided by Contractor at OCC.	As we understand NMS for EDFC phase -2 will not be provided as part of this tender. It will be provided by OCC contractor as part of different package. Kindly confirm.	Provisions of Bidding Document are sufficiently clear.
22	Part 2, Volume 3, CI-8.3.10.3 The Radio Dispatcher System being provided at OCC under Contract Package CP-104, will be designed to provide at least 10 additional Radio Dispatcher Consoles. This expansion capacity being provided under Contract Package CP-104 shall not be utilised by Contractor for provision of Dispatcher Consoles required under Clause 8.2.10.1 & 8.2.10.2 of this Particular Specification.	We understand that only dispatcher console is requested under Phase 2 (CP-203) and would be integrated with existing dispatcher system. PI confirm?	Please refer to Addendum No.3, Sr. No 26 to Clause 8.3.10.3 of PS/Telecommunication Works, Part 2, Section VI, Vol. 3.
23	Part 2, Volume 3, CI-8.5.6.4(15)	As we understand twin MMI needs to be	Yes, twin MMIs needs to be provided if Leading

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	Driver Man-Machine interface shall be installed in the leading cab and also the trailing cab (if available) of each rolling stock.	provided with each Cab Radio. Kindly confirm.	as well as Trailing Cabs are available in Rolling Stock.
24	Part 2, Volume 3, CI-3.6.2 In respect of the EMC Design Documentation, the Contractor shall demonstrate by theoretical analysis that the design, of the electrical and electronic systems under this Particular spec .	Which EMC Test to be considered? (EN 50121 and IEC 61000). Please confirm	The EMC Requirements shall be as per clause 3.6 of PS/Telecommunication Work, Part 2, Section VI, Vol. 3. Please also refer to Clause 1.4.4 of PS/ Telecommunication Works, Part 2, Section VI, Vol. 3.
25	Part 2, Volume 3, CI-3.6.5 The Contractor shall liaise and co-ordinate with all other Contractors in the exchange of EMC data and related equipment performance characteristics. Inter-system EMC between Telecommunication System and other electrical and electronic equipment shall be in accordance with EN 50121 and IEC 61000.	Liaising with other Operators and Contractors for exchange of EMC data should be covered by Purchaser. Pls confirm.	Provisions of Bidding Document are sufficiently clear and shall prevail. Please also refer to Chapter-10 of General Specifications.
26	Part 2, Volume 3, CI-8.2.8.1 The Contractor shall liaise with WPC for issues of import licence and shall also coordinate in conjunction with DFCCIL with all concerned authorities including WPC, SACFA, Civil Aviation authorities and other local authorities and obtain necessary	Liaising to be considered in customer scope. Pls confirm.	Provisions of Bidding Document are sufficiently clear and shall prevail.

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	clearances/sanctions for installation and commissioning of the MTRC System. However, all the documents for this purpose shall be signed by DFCCIL. All License fees shall be paid by DFCCIL		
27	Part 2, Volume 3, CI-8.5.1.1 In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad-Mughalsarai Section of Indian Railway, Base Transceivers Stations (BTSS) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening required at BTSSs of Indian Railway, for smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor	We understand that the where-ever existing railway track coverage and parallel track coverage is overlapped the bidder's responsibility is smooth handover. PI confirm	Provisions of Bidding Document are sufficiently clear. Any up-gradation or strengthening required at BTSSs of Indian Railway, for smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor.
28	Part 2, Volume 3, CI-12.9.2, 12.9.3 & 12.9.4	MDF, DDF and ODF is not in Nokia scope for supply and installation.	The query is not clear.
29	Part 2, Volume 3, CI-8.3.2.2 The adequate coverage level for an operational radio & general purpose radio at 1.5 meter above ground, for at least 95% of the time over 95% of the following designated areas along the detours shall be available to meet system service requirements	Please confirm need to consider MS height of 4m or 1.5m for Link Budget calculations.	Please refer to amended Clause 8.3.2.1 [Addendum No. 3, Sr.No.23] and 8.3.2.2 [Addendum No. 3, Sr. No. 24] of PS/Telecommunication Works, Part 2, Section VI, Vol. 3. In PS/Telecommunication Works, Clause 8.3.2.1 and Clause 8.3.2.2 refer to adequacy of coverage

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30	<p>Part 2, Volume 3, CI-8.5.3.5</p> <p>The coverage level for a radio is defined as minimum field strength of downlink available at 4 metre above ground for atleast 95% of the time over 95% of the area. The Gaziabad-Mugalsarai Section of Indian Railways is being provided with minimum coverage level of -95 dbm above Railway Track.</p>		<p>to meet the System Services Requirements mentioned in Clause 8.3.1, while definition of Coverage Level requirements stipulated in Clause 8.5.3.5 and 8.5.3.6 is given in Clause 8.5.3.4.</p>
31	<p>Part 2, Volume 3, CI-8.5.3.3</p> <p>The Contractor shall submit detailed link budget analysis and RF Signal coverage plots both for up-link and the down link for Cab Radio and OPH/GPH (indoor and outdoor coverage) for each base station, to confirm that the required RF coverage stated above can be achieved using the Contractor's proposed antenna system and their locations. Assumptions like dense urban, urban and sub-urban etc.</p>	<p>Which clutter class needs to be considered in DU, Urban, Suburban etc as there would different cell radius for respective clusters</p>	<p>The details are available in reference documents under Part-4, and may be referred to. Please also refer to Clause 7.2 of ITB, Part 1, Section I.</p>
32	<p>Part 2, Volume 1, CI-3.17.2</p> <p>GIS (Geographical Information System) application will use Autodesk suite (MAP 3D as desktop GIS & AIMS for WEB GIS) and Oracle 11g/spatial as a central repository. Information about the assets details (i.e. alignment drawing coordinates</p>	<p>Co-ordinates of the detour track are not provided. Without proper coordinates/chainage of the detour track we will not be able to share the count of BTS required to cover the detour</p>	<p>The details provided in reference documents under Part-4 are sufficient for the Bidding stage, and may be referred to.</p> <p>Further, Bidder's attention is invited to Clause 7.2 of ITB, Part 1, Section I.</p>

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	<p>and attributes) will be provided by the contractors. Network asset details in the form of maps, reports will be available to all the authorized users through web as soon as the asset details are submitted by the contractors and imported in the system.</p> <p>a) Geo-referencing of alignment on WGS-84 coordinates.</p> <p>b) Capture and upload of geo-referencing coordinates of the assets in to GIS.</p>		
33	<p>Part 2, Volume 3, CI-8.5.1.1</p> <p>In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad-Mughalsarai Section of Indian Railway, Base Transceivers Stations (BTSS) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening required at BTSS of Indian Railway, for smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor</p>	<p>We understand the parallel track and Buildings (Railway colony, depot & station etc) are within 200m from the centre of existing track. PI confirm?</p>	<p>The details are available in reference documents under Part-4, and may be referred to.</p> <p>Please also refer to amended Clause 1.3.3[Addendum No. 3, Sr.No.3] of General Specifications, Part 2, Section VI, Vol. 1.</p>
34	<p>Part 2, Section VI, Volume 3, CI-1.1.6 Page 4 of 125</p> <p>In EDFC Phase-II, residential complexes have been planned for its staff. A total no. Of.....</p>	<p>Please suggest that, do we need any OFC based SDH Equipment for these residential colony.</p> <p>Do they form the part of First Network or Second Network.</p>	<p>The requirement of SDH Equipment at residential complexes shall be determined by Bidder/Contractor.</p> <p>Please refer to Clause 5.3.3.3 of PS/Telecommunication Works, Part 2, Section VI,</p>

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			Vol. 3.
35	Section VI, Volume 3, CI-5.3.3.2 Page 22 of 125 The First Network shall be formed by two optical fibre cables, preferably one laid along.....	Please suggest the number of SDH Nodes to be considered in the BOM for First Network. Also Provide input that what are the bandwidth requirement i.e. STM-16/64.	The number of SDH Nodes for First Network shall be determined by Bidder/Contractor. Please refer to Clause 5.3.4.4 of PS/Telecommunication Works, Part 2, Section VI, Vol. 3.
36	Part 2, Section VI, Volume 3, CI-5.3.3.3 Page 22 of 125 The Second Network shall be formed by two optical fibre cables, preferably one laid	Please suggest the number of SDH Nodes to be considered in the BOM for Second Network. Also Provide input that what are the bandwidth requirement i.e. STM-4/16.	The number of SDH Nodes for Second Network shall be determined by Bidder/Contractor. Please refer to Clause 5.3.4.5 of PS/Telecommunication Works, Part 2, Section VI, Vol. 3.
37	Part 2, Section VI, Volume 3, CI-5.5.1.1 (6) Page 28 of 125 optical link budget calculations for all the transmission links;	Please indicate the distance between the stations i.e. for the first network and for the second network. Distances are required to calculate the link engineering.	The details are available in reference documents under Part-4, and may be referred to.
38	Part 2, Section VI, Volume 3, Clause 5.3 Network Diagram	Request you to please provide the indicative network diagram with provision of First network and second Network.	The Network Diagram shall be developed by Bidder/Contractor as per Clause 5.3 of PS/Telecommunication Works, Part 2, Section VI, Vol. 3.
39	Part 2, Section VI, Volume 3	Please provide us the information for the Services required to run on SDH platform and	The services required to run on SDH Platform and Data Networking Platform are given in Part 2-

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	SDH Platform & Data Networking Platform	the Data networking Platform.	Employers Requirement of Bidding Document.
40	Part 2, Section VI, Volume 3 Flexible Access Mutiplexer	Flexible Access Multiplexer is provided, wherever the SDH node is provided. How do we calculate the no of channels for proposing PDH Mux.	The number of Channels shall be determined by Bidder/Contractor.
41	Part 2, Section VI, Volume 3, CI-5.5.3.4 (3) Page 31 of 125 The NMS shall be equipped with a proven real-time, multi-tasking operating system to support centralised network management of SDH and PDH equipment from OCC.....	Network management System for the SDH and PDH are different with Different hardware and different software.	Network management System for the SDH and PDH can be on same hardware or on different hardware.
42	Part 2, Section VI, Volume 3, CI-5.5.3.3(4) Page 30 of 125 Flexible Access Multiplex Equipment shall support Omnibus Operation of Voice in Data Channels.	Omnibus communication or conference facility is required or not.	Provisions of Bidding Document are sufficiently clear. Please also refer to Clause 7.3.11 of PS/Telecommunication Works, Part 2, Section VI, Vol. 3.
43	Part 2, Section VI, Volume 3, Clause 5.5.3.3(7) Page 30 of 125 Flexible access multiplexer equipment shall be provided with 1+1 protection for all channel levels (VF, Data, etc.) with automatic switch over in case of fault.	Is E1 (1+1) protection required in PDH mux,	Please refer to Clause 5.3.7.7 of PS/ Telecommunication Works, Part 2, Section VI, Vol. 3.
44	Part 2, Section VI, Volume 3, CI-5.5.3.3(9),	-48V DC Power redundancy (1+1) would be	The query is not clear.

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	Page 30 of 125 Flexible Access Multiplex Equipment shall operate satisfactorily at 48V+ 20% DC.....	offered.	Please also refer to Addendum No.3, Sr. No.18
45	Part 2, Section VI, Volume 3, CI-5.5.1.1 Page 28 of 125 details on the specifications of each low speed data and voice channel interfaces below E1 level;	Low speed data interfaces : please confirm the actual data interfaces would be used by end customer, as all types of interface specifications is mentioned in tender	The requirement of Data Interfaces shall be determined by Bidder/Contractor.
46	Part 2, Section VI, Volume 3, 5.5.3.3(10)(a) Page 31 of 125 voice interface selectable on two or four wires E&M	Voice interface: please confirm actual voice services to be used by end customer, or please mention the card types to be used/ deployed by end customer per PDH Mux.	The requirement of Voice Services shall be determined by Bidder/Contractor based upon requirements given in Chapter-7 of PS/Telecommunication Works, Part 2, Section VI, Vol.3.
47	Part 2, Section VI, Volume 1, Chapter 13 & Page 279 Training	Request you to provide the total training mandays	Please refer to Addendum No.3, Sr.No.4
48	Part 2, Section VI, Volume 2, PS Signalling, 2.2.5 (1)(b) & Page 324 The track vacancy detection technique shall use Digital Axle Counter technology as a primary means of train detection. Where required, a secondary means of track vacancy detection can be used to supplement the primary means with the	Request you to provide the details where Secondary train detection to be considered. What is the secondary means of Track vacancy detection that may be used?	Train detection shall be provided using Digital Axle Counters. If for any reason, it is not possible to positively detect the train using DAC, for any portion of the Yard/Line, any other secondary means of train detection may be used, with the approval of the Engineer.

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(1)	(2)	(3)	(4)
	approval of the Engineer.		
49	<p>Part 2, Section VI, Volume 2, PS Signalling, 2.2.7.(2) d & Page 330</p> <p>Where the points form a crossover, independent detection shall be provided for the points at each end of the crossover. The two independent detections can however, be proved together and read into EI as a single input.</p>	<p>We understand that detection will be required both at the facing and trailing ends for every signaled move. Therefore while reading into the EI it will be considered as a single detection for the cross over, proving the detection contacts at both ends.</p> <p>For ex: For a move over 101 a/b crossover: we prove the farther end of the point and then fed back to prove in SERIES the nearer end of the point and therefore only 101 NWKR / 1021WKR is read as a vital input to the EI and not 101ANWKR / 101BNWKR / 101ARWKR / 101BRWKR etc.</p> <p>Please confirm our understanding</p>	Bidder's understanding is correct.
50	<p>Part 2, Section VI, Volume 2, PS Signalling, 8.2.7.(2) sr. no.6 & Page 420</p> <p>All rail mounted equipment complete with interconnecting cables and connectors and all other associated accessories @ 30% of each type</p>	Does this include the wheel sensors also, Kindly clarify.	The requirement specified covers complete set of rail mounted equipment, including wheel sensors.
51	<p>Part 2, Section VI, Volume 2, PS Signalling, 1.4.1(2) & Page 315</p> <p>Design and Implementation of Absolute</p>	We understand all related works for the existing stations will be taken care by IR. Please confirm	Indoor alterations to IR installation to facilitate the work shall be carried out by IR. Please refer to Addendum No.3, Sr. No.7

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Block/Slot working on single lines connecting DFCCIL and IR stations viz. New Bhimsen to Bhimsen (IR), NewKarchana to Iradatganj (IR), New Karchana to Cheoki (IR), New Ahraura road to Jeonathpur (IR) and New Kanpur to Rooma (IR) and lines connecting Mughalsarai (EDFC) and Mughalsarai (IR) stations.</p>	<p>Also please confirm, Nos of Absolute Block/Slot working on single lines to be detailed per block per station.</p>	<p>The details are available in reference documents under Part-4 and may be referred to.</p>
52	<p>Part 2, Section VI, Volume 2, PS Signalling, 5.3.19 & Page 401</p> <p>Underground Cable Route shall be identified by Electronic Cable Markers directly buried inside the trench at 30-40 m interval and at diversion points with the approval of Engineer.</p>	<p>Request you to provide the specifications/drawings of the Electronic cable markers.</p> <p>Is this something different from the cement markers.</p> <p>Please clarify</p>	<p>Please refer to Addendum No.3, Sr. No. 14</p>
53	<p>Part 2, Section VI, Volume 2, PS Signalling, Chapter 1, 1.3.4 & Page No 314</p> <p>It is a requirement that Digital Axle counter technology is used to provide primary track vacancy detection function at the Stations and the Block sections. The Track vacancy detection system architecture including size, numbers and locations shall be determined by the contractor's design.</p>	<p>Primary track vacancy detection is DAC at stations and block sections. Is secondary/dual detection required / mandatory. If yes which equipment can be used as secondary TVD may be specified.</p>	<p>The secondary track vacancy detection is not mandatory. Also, refer response to query at S. No. 48 above</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	The OFC, if used for communication between the Evaluator and the track devices shall be provided under PS (Telecommunications) Vol. 3 Part 2.		
54	<p>Part 2, Section VI, Volume 2, PS Signalling, Chapter 2, 2.2.3 (4)(a) & Page No 321</p> <p>The Alignment Plans and Yard plans have been provided under Part 4 – Reference documents. These shall be reviewed and revalidated by the contractor from Signalling & Interlocking point of view.</p>	<p>Provided Yards plans are inputs and cannot be revalidated.</p> <p>The ESP shall be provided to contractor for the comments from S&T point of view to make the inputs (ESP) more accurate and to reduce the cycle time for updation and rework. However ESP are primary inputs and hence any change in scope because of the ESP change to be dealt as per Contract clause</p>	<p>The provided Yard plans need to be reviewed and revalidated by the contractor from Signal Interlocking point of view. He shall also do the necessary coordination to ensure that any change, as required is implemented in the ESP to be prepared by the CST contractor of CP 201 & CP 202.</p> <p>Variation due to change in scope will be determined as per provisions of the Bidding document Part 3, Conditions of Contract.</p>
55	<p>Part 2, Section VI, Volume 2, PS Signalling, Chapter 2, 2.2.3 (4)(f) & Page No 322</p> <p>The System shall have provision for accommodating additional 20% of the I/O used as minimum spare provision, including corresponding Processor capacity for future use.</p>	<p>The provision for 20% of used I/O as spares is understood as a part of 25% spare slots provision requirement of RDSO and not additionally.</p>	<p>Please refer to Addendum No. 3, Sr.No.8</p>
56	<p>Part 2, Section VI, Volume 2, PS Signalling, Chapter 2, 2.2.4 (1)(b) & Page No 323</p> <p>There shall be a Control terminal in Hot Standby mode provided at every Station</p>	<p>Display on the Control terminal should be possible through scrolling /multiple displays wherever applicable. Kindly confirm our understanding.</p>	<p>Please refer to Addendum No. 3, Sr.No.9</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>with the Station Master. There shall be no Control terminal in the block section. The Control terminal provided with the Station Master at the Station shall be used to control the Station yard and block section (part or complete), under control of the said Station Master. The display on the Control terminal shall however, include not only the current state of railway under control of the Station Master, but shall also include further display for the complete block sections up to the adjacent stations on both sides.</p>		
57	<p>Part 2, Section VI, Volume 2, PS Signalling, Chapter 2, 2.2.4 (1)(g) & Page No 323</p> <p>The SM shall have facility to put back any signal (including automatic signals) under his control to ON position.</p>	<p>Semi automatic signal can be put back to ON position by SM. However automatic signal is not possible. Kindly confirm.</p>	<p>Provisions of Bidding document shall prevail.</p>
58	<p>Part 2, Section VI, Volume 2, PS Signalling, Chapter 2, 2.2.4 (1-h) & Page No 323</p> <p>Certain operations are regarded as safety critical and shall require two stage commands, such as, latched key, simultaneous operation with more than two (02) switches or buttons, or co-operated</p>	<p>Switches or Buttons are understood as operation on control terminal (VDU). Password protection is used as equivalent for co-operation by 2 persons. Kindly confirm our understanding.</p>	<p>Please refer to Addendum No.3, Sr.No.10</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>operation by two persons. Following are some examples of safety critical operations:</p> <ul style="list-style-type: none"> (i) Route Cancellation. (ii) Point machine Crank handle release. (iii) Point operation under Track section failure. (iv) Resetting of Axle Counter. 		
59	<p>Part 2, Section VI, Volume 2, PS Signalling, Chapter 2, 2.2.6 (2)(d) & Page No 329</p> <p>The lifting barrier shall work on 110V AC 50Hz single phase supply. The 110V power supply shall be extended from the nearest Signalling Power supply system at the ALH/Station</p>	<p>Separate mini IPS is to be used for LC gates > 2km from EI? PI confirm</p>	<p>Provisions of Bidding document shall prevail.</p>
60	<p>Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.2.2 Page No 532</p> <p>MTRC System is being provided by Indian Railways in Mughalsarai-Ghaziabad section of Indian Railways (IR).....</p>	<p>In case the supplied BSS Controller (BSC) & TRAU in EDFC Phase 1 (CP104) is capable to expand to cater Phase 2 BSS requirements. Under such scenario Bidder should be allowed to expand the existing system. PI confirm</p>	<p>Please refer to Reply at Sr. No. 16</p>
61	<p>Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.2.4 Page No 532</p> <p>Radio NMS</p>	<p>In case the supplied Radio NMS in EDFC Phase 1 is capable to expand to cater Phase 2 (CP203) requirements. Under such scenerio Bidder should be allowed to expand</p>	<p>Please refer to Reply at Sr. No. 17</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
		the existed system. PI confirm	
62	Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.4.6 Page No 544 Interoperability Requirements	This clause refer to interoperatable of Cab Radio and hand portable mobile supplied to other GSM-R networks of DFCCIL. Please confirm	Please refer to Reply at Sr. No. 18
63	Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.5.1.1(4) Page No 545 VRS	In case the supplied VRS in EDFC Phase 1 (CP104) is capable to expand to cater Phase 2 (CP203) requirements. Under such scenario Bidder should be allowed to expand the existed system. PI confirm	Please refer to Reply at Sr. No. 19
64	Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.5.1.1(5) Page No 545 SMSC	In case the supplied SMSC in EDFC Phase 1 (CP104) is capable to expand to cater Phase 2 (CP203) requirements. Under such scenario Bidder should be allowed to expand the existed system. PI confirm	Please refer to Reply at Sr. No. 20
65	Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.2.4 Page No 532 It is envisaged that all operation and maintenance activities of new Base Station Subsystem (BSSs) of DFCCIL for EDFC Phase-2 shall be managed from Radio Network Management System(Radio NMS) to be provided by Contractor at OCC.	As we understand NMS for EDFC phase -2 will not be provided as part of this tender. It will be provided by OCC contractor as part of different package. Kindly confirm	Please refer to Reply at Sr.No.21

