आईटीआई लिमिटेड
नेटवर्क सिस्टम्स युनिट
सामाग्री प्रबंधन विभाग
एफ - 100, पश्चिम विंग
दूरवाणीनगर, बेंगलूरु - 560 016, भारत
फोन : +91 (80) 2566 0508
ई.मेल : materials_nsu@itiltd.co.in
ISO 9001 : 2015 प्रमाणित युनिट

ITI LIMITED
Network Systems Unit
Materials Management Dept.
F-100, West Wing,
Doorvaninagar, Bengaluru - 560 016, India
Tel : +91 (80) 2566 0508
E-mail : materials_nsu@itiltd.co.in
ISO 9001: 2015 Certified Unit

Azadi Ka Amrit Mahotsav

ITI Web-Site/ Govt. Portal

ENQUIRY

NSU 6H 66H

DATE | 27 | 08 | 2026

Dear Sir / Madam, please quote your best price and delivery for supply/service of the following item/s,

Sl.No.	Item Description as per Technical Specifications
1	SELECTION OF "PROJECT IMPLEMENTATION AGENCIES [PIA]" FOR THE ROLL OUT OF OPTICAL FIBRE NETWORK FOR ARMY-Link Name - 3.6.22

Please refer following enclosures before submitting tender:

Annexure A: General Terms & Conditions for submission of Tender
Annexure B: Tender Document
Annexure C: Price Bid

Special Note: Please refer tender document vide Ref. No.: NSU/PIA/ASCON/001/156 Dated: 27.08.2026

Tender Due Date	**10/09/2026, 14:00 Hrs**	Tender Opening Date	**10/09/2026, 15:00 Hrs**
Tender Opening Venue	Materials Management Dept., N.S. Unit, I.T.I. Ltd., Dooravaninagar, Bengaluru- 560 016		
Scope of Work	As per tender document NSU/PIA/ASCON/001/156 Dated: 27.08.2026		
Delivery	As per tender document NSU/PIA/ASCON/001/156 Dated: 27.08.2026		
Terms of Payment (TOP)	As per tender document NSU/PIA/ASCON/001/156 Dated: 27.08.2026		
Performance Bank Guarantee	As per tender document NSU/PIA/ASCON/001/156 Dated: 27.08.2026		
Security Deposit	As per tender document NSU/PIA/ASCON/001/156 Dated: 27.08.2026		
Compliance	Point-wise compliance to each item/ Clause mentioned in Tender Document.		
Validity of the offer	90 days from the last date of submission of Bid	Tender Fee: Rs. 5,900.00/-(incl. GST)	
Earnest Money Deposit	As per tender document Ref: NSU/PIA/ASCON/001/156 Dated: 27.08.2026/Valid MSME (Micro and Small Enterprises) certificate along with Bid Securing declaration. The EMD is normally to remain valid for a period of 45 days beyond the final bid validity period.		

All other terms and conditions as per Tender Document vide Tender refer No: NSU/PIA/ASCON/001/156 Dated: 27.08.2026
Note: Offers should be submitted online as per tender documents.
For submission of online Bid & Procedure to be followed visit (https://itilimited.ewizard.in)
All Vendors have to register in website & pay the tender processing fee if required:(https://itilimited.ewizard.in) **for submitting online BID.**

For ITI Ltd., N S Unit,

27/08/2026

Addl. General Manager (MM)-NS

Annexure- A

GENERAL TERMS AND CONDITIONS FOR SUBMISSION OF TENDER (INLAND)

ENCLOSURE TO ENQUIRY No. NSU 6H 66H DATE: 27.08.2026

1. **PRICES:**
   (a) ITI Ltd., is planning to have long term tie up with limited vendors, who can supply the item with good quality, prompt delivery and at lowest price. Hence, you may quote in such a way that a long-term relationship is possible.
   (b) Prices must be per unit as called for in the enquiry and should be on FOR ITI/FOR destination basis as the case may be and inclusive of Insurance charges.
   (c) ITI Ltd., under normal circumstances, may not negotiate for the price. Hence you are requested to quote your best price in the original quotation itself.
   (d) Any counter terms and conditions are not binding on us unless ITI Ltd., agree to the same in writing.
   (e) In case of an order issued on you, the ordered rate should be firm till the completion of the order. In case where the market prices are going down beyond 5% of the ordered rate or decrease in the statutory levies, the same should be passed on to ITI Ltd.
   (f) Vendors should deliver the materials to ITI Ltd., Stores/the destination as mentioned in the P.O. ITI Ltd., will not take the responsibility of clearing the goods from the carriers godown/office/Railway Station/Airport, etc.
   (g) If the supplier supplies the same item at a lower rate to any of their customers during the pendency of execution of ITI Ltd., Purchase Order/.Order Amendment, the supplier should voluntarily come forward and reduce the price.
   (h) The validity of your offer should be for a minimum period of (As main sheet No. NSU 6H 66H) from the date of opening the tender.
   (i) Any Plant/division of ITI reserves the right for placement of Repeat Order if required within one year of original PO date.

2. **TERMS OF PAYMENT:**
   (a) Payment will be made for the accepted quantity/services as per Main sheet NSU 6H 66H/ Tender Document Ref No. NSU/PIA/ASCON/001/156 Dated: 27.08.2026 from the date of receipt of the material / services at our Stores / Destination.

   (b) No payment will be made for the rejected quantity.

3. **INSPECTION: :(As per Enquiry NSU 6H 66H)**
   (a) ITI reserves the right to split the purchase order among the vendors who are capable of meeting the Quality, Delivery and Cost requirements. Preference will be given to the vendors with well-maintained and proven Quality Assurance.
   (b) We are planning to reduce inspection time with self-certification scheme for the vendors who keep up good quality leading to "ship to stock system".
   (c) Inspection of the material at our works/site will be final. ITI reserves the right to inspect the material at any other standard testing centre authorised by us.
   (d) We or our representative including our customer may if required preliminarily inspect the product at vendor's premises. Such verification shall not absolve the vendor of the responsibility to provide the acceptable product nor shall preclude subsequent rejection during the final inspection at our works/site. It is the responsibility of every vendor to ensure that only the inspected materials confirming to our specifications / drawings / requirements are supplied.
   (e) The supplies shall be from the latest batch of production. Batch Number should be indicated on the item/ packet / test certificate and accompanying delivery challan / test certificate.
   (f) Test Certificate/check list should accompany each supply. Consignments without test certificate, if asked for, are liable for rejection. Rejected material should be collected immediately (within 30 days) after our intimation by giving two days' prior notice for completing the necessary excise formalities. You should make arrangements to collect the material either personally OR through your authorized representatives. ITI does not take any responsibility to send the material back to you. After 90 days from the date of rejection intimation to you the material will be scrapped at your risk if not collected.

4. **SAMPLES:**
   Those tenderers, who have not supplied the material against any of earlier orders, should submit FREE SAMPLES clearly indicating enquiry reference. Free samples along with your offer is preferable. In case of a Purchase Order on you, bulk supply should commence only after approval of samples and other approval formalities including infrastructure clearance.

5. **WARRANTY:**
   ITI Ltd., is an ISO accredited company. All our equipment systems have a warranty as per Enquiry No NSU 6H 66H from the date of despatch to our customer. Hence, the warranty of your products should be as per Enquiry No NSU 6H 66H from the date of supply if not specified explicitly. Within this warranty period, if any of your components/subsystem is found defective during our manufacturing process/system testing/installation & commissioning/operation of our equipment in the field, the same is to be replaced free of cost immediately by you. Warranty specified in the P.O. to be reckoned as final.