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
66	<p>Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.3.10.3 Page No 538</p> <p>The Radio Dispatcher System being provided at OCC under Contract Package CP-104, will be designed to provide at least 10 additional Radio Dispatcher Consoles. This expansion capacity being provided under Contract Package CP-104 shall not be utilised by Contractor for provision of Dispatcher Consoles required under Clause 8.2.10.1 & 8.2.10.2 of this Particular Specification.</p>	<p>We understand that only dispatcher console is requested under Phase 2 (CP203) and would be integrated with existing dispatcher system. Pl confirm</p>	<p>Please refer to reply at Sr.No.22</p>
67	<p>Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.5.6.4 (15) Page No 549</p> <p>Driver Man-Machine interface shall be installed in the leading cab and also the trailing cab (if available) of each rolling stock.</p>	<p>As we understand twin MMI needs to be provided with each Cab Radio. Kindly confirm</p>	<p>Please refer to reply at Sr. No. 23</p>
68	<p>Part 2, Section VI, Volume 3, PS Telecom Works Chapter 3, 3.6.2 Page No 493</p> <p>In respect of the EMC Design Documentation, the Contractor shall demonstrate by theoretical analysis that the design, of the electrical and electronic</p>	<p>Which EMC Test to be considered? (EN 50121 and IEC 61000). Please confirm</p>	<p>Please refer to reply at Sr. No. 24</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	systems under this Particular spec		
69	<p>Part 2, Section VI, Volume 3, PS Telecom Works Chapter 3, 3.6.5 Page No 493</p> <p>The Contractor shall liaise and co-ordinate with all other Contractors in the exchange of EMC data and related equipment performance characteristics. Inter-system EMC between Telecommunication System and other electrical and electronic equipment shall be in accordance with EN 50121 and IEC 61000.</p>	<p>Liaising with other Operators and Contractors for exchange of EMC data should be covered by Purchaser. Please confirm.</p>	<p>Please refer to reply at Sr. No. 25</p>
70	<p>Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.5.1.1 Page No 544</p> <p>In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad-Mughalsarai Section of Indian Railway, Base Transceivers Stations (BTs) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening required at BTs of Indian Railway, for smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor</p>	<p>We understand that the where-ever existing railway track coverage and parallel track coverage is overlapped the bidder's responsibility is smooth handover. PI confirm</p>	<p>Please refer to reply at Sr. No. 27</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
71	<p>Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.3.2.2 Page No 534</p> <p>The adequate coverage level for an operational radio & general purpose radio at 1.5 meter above ground, for at least 95% of the time over 95% of the following designated areas along the detours shall be available to meet system service requirements</p>	<p>Please confirm need to consider MS height of 4m or 1.5m for Link Budget calculations</p>	<p>Please refer to reply at Sr. No.29 and 30.</p>
72	<p>Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.5.3.5 Page No 547</p> <p>The coverage level for a radio is defined as minimum field strength of downlink available at 4 metre above ground for atleast 95% of the time over 95% of the area. The Gaziabad-Mugalsarai Section of Indian Railways is being provided with minimum coverage level of -95 dbm above Railway Track.</p>		
73	<p>Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.5.3.3 Page No 547</p> <p>The Contractor shall submit detailed link budget analysis and RF Signal coverage plots both for up-link and the down link</p>	<p>Which clutter class needs to be considered in DU, Urban, SubUrban etc as there would different cell radius for respective clusters. Pl confirm</p>	<p>Please refer to reply at Sr. No. 31</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>for Cab Radio and OPH/GPH (indoor and outdoor coverage) for each base station, to confirm that the required RF coverage stated above can be achieved using the Contractor's proposed antenna system and their locations. Assumptions like dense urban, urban and sub-urban etc. and the specifications of the base station equipment including TX/RX, RF cables, splitters, directional couplers, antenna etc. and the specifications of Mobile Equipment adopted for link budget calculations shall be detailed.</p>		
74	<p>Part 2, Section VI, Volume 1, General Specifications Chapter 3, 3.17.2 Page No 181</p> <p>GIS (Geographical Information System) application will use Autodesk suite (MAP 3D as desktop GIS & AIMS for WEB GIS) and Oracle 11g/spatial as a central repository.</p> <p>Information about the assets details (i.e. alignment drawing coordinates and attributes) will be provided by the contractors. Network asset details in the form of maps, reports will be available to all the authorized users through web as soon</p>	<p>Co-ordinates of the detour track are not provided. PI Provide. Without proper coordinates/chainage of the detour track we will not be able to share the count of BTS required to cover the detour</p>	<p>Please refer to reply at Sr.No.32</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>as the asset details are submitted by the contractors and imported in the system.</p> <p>a) Geo-referencing of alignment on WGS-84 coordinates.</p> <p>b) Capture and upload of geo-referencing coordinates of the assets in to GIS.</p>		
75	<p>Part 2, Section VI, Volume 3, PS Telecom Works Chapter 8, 8.5.1.1 Page No 544</p> <p>In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad-Mughalsarai Section of Indian Railway, Base Transceivers Stations (BTSs) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening required at BTSs of Indian Railway, for smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor.</p>	<p>We understand the parallel track and Buildings (Railway colony, depot & station etc.) are within 200m from the centre of existing track. PI confirm</p>	<p>Please refer to reply at Sr.No.33</p>
76	<p>Part 2, Section VI, Volume 2 Particular specifications Signalling work Page 26 of 165 Clause 2.2.10 Service and Diagnostic</p>	<p>TMS system having an inbuilt operation monitoring as well as diagnostic function capability. Please clarify whether an extra 'Data Logger' is required, apart from the TMS or a single system should comply your requirement.</p>	<p>The Service and Diagnostic (S&D) system shall be provided as per Para 2.2.10 of PS(Signalling works), Part 2, Section VI, Vol. 2, as a separate system from the Train Management system.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>System Subcluse- 2 (a) Technical requirements</p> <p>Parameters of each Signalling equipment/ system shall be monitored by monitoring the voltages, currents, potential free contacts etc. using a general purpose data logger. In processor based equipment like Axle counters, Electronic Interlocking etc., the data logger shall collect the diagnostic data in soft form through a port in the equipment. Scanning interval for digital inputs shall be less than 20 milliseconds.</p>		
77	<p>Part 2, Section VI, Volume 2 Particular specifications Signalling work Page 111 of 165 Clause 8.2.7- Contract Spares</p> <p>In chart- SN-3 & 4, Power supply, EI, DAC module cards- the quantity mentioned- 20% of each type installed subject to minimum of one.</p>	<p>In another previous DFCCIL tenders, the requirements of power card spares was 20% and the rest was 10%. Please confirm the same.</p>	<p>Provisions of Bidding document shall prevail.</p>
78	<p>Part 2, Section VI, Volume 2 Particular specifications Signalling work</p>	<p>Could you please confirm this requirement? They are asking to develop a software for this or general excel sheet can work for it?</p>	<p>The 'Inventory Management System' shall be prepared using Database software. Provisions of Bidding document shall prevail.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Page 115 of 165 Clause 8.2.10</p> <p>At any stage if the Employer feels that the 'Contract Spares' and 'Special Tools and Test equipment' being procured are less, then it reserves the right to order additional quantities before expiry of Defects Notification Period, as a Variation to the Contract Price at an agreed Price. Computer based inventory management plan for 'Spares' and 'Special Tools & Test equipment' shall be established by the Contractor for use of the Employer.</p>		
79	<p>Part 2, Section VI, Volume 2 2.3.9 Software Requirements (1)</p> <p>The TMS software shall be developed conforming to the requirements specified in EN 50128 or other international equivalent standard for Safety Integrity Level 2 (SIL 2</p>	<p>Required Certification will be obtained after commissioning before DLP Period as 1 year.</p>	<p>The required certification needs to be provided before Factory Acceptance Test (FAT).</p>
80	<p>Part 2, Section VI, Volume 2 2.2.5 Track Vacancy Detection System</p> <p>The Track-vacancy detection system shall be designed to meet the requirements of</p>	<p>Required Certification will be obtained after commissioning before DLP Period as 1 year. For VDU / TMS SIL 2.0 is not required</p>	<p>The required certification needs to be provided before Factory Acceptance Test (FAT).</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	SIL 4 as defined in IEC 61508.		
	13.1 General		
81	Part 2, Section VI, Volume 1 14.9.9.1 Within fourteen (14) days of the installation of any software, which is developed or modified for this Contract, into the permanent works by the Contractor, the Contractor shall submit to the Engineer for retention by the Employer two (2) backup copies of the software, which shall include, without limitation:	As the source code is a confidential property, so we can not submit the source code for EI, ET original units and related software's. However we propose the escrow of these documents, if necessary.	Please refer to Addendum No.3, Sr. No. 6
82	(1) All source and executable code including all data configuration tables.		
83	Part 2, Section VI, Volume 2 8.2.7 Contract Spares (8) The Contractor shall indicate the sources of supply of all 'Spares' and shall guarantee their availability during the design life of the project. For Spare Parts of consumable and high-use items, the Contractor shall ensure that a minimum of two alternative sources of supply are	We cannot provide the alternative sources designed hardware and related parts. Regarding other consumable and high-use items, we can provide the alternative sources according to the clause.	Please refer to Addendum No. 3, Sr. No. 15

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response																																							
(1)	(2)	(3)	(4)																																							
	available.																																									
84	<p>(b) Table below shows the various operational posts for which the TMS terminals are provided and the number and sizes of monitors with the controllers.</p> <table border="1" data-bbox="280 555 674 1082"> <thead> <tr> <th>Operational Post</th> <th>Monitor Size (Inches)</th> <th>No. of monitors per position</th> </tr> </thead> <tbody> <tr> <td>Chief Controller</td> <td>32"</td> <td>3</td> </tr> <tr> <td>Dy. Chief Controller</td> <td>32"</td> <td>3</td> </tr> <tr> <td>Assistant Controller</td> <td>32"</td> <td>3</td> </tr> <tr> <td>Traffic Controller(s)</td> <td>32"</td> <td>3</td> </tr> <tr> <td>TMS Maintenance Terminal at OCC</td> <td>24"</td> <td>1</td> </tr> <tr> <td>Signal Fault Controller</td> <td>24"</td> <td>1</td> </tr> <tr> <td>Track Controller</td> <td>24"</td> <td>1</td> </tr> <tr> <td>Traction Power Controller</td> <td>24"</td> <td>1</td> </tr> <tr> <td>Station Master at Station</td> <td>24"</td> <td>1</td> </tr> <tr> <td>Crew Controller</td> <td>24"</td> <td>1</td> </tr> <tr> <td>Signal Maintainer at Station, IMD and IMSD</td> <td>24"</td> <td>1</td> </tr> <tr> <td>Miscellaneous User TMS Terminals</td> <td>24"</td> <td>1</td> </tr> </tbody> </table>	Operational Post	Monitor Size (Inches)	No. of monitors per position	Chief Controller	32"	3	Dy. Chief Controller	32"	3	Assistant Controller	32"	3	Traffic Controller(s)	32"	3	TMS Maintenance Terminal at OCC	24"	1	Signal Fault Controller	24"	1	Track Controller	24"	1	Traction Power Controller	24"	1	Station Master at Station	24"	1	Crew Controller	24"	1	Signal Maintainer at Station, IMD and IMSD	24"	1	Miscellaneous User TMS Terminals	24"	1	<p>In generally 21 inch monitors are used in other IR projects instead 24inch.</p> <p>As 24inch is not commonly use in India, we would like to request you please confirm the same.</p>	Provisions of Bidding document shall prevail.
Operational Post	Monitor Size (Inches)	No. of monitors per position																																								
Chief Controller	32"	3																																								
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85	<p>Part 2, Section VI, Volume 3, Ch 8 Clause 8.2.2</p> <p>MTRC System is being provided by Indian Railways in Mughalsarai - Ghaziabad section of Indian Railways (IR).....</p>	<p>In case the supplied BSS Controller (BSC) & TRAU in EDFC Phase 1 (CP104) is capable to expand to cater Phase 2 BSS requirements. Under such scenario Bidder should be allowed to expand the existing system.</p>	Please refer to reply at Sr. No.16																																							

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
86	Part 2, Section VI, Volume 3, Ch 8 Clause 8.2.4 Radio NMS	In case the supplied Radio NMS in EDFC Phase 1 is capable to expand to cater Phase 2 (CP203) requirements. Under such scenario Bidder should be allowed to expand the existed system.	Please refer to reply at Sr. No.17
87	Part 2, Section VI, Volume 3, Ch 8 Clause 8.4.6 Interoperability Requirements	This clause refer to interoperatable of Cab Radio and hand portable mobile supplied to other GSM-R networks of DFCCIL. Please confirm?	Please refer to reply at Sr.No.18
88	Part 2, Section VI, Volume 3, Ch 8 Clause 8.5.1.1(4) VRS	In case the supplied VRS in EDFC Phase 1 (CP104) is capable to expand to cater Phase 2 (CP203) requirements. Under such scenario Bidder should be allowed to expand the existed system.	Please refer to reply at Sr.No.19
89	Part 2, Section VI, Volume 3, Ch 8 Clause 8.5.1.1(5) SMSC	In case the supplied SMSC in EDFC Phase 1 (CP104) is capable to expand to cater Phase 2 (CP203) requirements. Under such scenario Bidder should be allowed to expand the existed system.	Please refer to reply at Sr.No.20
90	Part 2, Chapter 8, Volume 3, Ch 8 Clause 8.2.4 It is envisaged that all operation and maintenance activities of new Base Station Subsystem (BSSs) of DFCCIL for EDFC Phase-2 shall be managed from Radio	As we understand NMS for EDFC phase -2 will not be provided as part of this tender. It will be provided by OCC contractor as part of different package. Kindly confirm	Please refer to reply at Sr.No.21

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	Network Management System (Radio NMS) to be provided by Contractor at OCC.		
91	<p>Part 2, Chapter 8, Volume 3, Ch 8 Clause 8.3.10.3</p> <p>The Radio Dispatcher System being provided at OCC under Contract Package CP-104, will be designed to provide at least 10 additional Radio Dispatcher Consoles. This expansion capacity being provided under Contract Package CP-104 shall not be utilized by Contractor for provision of Dispatcher Consoles required under Clause 8.2.10.1 & 8.2.10.2 of this Particular Specification.</p>	<p>We understand that only dispatcher console is requested under Phase 2 (CP203) and would be integrated with existing dispatcher system. Pl confirm?</p>	<p>Please refer to reply at Sr.No.22</p>
92	<p>Part 2, Section VI, Volume 3, Ch 8 8.5.6.4(15) Cab Radio MMI</p> <p>Driver Man-Machine interface shall be installed in the leading cab and also the trailing cab (if available) of each rolling stock.</p>	<p>As we understand twin MMI needs to be provided with each Cab Radio. Kindly confirm</p>	<p>Please refer to reply at Sr.No.23.</p>
93	<p>Part 2, Section VI, Volume 3 CHAPTER 3 PERFORMANCE</p>	<p>Which EMC Test to be considered? (EN 50121 and IEC 61000). Please confirm</p>	<p>Please refer to reply at S.No.24.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>REQUIREMENTS</p> <p>3.6 Electromagnetic Compatibility (EMC)</p> <p>Clause 3.6.2 Electromagnetic Compatibility (EMC)</p> <p>In respect of the EMC Design Documentation, the Contractor shall demonstrate by theoretical analysis that the design, of the electrical and electronic systems under this Particular spec .</p>		
94	<p>Part 2, Section VI, Volume 3</p> <p>CHAPTER 3 - PERFORMANCE REQUIREMENTS</p> <p>3.6 Electromagnetic Compatibility (EMC)</p> <p>Clause 3.6.5 Electromagnetic Compatibility (EMC)</p> <p>The Contractor shall liaise and co-ordinate with all other Contractors in the exchange of EMC data and related equipment performance characteristics. Inter-system EMC between Telecommunication System and other electrical and electronic equipment shall be in accordance with EN 50121 and IEC 61000.</p>	<p>Liaising with other Operators and Contractors for exchange of EMC data should be covered by Purchaser. PLs confirm</p>	<p>Please refer to reply at S.No.25.</p>
95	<p>Part 2, Section VI, Volume 3</p> <p>CHAPTER 8 - MOBILE TRAIN RADIO</p>	<p>Liaising to be considered in customer scope Pls confirm</p>	<p>Please refer to reply at S.No.26.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>COMMUNICATION SYSTEM REQUIREMENTS Clause 8.2.8.1 Scope of Services</p> <p>The Contractor shall liaise with WPC for issues of import license and shall also coordinate in conjunction with DFCCIL with all concerned authorities including WPC, SACFA, Civil Aviation authorities and other local authorities and obtain necessary clearances/sanctions for installation and commissioning of the MTRC System.</p> <p>However, all the documents for this purpose shall be signed by DFCCIL. All License fees shall be paid by DFCCIL</p>		
96	<p>Part 2, Section VI, Volume 3</p> <p>CHAPTER 8 - MOBILE TRAIN RADIO COMMUNICATION SYSTEM REQUIREMENTS 8.5 Technical Requirements Clause 8.5.1.1 Technical Requirements</p> <p>In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad -Mughalsarai Section of Indian Railway, Base Transceivers Stations</p>	<p>We understand that the where-ever existing railway track coverage and parallel track coverage is overlapped the bidder's responsibility is smooth handover. PI confirm.</p>	<p>Please refer to reply at S.No.27.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>(BTSs) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening required at BTSs of Indian Railway, for smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor.</p>		
97	<p>Part 2, Section VI, Volume 3, Chapter 8, Clause 8.3.2.2</p> <p>The adequate coverage level for an operational radio & general purpose radio at 1.5 meter above ground, for at least 95% of the time over 95% of the following designated areas along the detours shall be available to meet system service requirements</p> <hr/> <p>Part 2, Section VI, Volume 3, Chapter 8 Clause 8.5.3.5</p> <p>The coverage level for a radio is defined as minimum field strength of downlink available at 4 meter above ground for at least 95% of the time over 95% of the area. The Gaziabad-Mugalsarai Section of Indian Railways is being provided with minimum coverage level of -95 dbm above Railway Track.</p>	<p>Please confirm need to consider MS height of 4m or 1.5m for Link Budget calculations</p>	<p>Please refer to reply at S.No.29 and 30.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
98	<p>Part 2, Section VI, Volume 3,Chapter 8 Clause 8.5.3.3</p> <p>The Contractor shall submit detailed link budget analysis and RF Signal coverage plots both for up-link and the down link for Cab Radio and OPH/GPH (indoor and outdoor coverage) for each base station, to confirm that the required RF coverage stated above can be achieved using the Contractor's proposed antenna system and their locations. Assumptions like dense urban, urban and sub-urban etc.</p>	<p>Which cluster class needs to be considered in DU, Urban, SubUrban etc as there would different cell radius for respective clusters</p>	<p>Please refer to reply at S.No.31</p>
99	<p>Part 2, Section VI, Volume 1,Chapter 3 Clause 3.17.2</p> <p>GIS (Geographical Information System) application will use Autodesk suite (MAP 3D as desktop GIS & AIMS for WEB GIS) and Oracle 11g/spatial as a central repository. Information about the assets details (i.e. alignment drawing coordinates and attributes) will be provided by the contractors. Network asset details in the form of maps, reports will be available to all the authorized users through web as soon as the asset details are submitted by the contractors and imported in the system.</p>	<p>Co-ordinates of the detour track are not provided. Without proper coordinates/ chainage of the detour track we will not be able to share the count of BTS required to cover the detour</p>	<p>Please refer to reply at Sr.No.32.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>a) Geo-referencing of alignment on WGS-84 coordinates.</p> <p>b) Capture and upload of geo-referencing coordinates of the assets in to GIS.</p>		
100	<p>Part 2, Section VI, Volume 3, Clause 8.5.1.1</p> <p>In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad-Mughalsarai Section of Indian Railway, Base Transceivers Stations (BTSS) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening required at BTSS of Indian Railway, for smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor.</p>	<p>We understand the parallel track and Buildings (Railway colony, depot & station etc) are within 200m from the centre of existing track. PI confirm?</p>	<p>Please refer to reply at Sr.No.33.</p>
101	<p>Part 2, Section VI, Volume 3, Particular Specifications Telecommunication Works Clause- 8.4.6.3</p> <p>BSS being provided under this Contract shall be inter operable with Network Sub System (NSS) being provided for WDFC under Contract Package STP-5.</p> <p>Part 2, Section VI, Volume 3,</p>	<p>What kind of documentation is required to be submitted to confirm fulfillment of interoperability criteria.</p>	<p>The Test Documentation to be submitted and/or Testing to be conducted shall be determined by Engineer during Contract Execution Stage. These Interoperability Tests shall be as per EIRENE FRS v7.3.0 and EIRENE SRS v15.3.0 duly validated for completeness by Notified Bodies of European Commission.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Particular Specifications Telecommunication Works Clause- 8.5.1.1</p> <p>(1) Base Station Sub-system (BSS) of Base Station Controller (BSC) controlling Base Transceivers Stations (BTSS) each containing a number of transceivers (TRXs).</p> <p>In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad-Mughalsarai Section of Indian Railway, Base Transceivers Stations (BTSS) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening required at BTSS of Indian Railway, for smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor.</p> <p>However in sections, where track alignment of EDFC Phase-2 is taking a detour and cannot be served by Base Transceivers Stations (BTSS) of Indian Railway, new Base Transceivers Stations (BTSS) of DFCCIL shall be provided by the Contractor for adequate RF coverage. These BTSS shall be controlled by BSC at OCC. This new Base Station Sub-system (BSS) can be provided either by upgrading and using</p>		