6. **GENERAL:**
   (a) We reserve the right to accept or reject any or all offers and to order full or part quantities or cancellation thereof without assigning any reason whatsoever.
   (b) Successful tenderer only will be intimated by post through letter of intent / firm orders.
   (c) Canvassing by tenderers in any form including un-solicited letters against tenders submitted or post-tender corrections shall render their tenders liable for summary rejection.
   (d) Any Plant/division of ITI reserves the right for placement of Repeat Order if required within one year of original date.

7. **DELIVERY SCHEDULE:(As per Enquiry NSU 6H 66H)**
   (a) Please indicate minimum lead-time required, manufacturing capacity and the quantity that can be reserved for us.
   (b) **Liquidated Damages Clause:** As per Tender Document Ref No. NSU/PIA/ASCON/001/156 Dated: 27.08.2026

8. **LOCAL REPRESENTATION:**
   Please indicate your local representative's address, telephone, Fax No., of the person to be contacted, in the offer.

9. TECHNICAL CATALOGUE:

The Technical Catalogue in English should be submitted. In the event of any change in the technical catalogue, updated version may be sent to us immediately. It is essential that you simultaneously take up the same with approval authority and their approval copy sent to us.

10. GOVERNING LAW:

All suits shall be instituted in a court of competent jurisdiction at Bangalore and in case of arbitration, the Indian Arbitration Conciliation Act, 1996 is applicable.

27/08/2026

Additional General Manager-MM(NS)

Annexure B

TENDER

FOR

SELECTION OF "PROJECT IMPLEMENTATION AGENCIES [PIA]"
FOR THE ROLLOUT OF

OPTICAL FIBRE NETWORK FOR ARMY

Tender Document Ref No: NSU/PIA/ASCON/001/156 Date: 27.08.2026

Last Date and Time for submission: 10/09/2026, 14:00 Hrs

Network System Unit
ITI Limited
Dooravani Nagar
Bengaluru-560016 Ph: 080-25650054
materials_nsu@itiltd.co.in

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SECTION I: INTRODUCTION TO THE PROPOSAL

1.1. BRIEF ABOUT INTENDER AND TENDER INTENT

ITI Limited ("ITIL"), the first CPSU of the Independent India is a manufacturer of Telecom equipment and is providing various Telecom and IT goods and services to its users. ITI has diversified into new areas of providing end to end, infra services and turnkey solutions in the domain of IT, Telecom, IoT and Smart city for various Government / Private users. There are many ongoing OFC infra projects, Inter City /Intra City at hand and under progress. ITIL already has done many such project as MSI for Government Departments and their subsidiaries. ITI has an experience and track record to execute such projects with highest degree of efficiency and skill and earned good name to execute projects in given time lines.

ITI Ltd has been entrusted to execute a most prestigious Communication Network for the use of Indian Army in Various areas including different terrains in northern, north-eastern and western regions of our country as well as some locations in the hinterland on turnkey basis and seeking the capable partners to roll out the Optical Fibre Network which is an essential component in accomplishment of this prestigious project. Accordingly, ITI Ltd is seeking experienced, efficient and capable project implementation agencies to deliver the awarded part(s) of the project in strict time lines with highest degree of quality and efficiency in given areas/regions.

In this Connection, ITI Ltd invites sealed tenders for the selection of "Project Implementation Agencies" (PIAs) to roll out of Optical Fiber Network for ARMY, involving underground excavations and laying OFC infrastructure as per the specifications and requirements of the project in various jurisdictions of awarded area(s).

1.2 PURPOSE OF TENDER:

To invite Tender Bids from the interested companies having relevant financial Capacity, Experienced work force and domain knowledge expertise to manage such projects in respected areas of their interest, matching with their experience in most professional and efficient manner to meet the aspirations of User (Army) and value preposition to ITI Ltd (ITIL). Scope of Work (SoW) is mentioned in this document in general and in details.

1.3 SCOPE OF WORK:

The general scope of work would include - trenching (open trenching/HDD where ever applicable), Laying of Ducts, Pulling Fibre through the Duct, Installation, Testing, Restoration and Commissioning of Optical Fiber Network as per the specifications, along with obtaining (Right of Way) RoW and Public ROW permissions from respective agencies after route survey as required. The detailed Schedule and Scope of Work is also provided in the Tender Document.

SECTION II : SCOPE OF WORK (General)

2.1 The overall scope of work is construction of Optical Fiber Network link by link followed by maintenance, during warranty period.
The major activities include:

OFC Links:
Execution of OFC works as per specifications including Survey of Routes, liaising and obtaining RoW permissions, making way to lay HDPE duct at the specified depths by the methods of HDD/Trenching/Chiseling/Surface Cutting etc. in all types of strata and all types of terrain. Providing mechanical protection for low depth & Road / Rail/River/Bridge crossings with GI pipe/RCC pipes etc; as the case may be. Laying of HDPE Duct, Optical Fibre Cable Blowing, splicing of joints, supply and fixing of RCC Joint Chambers/Manholes as per specifications. Supply and Installation of RCC Route Indicators and Electronic Route Markers (underground). Refilling of excavated trenches after laying Brick lining and restoration of excavated surfaces as per the RoW conditions. Duct Integration, complete end to end testing in all respects and acceptance by the user (AITP). As built drawings, detailed drawings, information of rocky spots enroute, GIS based route maps in KMZ/KML and progress report in prescribed formats shall also be part of the scope. After final acceptance, the OFC routes need to be maintained during warranty period of two years (at the option of ITIL). Maintenance of OFC route will include preventive and corrective maintenance to meet TAT/SLAs as per tender.
Note:
(i). The HDPE Duct, Optical Fibre Cable and FDF shall only be supplied by ITIL, rest all other allied material viz. Bricks, Joint Chambers, Route Indicators/RCC Pipes/GI Pipes and Masonry works etc. to be arranged and supplied by the PIA. Lid for joint closures/ERM/chamber, Manhole etc needs to be embossed as per requirement/instruction.
(ii). Some of the items in the scope of supply of PIA are MAF based. Items other than HDPE Duct, Optical Fibre Cable and FDF should be supplied by PIA on its own risk and cost from the listed OEMs.
(iii). The OFC Network proposed shall normally be underground only, except in exceptional Circumstances wherein it may be required to lay it aerially as per the site compulsions, after specific pre-approval of the user. The difficulty of strata alone shall not be the valid reason of such deviation.

2.2 Overall scope of work is construction of fiber connectivity roll out as per the specifications in the ordered Links to meet the needs of the project and to the satisfaction of the end user.