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Base Station Controller (BSC) being provided under Contract Package CP-104 at OCC to meet the requirements of EDFC Phase-2 or by providing a new Base Station Controller (BSC) at OCC.</p> <p>This BSC shall be linked to the existing Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section. Accordingly BSC and associated network elements constituting the Base Station Sub-system (BSS) shall be compatible with this Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section. The Base Station Sub-system (BSS) should fulfil all interoperability criteria with existing Network Sub-system (NSS) of MTRC System of Indian Railway and should be supported with IOT documentation. Base Station Sub-system (BSS) to be provided under this Contract shall be capable of supporting data communications for Train Control System i.e. ETCS Level-2.</p>		
102	<p>Part 2, Section VI, Volume 3, Particular Specifications Telecommunication Works Clause- 8.2.7.1</p>	<p>Request to change the clause as "Hardware, firmware, software & licenses required for up-gradation of TCU provided at OCC under Contract Package CP-104 to meet the requirement of this Particular Specification"</p>	<p>Please refer to Addendum No.3, Sr. No. 21 and 22.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	(4) Hardware, firmware, software & licenses required for up-gradation of TRAU of Indian Railway to meet the requirement of this Particular Specification;		
103	Part 2, Section VI, Volume 3, Particular Specifications Telecommunication Works Clause- 8.3.1 (5) (e) automatic and manual test modes with fault indications;	This feature is specific to Cab radio. None of the Handset manufacturer support this feature. So it is requested that requirement for OPH should be removed.	The Clause 8.3.1 pertains to System Services to be supported by the MTRC System
104	Part 2, Section VI, Volume 3, Particular Specifications Telecommunication Works Clause- 8.3.6.5 (2) Automatic fax Y for Cab Radio	Automatic fax is optional requirement of EIRENE specification and none of the Cab radio manufacturer support this feature. So it is requested that requirement of Automatic fax should be removed.	Please refer to Addendum No.3, Sr. No.25 to clause no. 8.3.6.5(2) of PS/ Telecommunication Works, Part 2, Section VI, Vol. 3.
105	Part 2, Section VI, Volume 3, Particular Specifications Telecommunication Works Clause- 8.3.6.5 (3) Display of call charging information Y for Cab radio	This is a optional requirement of EIRENE specification and none of the Cab radio manufacturer support this feature.	Please refer to Addendum No.3, Sr. No. 25 to clause no. 8.3.6.5(3) of PS/ Telecommunication Works, Part 2, Section VI, Vol. 3.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
106	Part 2, Section VI, Volume 3, Particular Specifications Telecommunication Works Clause- 8.3.6.5 (3) Call supervisory information	Call supervisory information is partially complied for Handsets, synthetic reduced indications to user. So it is requested that feature should be removed for OPH	Please refer to Addendum No.3, Sr. No. 25 to clause no. 8.3.6.5(3) of PS/ Telecommunication Works, Part 2, Section VI, Vol. 3.
107	Part 2, Section VI, Volume 3, Particular Specifications Telecommunication Works Clause- 14.2.2 18 RF Analyser	Does RF Analyzer means 'Site Master' for VSWR and RF power measurement?	Please refer to Addendum No.3 , Sr.No.30
108	Part 2– Employer's Requirement, Section VI. Employer's Requirement, Volume 1: General Specifications Clause 14.1.3 The Contractor shall repair and/or replace, in each case at no cost to the Employer, any part of the Works which is found to be defective by reason of faulty design, materials or workmanship or negligence or failure on the part of the Contractor to comply with any obligation expressed or implied under the Contract, during the DNP after the date of issue of the Taking Over	It is requested to modify 5th line of sub-clause 14.1.3 to 'The Works shall include equipment being provided under Contract Package CP-203 for up gradation/ augmentation/reconfiguration of equipment which is provided under Contract Package CP-104.	Please refer to Addendum No.3, Sr. No. 5 of clause no. 14.1.3 of GS, Part-2, Section VI, Vol. 1.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	Certificate of the Works. The Works shall include equipment being provided under Contract Package CP-104 and upgraded/augmented/reconfigured, under this Contract.		
109	<p>Part 2, Section VI, Volume 3 Page 4 of 125 Clause 1.1.6</p> <p>In EDFC Phase-II, residential complexes have been planned for its staff. A total no. Of.....</p>	<p>Please suggest that, do we need any OFC based SDH Equipment for these residential colony.</p> <p>Do they form the part of First Network or Second Network.</p>	Please refer to reply at Sr. No. 34.
110	<p>Section VI, Volume 3 Page 22 of 125 Clause 5.3.3.2</p> <p>The First Network shall be formed by two optical fibre cables, preferably one laid along.....</p>	<p>Please suggest the number of SDH Nodes to be considered in the BOM for First Network.</p> <p>Also Provide input that what are the bandwidth requirement i.e STM-16 / 64</p>	Please refer to reply at Sr. No. 35
111	<p>Section VI, Volume 3 Page 22 of 125 Clause: 5.3.3.3</p> <p>The Second Network shall be formed by two optical fibre cables, preferably one laid</p>	<p>Please suggest the number of SDH Nodes to be considered in the BOM for Second Network.</p> <p>Also Provide input that what are the bandwidth requirement i.e STM-4/16.</p>	Please refer to reply at Sr. No. 36.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
112	Section VI, Volume 3 Page 28 of 125 Clause 5.5.1.1 (6) optical link budget calculations for all the transmission links;	Please indicate the distance between the stations i.e for the first network and for the second network. Distances are required to calculate the link engineering.	Please refer to reply at Sr. No. 37.
113	Part 2, Section VI, Volume 3 5.5 network diagram	Request you to please provide the indicative network diagram with provision of First network and second Network.	Please refer to reply at Sr. No. 38.
114	Part 2, Section VI, Volume 3 5.5 SDH platform and the Data networking Platform	Please provide us the information for the Services required to run on SDH platform and the Data networking Platform.	Please refer to reply at Sr. No. 39.
115	Part 2, Section VI, Volume 3 5.5 Flexible Access Multiplexer	Flexible Access Multiplexer is provided, wherever the SDH node is provided. How do we calculate the no of channels for proposing PDH Mux.	Please refer to reply at Sr. No. 40.
116	Part 2, Section VI, Volume 3 Page 31 of 125 Clause 5.5.3.4 (3) The NMS shall be equipped with a proven real-time, multi-tasking operating system to	Network management System for the SDH and PDH are different with Different hardware and different software.	Please refer to reply at Sr. No. 41.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	support centralized network management of SDH and PDH equipment from OCC.....		
117	Part 2, Section VI, Volume 3 Page 30 of 125 Clause 5.5.3.3(4) Flexible Access Multiplex Equipment shall support Omnibus Operation of Voice in Data Channels.....	Omnibus communication or conference facility is required or not.	Please refer to reply at Sr. No. 42.
118	Part 2, Section VI, Volume 3 Page 30 of 125 Clause 5.5.3.3(7) Flexible access multiplexer equipment shall be provided with 1+1 protection for all channel levels (VF, Data, etc.) with automatic switch over in case of fault.	Is E1 (1+1) protection required in PDH mux	Please refer to reply at Sr. No. 43.
119	Part 2, Section VI, Volume 3 Page 30 of 125 Clause 5.5.3.3(9) Flexible Access Multiplex Equipment shall operate satisfactorily at 48V+ 20% DC.....	- 48V DC Power redundancy (1+1) would be offered.	Please refer to reply at Sr. No. 44.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
120	<p>Part 2, Section VI, Volume 3 Page 28 of 125 Clause 5.5.1.1</p> <p>details on the specifications of each low speed data and voice channel interfaces below E1 level;</p>	<p>Low speed data interfaces : please confirm the actual data interfaces would be used by end customer , as all types of interface specifications is mentioned in tender</p>	<p>Please refer to reply at Sr. No. 45.</p>
121	<p>Part 2, Section VI, Volume 3 Page 31 of 125 Clause 5.5.3.3(10)(a)</p> <p>voice interface selectable on two or four wires E&M signalling</p>	<p>Voice interface: please confirm actual voice services to be used by end customer, or please mention the card types to be used / deployed by end customer per PDH Mux.</p>	<p>Please refer to reply at Sr. No. 46.</p>
122	<p>Part 2 , Section VI, Volume 1, Clause 2.5.5 Classification of Environments</p> <p>(1) Table below gives the different classifications of equipment environment to be encountered.</p> <p>The locations at which equipment may be installed have been divided into five environmental classes as mentioned.....</p>	<p>All equipment rooms are air conditioned. The power supply is provided from two sources. The air conditioner has also an stand by equipment. In such circumstances Category B1 should have a lighter requirement in respect of environmental conditions more close to those applicable to class A. The equipment in such conditioned equipment rooms is generally rated to work between 0 Deg C to 50 Deg C. The same may be adopted in line with general industrial practice as followed by all leading manufacturers. This will be more economical also without sacrificing any performance</p>	<p>Request not accepted. Provisions of Bidding Document shall prevail.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
		parameter.	
123	<p>Part 2, Section VI, Volume 2 5.4.4 Lightning Protection</p> <p>1) All the structures housing Signalling and Telecom equipment viz. SER, TER and S&T Power supply Equipment rooms, shall be provided with lightning protection arrangements and protection against lightning surges travelling through conductors into equipment by using appropriate devices.....</p>	<p>At locations where GSM tower is provided with lightening protection further lightening protection for individual TER/Relay hut may not be required provided these are located in close proximity to the tower.</p>	<p>Use of common lightning protection between GSM tower and TER/Relay hut may be decided as per actual site conditions during design phase with the approval of Engineer.</p>
124	<p>Part 2, Section VI, Volume 2</p> <p>Appendix 1 Working Methodology for Operation of LC Gates</p> <p>Operation of Level Crossing gates when DFCC and IR tracks are on the Parallel Alignment and Automatic Block System of Working is in force on DFC as well as IR and the Level Crossing Gate is Interlocked with DFCC and IR System and Normal position is 'OPEN' to road</p>	<p>The signaling arrangements on IR lines including warning for IR trains shall be installed by IR itself and extended to the DFCC/IR gate lodge for integrating in the LC interlocking system.</p>	<p>Provisions of bidding documents are sufficiently clear. Please refer to Para 2.2.6(1)(j) of PS (Signalling Works), Part 2, Section VI, Vol. 2 for details.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	traffic:.....		
125	<p>Part 2, Section VI, Volume 2</p> <p>CHAPTER 2: SYSTEM REQUIREMENTS</p> <p>2.2.5 (2)(j)(iv) Track Vacancy Detection System (Evaluators)</p> <p>(iv) A standby Evaluator with complete programming and configuration shall be provided for every Evaluator at Stations and Block Sections with arrangement for switch over using a single switch. After every change over, the track sections shall go in error state and shall have to be reset as per manual resetting procedure.</p>	<p>One spare set of cards can act as a spare unit for a number of evaluators. Hence the specification may provide provision for spare hot pluggable units instead of one stand by evaluator for each evaluator used. Please clarify</p>	<p>Please refer to Addendum No. 3, Sr. No. 11.</p>
126	<p>Part 2, Section VI, Volume 2</p> <p>CHAPTER 2: SYSTEM REQUIREMENTS</p> <p>2.2.5 (2)(k) Track Vacancy Detection System (Communication)</p> <p>(ii) The transmission between Central Evaluator and Field units of Main and Supervisory systems shall be in separate cables, preferably of different kinds, say OFC and quad.</p>	<p>Separate cables for supervisory axle counter system will have no tangible benefit since normal working will always depend on the main axle counter system. Hence both systems may use the same cable which will be economical.</p> <p>It will be better to maintain the integrity of the cables laid on up and down lines. Since transferring circuits of Up line into Dn line cables will lead to crossing of tracks and or the land separating UP and Dn lines causing weak spots which will impact working on main lines.</p>	<p>Request not accepted. Provisions of Bidding Document shall prevail.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	(iii) Wherever feasible, the Supervisory system of UP line can be provided on cable for Main system of DN line and Supervisory system of DN line can be provided on cable for Main system of UP line.		
127	GENERAL QUERIES		
128	Part 4 Drawings Provided	ESP - Yard plan of New Kanpur Junction Station - Connection with Rooma station of NCR Drawing No. DFC/ALD/2013/JN/1 is not clear to prepare SIP. Please provide clear drawing.	Please refer to Addendum No.3, Sr. No. 31
129	Integration with existing Telecom & SCADA system.	Details of existing system has to be provided for the working is a part of telecom portion	Please refer to Chapter 10 of GS, Part 2, Section VI, Volume 1.
130	Location of existing GSMR tower at IR Location.	Latitude and Longitude as per GIS Map.	The details of GSM-R of Indian Railway are given in Chapter-8 of PS/ Telecommunication Works, Part 2, Section VI, Vol.3. As per Para 10.6.9(2) of General Specifications, Part 2, Section VI, Vol. 1, CP-203 Contractor will be required to interface with Indian Railways for integration of GSM-R System as per requirement. Please also refer to Clause 7.2 of ITB, Part 1,

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
			Section I.
131	Interface with IR Location to Junction Station.	Clarify the Media for Interfacing with IR Telecom System is to be provided by the contractor.	Query not clear
132	VHF Voice recording system	Clarify the location where is to be installed either OCC or Station.	Please refer Clause 10.1.1.3 and 10.1.1.4
133	SCADA	Overall size of screen, Overall Functions to be displayed, interfacing points, scheme and specification of software for functioning.	It pertains to Electrical /OHE and is not a part of this tender.
134	Details of CP-104	Please provide all the technical information of CP-104 related to CP-203 and please share the relevant documents with us.	<p>CP-104 is a Design-Build Contract where the Contractor has to propose his own design and equipment based on specifications provided for in the Bidding Document (The Bidding Document of CP-104 along with amendments is available in DFCCIL's website).</p> <p>As per Clause 10.6.7 of General Specifications, Part 2, Section VI, Vol.1, the CP-203 Contractor will be required to interface with CP-104 Contractor for integration of Signalling & Telecom System as per requirements.</p>
135	RAMS Plan	RAMS plan only required for EI and DAC. RAMS parameter index is not mentioned in tender document. Please clarify	RAMS Plan shall be submitted as per the Employer's Requirement mentioned in Chapter-12 of GS, Volume 1, Chapter 3 of PS (Signalling), Volume 2 and Chapter 3 of PS (Telecommunication) Volume 3, Part 2, Section