SECTION III: MINIMUM ELIGIBILITY CRITERIA

Sl. No.	Criteria	Documentary Proof to be Submitted
1	The bidder must be, **a company registered under the Companies Act**, 1956/2013 or LLP, under LLP act 2008 or Partnership firm under Partnership Act 1932 and should be in operation for at least 7 years in the business of creating Telecom Infrastructure.	Copies of the Certificate(s) of Incorporation/Partnership Deed.
2	The bidder's **Average Annual Financial Turnover** from the Provisioning of Telecom Infrastructure during the last 3 years, ending 31st March-2026 must be at least Rs 1.41Cr.	Audited financial statements for the last 3 years (2023-24, 2024-25 and 2025-26) to be enclosed. In case, 2025-26 Balance Sheet is not audited till bid submission, CA Certified report shall be accepted to be supplanted by audited report soon, it is available.
3	The bidder should be financially strong, profitable having **Positive Net worth** in each of the last 3 financial years.	Audited Balance Sheet for the last 3 years (2023-24,2024-25 & 2025-26) from Statutory Auditors/CA.
4	The bidder must have a sound financial health with enough cash flow to timely and efficiently execute the awarded project. A **solvency certificate** from it's banker for at least an amount Rs. 1.88 Cr shall be essential during the current of the project.	Solvency Certificate in favor of the bidder from any Nationalized/Scheduled Bank/ Chartered Accountant (CA) issued during last 6 months, from the tender opening date.
5	The Bidder should have successfully completed similar works i.e. OFC laying work (Under ground) & must also consist of rollout in hilly Terrain #. it does not include work like Upgradation/Maintenance of OFC/under Ground cable(Copper)/etc during the last 05 years (till 31st Mar 2026) as indicated below. a. Three similar works each costing not less than 40% of the estimated cost put to tender or b. Two similar works each costing not less than 50% of the estimated cost put to tender or c. One similar work costing not less than 80% of the estimated cost put to tender	Copy of relevant work order(s)/Proof of execution along with completion/ ongoing certificate(s) with details from the client(s)/Users stating the work(s) executed by the bidder.

6	The Bidder must have coordinated and obtained **ROW permissions** from the agencies like Cantonment Boards, BRO, Local Municipal Bodies, Gram Panchayats, NHAI, NHIDCL, Railways, PWD, Forests etc. for at least the number of route KMs 100 Km.	List with Routes/Location and details of User and Agencies with self-certification of having coordinated to obtain the RoW.

7	The PIA must maintain a **team of Supervisors/Engineers/Technicians** at its permanent rolls from at least past one year, to help sufficient & efficient manpower to delivery of OFC work awarded within timeline and maintain the OFC network post execution.	List of Supervisors and Engineers/ Technicians etc. at the rolls of bidder with EPF/ESI contribution proof needs to be enclosed with the bid.
8	The Bidder should not be **blacklisted** by any Govt. Dept. or any PSU in India as on the date of publication of this Tender.	Self-declaration by the bidder duly signed by the authorized signatory. Kindly follow the format placed at **Annexure VI.**
9	The bidder should submit the site survey report along with the bid, detailing the site conditions	Self-declaration of Site survey report by bidder duly signed by ITI Representative the format placed at **Annexure XI**

SECTION IV: INSTRUCTIONS TO BIDDERS

1.1. **Invitation to Bid:**

Bids are invited from Companies/LLPs/Firms to participate in this Tender for "Selection of Project Implementation Agency" for the rollout of Optical Fibre Network For Army in particular, who meet the minimum eligibility criteria as specified in this Tender.

1.2. **Bid Preparation Costs**

1.2.1. The bidder shall be responsible for all costs incurred in connection with participation in this Tender process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of bid, in providing any additional information required by the ITIL to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process.

1.2.2. ITIL shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

1.3. **Authentication of Bid**

A bid should be accompanied by a power-of-attorney in the name of the signatory of the bidder.

1.4. **Bid Submission**

1.4.1. ITI's Tender document can be downloaded from ITI web site www.itiltd.in or CPP portal. The hard copy of the Tender document is not available for sale by ITIL.

1.4.2. Tender document fee of Rs 5000/- (Rupees Five Thousand Only) plus GST @18% (Total Rs 5900/- only) shall be payable with the bid. This shall be submitted through NEFT or bank transfer or eWizard Payment gateway in favour of ITI Ltd, N.S. Unit, Bangalore-560016**.** The Bank details for crediting/Transferring money to ITIL is attached at ANNEXURE XII.

1.4.3. The Tender document fee is non-refundable.

1.4.4. Bid shall be valid for at least 90 days from the date of Bid opening.

1.4.5. Each bid shall be accompanied with an **EMD** from a Scheduled Bank

1.4.6. EMD for an amount Rs 5.7/ - lakhs applied for bidding in the form of Bank Guarantee/ payment through eWizard Payment gateway in favor of "**ITI Ltd, Bengaluru-560016**" valid for a minimum period of 135 days from the date of bid opening.

1.4.7. Micro and Small Enterprises MSE Bidders are exempted from payment of Tender fee/ Bids security (if exemption from tender fee/EMD is claimed by them) provide they submit current and valid Udyam registration Certificate

issued from the Ministry of Micro, Small and Medium Enterprises (MSME) for the tender items manufacturer/produced and/ or services rendered by MSE bidder itself.

1.4.8. The successful bidder shall submit a **Performance Bank Guarantee (PBG)** from a Scheduled Bank in favor of ITI Ltd, Bangalore for an amount equal to 5% of the work awarded and will be valid for three years. The PBG should be submitted latest within 15 days from the date of ITI's requisition (LOI). The validity of the PBG shall be extended in case of the extension of original delivery time lines of the project.

1.4.9. The EMD of the unsuccessful Bidder will be returned/discharged to the Bidder within **30 days** of finalization of selection of the Bidder. The EMD of the successful Bidder ("PIA") will be returned on submission of Performance Bank Guarantee for an amount equal to 5% of the total value of the project awarded, for implementation.

Bids to be submitted in Electronic forms.

2. The Bid submitted shall consist of two covers as below

2.1. e-Envelope-I [Technical Bid]

It will have the full name, address of the Bidder and of the authorized agent delivering the Tender at the bottom left-hand corner of the sealed cover. The cover shall consist of the following:

2.1.1. Cover note by the Bidder indicating name of the Company/Organization, address, communication details (like, mobile numbers, land line numbers, fax numbers, e-mail ids for correspondence), name and designation of the Bid submission authority etc.)

2.1.2. Copy of ITI's Tender document signed by the authorized person of the Bidder at bottom of each page of the Tender document as an acceptance for having read and understood the Tender and compliance.

2.1.3 Power of attorney in case of authorized representative having signed the Tender.

2.1.4 Bid document fee of Rs. 5000/- (Rupees Five Thousand Only) plus GST @18% (Total Rs 5900/-only) submitted as detailed above.

2.1.5 GST Registration document.

2.1.6 All Documents as proof of meeting eligibility conditions and satisfying all other requisites for each bid separately.

2.1.7 EMD from a Scheduled Bank for an amount of Rs 5.7 lakhs valid for a minimum period of 135 days from the date of bid opening.

2.2. e-Envelope 2 [Financial BID]

It shall consist of financial bid complete, for all the items mentioned.

Bidder must bid for all the links only. No separate bid will be accepted.

2.2.1. Incomplete bids are liable for rejection.

2.2.2. **The financial bid/quote at any other place than designated, will make the bid liable for rejection.**

2.3 Important Information

Sl. No.	Information	Details
1	Tender Number	Ref No: NSU/PIA/ASCON/001/156 Date: 27/08/2026
2	Tender Name	Tender for the Selection of "Project Implementation Agencies (PIA)" for the Roll-out of Optical Fibre Network For Army
3	Work description/Nature of the work	To rollout Optical Fibre Backbone & Access Network for Army (End User)
4	Date of Issue/Publishing of the Tender	27/08/2026
5	Last Date Of Clarifications on Tender	31/08/2026
6	Estimated Bid Value	4.69 Cr (Including GST)(Approximate)
7	Last Date and Time for Submission of Bids	10/09/2026 14.00 Hrs
8	Date and Time of Opening of Technical Bids	10/09/2026 15.00 Hrs
9	Date and Time of Opening of Financial Bids	To be intimate after technical evaluation
10	Tender Fee	Rs 5900/- (Rupees Five Thousand Nine Hundred only) inclusive GST
11	EMD	Rs. 5.7 /- Lakhs (Interest free EMD has to remain valid for a period of 45 days beyond the final bid validity period) Bidders registered as MSE (Micro & Small Enterprises) are exempted from submission of EMD. Such firms should produce proof of registration certificate in their own name from MSME department and NSIC & should provide Bid Security Declaration form as per **ANNEXURE -IX**
12	Bid Validity	90 Days
13	Validity of Contract	Three Months
14	The Average annual financial turnover in the last 3 FY (financial years) i.e. (2023-24, 2024-25 & 2025-26)	Rs. 1.41 Cr

15	Address for Bid submission	https://itilimited.ewizard.in
16	Security deposit	5% of Tax invoice value retained from running bills
17	PBG	5% of the work order value and should be valid for three years
18	Solvency Certificate value	Rs. 1.88 Cr
19	Reverse Auction	Yes (Please refer Annexure D)
20	Attachments/Annexures	Formats and Specifications
21	Tender issuing Authority	Additional General Manager (A),NS Unit, ITI Limited, Dooravani Nagar, Bengaluru – 560016
22	Completion of OFC laying work	Three Months from the date of Agreement

2.4 **Clarifications:**

Bidders desirous of seeking clarifications on the Tender, may send their queries at the following address:

"General Manager (Defence), NS Unit, ITI Limited,
BC Office, First Floor, Core-6
SCOPE Complex., 7-Lodhi Road, New Delhi-110 003"
Phone: +011 2142 0551/2436 2666, Mob – 8560891424
eMail: kamalsahai_nsu@itiltd.co.in, sarvanshsinha_nsu@itiltd.co.in

2.5 On the Bid opening day, only technical bids will be opened. The Bidders who are desirous of attending bid opening may do so as per the e-Tendering process (TOE).

2.6 Bids without authenticated proof of Bid document fee, EMD and other technical compliances as required and prescribed in this Tender, will be rejected.

2.7 The date for opening the financial bids will be communicated to all technically qualified and eligible bidders separately, through registered email.

2.8 The address for all correspondences regarding this Tender shall be:

"General Manager (Defence), NS Unit, ITI Limited,
BC Office, First Floor, Core-6
SCOPE Complex., 7-Lodhi Road, New Delhi-110 003"
Phone: +011 2142 0551/2436 2666, Mob - 8560891424
eMail: kamalsahai_nsu@itiltd.co.in, sarvanshsinha_nsu@itiltd.co.in

2.9 The offers prepared by the Bidders and all the correspondences and documents relating to the offers submitted/exchanged by the Bidder, shall be written in English Language.

2.10 ITIL reserves the right to suspend or cancel the Tender process at any stage, or to accept, or reject any, or all offers at any stage of the process and / or to modify the process, or any part thereof, at any time without assigning any reason, without any obligation or liability whatsoever and the same shall be published in the ITI website

or intimated through email.

2.11 The Bidder shall bear all costs associated with the preparation and submission of its Tender, including cost of presentation for the purpose of clarification of the offer, if so desired by ITIL.

2.12 At any time prior to the last date for receipt of offers, ITIL, may, for any reason, whether at its own initiative or in the response to a clarification requested by the prospective bidders, modify the Tender document.

2.13 Also, ITIL may, at its discretion, extend the last date and time for the receipt of offers and/or make other changes in the requirements set out in the Invitation for Tender at its own accord or in order to provide reasonable time to bidders to take the amendments into account in preparing their offers.

2.14 If the last day for the bid submission is declared as a holiday, the bid will be opened at the same time on the next working day.

2.15 Tender will be received/submission up to 14:00 Hrs. on 10/09/2026 and technical bid will be opened on same day i.e. 10/09/2026 at 15:00 Hrs.

2.16 Any change/clarifications in the Tender Terms or Schedule shall be notified at ITI Ltd's website: www.itiltd.in (Tender Section) and CPP Portal www.eprocure.gov.in. The intended bidders need to take notice of the same.

2.17 Period of Contract-The period of contract will be three Months from the date of agreement however ITIL is reserved the right to extend the contract for further Three Months on same rate & terms and condition which shall be binding to contractor/PIA.

3. BID PRICES:

3.1 The bidder shall quote the item wise price for all the items and including all incidentals, inclusive of all taxes and levies but exclusive of Goods and Service Tax. Goods and Service Tax shall be paid extra, as applicable. The PIA shall be responsible for loading/unloading and transporting the materials supplied by ITIL, from it's designated Delivery Point to the work site.

3.2 The safety and security of all the material supplied by ITIL or arranged by PIA itself, till handing over of the project, shall solely be of PIA, who shall make all arrangements of Watch and Ward including Insurance.

3.3 The bidder shall quote against all the items of the mentioned OFC links. Bids not having quote for all the items/components as per the financial bid format, Main or Incidental, shall be termed as incomplete and liable for rejection.

4. PERIOD OF VALIDITY OF BIDS:

4.1 Bid shall remain valid for 90 days from date of opening of the bids. A Bid valid for a shorter period shall be rejected by ITIL as non-responsive.

4.2 In exceptional circumstances, the tendering authority may request the consent of the bidder for an extension to the period of bid validity. The request and the response thereto shall be made in writing. In such cases, the bid security provided shall also be suitably extended. The bidder may refuse the request without forfeiting its bid security. A bidder accepting the request and granting extension will not be permitted to modify its bid.

5. SIGNING OF BID:

5.1 The bidder shall prepare, as a part of his bid, the bid documents duly signed on each and every page submitted (digital signatures accepted on e-tendering portal), establishing the conformity of his bid to the bid documents of all the works to be executed by the bidder under the contract and the credentials claimed to comply the bid conditions.

5.2 The bid shall contain no inter-lineation, erasures or overwriting except as necessary to correct errors made by the bidder in which case such corrections shall be signed with dated by the person or persons signing the bid.

5.3 **In case of any difference between the figures at E-Tender Site and Physical copy submitted, the one at E-Tender Portal, shall prevail**.

6. DISCLAIMER:

6.1. ITI and/or its officers, employees disclaim all liability from any loss or damage, whether foreseeable or not, suffered by any person acting on or refraining from acting because of any information including statements, information, forecasts, estimates or projections contained in this document or conduct ancillary to it whether or not the loss or damage arises in connection with any omission, negligence, default, lack of care or misrepresentation on the part of ITI and/or any of its officers, employees.

6.2. All information contained in this Tender provided / clarified is in good faith and interest. This is not an agreement and is not an offer or invitation to enter into an agreement of any kind with any party.

6.3. Though adequate care has been taken in the preparation of this Tender document, the interested bidders shall satisfy themselves that the information contained in the document is complete in all respects to enable to make an informed decision to bid. Interested Bidders are required to make their own enquiries and assumptions wherever required.