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
			VI.
136	<p>General</p> <p>Referring to PQ results, we have proposed other vendors as specialized subcontractors However only one has been indicated in the result.</p>	<p>We have submitted specialized subcontractors as follows :-</p> <ol style="list-style-type: none"> 1. XXX* and Applicant's* own credentials. 2. YYY* <p>Note from DFCCIL: * The identity of the Applicant and its specialized subcontractors has not been disclosed for the sake of transparency.</p> <p>However in the qualifying letter only one of the above have been selected by DFCC for each system.</p> <p>To the best of our knowledge all the specialized subcontractors meet the concerned PQ requirement. This can also be seen from the result of prequalified sub-contractors for the other bidders.</p> <ol style="list-style-type: none"> 1. Kindly confirm the bidder is allowed to use any of the proposed sub-contractors in our bid. 2. Please also confirm other subcontractors mentioned in our PQ are also pre-qualified. <p>This will ensure fair and transparent bidding process.</p>	<p>DFCCIL has pre-qualified only one specialised sub-contractor for each activity. The Bidder is allowed to use only the particular specialized sub-contractor who has been prequalified for the Bidder for the particular activity.</p> <p>The other specialized sub-contractor(s) proposed by the Bidder in its PQ Application is not allowed to participate in its bid.</p> <p>However, a Bidder can propose for the change of a pre-qualified specialized sub-contractor at subsequent stage(s) in accordance with the provisions of the Bidding document.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
137	<p>General</p> <p>Addition of new specialized sub-contractor</p>	<p>Kindly confirm we can propose new specialized sub-contractor those meeting the PQ requirement during the bid submission.</p> <p>In case the new proposed specialized subcontractor stands disqualified then we can revert to original prequalified vendors as mentioned in the PQ result letter. Kindly confirm</p>	<p>A Bidder can propose for the change of a pre-qualified specialized sub-contractor at subsequent stage(s) in accordance with the provisions of the bidding document.</p> <p>If a Bidder proposes a replacement of a specialized sub-contractor at any stage of Bidding in accordance with the provisions of Bidding Document, he would not be permitted to revert to the original pre-qualified specialized sub-contractor and in case the new proposed specialized sub-contractor does not meet the requirements of 'Section III. Qualification Criteria and Requirements' of PQ Document, the Stage-1 Technical Proposal or Stage-2 Bid, as applicable, shall be treated non-responsive.</p>
138	<p>Part 2, Section VI, Volume 2, Clause 5.3.2(4) Page 84/165</p> <p>Where a number of cables have been used, the circuits shall be so distributed that the cables can be disconnected for maintenance purpose with the least possible</p> <p>Dislocation to traffic. Line wise and if necessary function wise cables shall be provided. Auxiliary signals shall be taken in different cables.</p>	<p>Our understanding for line-wise cable understanding is that UP and DN gears shall not be mixed but we can club UP Main & UP loop and similarly for DN main & DN loop.</p> <p>For auxiliary signals (shunt, calling ON, A marker) can we consider all auxiliary signal functions in a single cable. Please confirm.</p>	<p>Bidder's understanding is correct.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
139	Part 2, Section VI, Volume 2, Clause 5.3.2(5) Page 84/165 A separate cable shall be used for operation of each point/ crossover.	To minimize the number of cables, can we combine the feeding of 2 or 3 points by different cores in a single cable instead of laying separate cables for each individual point. Please clarify.	Provisions of the Bidding document are sufficiently clear. Cable for feeding any 2 points (other than of a crossover) cannot be combined.
140	Part 2, Section VI, Volume 2, Clause 2.2.3(3)(b) Page12/165 Separate I/O Cards shall be used for UP & DN lines for improved Functionality.	We understand that separate I/o cards for all UP main and UP loops combined together and separate I/O cards for all DN main and DN loops combined together. Please confirm.	Bidder's understanding is correct.
141	Part 2, Section VI, Volume 2, Clause 5.3.22 (12) 110V AC lighting to be provide	Can the same be provided as a part of the signalling cable	Yes, it can be provided on Signalling cable.
142	Part 2, Section VI, Volume 2, Clause 5.3.2(6) Page 84/165 All power cable shall be laid with redundancy i.e 2 power cable for each circuit with C/O arrangement at either end	We understand two separate power cables for 110V AC and 24DC each has to be laid. Kindly confirm.	Provisions of Bidding document are sufficiently clear. It is again clarified that two power cables are required for each type of power supply used by the contractor.
143	Part 2, Section VI, Volume 2, Clause 1.4.1 (2), Page 6/165 Design and Implementation of Absolute Block/Slot working on single lines	i) DFCIL Should provide all necessary Interface circuit for design the interface with IR.	i) The Contractor shall liaise with IR to obtain the necessary interface circuits. The Engineer/ Employer will provide necessary assistance as required. Please refer to Clause 6.10, 10.2.8, 10.5, 10.6.9 and other clauses of GS, Part 2 Section VI, Vol. 1.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>connecting DFCCIL and IR stations viz. New Bhimsen to Bhimsen (IR), New Karchana to Iradatganj (IR), New Karchana to Cheoki (IR), New Ahraura road to Jeonathpur (IR) and New Kanpur to Rooma (IR) and lines connecting Mughalsarai (EDFC) and Mughalsarai (IR) stations.</p>	<p>ii) All modification in Existing Circuit of IR Stations Shall be excluded from our scope of work. Please confirm</p> <p>iii) Please mention the approving authority of All plan & design</p>	<p>ii) Please refer to Addendum No.3, Sr. No. 7</p> <p>iii) The Engineer/Employer shall be the approving authority for Plans and design. Please refer to Clause 5.2 of Conditions of Contract, Part 3.</p>
144	<p>Part 2, Section VI, Volume 2, Clause 2.2.1 (2), Page 9/165</p> <p>Facility shall also be provided for introduction of modified automatic working during abnormal conditions such as Fog, bad weather impairing visibility etc. This is to be achieved by modifying a mid-section automatic signal in each direction and in each block section into modified semi-automatic stop signal and suitably interlocking it with Home Signal of station ahead and Advance Starter of station in rear in accordance with Indian Railway (Open line) General rules 1976 sub rule (1) clause (ba) of rule 3.12 & sub rule (3) of rule 9.01.</p>	<p>The modified semi-automatic signal will need to be provided with an 'A' marker light and a Signal Post Telephone. As per our understanding the no. of such semi-automatic signal is only one mid-section signal in each direction. Please confirm.</p>	<p>Bidder's understanding is correct.</p>
145	<p>Part 2, Section VI, Volume 2, Clause 2.2.3 (2c), Page 12/165</p>	<p>Our understanding is that the display shall be provided at the station interlocking as well as</p>	<p>Bidder's understanding is correct.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Wherever interlocking equipment (Central Interlocking Unit or Object Controller) is located, a display shall be available showing the state of the railway under control by that interlocking and up to the neighbouring control area on both sides. The display shall be provided in all the Signalling Equipment Rooms at Stations and in Block section Auto location Huts where Interlocking Equipment (Central Interlocking Unit or Object Controller) is Located. While the display at all interlocking Equipment (Central Interlocking Unit or Object Controller) will cover only area under control of that interlocking, the display at Station interlocking shall cover area up to the next (adjacent) stations on both sides.</p>	<p>at the mid-section/Auto location interlocking. The indications on display at the mid-section/Auto location interlocking shall be limited to the area up to the next interlocking on either side. The indications on display panel at station interlocking shall cover the area up to the next (adjacent) stations on both sides. Please confirm.</p>	
146	<p>Part 2, Section VI, Volume 2, Clause 2.2.5 (1b), Page 15/165</p> <p>The track vacancy detection technique shall use Digital Axle Counter technology as a primary means of train detection. Where required, a secondary means of track vacancy detection can be used to supplement the primary means with the</p>	<p>Please clarify the need for the secondary means of train detection.</p>	<p>Train Detection shall be provided using Digital Axle Counter. If for any reason, it is not possible to positively detect the train using DAC, for any portion of the yard/line, any other secondary means of train detection may be used with the approval of the Engineer.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	approval of the Engineer.		
147	<p>Part 2, Section VI, Volume 2, Clause 2.2.5 (2)(j)(iv), Page 17/165</p> <p>A standby Evaluator with complete programming and configuration shall be provided for every Evaluator at Stations and Block Sections with arrangement for switch over using a single switch. After every change over, the track sections shall go in error state and shall have to be reset as per manual resetting procedure.</p>	<p>The evaluator of a multi section digital axle counter has a built in redundancy in terms of the power supply and CPU. Hence the mention of a standby evaluator may be reviewed and advised.</p> <p>Please also consider the costs involved in such a duplication/replication of programming & configuring, doubling the quantity of evaluator including spares etc.</p>	Please refer to Addendum No. 3, Sr. No.11.
148	<p>Part 2, Section VI, Volume 2, Clause 2.2.5 (2)(k), Page 17/165</p> <p>Communication</p> <p>(i) The transmission between Central Evaluator and Field units of UP and DN systems shall be in separate cables, preferably of different kinds, say OFC and quad.</p> <p>(ii) The transmission between Central Evaluator and Field units of Main and Supervisory systems shall be in separate cables, preferably of different kinds, say OFC and quad.</p> <p>(iii) Wherever feasible, the Supervisory</p>	As per Clause 5.3.2(8), quad cable laying is required for Emergency communication and cannot be avoided. Besides Quad, OFC can be used to provide media diversity. UP Main and DN Supervisory provided on one media, say Quad and DN Main and UP Supervisory on another media i.e. OFC Please confirm.	Bidder's understanding is correct.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	system of UP line can be provided on cable for Main system of DN line and Supervisory system of DN line can be provided on cable for Main system of UP line.		
149	<p>Part 2, Section VI, Volume 3, Clause 5.3.3.3/Page 499</p> <p>The Second Network shall be formed by two optical fibre cables, preferably one laid along the up-track and the other laid along the down-track ensuring route diversity, from Mughalsarai to New Bhaupur and terminated on ODFs in TERs at Stations, New Bhaupur Station, Auto Location Huts, Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs, IMDs, IMSDs, Staff Quarters and any other location as required. Locations of termination of optical fibre cables of Second Network can be clubbed based upon design of other Systems/Sub-systems under this Contract as well as under Contract Package CP-204, while meeting overall Telecommunication Requirements.</p>	<p>If the distance between locations less than 2Km, Can tail cable be used for the connectivity or main OFC will be dropped at all locations.</p>	<p>Provisions of Bidding document are sufficiently clear and shall prevail.</p>
150	<p>Part 2, Section VI, Volume 3, Clause 5.3.4.2/ Page 499</p>	<p>EN 50159 should not be applicable for the communication equipment's. This will be applicable for only Vital and safety related</p>	<p>Provisions of Bidding Document are sufficiently clear. All vital & Safety Related System using OFC system shall be implemented as per EN-</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>The First Network shall carry all Voice & Data communication between OCC and Stations. The First Network shall also carry all Train Management System information and other Vital & Safety Related Information between OCC and Stations. All Vital & Safety Related System using OFC System shall be implemented as per EN-50159.</p>	<p>equipment's.</p>	<p>50159.</p>
<p>151</p>	<p>Part 2, Section VI, Volume 3, Clause 5.3.4.3/Page 499</p> <p>The Second Network shall also carry all Signal Control Information, Track Vacancy Detection Information and other Vital & Safety Related Information between Stations, New Bhaupur Station, Auto Location Huts, LC Gates and Interfacing IR Stations. All Vital & Safety Related System using OFC System shall be implemented as per EN-50159.</p>	<p>EN 50159 should not be applicable for the communication equipment's. This will be applicable for only Vital and safety related equipment's.</p>	<p>Provisions of Bidding Document are sufficiently clear. All vital & Safety Related System using OFC system shall be implemented as per EN-50159.</p>
<p>152</p>	<p>Part 2, Section VI, Volume 3, Clause 5.3.5.3/Page 500</p> <p>Protection switching mechanisms shall be provided for the tributaries of the SDH Node. 2 Mbps tributaries shall be provided</p>	<p>We understand that for 3 E1, one protection E1 will be provided. Please confirm.</p>	<p>For every 3 E1 (2Mbps tributaries) minimum 1 E1 shall be provided as Protection.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	with 1:3 (Minimum) Protection and all the other Tributaries shall be provided with 1+1 Protection.		
153	<p>Part 2, Section VI, Volume 3, Clause 5.3.5.10/Page 501</p> <p>The OFC System shall include a bandwidth management tool to ensure sufficient transmission capacity for each application to function under all traffic circumstances on the OFC System.</p>	Please specify about the bandwidth management tool whether it will be required for data system only or for SDH systems also.	Bandwidth Management tool shall be provided for the OFC System to ensure sufficient transmission capacity for each application to function under all traffic circumstances on the OFC System. The OFC system shall comprise of system to be provided under chapter 5 of PS/ Telecommunication Works, Part 2, Section VI, Vol.3.
154	<p>Part 2, Section VI, Volume 3, Clause 5.3.6.3/Page 501</p> <p>The SDH Equipment shall derive the synchronization timing signal from master clock.</p>	SDH equipment will normally synchronize from frequency synchronization source where as in master clock spec in chapter 9 does not have frequency sync option. Please confirm the requirement.	SDH equipment shall drive the synchronization clock from Master/Sub Master clock. This Master clock can be either the master clock covered in Chapter 9 of PS/ Telecommunication Works, Part 2, Section VI, Vol.3. or a separate master clock (Sub Synchronization Unit) may be provided.
155	<p>Part 2, Section VI, Volume 3, Clause 5.3.7.7/Page 502</p> <p>The Flexible Access Multiplex Equipment shall be provided with 1+1 Redundancy for E1 Channels. Further 1+1 Protection for Control (if its failure results in affecting traffic) & Power Supply Modules/Cards shall be provided in Flexible Access</p>	Is 1+1 redundant E1 ports required or One connected E1 with protection path and another cold stand by E1 card required? Please confirm.	1+1 E1 Channels redundancy shall be on Hot Standby.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	Multiplex Equipment.		
156	<p>Part 2, Section VI, Volume 3, Clause 5.3.9.14/Page 504</p> <p>The Contractor shall be responsible for carrying NMS Traffic of OFC Network of New Bhaupur-New Khurja section being provided under Contract Package 104, from New Bhaupur Station to OCC for Termination at NMS being provided under Contract Package 104. The design for above implementation shall be submitted to Engineer for approval before implementation.</p>	<p>Only the media can be provided for carrying NMS traffic to OCC.</p> <p>The responsibility of converting NMS traffic into suitable/compatible format so as CP-203 contractor can carry the same to OCC is the responsibility of CP 104 contractor. Please confirm.</p>	Provisions of Bidding Document are sufficiently clear.
157	<p>Part 2, Section VI, Volume 3, Clause 5.5.3.3/Para (7) Page 507</p> <p>Flexible access multiplexer equipment shall be provided with 1+1 protection for all channel levels (VF, Data, etc.) with automatic switch over in case of fault.</p>	Is 1+1 protection for RS232 data channel also required? Please confirm.	Provisions of Bidding Document are sufficiently clear.
158	<p>Part 2, Section VI, Volume 3, Clause 6.1.3/Page 510</p> <p>All Vital & Safety Related System using Data Networking System shall be</p>	EN 50159 should be applicable for signalling equipment's only. It should not be applicable on communication systems. Please confirm.	Provisions of Bidding Document are sufficiently clear. All vital & Safety Related System using Data Networking System shall be implemented as per EN-50159.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	implemented as per EN-50159.		
159	<p>Part 2, Section VI, Volume 3, Clause 6.1.8/Page 510</p> <p>At Junction Stations & Crossing Stations, Wi-Fi Facility, compliant with IEEE 802.11g Standards shall be provided for WAN Connectivity to users (which also include drivers of passing trains) via Wireless Enabled Devices and Equipment. A minimum of 10 simultaneous users may use the Wi-Fi Connectivity at Stations. This Wi-Fi Facility shall as a minimum cover Station Buildings and EDFC Tracks up to 500 meters in both directions.</p>	<p>We understand that Wi-Fi will be required at only junction & crossing stations. OCC, IMD/IMSD and other locations will not require Wi-Fi coverage. Please confirm.</p>	<p>Bidder's understanding is correct.</p>
160	<p>Part 2, Section VI, Volume 3, Clause 8.2.2/Page 532</p> <p>MTRC System is being provided by Indian Railways in Mughalsarai-Ghaziabad section of Indian Railways (IR). As such in sections, where track alignment of Mughalsarai-New Bhaupur Section of EDFC is running parallel to the existing Mughalsarai-Ghaziabad Section of IRR, Base Station Sub-systems (BSSs) of IR will be shared by DFCCIL. However in sections, where track</p>	<p>Please Provide the lat-longs along the route and existing BSS locations.</p>	<p>Please refer to reply at Sr. No. 130.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	alignment of Mughalsarai-New Bhaupur Section of EDFC is taking a detour and cannot be served by Base Station Sub-system (BSS) of IR, new BSSs of DFCCIL shall be provided by the Contractor.		
161	<p>Part 1, Section IV, Bidding Forms, Page 70 of 141, Form LOP: Proforma Letter of Participation from Each Member of Joint Venture</p> <p>Tender Form LOP states that: "For Bidders in India to be executed on non-judicial Stamp paper of appropriate value." The Form LOP also mentions that it should be "On each Firm's Letter Head".</p>	Kindly clarify whether to prepare the form on Letter Head or Non-judicial Stamp paper.	<p>(i) The Firms from India shall execute Form LOP on non-judicial stamp paper of appropriate value. (ii) Firms from outside India shall execute Form LOP according to the applicable Law in the Bidder's (Firm's) country or on its Letterhead, as applicable in Bidder's (Firm's) country. Please refer Addendum No. 3, Sr. No. 1.</p>
162	<p>Part 1, Page 70 of 141: Form LOP: Proforma Letter of Participation from Each Member of Joint Venture; Page 39 of 141: ITB 19.1</p> <p>The Form LOP is addressed to: The Managing Director 5th Floor, Pragati Maidan Metro Station Building New Delhi – 110 001</p>	Kindly clarify, whether the Form LOP has to be addressed to The Managing Director OR to GGM/S&T-I/EC.	Form LOP shall be addressed to the Managing Director as stated on the Form LOP.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>However, as per ITB 19.1, the For First Stage Technical Proposal, for submission purposes only, the Employer's address is: Dedicated Freight Corridor Corporation of India Limited, Metro Station Building Complex, Pragati Maidan 4th Floor, Room No. 402 B, New Delhi, 110001, India Attention: Mr. Sarvesh Singh, Group General Manager / S&T-I/ EC Telephone: +91 11 2345 4860/23379148 Facsimile number: + 91 11 2345 4862 Electronic mail address: sarveshsingh@dfcc.co.in</p>		
163	<p>Part 1, Page 79 of 141, Form CCC: Current Contract Commitments / Works in Progress</p> <p>The Form CCC, Column No. (8) and (10) states that: (a) Current Value of outstanding work (US\$ equivalent) as on 28 days before last date of submission of bids, and (b) Average monthly invoicing over last six months (US\$ / month).</p>	<p>Kindly clarify, whether in Column No. (8) and (10) of Form CCC, we need to provide the values as US\$ equivalent values OR INR equivalent values.</p>	<p>Figures in Column 8 & 10 shall be in US\$ equivalent.</p> <p>Please refer Addendum No. 3, Sr. No. 2.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>However, the foot note (i) of the Form CCC states that:</p> <p>For the purpose of conversion of foreign currency into Indian Rupees (INR), Bidders shall use the Foreign Currency Reference Rates published by Reserve Bank of India on 28 days prior to last date of bid submission.</p>		
164	<p>Part 1, Page 82 of 141, Form CU: Copyright Undertaking</p> <p>The Form CU is addressed to: The Managing Director Dedicated Freight Corridor Corporation of India Limited, Pragati Maidan Metro Station Building New Delhi – 110 001</p> <p>However, as per ITB 19.1, the For First Stage Technical Proposal, for submission purposes only, the Employer's address is: Dedicated Freight Corridor Corporation of India Limited, Metro Station Building Complex, Pragati Maidan 4th Floor, Room No. 402 B, New Delhi, 110001, India</p>	<p>Kindly clarify, whether the Form CU has to be addressed to The Managing Director OR to GGM/S&T-I/EC.</p>	<p>Form CU shall be addressed to the Managing Director as stated on the Form CU.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Attention: Mr. Sarvesh Singh, Group General Manager / S&T-I/ EC Telephone: +91 11 2345 4860/23379148 Facsimile number: + 91 11 2345 4862 Electronic mail address: sarveshsingh@dfcc.co.in</p>		
165	<p>Part 2, Section VI, Volume 3, Clause 1.1.6/ Page 481</p> <p>In EDFC Phase-II, residential complexes have been planned for its staff. A total no. Of 263 Residential Quarter/Houses shall be constructed in Mugalsarai-New Bhaupur Section. In addition one Guest House and one Club/Institute have also been planned.</p>	<p>Residential complex, guest house, club/Institute chainage /location have to be provided and the numbers of telephone connections are required.</p>	<p>The requirement of telephones is clearly defined in Para 7.3.5.1 of PS/ Telecommunication Works, Part 2, Section VI, Vol.3.</p>
166	<p>Part 2, Section VI, Volume 3, Clause 1.1.7/ Page 481</p> <p>A centralized Operational Control Centre (OCC) for the entire Eastern Dedicated Freight Corridor (Ludhiana-Khurja-Dadri-Bhaupur-Mughalsarai-Dankuni), i.e. including EDFC Phase-II, shall be located at Allahabad.</p>	<p>OCC exact location and distance from the DFCC station are required.</p>	<p>The distance between Subedarganj (IR) to OCC is not relevant to the scope of work under CP-203.</p>
167	<p>Part 2, Section VI, Volume 3, Clause 5.1.1/page 498</p>	<p>We understand that OFC termination and the OFC equipment's at Interfacing IR and staff</p>	<p>The requirement of OFC termination and OFC equipment shall be determined by the</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>The OFC System shall be a highly reliable system since it shall be the primary means of communications between OCC, Stations, Auto Location Huts, LC Gates, Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs, IMDs, IMSDs, Staff Quarters etc. on which a number of other operationally critical systems will rely.</p>	<p>quarters are required to make the OFC system as primary means of communication. Whereas it can be connected by copper cable to provide all facilities. Please confirm if the same can be used.</p>	<p>Bidder/Contractor.</p>
168	<p>Part 2, Section VI, Volume 3, Clause 5.3.3.2/page 499</p> <p>The First Network shall be formed by two optical fibre cables, preferably one laid along the up-track and the other laid along the down-track ensuring route diversity, from Mughalsarai to New Bhaupur and terminated on Optical Distribution Frames (ODFs) in TERs at Stations and New Bhaupur Station only. Further, this First Network shall be taken to OCC by laying two additional optical fibre cables with route diversity from New Manauri Station to Subedarganj Station of IR and splicing through with two optical fibre cables, being laid from Subedarganj (IR) to OCC and terminated on ODFs in TERs at OCC under Contract Package CP-104.</p>	<p>We understand that OFC laying scope will be till Subedarganj (IR) instead of till OCC. Please confirm.</p>	<p>Bidder's understanding is correct.</p>
169	<p>Part 2, Section VI, Volume 3, Clause 7.3.2/Page 518</p>	<p>We understand that IP servers of CP-104 can be used with upgrade/augment the systems. Additional IP servers will not be required.</p>	<p>Provisions of Bidding Document are sufficiently clear.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>In addition to PBXs based TDM Telephone Network, IP Telephony Server (Call Server) shall be provided at OCC to provide VOIP based backup Telephony Communication Platform. Media Gateway shall be provided as required to meet the requirement of this Particular Specification. If feasible Contractor may upgrade/augment IP Telephony Server and Media Gateway provided at OCC under Contract Package CP-104 to meet the requirements of this Particular Specification.</p>	<p>Please confirm.</p>	
170	<p>Part 2, Section VI, Volume 3, Clause 7.3.7.5/Para (2) Page 521</p> <p>Direct Lines Consoles provided under Contract Package CP-104 for Chief Controller, Deputy Chief Controller, Traction Power Controller, Signaling Fault Management Controller and Track Controller, having a minimum direct line capacity of 100 lines, shall be upgraded/reconfigured to meet the communication requirement mentioned in this Particular Specification, as these controllers are common for EDFC Phase-I and EDFC Phase-II.</p>	<p>We understand that controllers console of CP-104 can be used.</p> <p>Additional 100 line controllers console will not be required. In case additional controllers are required confirm the numbers required.</p>	<p>Provisions of Bidding Document are sufficiently clear.</p> <p>For additional direct line console for Controllers, please refer to clause 7.3.7.5(1) and 7.3.7.5(3) of PS/ Telecommunication Works, Part 2, Section VI, Vol. 3.</p>
171	<p>Part 2, Section VI, Volume 3, Clause 7.3.8.6/Page 524</p>	<p>We understand that OCC equipment's of CP-104 can be used if required and additional</p>	<p>Provisions of Bidding Document are sufficiently clear.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>For above integration, Contractor shall, either provide new PBX, Telephony Server, Media Gateway, Telephone NMS and other associated equipment at OCC and integrate these equipment with PBX, Telephony Servers, Telephone NMS and associated equipment provided at OCC under Contract Package CP-104; or upgrade the PBX, Telephony Server, Media Gateway, Telephone NMS and other associated equipment provided at OCC under Contract Package CP-104 to meet the requirement of this Particular Specification.</p>	<p>equipment's will not be required. Please confirm.</p>	
172	<p>Part 2, Section VI, Volume 3, Clause 7.3.9.2/Page 524</p> <p>A centralized Voice Recording System (VRS) is being provided at OCC, to record telephone conversations of all controllers at OCC and Stations of EDFC Phase-1, under Contract Package CP-104. If feasible, Contractor may upgrade/augment this VRS</p>	<p>We understand that VRS of CP-104 can be used if feasible and additional equipment's will not be required. Please confirm</p>	<p>Provisions of Bidding Document are sufficiently clear.</p>
173	<p>Part 2, Section VI, Volume 3, Clause 7.3.11.3/Page 525</p> <p>Control Communication System shall be provided using Control Communication Equipment as per RDSO Specification No. RDSO/SPN/TC/66/2007. This is provided for communication with one-touch button</p>	<p>Controller's phones are provided in direct line communication system.</p> <p>Another traffic controller with devices as per RDSO spec is not required. Please confirm.</p>	<p>Provisions of Bidding Document shall prevail.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	selective calling facility between the Traffic Controller in the OCC and Station Controller at Stations, IR Sectional Control Centers along the DFC Route, Depot Control Rooms, Crew Control Rooms, and other important locations along the route as decided by the Engineer.		
174	<p>Part 2, Section VI, Volume 3, Clause 7.5.5/Page 530</p> <p>Telephone Network Management System: Six Laptops shall be provided for field maintenance. Appropriate software shall be preloaded onto the Laptops to access the local maintenance port of the PBX switches for system administration and management.</p>	We understand that centralized NMS is not required. Please confirm.	Please refer to clause 7.3.10 of PS/ Telecommunication works, Part 2, Section VI, Vol. 3.
175	<p>Part 2, Section VI, Volume 3, Clause 8.2.3/Page 532</p> <p>It is envisaged that Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section shall also be used for MTRC System of EDFC Phase-2. Details NSS of MTRC System of IR are given in Appendix-II. This NSS shall be upgraded under Contract Package CP-104, if required, to meet the requirements of EDFC Phase-1. This NSS of MTRC System of IR shall be further upgraded, if required, By the Contractor to meet the requirements</p>	IR NSS will be available at Delhi. The media/necessary channels for connectivity between OCC Allahabad to Delhi will be provided by DFCC. Please confirm.	The connectivity (Communication Link) between BSS of EDFC Phase-2 and Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section shall be provided by Employer. Please refer to Amended Clause No.8.5.1.2 of PS /Telecommunication Works, Part 2, Section VI, Vol. 3. (Addendum No.3, Sr. No.28).