6.4. **Information provided in this document or imparted to any respondent as part of the Tender process is confidential and shall not be used by the respondent for any other purpose, distributed to, or shared with any other person or organization.**

6.5. Bid received / submitted after due date and time will not be considered.

SECTION-V: INSTRUCTIONS FOR ONLINE BID SUBMISSION TO BIDDERS

The bidders are required to submit soft copies of their bid electronically on the e-Wizard Portal using valid Digital Signature Certificates. Below mentioned instructions are meant to guide the bidders for registration on the e-Wizard Portal, prepare their bids in accordance with the requirements and submit their bids online on the e-Wizard Portal. For more information, bidders may visit the Portal (https://itilimited.ewizard.in)

1. REGISTRATION PROCESS ON ONLINE PORTAL

a) Bidders to enroll on the e-Procurement module of the portal https://itilimited.ewizard.in by clicking on the link "Bidder Enrolment".
b) The bidders to choose a unique username and assign a password for their accounts. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. This would be used for any communication from the e-Wizard Portal.
c) Bidders to register upon enrolment, with their valid Digital Signature Certificate (Class III Certificates with signing and Encryption key) issued by any Certifying Authority recognized by CCA India with their profile.
d) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
e) Bidder then logs in to the site through the secured log-in by entering their user ID/password and the password of the DSC / e-Token.
f) After registration send mail to Helpdesk: helpdeskeuniwizarde@gmail.com for Account activation.
g) As per portal norms Registration Fee will be applicable.

2. TENDER DOCUMENTS SEARCH

a) Various built-in options are available in the e-Wizard Portal like Department name, Tender category, estimated value, Date, other keywords, etc. to search for a tender published on the Online Portal.
b) Once the bidders have selected the tenders they are interested in; they may download the required documents/tender schedules. These tenders can be moved to the respective 'Interested tenders' folder.
c) The bidder should make a note of the unique Tender No assigned to each tender, in case they want to obtain any clarification/help from the Helpdesk.

3. BID PREPARATION

a) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
b) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
c) Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that needs to be submitted. Any deviations from these may lead to rejection of the bid.
d) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in PDF/XLSX/PNG, etc. formats.

4. BID SUBMISSION

a) Bidder to log into the site well in advance for bid submission so that he/she uploads the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
b) The bidder to digitally sign and upload the required bid documents one by one as indicated in the tender document.
c) Bidders to note that they should necessarily submit their financial bids in the prescribed format given by department and no other format is acceptable.
d) The server time (which is displayed on the bidders' dashboard) will be considered as the

standard time for referencing the deadlines for submission of the bids by the bidders, the opening of bids, etc. The bidders should follow this time during bid submission.

e) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data, which cannot be viewed by unauthorized persons until the time of bid opening.

f) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

g) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

h) The off-line tender shall not be accepted and no request in this regard will be entertained whatsoever.

i) As per portal norms Tender Processing Fee will be applicable.

5. **AMENDMENT OF BID DOCUMENT**

At any time prior to the deadline for submission of proposals, the department reserve the right to add/modify/delete any portion of this document by the issuance of a Corrigendum, which would be published on the website and will also be made available to the all the Bidder who has been issued the tender document. The Corrigendum shall be binding on all bidders and will form part of the bid documents.

6. ASSISTANCE TO BIDDERS

a) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

b) Any queries relating to the process of online bid submission or queries relating to e- Wizard Portal, in general, may be directed to the 24x7 e-Wizard Helpdesk.

c) The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of the bid(s).

d) The bid should be submitted through e-Wizard portal (https://itilimited.ewizard.in) only.

e) All payments should be done through e-Wizard Payment gateway

SECTION VI: FINANCIAL BIDS

- The bidders are to quote the prices after fully understanding the scope of complete Service and Supply (as applicable) for mentioned OFC links.
- The rates must be quoted for all the items irrespective of their actual quantum of execution.
- The bids with incomplete rates, not quoting for all the items, shall be rejected.
- Vendor will be decided through value/rate based reverse auction.
- Process and Instruction of Reverse Auction will be intimated to the Bidders once the financial bid is opened.
- The work shall be awarded to the eligible, lowest weighed price bidder in the Working Zone.
- The Bidder will quote the rate with one year warranty// Defect Liability period i.e. bidder will provide one year warranty of completed work.
- Bidder will provide the warranty rate for two years separately.
- The item of Maintenance Services during warranty shall be optional for ITIL to award or not but necessary for the bidder and must for the assessment of the bids.
- The quantum of incidental item of Supply/Service (Aerial OFC Erection) is only for the purpose of assessing the rates and may or may not be required to be executed or may vary in quantity. Must be quoted and shall be counted for the assessment of Bids.
- *GST shall be extra, payable at the prescribed rate against the GST invoice.*
- PIA has to coordinate with relevant departments of government or concerned authority or local authority for ROW permission for laying of fiber cable for and on behalf of Indian Army (User). PIA needs to do required documentation for ROW application and follow up. PIA will be responsible for getting ROW permission in time, to match delivery timelines and payment of ROW charges i.e. DN amount or BG charges paid by ITIL to concern ROW Authorities and PIA will be responsible for getting NOC from concern ROW Authority.
- THE QUANTITIES AND WEIGHTS APPLIED TO QUOTED BID PRICES ARE ONLY INDICATIVE AND ASSUMPTIVE TO ASSESS THE COMPARATIVE RANKING. ACTUAL QUANTITIES MAY VARY AS PER ACTUAL SITE AND WORK CONDITIONS.

WORKING ZONE [Spreading over the state of Sikkim & Arunachal Pradesh]

I. MAIN SERVICE & SUPPLY ITEMS:

SN	Item	Link ID/ Name/Details **$**	Link Trench Length (KM)	Quoted Rates Per K**M (Rs)**		Itemized Bid Value (Qty x Rates)
				In Figures	in Words	
			A	B	B	A x B
1	C (Complete with supply of items and Services as per Scope of Work (SoW*) & Specifications) including One year warranty	3.6.22	39			
2	Maintenance of OFC during Warranty **for 2 Years (Optional)**	Complete routes, executed by the PIA	39			
3	**TOTAL, Itemized Bid Value (X)**					

II. INCIDENTAL SUPPLY & SERVICE ITEM (ON NEED BASIS, AFTER SPECIFIC APPROVAL OF THE USER):

II.	Items	Qty (KM)	Quoted Rate (Rs.) per KM		Bid Value
			In Figures	In Words	
		(a)	(b)	(b)	(a)x(b)
(i)	Erection of Aerial OFC Alignment, complete with material as per Specs. (**only Cable supply by ITIL**) including One year warranty	Total Estimated Route KMs **10 KMs**			
(ii)	Total Assessed Quote **(Y)**				

OVERALL WEIGHTED BID PRICE FOR the "WORKING ZONE": X+Y

Note : (a) Link Details provided are for estimation purposes. Exact locations, distances (RKM) and other parameters/attributes needs to be ascertained by the bidder after reconciling with the list, receivable under NDA.

(b) SOW*- OFC,HDPE Duct and FDF will be provided by ITIL and remaining other OFC accessories will be provided by bidder.

(c) : Actual Link details (with Link IDs) to be handed over physically, to intended bidders under NDA. Price bid format on-line, shall be available only with Link IDs. Bidders need to co-relate.

SECTION VII: DETAILED SCOPE OF WORK

The scope of the work has been defined in Tender and explained as below-

It is proposed to establish Army Communication Network through this project of laying Optical Fibre Cable in various regions and zones. The scope of work includes Survey, Installation, Commissioning and Testing of Optical Fibre Cable (OFC) Network and proposed to be executed by the selected, Experienced and Competent Project Implementation Agencies (PIA) to connect given locations/Nodes with the links created through this OFC networking exercise. The work would include following, apart from various other related activities:

Digging and laying of Optical Fibre Cable (OFC) underground, in trenches in different types of soil and back-filling the same after HDPE pipe is laid & providing Brick layer longitudinally on top of the HDPE pipe for single Duct and Transversally for multi-ducts.

All the OFC work including provision of Joint pits/Chambers and route markers, RCC, Warning Tap and Electronic, as per user issued compendium (Refer to Annexure I) which is based on DOT's/TEC (BSNL)'s latest specifications and OFC construction practices. In the areas where underground OFC is susceptible to extensive damage due to infrastructure development (road widening, construction etc.), the PIA may submit an option for laying of OFC over Power Grid Pylons/NHAI/Rail ducts etc; Such susceptible routes after survey will be clearly submitted for the approval from the User (Indian Army in this case) and ITIL before commencement of OFC laying aerially.

Activities will include survey of routes, approval of survey reports from the user, deployment of HDD machine, open trenching, Chiseling, hammering, crow beating etc to make way to lay the HDPE-PLB ducts. Construction and fixing of Manhole/ Joint Chamber, coupler fixing, Route marker installation, OFC pulling/Blowing in duct and overhead aerial fibre laying with accessories (wherever necessary), jointing, FDF installation at Link ends and in-between nodes of any link, terminating fibres on the FDF and end to end testing. All the activities to be completed as per User Compendium's Specifications (Annexure I) which is governed by BSNL'S engineering instructions are as under and also as mentioned in Technical Specifications section: -

(a) Laying Practices of OFC - Local Area Network & Optical Fibre Cable, ref number D-001, issue No IV dated 31 Jan 2007 (Annexure 1)

(b) Installation Practice of Self-Supporting Metal Free Areal OFC, ref number TR/COFC/I-001, issue No 01 dated 10 Jun 2011. (Annexure 2)

(c) Laying Practices of OFC by HDD Method, ref number TR/OFC/A-001, issue No 01 dated 31 Jan 2007 (Annexure 3)

(d) Provision of Hand Hole in case of HOD on OFC Laying, ref number TR/COFC/1-004, issue No 01 dated 04 Oct 2011(Annexure 4).

(e) Introduction of Micro Tunneling in Laying of OFC, ref number TR/COFC/A-002, issue No 01 dated 22 Feb 2010 (Annexure 5).

Apart from above, OFC CONSTRUCTION PRACTICE TEC/IR/SCB-08/02 SEP 2009 shall also be followed for OFC Laying.

PIA needs to conduct a field survey with DGPS for assigned fiber route considering existing ground utility and terrain conditions with detailed plan to be submitted for approval before execution. Survey plan should have detail drawings, GIS information-based route map in

KMZ/KML and in given report formats. Once route plan is verified and approved, PIA has to coordinate with relevant departments of government or concerned authority or local authority for ROW permission for laying of fiber cable for and on behalf of Indian Army (User). PIA needs to do required documentation for ROW application and follow up. PIA will be responsible for getting ROW permission in time, to match delivery completion

s and payment of ROW charges i.e. DN amount or BG charges paid by ITIL to concern ROW Authorities and PIA will be responsible for getting NOC from concern ROW Authority.

PIA shall normally lay single length of supplied 40mm HDPE pipe. All Material for creation of OFC network will be in scope of PIA (excluding OFC Cable, HDPE Duct and FDF) as per given specifications. Transportation from Delivery Point of ITIL up to the execution site with local storage if required, and insurance will be in the scope of PIA. In case of theft/physical damage to the supplied material, same shall be replaced at PIA's cost till Network AT and final Make Over as per Terms and conditions.

PIA has to depute sufficient teams/resources for the project work along with a site supervisor. All field safety norms to be adhered strictly. The minimum PPE requirement of people working on site is Safety shoes / Gum boots, Hard hats, florescent jackets with proper barricading, sign boards and arrangement for traffic control to be ensured while working on site. PIA need to deploy hands and safety at work trained resources.

Daily consumption report of material and progress of work link and site wise shall be submitted and entered by PIA supervisors online for all the relevant fields of progress monitoring in the Project management system meant for it and periodically reconcile the stock as directed by ITIL.

Any site issue or deviation in submitted plan is needed to be intimated immediately and obtain the approval and clearance from the user. Any damages to utilities/field infrastructure and 3rd party OSP infrastructure during creation of fibre network connectivity will be responsibility of PIA. In case of any damages, PIA has to restore as it was. PIA shall backfill and reinstate the excavated surfaces to their original condition to the satisfaction of the concerned. PIA shall dispose the surplus debris and earth material to a suitable location as indicated by concerned authorities. Reinstatement as per RoW conditions shall be in the scope of PIA. Any penalty and restoration charges with material beyond RoW charges will be borne by PIA.

PIA needs to prepare proper documents, drawings and reports for PDI/FAT/JRI. PIA will have to be present during the final acceptance testing when planned with ITIL and User representatives.

1. WORK:

1.1	**Project:** The PIA shall act as a single agency to organize and manage the assigned creation of fiber network, which includes Route Survey, approval of survey reports from user, follow-up for swift RoW permissions for the life time of the project (10 Years), Supply (except: OFC,HDPE Pipe and FDF), Installation, Commissioning, Handover of end to end connectivity of Network and maintenance of the routes till warranty phase gets over.
1.2	**Fiber Network Rollout Arrangements:** - The PIA shall provide complete details of route in GIS based monitoring tool of ITIL with a layout plan after finalizing the route of link(s). The PIA shall execute Works/Project and Cabling as per the layout plan, which will be pre-approved by the user.
1.3	**Resources Deployment:** The PIA shall prepare and submit the Project Plan, work plan and implementation schedule with list of equipment/implement and personnel to be deployed on field for execution of works for approval of ITIL.
1.4	**Safety**: The PIA shall carry out all the activities (HDD, Open trenching, Ducting,Chamber fitting etc) as per the safety guidelines, with safety standards and norms defined by relevant statutory authorities.
1.5	**Reporting:** - Detailed report is required to be submitted for the work under progress and work completed on daily, weekly and monthly basis per link and overall. The PIA shall put in place the system of onsite progress reporting by the Men at site with the help of different Project Management Tools and Apps decided for this purpose so as to help ITIL and User to monitor progress and pace of work continuously. The system and method of reporting also needs to be as agreed and accepted by the user and ITIL.
1.6	**Documents**: - The PIA shall provide two set of documents and manuals (hard copy, soft copy) for end to end optical fiber route as per format which shall be shared by ITIL/User.
1.7	**Inspection**: - The material supplied and used in the OF construction shall be put to inspection (JRI) as per the directions and instructions of the user before and after the commissioning.
1.8	**Acceptance Testing**: - The OFC links shall be put to end to end testing as per the specifications mentioned in Acceptance Test Procedure (AITP) by the User.