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	of EDFC Phase-2.		
176	Part 2, Section VI, Volume 3, Clause 8.5.9.3/Page 551 The towers shall be self-supporting steel structure.	Can pole type tower be used instead of lattice type structure? Please confirm.	Provisions of Bidding document are sufficiently clear.
177	Part 2, Section VI, Volume 3, Clause 11.3.5/Page 563 All Battery Cells shall be of the Valve Regulated Lead Acid Maintenance Free type to RDSO specifications IRS S93-96 with Latest Amendments for capacities up to and including 500 AH and to TEC Specifications No.GR/BAT-01/03 March 2004 with Latest Amendments for capacities beyond 500 AH. The life of these Battery Cells shall not be less than 7 years.	The codal life of battery is not 7 years. Please confirm the requirement.	Provisions of Bidding Document shall prevail.
178	Part 2, Section VI, Volume 2, Clause 2.2.3 (3)(c), Page 12/165 It shall be capable of interfacing with TMS & TPWS systems using serial/ Ethernet/OFC ports.	Considering the TPWS system presently in vogue on IR, we presume that the field units will be installed in proximity to the signals. Therefore parallel I/O interface should also be acceptable. Please confirm.	Request not accepted. Provisions of Bidding Document shall prevail.
179	Part 2, Section VI, Volume 2, Clause 2.2.5 (1)(e), Page 15/165 The location of the Evaluator, vital relays & other MSDAC equipment and their cabling	Please clarify if Evaluators needs to be placed in Stations only (or) we can place it in Line Side cabinets / Relay Huts also.	The Evaluators can be placed anywhere, as determined by Contractor's design duly reviewed/ approved by the Engineer at design stage.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>& power supply requirement shall be determined by contractor's choice of equipment and design.</p>		
180	<p>Part 2, Section VI, Volume 2, Clause 2.2.5 (2)(h), Page 16/165</p> <p>The Track-vacancy detection system at Stations shall have only Main system with no Supervisory system.</p>	<p>In view of this, the resetting arrangement in station will be "manual RESETTING" using RESET box and LV box</p>	<p>Please refer to Para 2.2.5(2)(l)(i)(a). Stations will have Manual resetting, scheme for which shall be designed by the Contractor.</p>
181	<p>Part 2, Section VI, Volume 2, Clause 2.2.5 (2)(l)(i)(a), Page 17/165</p> <p>A suitable resetting scheme shall be devised by the contractor for manual resetting of axle counter track sections at stations and block sections. This should be achieved through a mix of system design and practical Operating procedures.</p>	<p>We understand that the following RESET arrangement will be used, Manual RESETTING using RESET box and LV box at stations only Auto RESET using supervisory and main axle counter system in case one system fails. Manual resetting in Preparatory mode will be used in block section when both main and supervisory fails and the resetting command will be extended from the station in rear. Please Confirm</p>	<p>The Manual resetting scheme shall be designed by the Contractor and approved by the Engineer at Design stage.</p>
182	<p>Part 2, Section VI, Volume 2, Clause 2.2.5 (2)(l)(i)(c), Page 17/165</p> <p>Provision shall be made to record every operation of resetting by non-resettable reset counter. The counter should count every time resetting is done and shall not reset back on failure of Control terminal /power supply.</p>	<p>The recording and counter will be available in the VDU only. Please confirm.</p>	<p>The Bidding document does not restrict use of VDU for provision of counters. The Contractor shall get the proposal reviewed/approved by the Engineer at design stage</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
183	<p>Part 2, Section VI, Volume 2, Clause 2.2.6 (1)(d), Page 18/165</p> <p>At present these 18 LC gates are interlocked with IR gate signals. These would be replaced with an arrangement where they cover both IR and new DFCCIL tracks and are interlocked with both IR and new gate signals on DFCCIL lines.</p>	<p>Please clarify whether all existing outdoor equipment's (e.g. ELB, Road signal, hooter) for LX required to be replaced with New arrangements?</p> <p>Our understanding is all interlocking at IR will be carried out by IR. Please confirm</p>	<p>Bidder's understanding is correct.</p> <p>Para 2.2.6 clearly elaborates the scope of work at the Level Crossing gates that is in Contractor's domain including co-ordination with IR.</p>
184	<p>Part 2, Section VI, Volume 2, Clause 2.2.6 (1)(e), Page 18/165</p> <p>Single set of electrically operated common lifting barriers shall be provided outside the Indian Railways and DFCCIL tracks so as to protect both the railway as well as DFCCIL tracks by one set of lifting barriers. In case the distance between IR and DFCCIL tracks is such that a single set of barriers is considered unsafe or operationally unmanageable, the decision on providing two separate set of barriers under exceptional cases can be taken By the Engineer on the basis of local conditions.</p>	<p>Request you to identify/specify such locations at the tendering stage itself. In case this is identified as a requirement during implementation, please confirm that extra ELB and its associated cables will be considered under variation.</p>	<p>Bidder's attention is invited to Clause 7.2 of ITB Part-1, Section I.</p> <p>The bidder may also refer to the details available in reference documents under Part-4.</p>
185	<p>Part 2, Section VI, Volume 2, Clause 2.2.6 (1)(f), Page 18/165</p> <p>A separate panel for the operation of the</p>	<p>As per RDSO specs/ approval, the barrier panel has only push buttons for "Opening" & "Closing" and not for mid stop. This is because barrier opens/ closes only as long as</p>	<p>Please refer to Addendum No. 3, Sr. No. 12.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	booms shall be provided wherein the buttons is provided for raising/lowering the booms. Facility shall exist to stop the booms midway during operation, should a vehicle come under the boom or enter the level crossing gate during the process of closure.	the respective button is kept pressed. If button is released midway it stops midway. In fully open/ closed positions the respective buttons become inoperative.	
186	<p>Part 2, Section VI, Volume 2, Clause 2.2.6 (1)(j), Page 19/165</p> <p>A common indication panel shall be provided in the new gate hut, where in indication for the 'ON' and 'OFF' aspects of gates signals (wherever provided) for both the systems (IR and DFCCIL) as also the occupation/ clearance of the controlling track circuits up to the point of approach warning shall be displayed. Direction of movement of the trains shall also be displayed on the panel.</p>	As per current practice in IR on this section, we only provide approach warning indication in a single LED where the approach warning tracks fall under the boundary of adjacent EI location. The track circuit information is sent only serially to the EI where it controls the level crossing gates. While the approach warning indication only needs to be provided, the indication of the tracks in approach of the LX need to be provided only if they are within the jurisdiction of the same EI. Please confirm.	Provisions of Bidding document shall prevail.
187	<p>Part 2, Section VI, Volume 2, Clause 2.2.6 (1)(k), Page 19/165</p> <p>The gateman shall be provided with facility to put back the gate signals to ON in case of emergency.</p>	As presently this is not the practice followed in IR presently, we understand this is applicable only for the DFCC line. In the Event of this being extended to IR lines consequent to the EDFC lines coming in vogue; we presume the necessary works for the IR lines will be carried out by IR. Please confirm.	Bidder's understanding is correct.
188	Part 2, Section VI, Volume 2, Clause 2.2.6	With ref. to clause 2.2.6 1b here under it is	Bidder's understanding is correct.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>(2)(a), Page 19/165</p> <p>As Level Crossing gates will be replaced by RUB/ROB in future, the system design shall be such that it requires minimum changes to initial design for the same and the change is implemented in a cost effective and time efficient manner.</p>	<p>our understanding that the technical and commercial proposal need to cater for interlocking 18 LCs only.</p> <p>Further, RUB/ROB at 57 locations would be implemented before we commission the signalling system. Please confirm.</p>	
189	<p>Part 2, Section VI, Volume 2, Clause 2.2.6 (2), Page 20/165</p> <p>(f) The Gate signals on DFCCIL lines will be interlocked with new ELB and DFCCIL line gate signal aspects and controlling track indications are provided on Domino Type Control cum Indication Panel (CCIP) in the new gate hut.</p> <p>(g)The Common Indication Panel for IR and DFCC lines shall be a Domino Type Control cum Indication Panel (CCIP), provided as per RDSO specification RDSO/SPN/186/2004 and procured as per Para 4.2 of this Specification.</p> <p>(h) The Contractor shall carry out all work, including laying of cables between the new ELB and IR Control cum indication panel and DFCCIL CCIP and Operating panel, required for extension of interface/displays between DFCCIL and IR systems.</p>	<p>In the existing practice, panel for LC gate indication & operation are two different ones. While the control panel is installed outside the lodge near the ELB is supplied along with electric lifting barriers, the indication panel is provided by EI installer. They are fabricated with metallic sheets.</p> <p>However, the specification calls for domino type control cum indication panel. Please clarify whether a sheet metal fabricated panel as per the prevailing practice and similar in use in IR is acceptable to meet this purpose.</p>	Provisions of Bidding document shall prevail.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
190	<p>Part 2, Section VI, Volume 2, Clause 2.2.7 (2)(g), Page 21/165</p> <p>Locking detection shall be provided to detect that the point lock is in the respective locked position before authorizing a train movement over the point</p>	<p>We understand that this requirement would be satisfied by the RDSO specifications. IRSS24/2002 which defines the locking and the detection as per RDSO. Hence the detector contacts built into the machine, duly ensuring the effectiveness of locking is acceptable and no external detection at the clamp near the switch is required.</p> <p>Please confirm.</p>	<p>As per clause 2.2.7 (2) (a) provision of external clamp locking is necessary. The locking of the clamp is also required to be detected.</p>
191	<p>Part 2, Section VI, Volume 2, Clause 2.2.7 (2)(j), Page 21/165</p> <p>Point machine wires shall be protected to prevent short-circuiting and monitored continuously for earth leakage.</p>	<p>Since, the super imposed detection is not permitted as per sub clause 2.2.7(2f) the requirement as per this clause is not clear. Please clarify</p> <p>Also, the requirement of earth leakage will be in accordance with 2.2.9 (18) and 5.3.25. Please confirm that this is adequate</p>	<p>Super imposed detection has nothing to do with this requirement. Requirement of Earth leakage protection already elaborated in the Bidding Document. It is confirmed that the requirement of earth leakage will be in accordance with 2.2.9(18) and 5.3.25 of PS (Signalling Works), Part 2, Section VI, Vol.2.</p>
192	<p>Part 2, Section VI, Volume 3, Clause 2.2.10 (1)(c), Page 24/165</p> <p>The S&D terminals shall be provided with the Signal Maintainer at the Stations and with the Signal Fault Controller at the OCC. Each Signal Maintainer's S&D terminal shall monitor health of Signaling equipment under his area of control.</p>	<p>The place where the S & D terminals to be located may be indicated. The distance between signal equipment room and the location of the S & D room is required to arrive at the BOQ.</p>	<p>The S&D terminal will be located in 'Data Logger equipment room' at the Station and 'Signal S&D room' at the OCC.</p>
193	<p>Part 2, Section VI, Volume 2, Clause 5.3.22 (11), Page 93/165</p>	<p>This is not as per the current IR practice. Please clarify whether this location hut will be a masonry structure or we need to provide a</p>	<p>Location huts, if required shall be masonry structures.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	Where too many location boxes (say more than 10) are in close proximity between Starter and Home signal, location huts may be provided instead of location boxes for security, proper protection and	shelter; which may be quite expensive. Also the tail cables will become much lengthier to the termination of field equipment. Please review and advice.	
194	Part 2, Section VI, Volume 2, Clause 9.1.26, Page 117/165 Vital Relay: The relays associated with each track section & Supervisory track section. The status of vital relays indicate the clearance or otherwise of associated track section/Supervisory track section.	As per current practice in IR we don't have vital relays for the detections. Instead it will be read as a vital input in EI and provides the information as desired in relays. The wording of this clause may be suitably modified to reflect the existing practice.	Whether contacts of Vital Relays or direct Vital inputs are to be used, is a matter of detailed design to be carried out by the Contractor and reviewed/ approved by the Engineer. Also, please refer to Addendum No.3, Sr. No.16.
195	Bank Guarantees to be provided by JV as Bid Security and Performance Security	Bank Guarantees to be provided by different JV members. Sum of these guarantees would be equal to the sum of the required bank guarantee. JVA members are allowed to submit split bank guarantees in proportion to their respective work share (total sum of these guarantees being equal to the sum of the required bank guarantees). Please confirm if our understanding is correct.	In case of a sole Bidder, the Bid security shall be only one and shall be in the name of the Bidder. In case of Joint venture, multiple Bid Securities (maximum equal to the number of JV members) can be submitted by the Bidder; however these shall be in the name of the Joint Venture. The Performance Security shall be only one and shall be in the name of the Bidder and in case, of a Joint Venture the Performance Security shall be in the name of the Joint Venture.
196	Section - 1 ITB 45.1 /Page 31 of 141 / Conversion to Single Currency	As mentioned in the clause, there is no information on Bid Evaluation currency	Pursuant to ITB 30.1 of Bid Data Sheet the Prices shall be quoted by the Bidder entirely in Indian

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	For evaluation and comparison purposes, the currency (i.e.) of the bid shall be converted into a single currency as specified in the BDS.	available in the Bid Data sheet. Please provide the required information.	Rupees hence, ITB 45.1 of Section-1 of Bidding Document is not applicable.
197	General High Sea Sales applicability	Kindly confirm the applicability of "High sea sales" in this project.	High Sea Sales is not applicable.
198	Part 2, Section VI, Volume 3, Clause 8.4.6.3 BSS being provided under this Contract shall be inter operable with Network Sub System (NSS) being provided for WDFC under Contract Package STP-5.	What kind of documentation is required to be submitted to confirm fulfillment of interoperability criteria.	Please refer to reply at Sr. No. 101.
199	Part 2, Section VI, Volume 3, Clause 8.5.1.1 1) Base Station Sub-system (BSS) of Base Station Controller (BSC) controlling Base Transceivers Stations (BTSS) each containing a number of transceivers (TRXs). In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad-Mughalsarai Section of Indian	What kind of documentation is required to be submitted to confirm fulfillment of interoperability criteria.	Please refer to reply at Sr. No. 101.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Railway, Base Transceivers Stations (BTSS) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening required at BTSSs of Indian Railway, for smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor.</p> <p>However in sections, where track alignment of EDFC Phase-2 is taking a detour and cannot be served by Base Transceivers Stations (BTSS) of Indian Railway, new Base Transceivers Stations (BTSS) of DFCCIL shall be provided by the Contractor for adequate RF coverage. These BTSSs shall be controlled by BSC at OCC. This new Base Station Sub-system (BSS) can be provided either by upgrading and using Base Station Controller (BSC) being provided under Contract Package CP-104 at OCC to meet the requirements of EDFC Phase-2 or by providing a new Base Station Controller (BSC) at OCC.</p> <p>This BSC shall be linked to the existing Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section. Accordingly BSC and associated network elements constituting the Base Station Sub-system (BSS) shall be compatible with this</p>		

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section. The Base Station Sub-system (BSS) should fulfil all interoperability criteria with existing Network Sub-system (NSS) of MTRC System of Indian Railway and should be supported with IOT documentation. Base Station Sub-system (BSS) to be provided under this Contract shall be capable of supporting data communications for Train Control System i.e. ETCS Level-2.</p>		
200	<p>Part 2, Section VI, Volume 3, Clause 8.2.7.1</p> <p>(4) Hardware, firmware, software & licenses required for up-gradation of TRAU of Indian Railway to meet the requirement of this Particular Specification;</p>	<p>Request to change the clause as "Hardware, firmware, software & licenses required for up-gradation of TCU provided at OCC under Contract Package CP-104 to meet the requirement of this Particular Specification"</p>	<p>Please refer to reply at Sr. No. 102.</p>
201	<p>Part 2, Section VI, Volume 3, Clause 8.3.1 (5) (e)</p> <p>Automatic and manual test modes with fault indications;</p>	<p>This feature is specific to Cab radio. None of the Handset manufacturer supports this feature. So it is requested that requirement for OPH should be removed.</p>	<p>Please refer to reply Sr. No.103.</p>
202	<p>Part 2, Section VI, Volume 3, Clause 8.3.6.5 (2)</p>	<p>Automatic fax is optional requirement of EIRENE specification and none of the Cab radio manufacturer supports this feature. So it is requested that requirement Automatic fax</p>	<p>Please refer to reply Sr. No.104.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	Automatic fax Y for Cab Radio	should be removed.	
203	Part 2, Section VI, Volume 3, Clause 8.3.6.5 (3) Display of call charging information Y for Cab radio	This is a optional requirement of EIRENE specification and none of the Cab radio manufacturer support this feature.	Please refer to reply Sr. No.105.
204	Part 2, Section VI, Volume 3, Clause 8.3.6.5 (3) Call supervisory information	Call supervisory information is partially complied for Handsets, synthetic reduced indications to user. So it is requested that feature should be removed for OPH	Please refer to reply at Sr. No.106.
205	Part 2, Section VI, Volume 3, Clause 14.2.2 RF Analyser	Does RF Analyzer mean 'Site Master' for VSWR and RF power measurement?	Please refer to reply at Sr.No.107.
206	Part 2– Employer's Requirement, Section VI. Employer's Requirement, Volume 1: Clause 14.1.3 The Contractor shall repair and/or replace, in each case at no cost to the Employer, any part of the Works which is found to be defective by reason of faulty design, materials or workmanship or negligence or failure on the part of the Contractor to comply with any obligation expressed or implied under the Contract, during the DNP after the date of issue of the Taking Over	It is requested to modify 5th line of sub-clause 14.1.3 to 'The Works shall include equipment being provided under Contract Package CP-203 for up gradation /augmentation/reconfiguration of equipment which is provided under Contract Package CP-104.	Please refer to reply at Sr.No.108.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	Certificate of the Works. The Works shall include equipment being provided under Contract Package CP-104 and upgraded/augmented/reconfigured, under this Contract.		
207	<p>Telecommunication Works Part 2, Section VI, Vol 3, Page 67 of 125, 8.4.6.3</p> <p>BSS being provided under this Contract shall be inter operable with Network Sub System (NSS) being provided for WDFC under Contract Package STP-5.</p> <hr/> <p>Page 67 of 125, 8.5.1.1</p> <p>(1) Base Station Sub-system (BSS) of Base Station Controller (BSC) controlling Base Transceivers Stations (BTSS) each containing a number of transceivers (TRXs).</p> <p>In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad-Mughalsarai Section of Indian Railway, Base Transceivers Stations (BTSS) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening required at BTSS of Indian Railway, for</p>	What kind of documentation is required to be submitted to confirm fulfilment of interoperability criteria?	Please refer to reply at Sr. No. 101.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor.</p> <p>However in sections, where track alignment of EDFC Phase-2 is taking a detour and cannot be served by Base Transceivers Stations (BTSS) of Indian Railway, new Base Transceivers Stations (BTSS) of DFCCIL shall be provided by the Contractor for adequate RF coverage. These BTSS shall be controlled by BSC at OCC. This new Base Station Sub-system (BSS) can be provided either by upgrading and using Base Station Controller (BSC) being provided under Contract Package CP-104 at OCC to meet the requirements of EDFC Phase-2 or by providing a new Base Station Controller (BSC) at OCC.</p> <p>This BSC shall be linked to the existing Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section. Accordingly BSC and associated network elements constituting the Base Station Sub-system (BSS) shall be compatible with this Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section. The Base Station Sub-system (BSS) should fulfil all</p>		

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	interoperability criteria with existing Network Sub-system (NSS) of MTRC System of Indian Railway and should be supported with IOT documentation. Base Station Sub-system (BSS) to be provided under this Contract shall be capable of supporting data communications for Train Control System i.e. ETCS Level-2.		
208	Telecommunication Works Part 2, Section VI, Vol 3, Page 55 of 125, 8.2.7.1 (4) Hardware, firmware, software & licenses required for up-gradation of TRAU of Indian Railway to meet the requirement of this Particular Specification;	Request to change the clause as "Hardware, firmware, software & licenses required for up-gradation of TCU provided at OCC under Contract Package CP-104 to meet the requirement of this Particular Specification"	Please refer to reply at Sr.No.102.
209	Telecommunication Works Part 2, Section VI, Vol 3, Page 56 of 125, 8.3.1 (5) '(e) automatic and manual test modes with fault indications;	'This feature is specific to Cab radio. None of the Handset manufacturer support this feature. So it is requested that requirement for OPH should be removed.	Please refer to reply at Sr.No.103.
210	Telecommunication Works Part 2, Section VI, Vol 3, Page 59 of 125, 8.3.6.5(2)	'Automatic fax is optional requirement of EIRENE specification and none of the Cab radio manufacturer support this feature. So it is requested that requirement Automatic fax	Please refer to reply at Sr.No.104.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	'Automatic fax Y for Cab Radio'	should be removed.	
211	Telecommunication Works Part 2, Section VI, Vol 3, Page 59 of 125, 8.3.6.5(3) 'Display of call charging information Y for Cab radio	'This is a optional requirement of EIRENE specification and none of the Cab radio manufacturer support this feature	Please refer to reply at Sr.No.105.
212	Part 2, Section VI, Volume 3, Particular Specifications Telecommunication Works Clause- 8.3.6.5 (3) 'Call supervisory information'	'Call supervisory information is partially complied for Handsets, synthetic reduced indications to user. So it is requested that feature should be removed for OPH	Please refer to reply at Sr.No.106.
213	Telecommunication Works Part 2, Section VI, Vol 3, Page 111 of 125, 14.2.2 18 RF Analyser	'Does RF Analyzer means 'Site Master' for VSWR and RF power measurement?	Please refer to reply at Sr.No.107.
214	General Specifications, Part 2 Section VI, Vol 1, Page 139 of 159, 14.1.3 The Contractor shall repair and/or replace, in each case at no cost to the Employer, any part of the Works which is found to be defective by reason of faulty design, materials or workmanship or negligence or	It is requested to modify 5th line of sub-clause 14.1.3 to 'The Works shall include equipment being provided under Contract Package CP-203 for upgradation/augmentation/reconfiguration of equipment which is provided under Contract Package CP-104.	Please refer to reply at Sr.No.108.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>failure on the part of the Contractor to comply with any obligation expressed or implied under the Contract, during the DNP after the date of issue of the Taking Over Certificate of the Works. The Works shall include equipment being provided under Contract Package CP-104 and upgraded/augmented/reconfigured, under this Contract.</p>		
215	<p>Part 2, Section VI, Volume 2 Particular specifications Signalling work Page 15 of 165. Clause No 2.2.4 Control System. (2) Technical Requirement ,Point no'© The Software of Control terminal shall be validated to SIL-2. All safety critical functions shall be compliant to SIL4.</p>	<p>The VDU software for Control Terminal is SIL-0 level as per IR practice. Hence request you to maintain the same for DFCL also.</p>	<p>Bidder's request not accepted. Provisions of Bidding Document shall prevail.</p>
216	<p>Part 2, Section VI, Volume 2 Particular specifications Signalling work Page 55 of 165. Clause No 2.3.9 Software Requirement, Point no 1. The TMS software shall be developed conforming to the requirements specified in EN 50128 or other international equivalent</p>	<p>Request you to amend the clause as follows "The TMS software shall be developed conforming to the requirements specified in EN 50128 or other international equivalent standard for Safety Integrity Level 0"</p>	<p>Bidder's request not accepted. Provisions of Bidding Document shall prevail.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>standard for Safety Integrity Level 2 (SIL 2).</p> <p>Part 2, Section VI, Volume 2 Particular specifications Signalling work Page 63 of 165. Clause No 3.11.2 Safety Requirement, Point no 2 The safety level of Electronic Interlocking (EI) and Track Vacancy Detection Systems realized with software shall satisfy the SIL4 or equivalent safety level. 4The software design process of TMS shall conform to SIL 2 level.</p>	<p>Since TMS is not having any control feature hence requested you to maintain the Software design process of TMS as SIL 0 Level.</p>	
217	<p>Part 2, Section VI, Volume 1 General specifications Clause No 14.9.9.1 Security Obligations. Page No 144 of 159. 14.9.9.1 Within fourteen (14) days of the installation of any software, which is developed or modified for this Contract, into the permanent works by the Contractor, the Contractor shall submit to the Engineer for retention by the Employer two (2) backup copies of the software, which shall include, without limitation:</p>	<p>As the source code is a confidential property, so we can not submit the source code for EI, ET original units and related software's. However we propose the escrow of these documents, if necessary.</p>	<p>Please refer to reply at Sr. No. 81.</p>
218	<p>Part 2, Section VI, Volume 1</p>		

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response										
(1)	(2)	(3)	(4)										
	General specifications Clause No 14.9.9.1 Security Obligations. Page No 144 of 159 (1) All source and executable code including all data configuration tables												
219	Part 1,Bidding Procedure ,Section IV, Bidding FORMS Form MOU, Article 4 ,Page number 65/141 & 66/141 The 'Parties' have resolved that the distribution of responsibilities and their proportionate share in the Joint Venture is as under: <table border="0" data-bbox="271 847 797 1074"> <tr> <td>Joint Venture Member(s)</td> <td>Financial Share (%)</td> </tr> <tr> <td>Responsibilities</td> <td></td> </tr> <tr> <td>(i)</td> <td></td> </tr> <tr> <td>(ii)</td> <td></td> </tr> <tr> <td>(iii)</td> <td></td> </tr> </table>	Joint Venture Member(s)	Financial Share (%)	Responsibilities		(i)		(ii)		(iii)		In this clause in column "Financial Share (%)" may not be necessarily exact demarcation of responsibilities it may create some misunderstanding among the JV member in Later Stage, hence request you to change the column heading as "Share (%)."	Request not accepted. Provisions of Bidding Document shall prevail.
Joint Venture Member(s)	Financial Share (%)												
Responsibilities													
(i)													
(ii)													
(iii)													
220	Part 4, Reference documents	1) Alignment Plan for Detour Section. 2) Latitude & Longitude of DFCC Detours at every 1 Kilometer.	1) Please refer to Part 4 – reference documents for Alignment Plan of Detour section. 2) The details provided in reference documents under Part-4 are sufficient for the Bidding stage, and may be referred to. Further, Bidder's attention is invited to Clause 7.2 of ITB, Part 1, Section I.										

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
221	Part 3, Section VIII, Particular Conditions Clause 1.7 & Page 622, Assignment	Kindly retain sub clause 1.7 as given in FIDIC Yellow Book	Request not accepted. The provisions of Bidding Document shall prevail.
222	Part 3, Section VIII, Particular Conditions Clause 1.9 / 5.1 & Page 622 Errors in Employer's requirements- to be understood with reference to "purpose, scope, design and/or other technical criteria for the works"	Please define the "purpose" of the works with reference to the use of the term "purpose, scope, design and/or other technical criteria for the works"	The provisions in the Bidding Document are self-explanatory and shall prevail.
223	Part 3, Section VIII, Particular Conditions Clause 2.1 & Page 625 Right to access to site: the cost compensation is deleted in case of delay in getting access to site	Kindly retain Sub-Clause 2.1 as given in FIDIC Yellow book	Request not accepted. The provisions of Bidding Document shall prevail.
224	Part 3, Section VIII, Particular Conditions Clause 4.7 & Page 626 Setting out	Kindly retain Sub-Clause 4.7 as given in FIDIC Yellow book	Request not accepted. The provisions of Bidding Document shall prevail.
225	Part 3, Section VIII, Particular Conditions Clause 4.10 & Page 627 Site Data	Kindly retain Sub-Clause 4.10 as given in FIDIC Yellow book	Request not accepted. The provisions of Bidding Document shall prevail.
226	Part 3, Section VIII, Particular Conditions Clause 4.12 & Page 628 Unforeseeable Physical Conditions: In this Sub-Clause, "physical conditions" means man-made or natural physical conditions including sub-surface and hydrological conditions which the Contractor encounters at site during the execution of the Works.	Kindly retain Sub-Clause 4.12 as given in FIDIC Yellow book	Request not accepted. The provisions of Bidding Document shall prevail.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Except as otherwise stated in the Contract:</p> <p>(a) the Contractor accepts total responsibility for having foreseen all difficulties and physical conditions; and</p> <p>(b) the Contract Price shall not be adjusted to take account of any unforeseen physical conditions</p>		
227	<p>Part 3, Section VIII, Particular Conditions Clause 5.1 & Page 629</p> <p>General Design Obligation</p>	<p>Please define purpose.</p> <p>We request modification to following clause: - Para 2, 2nd sentence : " The Contractor undertakes that the designers shall be available to attend discussions with the Engineer at all reasonable times, until the expiry date of the relevant Defects Notification Period."- Bidder's design personnel will be available for the meetings but not necessarily the same personnel</p> <p>We request to delete the following requirements/clauses: - Para 4, 2nd sentence : "If and to the extent that (taking account of cost and time) an experienced contractor exercising due care would have discovered the error, fault or other defect when examining the Site and the Employer's Requirements before submitting the Tender, the Time for Completion shall not be extended and the Contract Price shall not be adjusted.</p>	<p>The provisions in the Bidding Document are self-explanatory and shall prevail.</p> <p>Request not accepted. The provisions of Bidding Document shall prevail.</p> <p>Request not accepted. The provisions of Bidding Document shall prevail.</p>
228	<p>Part 3, Section VIII, Particular Conditions Clause 8.8 & Page 633</p>	<p>Please delete the last paragraph of PC 8.8</p>	<p>Request not accepted. The provisions of Bidding Document shall prevail.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<u>Suspension of works</u>		
229	Part 3, Section VIII, Particular Conditions Clause 10.2 & Page 634	Kindly retain Sub-Clause 10.2 as given in FIDIC Yellow book	The provisions of Bidding Document shall prevail.
	<u>Taking over of parts of the works</u>		
230	Part 3, Section VIII, Particular Conditions Clause 13.3 & Page 634 & 635	Please allow price adjustment on Variations to the extent allowed in respective Price Schedules	Request not accepted. The provisions of Bidding Document shall prevail.
	<u>Variation Procedure:</u> No price adjustment for Variations		
231	Part 3, Section VIII, Particular Conditions Clause 16.2 & Page 641	Kindly retain Sub-Clause 16.2 as given in FIDIC Yellow book	Request not accepted. The provisions of Bidding Document shall prevail.
	<u>Termination by the contractor</u>		
232	Part 3, Section VIII, Particular Conditions Clause 17.3 & 18.2 & Page 641 & 642	Kindly retain Sub Clause 17.3(h), 18.2 sub-para 4(d) as given in FIDIC Yellow Book	Request not accepted. The provisions of Bidding Document shall prevail.
	<u>Employer's risks/Insurance of works and Contractor's equipment</u>		
233	G.C.C. - FIDIC Yellow Book 1999, Clause 1.10	We request to delete sub-paragraph (b) and substitute: b) entitle the Employer's Personnel in proper possession of the relevant part of the Works to copy, use the Contractor's Documents for the purposes of completing, operating, maintaining the Works	Request not accepted. The provisions of Bidding Document shall prevail.
	<u>Employer's Use of Contractor's Documents</u>		
234	G.C.C. - FIDIC Yellow Book 1999, Clause 1.12	Please confirm the nature of the confidential information that may be required.	The provisions in the Bidding Document are self-explanatory and shall prevail.
	Confidential details The Contractor shall disclose all such confidential and other information as the Engineer may reasonably require in order		

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	to verify the Contractor's compliance with the Contract		
235	<p>G.C.C. - FIDIC Yellow Book 1999, Clause 1.13</p> <p>Compliance with Law: (b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licences and approvals, as required by the Laws in relation to the design, execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Employer harmless against and from the consequences of any failure to do so</p>	<p>We request to Insert at the end of Sub-Clause 1.13:</p> <p>However, the Contractor shall submit, in good time, the details of Goods to the Employer, who shall then promptly obtain all import permits or licences required for these Goods.</p>	Request not accepted. The provisions of Bidding Document shall prevail.
236	<p>G.C.C. - FIDIC Yellow Book 1999, Clause 2.2</p> <p><u>Permits, Licences or Approvals</u></p>	<p>The Contractor shall be responsible to get only those Permits, Approvals or License which are required in the Contractor's name for the performance of this Contract. Please confirm.</p> <p>Further, we request DFCCIL to issue the necessary Road Permit/Octroi Exemption Certificate, if applicable for transporting the project related material / equipments in the respective states</p>	<p>The provisions in the Bidding Document are self-explanatory and shall prevail.</p> <p>Request not accepted. The provisions of Bidding Document shall prevail.</p>
237	<p>G.C.C. - FIDIC Yellow Book 1999, Clause 2.5</p> <p><u>Employer's claim</u> Para (2) The notice shall be given as soon as practicable after the Employer became aware of the event or circumstances giving rise to the claim. A notice relating to any</p>	<p>We request you to Insert in paragraph 2, behind the words "as soon as practicable":</p> <p>,and not later than 28 days</p>	Request not accepted. The provisions of Bidding Document shall prevail.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	extension of the Defects Notification Period shall be given before the expiry of such period.		
238	<p>G.C.C. - FIDIC Yellow Book 1999, Clause 4.1</p> <p><u>Contractor's General Obligations:</u> The Contractor shall design, execute and complete the Works in accordance with the Contract, and shall remedy any defects in the Works. When completed, the Works shall be fit for the purposes for which the Works are intended as defined in the Contract.</p>	We request to Delete paragraph 1, 2nd sentence.	Request not accepted. The provisions of Bidding Document shall prevail.
239	<p>G.C.C. - FIDIC Yellow Book 1999, Clause 4.1</p> <p>Contractor's General Obligations</p>	<p>We request to delete the following words in paragraph 3 of Sub-Clause 4.1.</p> <p>... (although not mentioned in the Contract).</p>	Request not accepted. The provisions of Bidding Document shall prevail.
240	<p>G.C.C. - FIDIC Yellow Book 1999, Clause 4.3</p> <p>Contractor's Representative</p>	<p>We request to delete following two paragraphs:</p> <p>Unless the Contractor's Representative is named in the Contract, the Contractor shall, prior to the Commencement Date, submit to the Engineer for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked, or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.</p>	Request not accepted. The provisions of Bidding Document shall prevail.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
		The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.	
241	G.C.C. - FIDIC Yellow Book 1999, Clause 4.5 Nominated Subcontractors	We request to delete Sub-Clause 4.5.	Request not accepted. The provisions of Bidding Document shall prevail.
242	G.C.C. - FIDIC Yellow Book 1999, Clause 4.6 Co-operation	We request to delete Sub-Clause 4.6 and substitute: The Contractor shall, in accordance with the Engineer's instructions, afford to other contractors engaged by the Employer to work on the Site and persons lawfully upon the Site all reasonable opportunities for carrying out their work provided that the same shall not obstruct or disturb the progress of the Works and, when leaving his area of work, clean-up such part of the Site. The Contractor shall also afford such opportunities to the employees of the Employer. If the Contractor, on the written request of the Engineer, makes available any Contractor's Equipment or provides any other service, the Employer shall pay the Contractor accordingly. The amount to be paid shall be certified by the Engineer and added to the Contract Price.	Request not accepted. The provisions of Bidding Document shall prevail.
243	G.C.C. - FIDIC Yellow Book 1999, Clause 4.13 Rights of way and facilities	Kindly delete this clause.	Request not accepted. The provisions of Bidding Document shall prevail.
244	G.C.C. - FIDIC Yellow Book 1999, Clause	Delete paragraph 1, 1st sentence.	Request not accepted. The provisions of Bidding