2. PRESENTATION ON "APPROACH AND METHODOLOGY" OF EXECUTION:

2.1 Soon after opening of the Tender the bidder needs to be ready to give a presentation before the Tender Evaluation Committee (TEC), exhibiting how and with which methodology it plans to meet the objectives of this tender. The TEC will consider the Technical Suitability of the submitted bids based on such presentation along with other essential eligibility conditions. Amongst other things the presentation must contain:

- Method and tools of Survey of routes and preparation of Survey reports. **(Survey)**
- The management to arrange and follow-up RoW permissions. **(RoW)**
- The details of mechanized tools and implements available with the bidder to fast execute the OFC Laying work. **(Execution)**
- The logistics and man power resources available in the areas of Zone/Region bid for and planned to be deployed for the execution, once the work is awarded. **(Resources)**
- The time taken to start the work once LoI is awarded. **(Timeline)**
- The methodology to monitor the progress of work. **(Monitoring Progress)**
- The Material and inventory management with arrangements of safety and security of material and work under progress. **(Material& Warehouse)**
- The arrangements and precautions to ensure safety of Men at work and Property & People around the sites of work**. (Safety Concerns)**
- The Measures to ensure timely delivery and completion of work keeping different possible obstacles natural or manmade in view. **(Timely deliverables)**
- The financial strength of the bidder to timely deliver the project. **(Financial Strength)**
- Any other aspects it may like to present before the Tender Evaluation Committee.

An advance copy of this presentation if submitted in advance, with the bid shall be appreciated.

3. QUANTUM OF WORK

3.1 The estimated quantity of work and link details are as below:

ZONE	***REGIONs***	***AREAS***	***Route Length (KM) (Approximately)***	***OFC Links* (Numbers)***	***Completion Period***
ZONE-III	6	Sikkim & Arunachal Pradesh	39	1	Three Month from the date of Agreement

The Link details will be provided by ITIL after signing of NDA and deposited the bid document fee.

3.2 Locations with distances giving OFC routes are tentative and link details provided as above may change during implementation. Exact Locations, distances and other parameters /attributes will be determined by the User/ITIL after survey by the PIA. Payments for execution of links shall be made as on actuals.

SECTION VIII: GENERAL (COMMERCIAL) CONDITIONS OF THE TENDER

1. APPLICATION:

The General conditions shall apply in contracts made by the ITIL for the execution of Laying HDPE-PLB pipes by Open Trench Method/Trenchless Technology, Optical Fibre Cable Pulling/Blowing, splicing, terminating and supply & Service of Associated works.

2. STANDARDS:

The works to be executed under the contract shall confirm to the standards prescribed by TEC/Army in general, for the OF Cable construction practices using open trenching and trenchless technology methods.

3. PRICES:

Prices charged by the PIA for the works performed under the Contract shall not be higher from the prices quoted by the PIA in his Bid. Price once fixed will remain valid for the period of contract. Increase and decrease of taxes/duties will not affect the price except Goods and Service tax (GST) which will be paid at prevailing rate, during this period.

4. SUBCONTRACTS:

The PIA shall not assign, sub contract or sublet the whole or any part of the works covered by the contract, under any circumstances without written approval of ITIL in advance.

5. LIABILITY:

ITIL will not be liable to the PIA for any losses or damages, costs, charges which the PIA may in any way sustain/suffer due to non-issue of work order/delay in making store available or delay in receipt of RoW permission from any of the custodians of Roads and Pathways required to be dug.

6. PERFORMANCE SECURITY:

6.1 The successful bidder shall submit a bank guarantee for an amount equivalent to 5% of the value of work awarded at the Tender approved price as security deposit (Bank Guarantee) towards performance of the contract called PBG within 15 days from the date of issue of LOI, in favor of **'ITI Limited, (NS Unit), payable at Bengaluru** from any scheduled bank in India, valid for 36 months extendable till the completion of Network Acceptance Testing and starting of warranty Phase.

6.2 On receipt of PBG from the bidder and after confirmation of the genuineness of the PBG from the bank, the EMD, received earlier, will be returned.

6.3 A separate Security in the form of Bank Guarantee may also be taken for the Material issued during the execution of project if the progress of work is not in pace of issue of material.

6.4 Before release of PBG, the PIA shall submit a Bank Guarantee equivalent to 5% of the value of work awarded at the Tender approved price towards performance of maintenance during warranty, called PWBG for a period of 36 months, if ITIL decides to give maintenance to the PIA during Warranty period.

6.5 The proceeds of the PBG or PWBG shall be payable to the ITIL as compensation for any loss resulting from the PIA's failure to perform the obligations under the contract and warranty obligations including the cost of material of ITIL or any other liability incurred.

6.6 The warranty security deposit (PWBG) shall be refunded after completion of Warranty phase and start of the AMC period and handover of the project in zero fault condition to the AMC agency, provided there are no recoveries/LD Charges to be paid arising out of poor quality of work, incomplete work and/or default towards any terms and

conditions of the contract as stipulated in the bid document and agreement. In case, the Maintenance of the OFC network during warranty period is awarded to an agency other than PIA itself, the PWBG shall be released accordingly.

6.7 If there are recoveries to be made, PIA shall deposit the money before the release of PBG or PWBG as the case may be. In case of failure to make good the charges payable towards ITIL including accrued penalties, PBG/PWBG will be forfeited and recovery to be effected from the realized amount. The balance amount, if any, after adjustment of above recoveries, same shall be paid to the PIA.

6.8 It is the responsibility of the PIA to submit the proof that he has deposited the Goods & Services tax in time, otherwise ITIL will recover from subsequent bills or PWBG as the case may be.

6.9 No interest will be paid to the PIA on the security deposit(s).

6.10 The maintenance services being rendered by PIA during warranty may be extended for a maximum period of one year at the mutually agreed terms and conditions.

SECURITY DEPOSIT (SD):

In addition to PBG, Security Deposit 5% of tax invoice value will be retained as security deposit. In case the Bidder furnishes the Bank Guarantee from scheduled Bank against 5% SD, then the same may be accepted.

Refund of Security Deposit: SD will be returned after completion of warranty period/defect liability period and after deducting LD/loss to ITI due to negligence/delay on part of bidder and if following conditions are met.

a) Final Payment of the Contract.
b) Execution of Final Supplementary Agreement or Certification by Engineer that ITI has No Claim on Contractor.
c) Maintenance Certificate issued, on expiry of the maintenance period wherever applicable.
d) No interest shall be allowed on the Security Deposit.
e) Finalization of material reconciliation.

7. ISSUE OF WORK ORDERS AND DELIVERY SCHEDULE:

7.1 Work will be executed by way of issuing work orders. Work orders may be issued in parts for a period as specified in the work order. The work order shall be for a part of work which will have to be completed in time as specified in work order.

7.2 The work orders shall be issued by the Designated Officer in-charge of OF cable construction works after general approval from ITIL. The Designated Officer in charge of work shall issue the work order after examining the technical and planning details of the works to be executed.

7.3 The ITIL reserves the right to cancel or modify the scope of work stipulated to be carried out against the work order in the event of change of plan necessitated on account of technical reasons or in the opinion of work order issuing authority or competent authority, the PIA is not executing the work at the required pace.

7.4 The work orders shall be issued as per the work execution plans of the user and not as per the convenience of the PIA.

7.8. The work orders for the difficult portions of the route may be awarded first by the designated Officer in-charge and PIA would have no claim what so ever to demand for a particular route for execution first.

7.9. PIA will start the work execution after arranging required ROW permission for the work.

8. EXTENSION OF THE DELIVERY SCHEDULE:

8.1 General:

8.1.1 In each work order, the work order issuing authority shall specify the time allowed for completion of work consistent with the guidelines on pace of work, magnitude and urgency of work. The time allowed for carrying out the work is to

be strictly observed by the PIA and shall be reckoned from the day of issue of work order.