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>4.15</p> <p>Access Route</p>	<p>Delete paragraph 2, including sub-paragraphs (a) to (e), and substitute: However, if the Contractor encounters non-suitability or non-availability, for the use required by the Contractor, of access routes, gives a notice to the Engineer as soon as practicable describing the relevant circumstances, and suffers delay and/or incurs Cost due to these circumstances, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to: (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost, which shall be included in the Contract Price.</p>	<p>Document shall prevail.</p> <p>Request not accepted. The provisions of Bidding Document shall prevail.</p>
245	<p>G.C.C. - FIDIC Yellow Book 1999, Clause 4.19</p> <p>Electricity, Water and Gas</p>	<p>We request to delete paragraphs 1 and 2 and substitute:</p> <p>The Employer shall be responsible for the provision of all power, water and other services the Contractor may reasonably require. The Contractor shall be entitled to use for the purposes of the Works and for the accommodation of the Contractor's and his Subcontractor's Personnel such supplies of electricity, water, gas and other services, the details and prices of which are given in the Employer's Requirements.</p>	<p>Request not accepted. The provisions of Bidding Document shall prevail.</p>
246	<p>G.C.C. - FIDIC Yellow Book 1999, Clause</p>	<p>We request you in sub-paragraph (a), delete</p>	<p>Request not accepted. The provisions of Bidding</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>4.22</p> <p>Security of the Site (a) the Contractor shall be responsible for keeping unauthorised persons off the Site, and</p>	<p>the word "Contractor" and substitute with "Employer"</p>	<p>Document shall prevail.</p>
247	<p>G.C.C. - FIDIC Yellow Book 1999, Clause 11</p> <p>1.1.3.7 <u>Defects Liability</u></p>	<p>We understand that the Defects Liability period and the Defects Notification period as mentioned in cl. 1.1.3.7 (pg. 4 of FIDIC Yellow Book) are the same. Please confirm.</p>	<p>FIDIC Yellow Book 1999, which is applicable in this Contract, only defines "Defects Notification Period". Hence Bidder is advised to limit his understanding to contents of FIDIC yellow book 1999 and not to other earlier versions.</p>
248	<p>G.C.C. - FIDIC Yellow Book 1999, Clause 15.2</p> <p>Termination by employer</p>	<p>We request at the end of paragraph 2 ("... may by notice terminate the Contract immediately."), add: In any case, and notwithstanding the above, Employer's right to terminate the Contract hereunder shall be subject to the express proviso that the Employer cannot reasonably be expected to remain bound by the Contract.</p> <p>Delete paragraph 3 ("... shall not prejudice any other rights ...") and substitute: The Employer's election to terminate the Contract shall be in lieu of and to the exclusion of any rights of the Employer, under the Contract or otherwise, other than provided in Sub-Clause 15.4 [Payment after Termination].</p>	<p>Request not accepted. The provisions of Bidding Document shall prevail.</p> <p>Request not accepted. The provisions of Bidding Document shall prevail.</p>
249	<p>G.C.C. - FIDIC Yellow Book 1999, Clause 15.5</p> <p>Employer's Entitlement to Termination</p>	<p>Insert at the end of Sub-Clause 15.5: The Employer shall also pay to the Contractor the amount of any loss of profit or other loss</p>	<p>Request not accepted. The provisions of Bidding Document shall prevail.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
		or damage resulting from this termination.	
250	G.C.C. - FIDIC Yellow Book 1999, Clause 17.6 Limitation of Liability	The clause provides for liability being capped to "Accepted" contract value. Does this mean total contract value, please clarify	The provisions in the Bidding Document are self-explanatory and shall prevail.
251	In case of JV	It is our understanding that, in case of a JV, maximum number of partners must be four (4) and each must have a minimum share of 15%. We would like to request you to either relax this criterion of minimum share, or remove this altogether.	Bidder's understanding is correct. Bidder's request for change not accepted.
252	Interfacing with Other Contractors	We understand that the contractor would be responsible for interfacing with other contractors (e.g. CST contractor, Electrification and E&M contractor, etc.]. We request DFCCIL to confirm that they shall provide the necessary coordination support in this regard? Also, we request you to clarify that any integration work of products / systems beyond the scope of work of this contract, will not be the responsibility of the contractor executing this work?	The Employer/Engineer will extend all support and assistance as required. In this regard, bidder's attention is invited to Para 10.2.8 of GS, Part 2, section VI, Vol. 1The provisions in the Bidding Document are self-explanatory and shall prevail.
253	Section I, Instructions to Bidders Clause 4.3(e) & Page 11 Eligible Bidders	We understand that a JV member can participate as a sub-contractor in multiple bids. Please confirm.	The provisions in the Bidding Document are self-explanatory and shall prevail.
254	1.Part 2, Section VI, Volume 1, Clause 1.2.3 Page 8/159 and 9/159 2.Part 4_1 alignment plans_ yard plans & building plans _1_8_5 & 6.rar Mughalsarai KM 124.626 New ahraura road Km 138.675	Block section length is not matching. The one provided in the ESP is different from the block length as per the DFC chainage of Centre line of the station and Rly chainages provided. Please clarify.	All chainages given in the Bidding Document are indicative. The exact chainages will only be known after finalization of the alignment by the CST contractor of CP-201 &CP-202.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
 New Malwan km 423.062		
255	2.Part 4_1 alignment plans_ yard plans & building plans _1_8_6.rar. Yard plan of Mughalsarai	Chainage of station building of Mughalsarai not provided.	Please refer to Para 1.2.3 (1) of General Specifications Part 2, Section VI, Vol. 1. The Chainage of Mughalsarai station building is Km 124.626.
256	2.Part 4_1 alignment plans_ yard plans & building plans _1_8_5.rar. Yard plan of Mirzapur	As per our understanding Chainage towards Delhi is increasing and decreasing as we move towards Howrah but in ESP it is shown vice versa. Please clarify	Bidder's understanding that chainages towards Delhi is increasing and decreasing towards Howrah is correct.
257	As per the scope of work we have to provide signaling for Mughalsarai- new Bhaupur (excluding)	The automatic block working will be provided b/w new Bhimsen and new Bhaupur but the partial control of the automatic block section will be needed to be controlled by New Bhaupur. Our understanding is that control terminal for the same, OFC cables for the EI communication and other associated accessories is to be considered by us. Please confirm	Please refer Addendum No.4, Sr. No. 3.
258	Part 2, Section VI, Volume 2 Particular Specifications Signalling Works 5.2.2 (4) page 81/165 The building of Signalling Equipment rooms and Signalling Power supply equipment rooms in the block section is within the scope of present contract and their number and location will be determined by	As per Part 2, Section VI, Volume 1, General Specifications page 102/159 E & M Shall provide the Electrical fittings including Lights, fans, sockets etc. in Signalling and Telecom structures, as per S&T requirement. Will the E&M contractor provide the Electrical fittings in the buildings in block sections to be built by S&T contractor? Please clarify.	It is confirmed that the Contractor of CP 204 will provide electrical fittings in the buildings in the block sections to be built by S&T Contractor.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Signalling design. These Signalling structures shall be located, to the extent possible near the Railway Level Crossings and adjacent to the Telecommunication structures. The Signalling power supply equipment rooms can be combined with the Telecommunication power supply rooms where they are co-located. The contractor shall provide the ventilation and air-conditioning of these rooms in accordance with relevant provisions of this specification.</p>		
259	<p>Part 2, Section VI, Volume 2 6/165 1.3.12</p> <p>The Signalling system shall be housed in Signal Equipment Rooms (SER). While SER at Stations will be constructed as part of Station building under Contract Package 201 & 202, the Auto Location Huts (ALH) for housing Signalling and Telecommunication equipment in the Block sections shall be provided by the Contractor under PS Buildings & Structures, Vol. 4, Part 2, Section VI.</p>	<p>Please clarify who will provide "A" class Lightning Protection at Station SER, which will be built by CST contractor?</p>	<p>Provisions of Para 5.4.4(1) of PS (Signalling Works), Part 2, Section VI, Vol.2 are sufficiently clear. It is clarified that the Lightning Protection for Signalling Equipment Rooms at the Stations is to be provided by the Contractor.</p>
260	<p>Part 2, Section VI, Volume 2 17/165 2.2.5 (2)(j)(iv)</p> <p>A standby Evaluator with complete programming and configuration shall be provided for every Evaluator at Stations and</p>	<p>In a scenario where an axle counter solution does not have track side electronics but indoor electronics system, please confirm that standby evaluator is required only for the system which delivers the axle counter track status to the interlocking and not for the</p>	<p>Please refer to Addendum No.3, Sr. No. 11</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Block Sections with arrangement for switch over using a single switch. After every change over, the track sections shall go in error state and shall have to be reset as per manual resetting procedure.</p>	<p>indoor electronics system that interfaces with track detection points.</p> <p>In addition, please confirm that in case of an axle counter solution with inherent hot stand-by configuration, it is not necessary to have the track sections in an error state at change-over</p>	
261	<p>Part 2, Section VI, Volume 2 26/165 2.3.1 (5) & (6)</p> <p>(5)The system shall enable interconnection with other TMS systems of adjacent sections/backup OCC/ OCC which will be provided by other contractors.</p> <p>(6)The system shall have all the capability built into it to be configured at a later stage for remote control of Signaling System for use as Centralized Traffic Control (CTC) System from OCC with minimum configuration changes and no hardware add-on. Alternatively it shall be possible to control the TMS provided in this contract from CTC in OCC provided by other contractor. The Contractor shall seek</p>	<p>We need to have necessary SDK/API (Software development kit /Application package interface) including but not limited to protocol and FFFIS to be made available to us in a time bound manner by the provider of the TMS system in APL 1. We request DFCCIL's confirmation that it will extend all assistance to the contractor get the above in time.</p>	<p>The Employer/Engineer will extend all support and assistance, as required. In this regard, Bidder's attention is invited to Para 10.2.8 of General Specifications, Part 2, Section VI, Vol.1.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>clarifications in this regard from the Engineer in the early stages of the project. The decision of the Engineer in this regard shall be final.</p>		
262	<p>Part 2, Section VI, Volume 2 55/165 2.3.9 (1)</p> <p>The TMS software shall be developed conforming to the requirements specified in EN 50128 or other international equivalent standard for Safety Integrity Level 2 (SIL 2).</p>	<p>1. TMS is a non-safety critical/safety-related subsystem; we read the requirement as: the development process used for TMS covers the software SIL2 lifecycle requirements of EN 50128. Please confirm.</p> <p>2. In case safety requirements are mandate, although the system is not safety critical/safety related, these are applicable only to manual commands, indication visualization and train tracking. Please confirm</p>	<p>1. Bidder's Understanding is correct. Also see the reply at Sr. No. 79.</p> <p>2. Bidder's understanding is correct.</p>
263	<p>Part 2, Section VI, Volume 2 89/165 5.3.14(1) (2)(j)(iv)</p> <p>As far as possible, the cable shall be crossed from one side of the yard to the Other, at minimum number of locations.</p>	<p>To reduce the no. of track crossing, Signalling cable can also be laid in both up & down trench in stations & block sections. Please advice.</p>	<p>The Referred Para is 5.3.14(1). It is the part of Bidder's design. The cables can be laid in both Up and Down trenches in stations and block sections.</p>
264	<p>Part 2, Section VI, Volume 2 121/165 Appendix 1-(13)</p> <p>Arrangement for fixing of safety chain shall also be provided in case of failure of lifting barriers. Indication for fixing of safety chain</p>	<p>As per existing railways practice, these chains are provided by Engineering Wing of IR and not by S&T. Since in this contract, it is to be provided by S&T contractor, you are requested to provide the supplier details and</p>	<p>Being Design-build contract, it is the contractor's responsibility to arrange supply of material as per requirement specified in the Bidding document.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	shall also be provided on the panel of Station Master. An arrangement shall be provided for talking off the relevant gate signal when the safety chain is properly locked and detected by the system.	suitable references.	
265	Part 2, Section VI, Volume 2 111/165 8.2.7 Contract Spares	Spare items quantities mentioned for some of the items are exceptionally high in particular for items at Sr. no 5, 6, 11, 12 & 13. As per experience, much lesser spares will be needed. Please revise the quantity.	Provisions of Bidding document shall prevail.
266	Part 2, Section VI, Volume 2 114/165 8.2.8 Complete tool kit for maintenance of EI as per the recommendations of the manufacturer in a suitable carrying case. Nos. 1 at each EI	As per prevailing practice, it is recommended to provide tool kit for EI at Station area only and not at ALH as primarily processing is handled at station area while ALH is handling field input/output function. So it is recommended to have 1 toolkit per station and two toolkits per block section 1 for auto block East and 1 for Auto block West.	Provisions of Bidding document shall prevail.
267	Part 2, Section VI, Volume 2 120 & 121/165 Appendix 1, I. 6 & II. 6 A common indication panel shall be provided in the gate hut, wherein the indications for the 'On' and 'Off' aspect of gate signals for both the systems as also the occupation/clearance of the controlling track circuits up to the point of approach warning shall be displayed. Direction of	The signal & Track information along with approach locking / warning of Indian Railways (IR) lines should be brought up to new gate lodge to be provided under this tender by IR. Please clarify.	Bidder's attention is invited to Para 2.2.6(1) (j) of PS (Signalling Works), Part 2, Section VI, Vol. 2. The Contractor will be required to extend the IR gate signal aspects, approach track sections etc. to common indication panel through requisite interface. The changes in IR circuits, if required shall be carried out and commissioned by IR. Construction of new gate huts is beyond the scope of this contract.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	movement of the trains shall also be displayed in the panel.		
268	<p>Part 2, Section VI, Volume 1, 55/159 6.2.1</p> <p>The Contractor shall establish an office for his dedicated design team in the Main Site Office of the Contractor at Allahabad and referred to as Design Team. The Design Team shall function from this office and all meetings and discussions relating to design shall be held in this office or in the office of Engineer/Employer and/or as instructed by the Engineer. In addition to the requirements detailed herein, the Contractor shall, whenever the Engineer so requests, provide information and participate in discussions that relate to design matters.</p>	<p>The Project office will be established in Allahabad, where the key resources including Interface Manager and Senior Signalling person will be available for meetings and discussions related to design. However, the core design team will be functioning from contractor's already established design offices, where the detailed design will be carried out for this project. Please clarify if our understanding is correct and contractor need not establish dedicated detailed design office especially at Allahabad. Similarly TMS software development/customization/configuration will be join effort between offshore and onshore teams This requires the network/IT infrastructure of high standards (24 x 7) which may not be available at Allahabad.</p>	Refer to Addendum No. 4, Sr. No.2
269	<p>General</p> <p>Referring to PQ results, we have proposed other vendors as specialized subcontractors However only one has been indicated in the result.</p>	<p>We have submitted documents of following specialized subcontractors for:-</p> <ol style="list-style-type: none"> 1. OFC system – Fibcom, Tejas and Applicant's own credentials. 2. MTRS - TCIL and NSN. <p>Though the PQ evaluation result vide DFCCIL Letter dated 30.03.2015 mentions only the</p>	<p>Please refer to reply at Sr. No. 136. The Bidder is bound to use the particular specialized subcontractor who has been pre-qualified for the Bidder for the particular activity. In case the Bidder wishes to do the work of the specialized sub-contractor on its own, he has to propose for the change in accordance with provisions of the Bidding document.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
		<p>name of Pre-Qualified Specialized Sub-contractor for OFC & MTRS Works, as a prime contractor. Applicant had also submitted its necessary forms and credentials for the OFC works.</p> <p>We understand that Applicant qualifies for OFC Works through its own credentials and it is not necessary for our consortium to go with a specialized sub-contractor for OFC works. Please Confirm.</p>	
270	<p>Volume – 1, Section – II: BDS, ITB 30.1 (b), Page 41 of 141</p> <p>For the purpose of conversion of foreign currency in to local currency i.e. Indian Rupees (INR) or vice versa, Bidders shall use the Reference Rates of Foreign Currency published by Reserve Bank of India (www.rbi.org.in), on the Base Date (28 days prior to the last date of second stage bid submission)</p>	<p>For the purpose of conversion of foreign currency in to local currency i.e. Indian Rupees (INR) or vice versa, we would request DFCCIL to provide a specific date of conversion. This would help us to avoid re-working and preparation of CA Certificates for some of the Tender Forms (such as Form CCC, Form Fin-3.3 - Financial Resources, etc.) in case of any extension of bid submission date.</p>	Provisions of Bidding document shall prevail.
271	<p>Volume 3, Part-2, Page No. 22 of 125 , Clause 5.3.3.3</p> <p>Second FO Network</p>	<p>The referred clause indicates that the Redundant second FO network shall terminate at TER of stations, ALH, IR stations, GSM IR Locations, TSS, SP, SSP, IMD, IMSD, Staff quarters. We understand that IMD, IMSD, Staff quarters will be near to the station complex and hence we propose to terminate the second fibre network at Station TER. Connection to IMD, IMSD, Staff quarters will be established with station TER over station LAN using Spur fiber cable. Kindly clarify whether our proposal is</p>	Provisions of Bidding Document are sufficiently clear.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
272	<p>Volume 3, Part-2, Page No. 23 of 125 , Clause 5.3.4.5</p> <p>SDH node of Second FO Network</p>	<p>acceptable</p> <p>The referred clause indicates that the SDH node of second FO network shall be at least STM-4 level. Bidder assumes that Ethernet services will be extended to the locations like SP, SSP, LC gates, IMD, IMSD, Staff quarters etc., from nearest Station TER & TSS through spur fibre backbone. Kindly confirm whether bidders understanding are correct. also kindly confirm that SDH node is not required at SP, SSP, LC gates, IMD, IMSD, Staff quarters etc.,</p>	<p>The number of SDH Nodes for Second Network shall be determined by Bidder/Contractor.</p> <p>Please refer to Clause 5.3.3.3 & 6.1.7 of PS/Telecommunication Works, Part 2, Section VI, Vol. 3.</p>
273	<p>Volume 3, Part-2, Page No. 23 of 125 , Clause 5.3.4.7</p> <p>SDH Node integration</p>	<p>The referred clause indicates that the SDH nodes offered under CP-203 has to be integrated with SDH node supplied under CP 104. Bidder request customer to kindly provide the details of SDH nodes (such as make, model no, configuration etc.,) supplied under CP - 104</p>	<p>CP 104 is a Design-Build Contract where the Contractor has to propose his own design and equipment based on specifications provided for in the Bidding Document (The Bid Document of CP-104 along with amendments is available on DFCCIL website).</p> <p>As per Para 10.6.7 of General Specifications, Part 2, Section VI, Vol. 1, the CP-203 Contractor will be required to interface with CP-104 Contractor for integration of Signalling & Telecom System as per requirements.</p>
274	<p>Volume 3, Part-2, Page No. 34 of 125 , Clause 6.3.2</p> <p>Layer-3 switch Integration</p>	<p>The referred clause indicates that the Layer-3 switches offered under CP-203 has to be integrated with Layer-3 switches supplied under CP 104. Bidder request customer to kindly provide the details of Layer-3 switches (such as make, model no, configuration etc.,) supplied under CP - 104</p>	<p>CP 104 is a Design-Build Contract where the Contractor has to propose his own design and equipment based on specifications provided for in the Bidding Document (The Bid Document of CP-104 along with amendments is available on DFCCIL website).</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
			As per Para 10.6.7 of General Specifications, Part 2, Section VI, Vol. 1, the CP-203 Contractor will be required to interface with CP-104 Contractor for integration of Signalling & Telecom System as per requirements.
275	Volume 3, Part-2, Page No. 40 of 125 , Clause 7.1.7 Up gradation of existing equipment	The referred clause indicates that system supplied under CP-104 can be upgraded wherever possible. Bidder request EDFCC to kindly provide the details like make, model, and configuration drawing of the existing telephone system.	CP 104 is a Design-Build Contract where the Contractor has to propose his own design and equipment based on specifications provided for in the Bidding Document (The Bid Document of CP-104 along with amendments is available on DFCCIL website). As per Para 10.6.7 of General Specifications, Part 2, Section VI, Vol. 1, the CP-203 Contractor will be required to interface with CP-104 Contractor for integration of Signalling & Telecom System as per requirements.
276	Volume 3, Part-2, Page No. 41 of 125 , Clause 7.3.2 TDM based PBX & IP telephony server	The referred clause indicates that in addition to PBX based TDM telephone network, IP telephony server shall be provided at OCC. Bidder proposes to use Hybrid exchange (both IP & Digital / analogue) instead of providing two separate exchanges (i.e. 1 no for TDM & 1 no for IP based). Kindly confirm whether our proposal is acceptable.	The design of the TDM Telephony Network & IP Telephony Network meeting all the requirements of the Bidding Document shall be proposed by the Contractor and reviewed/approved by the Engineer at the Design Stage.
277	Volume 3, Part-2, Page No. 44 of 125 , Clause 7.3.7.5 Existing DLT Console	The referred clause indicates that DLT consoles provided under CP 104 for chief controller, Dp. Chief controller etc., can be upgraded wherever possible. Bidder request DFCC to kindly provide the details like make, model, and configuration drawing of the existing DLT system.	Provisions of Bidding Document are sufficiently clear. CP 104 is a Design-Build Contract where the Contractor has to propose his own design and equipment based on specifications provided for in the Bidding Document (The Bid Document of CP-

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
			<p>104 along with amendments is available on DFCCIL website).</p> <p>As per Para 10.6.7 of General Specifications, Part 2, Section VI, Vol. 1, the CP-203 Contractor will be required to interface with CP-104 Contractor for integration of Signalling & Telecom System as per requirements.</p>
278	<p>Volume 3, Part-2, Page No. 46 of 125 , Clause 7.3.8.2</p> <p>Integration with PBX under CP-104</p>	<p>After integration, the features of administrative telephone networks will be as per QSIG "open standard protocol for interoperability between two different PBX". We understand certain features like Line lock out, call Pick up , distinctive ringing , call back on busy etc., are not feasible using QSIG. Bidder request DFCC to kindly amend the specification accordingly.</p>	<p>Provisions of Bidding Document shall prevail except in respect to "Call Pickup".</p> <p>Please refer to Addendum No.4, Sr. No. 7.</p>
279	<p>Volume 3, Part-2, Page No. 47 of 125 , Clause 7.3.9</p> <p>Voice Recording System</p>	<p>Kindly confirm the minimum no. channels per sub-system required for Voice recording system.</p>	<p>Simultaneous voice recording of all controllers is required. The actual number of channels which are necessary shall be determined by the Bidder/Contractor.</p>
280	<p>Volume 3, Part-2, Page No. 52 of 125 , Clause 7.5.3.1</p> <p>Voice Mail System</p>	<p>The referred cl.no indicates that VMS provided under EDFC Phase-1 shall enable internal & external telephone user access. We assume that this is EDFC Phase-2. Kindly clarify.</p>	<p>Please refer to Addendum No.4, Sr. No.5</p>
281	<p>Volume 3, Part-2, Page No. 91 of 125 , Clause 12.7.1</p> <p>Laying cables outside DFCC boundary</p>	<p>The referred cl.no indicates that all outdoor cables shall be laid within DFCC boundary. If it is necessary to lay cable outside DFCC boundary permission shall be obtained in advance from concerned authority. Bidder assumes that in case cables are to be laid in</p>	<p>Provisions of Bidding Document are sufficiently clear.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
		private / others property the necessary ROW (Right of Way) shall be arranged by DFCC. Kindly confirm.	
282	Volume 3, Part-2, Page No. 101 of 125 , Clause 12.12.3.3 (5) Special cables	The referred cl. no. indicates that contract shall use "All di-electric (i.e., non-metallic) optical fibre cable to effect isolation between conductive lengths of cable". We assume that bidder can propose Un-Armored cable laid under HDPE conduit for primary & secondary network along the corridor. Kindly confirm whether bidder's understanding is correct.	Please refer to Addendum No.4, Sr. No.9
283	Volume 3, Part-2 System Configuration Diagram	Bidder requests DFCC to provide the typical system configuration for various telecommunication sub-system for CP-203	The system configuration for various Telecommunication sub-system shall be developed by Bidder/Contractor.
284	Section IV / Price Schedule 2.1 / Page 109 of 141	Based on our experience in similar Design & Build projects, we would like to bring to your notice that weightages assigned for 2.1.6 Supply of Contract spares and Special tools & Instruments and 2.1.7 Integrated Testing, Commissioning and Final Taking over appears to be very high as against the standard weightages given in other similar projects of approximately 2% for these two items (Similar to WDFC STP5). This might affect Contractor's cash flow adversely, as the price against these two items will be paid to the contractor only during final milestones. In view of this, we suggest to revise the schedule as shown below: 2.1.6 Supply of Contract spares and Special tools & Instruments - 2%	Provisions of Bidding document shall prevail.

S.N.	Reference to Bidding Document					Clarification Sought by the Bidders	DFCC's Response
(1)	(2)					(3)	(4)
	Price Schedule	No.	Cost Centre	Weightage (%)	Cost	2.1.7 Integrated Testing, Commissioning and Final Taking over - 1%. The remaining weightage shall be distributed proportionally among schedules 2.1.1 to 2.1.5	
	(1)	(2)	(3)	(4)	(5)		
	2.1 [Signalling Works]	2.1.1	Design and Documentation	4	% as in Cost Centre 2.1 of Apportionment of Contract Price.		
		2.1.2	Signalling Works at 7 Crossing stations	8			
		2.1.3	Signalling Works at 5 Junction Stations	12			
		2.1.4	Signalling Works in Automatic Block Sections	57			
		2.1.5	Train Management System (TMS)	6			
		2.1.6	Supply of Contract Spares and Special Tools & Test Equipment	8			
		2.1.7	Integrated Testing & Commissioning and Final Takeing-Over	4			
		2.1.8	Training	1			
			Total	100 %			
285	Section IV / Price Schedule 2.2 / Page 123 of 141					Based on our experience in similar Design & Build projects, we would like to bring to your notice that weightages assigned for 2.2.6 Supply of Contract spares and Special tools & Instruments and 2.2.7 Integrated Testing, Commissioning and Final Taking over appears to be very high as against the standard weightages given in other similar projects of approximately 2% for these two	Provision of Bidding Document shall prevail.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response																																																			
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	<table border="1"> <thead> <tr> <th data-bbox="277 325 409 363">Price Schedule</th> <th data-bbox="409 325 461 363">No.</th> <th data-bbox="461 325 629 363">Cost Centre</th> <th data-bbox="629 325 734 363">Weightage (%)</th> <th data-bbox="734 325 775 363">Cost</th> </tr> <tr> <th data-bbox="277 371 409 410">(1)</th> <th data-bbox="409 371 461 410">(2)</th> <th data-bbox="461 371 629 410">(3)</th> <th data-bbox="629 371 734 410">(4)</th> <th data-bbox="734 371 775 410">(5)</th> </tr> </thead> <tbody> <tr> <td data-bbox="277 410 409 501">2.2 [Telecommunication Works]</td> <td data-bbox="409 410 461 448">2.2.1</td> <td data-bbox="461 410 629 448">Design and Documentation</td> <td data-bbox="629 410 734 448">5</td> <td data-bbox="734 410 775 1062" rowspan="10" style="writing-mode: vertical-rl; transform: rotate(180deg);">% as in Cost Centre 2.2 of Apportionment of Contract Price</td> </tr> <tr> <td></td> <td data-bbox="409 448 461 512">2.2.2</td> <td data-bbox="461 448 629 512">Telecom Works at 7 Crossing stations</td> <td data-bbox="629 448 734 512">15</td> </tr> <tr> <td></td> <td data-bbox="409 512 461 576">2.2.3</td> <td data-bbox="461 512 629 576">Telecom Works at 5 Junction stations</td> <td data-bbox="629 512 734 576">12</td> </tr> <tr> <td></td> <td data-bbox="409 576 461 676">2.2.4</td> <td data-bbox="461 576 629 676">Telecom works at Operational Control Centre (OCC)</td> <td data-bbox="629 576 734 676">5</td> </tr> <tr> <td></td> <td data-bbox="409 676 461 777">2.2.5</td> <td data-bbox="461 676 629 777">Telecom works in Automatic Block Sections & Single Line Sections</td> <td data-bbox="629 676 734 777">46</td> </tr> <tr> <td></td> <td data-bbox="409 777 461 873">2.2.6</td> <td data-bbox="461 777 629 873">Integrated Testing & Commissioning and Final Taking-Over</td> <td data-bbox="629 777 734 873">5</td> </tr> <tr> <td></td> <td data-bbox="409 873 461 919">2.2.7</td> <td data-bbox="461 873 629 919">Contract Spares</td> <td data-bbox="629 873 734 919">6</td> </tr> <tr> <td></td> <td data-bbox="409 919 461 983">2.2.8</td> <td data-bbox="461 919 629 983">Special Tools & Test Equipment</td> <td data-bbox="629 919 734 983">4</td> </tr> <tr> <td></td> <td data-bbox="409 983 461 1029">2.2.9</td> <td data-bbox="461 983 629 1029">Training</td> <td data-bbox="629 983 734 1029">2</td> </tr> <tr> <td></td> <td data-bbox="409 1029 461 1062"></td> <td data-bbox="461 1029 629 1062" style="text-align: center;">Total</td> <td data-bbox="629 1029 734 1062" style="text-align: center;">100%</td> </tr> </tbody> </table>	Price Schedule	No.	Cost Centre	Weightage (%)	Cost	(1)	(2)	(3)	(4)	(5)	2.2 [Telecommunication Works]	2.2.1	Design and Documentation	5	% as in Cost Centre 2.2 of Apportionment of Contract Price		2.2.2	Telecom Works at 7 Crossing stations	15		2.2.3	Telecom Works at 5 Junction stations	12		2.2.4	Telecom works at Operational Control Centre (OCC)	5		2.2.5	Telecom works in Automatic Block Sections & Single Line Sections	46		2.2.6	Integrated Testing & Commissioning and Final Taking-Over	5		2.2.7	Contract Spares	6		2.2.8	Special Tools & Test Equipment	4		2.2.9	Training	2			Total	100%	<p>items (Similar to WDFC STP5). This might affect Contractor's cash-flow adversely, as the price against these two items will be paid to the contractor only during final milestones.</p> <p>In view of this, we suggest to revise the schedule as shown below: 2.2.6 Supply of Contract spares and Special tools & Instruments - 2% 2.2.7 Integrated Testing, Commissioning and Final Taking over - 1%. The remaining weightage shall be distributed proportionally among schedules 2.2.1 to 2.2.5</p>	
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286	<p>Section VIII / PC - Appendix to tender / GC Sub-Clause 2.1 / Right of Access to site.</p> <p>Possession of Site will be handed-over to the Contractor as per the approved Work Plan taking into consideration the progress of the Civil Works Contract Packages (CP 201 & 202) and S&T Work Contract</p>	<p>From the referred clause, we understand that the section shall be available to CP - 204 contractor only in portions based on the completion status of the other package contractors.</p> <p>We request DFCCIL to provide the section wise Key access dates showing interface with</p>	<p>Provisions of Bidding document are sufficiently clear.</p> <p>Access dates for each section is an interface requirement to be carried out by the contractor through coordination with other contractors of CP-</p>																																																			

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	Package (CP 203) already under execution at the Site of Work.	other package contractors in order to suitably plan the activities by the contractor.	201, CP-202 and CP-204. In this regard, the Bidder is requested to refer to Para 10.5 & 10.6 of General Specifications, Part 2, Section VI, Vol. 1.
287	<p>Form ELI 1.2</p> <p>Party to Bidder Information Sheet:</p> <p>7. Attached are copies of original documents of:</p> <p>Article of Incorporation or Registration of firm named as 1, above, in accordance with ITB Sub-Clause 4.1 and 4.2</p>	<p>As per our understanding the form ELI 1.2 asks for information pertaining to JV partners & Specialist Sub-contractor, so we need to submit the Article of Incorporation or Registration of JV partners and Specialist Sub-contractor.</p> <p>However point 7 asks for Article of incorporation or Registration of firm mentioned at point 1 i.e Bidder, which is not possible at the time of bidding as the JV is an in incorporated JV has not been registered. Kindly clarify.</p>	<p>In Form ELI 1.2, information about individual JV member /specialized subcontractor (not JV) is to be provided.</p> <p>Please refer to Addendum No. 4, Sr. No.1.</p>
288	<p>Clause 8.2.2</p> <p>MTRC System is being provided by Indian Railways in Mughalsarai-Ghaziabad section of Indian Railways(IR). As such in sections, where track alignment of Mughalsarai-New Bhaupur Section of EDFC is running parallel to the existing Mughalsarai-Ghaziabad Section of IRR, Base Station Sub-systems(BSSs) of IR will be shared by DFCCIL.</p>	<p>As per clause 8.2.2 GSMR coverage is to be designed for sections "where track alignment of Mughalsarai-New Bhaupur Section of EDFC is taking a detour and cannot be served by Base Station Sub-system (BSS) of IR", please confirm whether 'Link lines' are also required to be considered for GSMR coverage.</p>	<p>Please refer to Addendum No.4, Sr. No.6.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>However in sections where track alignment of Mughalsarai-New Bhaupur Section of EDFC is taking a detour and cannot be served by Base Station Sub-system (BSS) of IR, new BSSs of DFCCIL shall be provided by the Contractor.</p>		
289	<p>Clause 8.5.1.1</p> <p>(1) Base Station Sub-System (BSS) of Base Station Controller(BSC) controlling Base Transceivers Stations(BTSs) each controlling a number of transceivers (TRXs)</p> <p>In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad-Mughalsarai Section of Indian Railway, Base Transceivers Stations (BTSs) of Indian Railways will be shared by DFCCIL. Any up-gradation or strengthening required at BTSs of Indian Railway, for smooth handover between BSSs of Indian Railway bad DFCCIL, shall be borne by the Contractor.</p> <p>However in sections, where track alignment of EDFC Phase-2 is taking a detour and cannot be served by Base Transceivers Stations (BTSs) of Indian Railway, new Base Transceivers Stations(BTSs) of</p>	<p>Please confirm that interoperability certificate required for certifying interoperability with existing NSS of MTRC system of Indian Railway should be signed by both vendors i.e. vendor of NSS of IR's MTRC and the proposed vendor.</p>	<p>Please refer to reply at Sr. No. 101.</p> <p>Further the Interoperability Test Documentation(IOT) shall be either certified by concerned equipment manufacturers or by Notified Bodies of European Commission</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>DFCCIL shall be provided by the Contractor for adequate RF coverage. These BTSs shall be controlled by BSC at OCC. This new Base Station Sub-system (BSS) can be provided either by upgrading and using Base Station Controller(BSC) being provided under Contract Package CP-104 at OCC to meet the requirements of EDFC Phase-2 or by providing a new Base Station Controller(BSC) at OCC.</p> <p>This BSC shall be linked to the existing Network Sub-system(NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section. Accordingly BSC and associated network elements constituting the Base Station Sub-system(BSS) shall be compatible with this Network Sub-system(NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section. The Base Station Sub-system(BSS) should fulfil all interoperability criteria with existing Network Sub-system(NSS) of MTRC System of Indian Railway and should be supported with IOT documentation. Base Station Sub-system (BSS) to be provided under this Contract shall be capable of supporting data communications for Train Control</p>		

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	System i.e. ETCS Level-2.		
290	<p>Clause 8.2.2</p> <p>MTRC System is being provided by Indian Railways in Mughalsarai-Ghaziabad section of Indian Railways(IR). As such in sections, where track alignment of Mughalsarai-New Bhaupur Section of EDFC is running parallel to the existing Mughalsarai-Ghaziabad Section of IRR, Base Station Sub-systems (BSSs) of IR will be shared by DFCCIL.</p> <p>However in sections, where track alignment of Mughalsarai-New Bhaupur Section of EDFC is taking a detour and cannot be served by Base Station Sub-system (BSS) of IR, new BSSs of DFCCIL shall be provided by the Contractor.</p>	<p>As per clause 8.2.2 GSMR coverage is to be designed for sections "where track alignment of Mughalsarai-New Bhaupur Section of EDFC is taking a detour and cannot be served by Base Station Sub-system (BSS) of IR", please confirm whether 'Link lines' are also required to be considered for GSMR coverage</p>	<p>Please refer to reply at Sr. No. 288</p>
291	<p>(1) Base Station Sub-system (BSS) of Base Station Controller (BSC) controlling Base Transceivers Stations (BTSS) each containing a number of transceivers (TRXs). In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad-Mughalsarai Section of Indian Railway, Base Transceivers Stations (BTSS) of Indian Railway will be shared by DFCCIL.</p>	<p>Please confirm that interoperability certificate required for certifying interoperability with existing NSS of MTRC system of Indian Railway should be signed by both vendors i.e vendor of NSS of IR's MTRC and the proposed vendor.</p>	<p>Please refer to reply at Sr. No. 289.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Any up-gradation or strengthening required at BTs of Indian Railway, for smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor</p> <p>However in sections, where track alignment of EDFC Phase-2 is taking a detour and cannot be served by Base Transceivers Stations (BTs) of Indian Railway, new Base Transceivers Stations (BTs) of DFCCIL shall be provided by the Contractor for adequate RF coverage. These BTs shall be controlled by BSC at OCC. This new Base Station Sub-system (BSS) can be provided either by upgrading and using Base Station Controller (BSC) being provided under Contract Package CP-104 at OCC to meet the requirements of EDFC Phase-2 or by providing a new Base Station Controller (BSC) at OCC</p> <p>This BSC shall be linked to the existing Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section. Accordingly BSC and associated network elements constituting the Base Station Sub-system (BSS) shall be compatible with this Network Sub-system (NSS) of MTRC</p>		

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	System of Indian Railway used for Mughalsarai-Ghaziabad Section. The Base Station Sub-system (BSS) should fulfil all interoperability criteria with existing Network Sub-system (NSS) of MTRC System of Indian Railway and should be supported with IOT documentation. Base Station Sub-system (BSS) to be provided under this Contract shall be capable of supporting data communications for Train Control System i.e. ETCS Level-2		
292	Part 2, Section VI, Vol. 3-PS-Telecommunication Works-12.7 Cabling 12.7.10 Cable laid in the slope of track formation shall be laid Double Wall Corrugated Pipes. It shall be so laid to maintain a continuous depth of 1 meter (top of DWC Pipe) from the nearest ground level. The slope of track formation shall be restored to its original condition after laying of cables.	We understand that trenching is allowed in the slope of track formation for laying of Telecommunication cables subject to restorations to its original condition after laying of cables. Kindly confirm our understanding. Also request you to allow the same for laying of signaling cables as well.	Please refer to PS (Signalling Works), Annexure-II (b) of Appendix 4 of Part 2, Section VI, Vol.2 for indicative position of trenches for laying of Signalling and Telecom cables. The slope of track formation shall not be generally used for laying of Signalling and Telecom cables.
293	Part 2, Section VI, Vol- 2 PS Signaling Works 2.2.2 Signals (a) The foundations of signals must be made of concrete.	Kindly specify the minimum grade of the concrete that shall be used.	Please refer to Addendum No. 4, Sr. No. 4
294	Part 2, Section VI,	If approvals are delayed due to reasons not	If approvals are delayed due to reasons not

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	Vol 4, PS Building & Structure Works Clause 1.2 1.2.5 Obtaining all necessary approvals from the relevant authorities for design and Construction of the Works.	attributable to the Contractor, the Contractor shall be provided extension of time for such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion]. Employer shall not claim delay damages as a result of such delay due to reasons not attributable to the Contractor.	attributable to the Contractor, the Extension of Time for Completion shall be determined by the Engineer in accordance with the Conditions of Contract.
295	Part 2, Section VI, Vol 4, PS -Building & Structure Works (5) Chain Link Fencing shall be provided as per Drawing No. DFCC/CHAIN LINK FENCING/TYPE-001 around SER, TER and S&T Power Supply Equipment Rooms constructed under this Contract. The distance of this Chain Link Fencing from walls of SER, TER and S&T Power Supply Equipment Rooms shall be decided by Engineer during design stage.	Request you to clarify the distance from walls of SER, TER and S&T at which chain link fencing shall be provided at this stage rather than during execution stage as we need to estimate the cost of fencing	Please refer to Addendum No. 4, Sr. No. 10
296	General Horizontal Directional Drilling	We are not aware of space available in the ROW beyond the toe of the formation and hence we can't determine if space is available for construction of trench for Signalling or Telecom cables. Hence it is request that, except for road /platforms /railway track crossing, other HDD (Horizontal Directional Drilling) work may be treated as a variation.	Bidder's request is not agreed. Bidder is expected to survey the section in accordance with the clause 7.2 of the ITB, Part 1, Section I.
297	General To achieve the required compaction at the edges of the formation, CST contractor may construct 500 mm of extra formation width on both sides of the formation.	Kindly confirm that the CST contractor shall handover the site to CP 203 contractor after removing the extra width of formation to enable us to construct the trench within the ROW	Co-ordination with CST Contractor is well defined under Clause 10.6.5 in General Specifications, Part 2, Section VI, Vol. 1 of the Bidding Document.
298	Part 2, Section VI, Volume 3, PS Telecommunication Works	As per clause 8.2.2 GSMR coverage is to be designed for sections "where track alignment	Please also refer to reply at Sr. No. 288.

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>Clause 8.2.2</p> <p>MTRC System is being provided by Indian Railways in Mughalsarai-Ghaziabad section of Indian Railways (IR). As such in sections, where track alignment of Mughalsarai-New Bhaupur Section of EDFC is running parallel to the existing Mughalsarai-Ghaziabad Section of IRR, Base Station Sub-systems (BSSs) of IR will be shared by DFCCIL.</p> <p>However in sections, where track alignment of Mughalsarai-New Bhaupur Section of EDFC is taking a detour and cannot be served by Base Station Sub-system (BSS) of IR, new BSSs of DFCCIL shall be provided by the Contractor.</p>	<p>of Mughalsarai-New Bhaupur Section of EDFC is taking a detour and cannot be served by Base Station Sub-system (BSS) of IR", please confirm whether 'Link lines' are also required to be considered for GSMR coverage</p>	
299	<p>Part 2, Section VI, Volume 3, PS Telecommunication Works Clause 8.5.1.1</p> <p>(1) Base Station Sub-system (BSS) of Base Station Controller (BSC) controlling Base Transceivers Stations (BTSS) each containing a number of transceivers (TRXs).</p> <p>In sections, where track alignment of EDFC Phase-2 is running parallel to the existing Ghaziabad-Mughalsarai Section of Indian Railway, Base Transceivers Stations (BTSS) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening</p>	<p>Please confirm that interoperability certificate required for certifying interoperability with existing NSS of MTRC system of Indian Railway should be signed by both vendors i.e. vendor of NSS of IR's MTRC and the proposed vendor.</p>	<p>Please refer to reply at Sr. No. 289.</p>

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	<p>required at BTSSs of Indian Railway, for smooth handover between BSSs of Indian Railways and DFCCIL, shall be done by the Contractor.</p> <p>However in sections, where track alignment of EDFC Phase-2 is taking a detour and cannot be served by Base Transceivers Stations (BTSSs) of Indian Railway, new Base Transceivers Stations (BTSSs) of DFCCIL shall be provided by the Contractor for adequate RF coverage. These BTSSs shall be controlled by BSC at OCC. This new Base Station Sub-system (BSS) can be provided either by upgrading and using Base Station Controller (BSC) being provided under Contract Package CP-104 at OCC to meet the requirements of EDFC Phase-2 or by providing a new Base Station Controller (BSC) at OCC.</p> <p>This BSC shall be linked to the existing Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section. Accordingly BSC and associated network elements constituting the Base Station Sub-system (BSS) shall be compatible with this Network Sub-system (NSS) of MTRC System of Indian Railway used for Mughalsarai-Ghaziabad Section. The Base Station Sub-system (BSS) should fulfil all interoperability criteria with existing Network Sub-system (NSS) of MTRC System of Indian Railway and should be supported with IOT documentation. Base Station Sub-system (BSS) to be provided under this</p>		

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(1)	(2)	(3)	(4)
	Contract shall be capable of supporting data communications for Train Control System i.e. ETCS Level-2.		
300	2.2 of GC - General Conditions As per FIDIC Yellow Book 1999-Edition Permits. Licenses or Approvals.....	Please add as deviation under PCC to include the following at the end of the reference to GC clause 2.2: "If Permits, Licenses or Approvals are delayed in spite of the best efforts from the contractor due to reasons not attributable to the Contractor / Employer, the Contractor shall be provided extension of time for such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion].	Request not accepted. Provisions of Bidding Document shall prevail.
301	2.5 of GC Employer's claim	Please add the deviation "...as soon as practicable as and not later than 28 days" in line with the provisions given for "Contractor's Claims" in Sub-Clause 20.1, paragraph 1.	Please refer to reply at Sr. No. 237.
302	Part 2, Section VI, Volume 4, Particular Specifications Cl no 1.4.5 and Annexure - 1 Drg. No.DFC/HQ/EN/EC/D-B//MGS-New Bhaupur/S&T/01/2014 Plinth level of SERs, TERs, and S&T power supply equipment room	As per Volume -4 PS Cl.No 1.4.5, the plinth level for SERs, TERs, and S&T power supply equipment room shall be at-least 300mm above the rail level. and As per Volume -4 Annexure - 1 Drg. No. DFC/HQ/EN/EC/D-B//MGS-New Bhaupur/S&T/01/2014 the plinth level for SERs, TERs, and S&T power supply equipment room shall be 600mm above the ground level. Please confirm which one to be followed.	Please refer to Addendum No. 4, Sr. No 11.
303	Part 2, Section VI, Volume 4, Particular	Please clarify the building type for SERs,	The Indicative Building drawings at Annexure 1 in

S.N.	Reference to Bidding Document	Clarification Sought by the Bidders	DFCC's Response
(1)	(2)	(3)	(4)
	Specifications Type of building	TERs, and S&T power supply equipment room whether it is RCC framed or load bearing structure.	PS (Building & Structure Works), Part 2, Section VI, Vol. 4, appended at page 612 of the Bidding Document clearly spells out the requirements. It is a matter of detailed design to be developed by the Contractor to meet the specified requirements and approved by the Engineer
304	General Plinth level of SERs, TERs, and S&T power supply equipment room at cutting location	Please clarify the building plinth level at cutting location whether it is at natural ground level or at rail level.	The requirement of the plinth level of the building is well defined in the Clause 1.4.5(3) of PS Building & Structure Works, Part 2, Section VI, Vol. 4 of the Bidding Document. Also, refer to Addendum No. 4, Sr. No 11.