8.1.2 In as much as "the time being the essence of contract", throughout the stipulated period of contract, the work is to be proceeded with all due diligence on the part of the PIA.

8.2 Application for Extension of Time and Sanction of Extension of Time (EOT):

8.2.1 There may be some hindrances, other than covered under force majeure, while execution of work and in such cases the PIA shall apply in writing to the Designated Officer-in-charge for extension of time (EOT), on account of which, he desires such extension, on the same day of occurrence of hindrance. The Designated Officer-in-charge shall forward the request to the competent authority with his detailed report, who may or may not grant extension of time for completion of work or may allow so with certain conditions.

8.2.2 The application must contain the ground(s), which hindered the PIA in execution of work.

8.2.3 The Designated Officer-in-charge would be given the grounds for extension of time.

8.2.4 The designated authority may consider the request keeping all the facts and circumstances in view and discuss with the User before grant of extension of time, if there are reasonable and sufficient grounds for granting such extension and the reasons for delay are not ascribable to the PIA.

8.2.5 The competent authority may also grant extension of time for completion of work in cases where reasons for delay are ascribable to the PIA, but such extension of time shall be with LD charges as per clause dealing with Liquidated damages (LD) for delays in execution of works.

8.2.6 The competent authority shall grant EOT with time period for completion of work clearly mentioned.

If the competent authority is of the opinion that the grounds shown by the PIAs are not reasonable and sufficient and declines to grant the extension of time, the PIA cannot challenge the soundness of the opinion by reference to arbitration. The decision of the competent authority on period of extension of time or refusal for extension of time shall be final and binding on the PIA.

NB: SINCE THE WORK IS TO BE EXECUTED FOR AND ON BEHALF OF AN END USER, THE NEED AND EXIGENCIES OF THE USER SHALL PREVAIL UPON ALL THE COVENANTS AND ALL DECISIONS SHALL BE TAKEN WITH THE KNOWLEDGE OF SUCH USER. THE USER HERE BEING INDIAN ARMY AND THE PROJECT BEING OF NATIONAL IMPORTANCE, A SPECIAL CARE AND PREPARATION WILL BE EXPECTED FROM THE PIA.

9. BID OPENING AND EVALUATION:

9.1 Opening of bids by the ITIL :

The Electronic Envelope marked as '**Bid Security, Bid cost & Authorization Envelope**' shall be opened first and examined by the designated Bid Opening Committee (TOC) of ITIL. The TOC shall ascertain that the documents submitted in the envelope meet the requirements of eligibility for opening the qualifying bid of a bidder for this tender then only the TOC shall open and download the Qualifying Bids online after the due date and time by logging into the e-tender portal. The bidders whose Physical Envelopes are either not received in time or the documents do not meet the preliminary requirement of eligibility, their bids shall not be opened/downloaded from the E tender portal.

The Qualifying Bids downloaded shall be evaluated by the designated TEC and the result of evaluation after approval by the competent authority shall be declared for the information of all concerned clearly mentioning the qualified bidders and non- qualified bidders.

10. CLARIFICATION OF BIDS BY THE ITIL :

To assist in examination, evaluation and comparison of bids, the ITIL may, at its discretion ask the bidder for clarification of its bid. The request for its clarification and its response shall be in writing. However, no post bid clarification at the initiative of the bidder shall be entertained.

11. VERIFICATION OF BIDS BY THE ITIL :

If any of the documents, required to be submitted along with the technical bid is found wanting, the offer is liable to be rejected at that stage. However, the ITIL at its discretion may call for any clarification regarding the document within a stipulated time period. In case of non-compliance to such queries in the given time, the bid will be out rightly rejected without entertaining further correspondence in this regard.

12. PRELIMINARY EVALUATION:

ITIL shall evaluate the bids to determine whether they are complete, whether any computational errors have been made, whether required securities have been furnished, whether the documents have been properly signed/authenticated and whether the bids are generally in order.

Prior to the detailed evaluation, the ITIL will determine the substantial responsiveness of each bid to the bid document. For purpose of these clauses a substantially responsive bid is one which conforms to all the terms and conditions of the bid documents without deviations.

The ITIL may waive any minor infirmity or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of the bidder.

Bids found Technically and commercially compliant and suitable would only be considered for Price bid opening.

13. INFLUENCING THE ITIL:

13.1 No bidder shall try to influence the ITIL on any matter relating to its bid, from the time of bid opening till the time the contract is awarded.

13.2 Any effort by the bidder to modify his bid or influence the ITIL in the ITIL's bid evaluation, bid comparison or the contract award decisions shall result in the rejection of the bid.

14. ITIL'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS;

The ITIL reserves the right to accept or reject any bid and to annul the bidding process and reject all bids, at any time prior to award of contract without assigning any reason whatsoever and without thereby incurring any liability to the affected bidder or bidders on the grounds for the ITIL's action.

15. ISSUE OF LETTER OF INTENT:

15.1 The issue of letter of intent (LoI) shall constitute the intention of the ITIL to enter into the contract with the bidder. LoI will be issued as offer to the successful bidder(s).

15.2 The bidder shall within 15 days of issue of letter of intent, give his acceptance along with Performance Security (PBG).

16 . SIGNING OF AGREEMENT:

16.1 Once the tender is approved by the competent authority and Letter of Intent (LoI) is issued, the PIA shall deposit the Performance Bank Guaranty (PBG) within fifteen days. The Bid Security deposited along with the tender shall be refunded to the bidder after signing of the agreement.

16.2 An agreement based upon the terms and conditions mentioned in this document shall be signed after submission of PBG.

16.3 ITIL may at any time during the progress of work, ask for an additional Material Security in the form of Bank Guaranty (BG) if it feels the PBG security to be insufficient to mitigate the risk of the value of the Supplies made to the PIA. This action shall be initiated once it is established that there is a difference of more than 20% quantity in the material issued and laid.

17 MEASUREMENT, INSPECTION, TESTING AND ACCEPTANCE TESTING:

17.1 Open Trenching:

17.1.1 **Measurement:**

The measurement books are to be maintained by the Designated Officer- in-charge of the work in the format as prescribed by the User. The entries shall be made in ink. No entry shall be erased. If a mistake is made, it should be corrected by crossing out the incorrect words or figures and inserting the corrections, the corrections thus made shall be initialed & dated by the officer concerned. Each and every measurement has to be signed and accepted by the representative of the User for its correctness.

17.1.2 **Responsibility of taking and recording measurements:**

The measurement of various items of work shall be taken and recorded in the measurement books issued for the purpose. The measurement shall be taken and recorded by a designated officer of ITIL, supervising the work. However, the acceptance by the user shall prevail upon all.

17.1.3. **Method of recording of nomenclature of items:** Complete nomenclature of items, as given in the agreement need not be reproduced in the measurement book for recording the measurements but corresponding Item Code if provided, shall be used.

17.1.4 **Method of measurements:** The measurements of the work shall be done activity wise as and when the item of work is ready for measurement and shall also be uploaded in near real time in the special GIS based Monitoring tools meant for this purpose. The PIA may be required to equip its work force and supervising personnel with necessary devices to accomplish this requirement.

17.1.5 The rates of payment shall be as agreed and payable, if the work is accomplished as per the scheduled specifications.

17.1.6 **Measurement of length of cable**: The length of cables laid in trenches, through pipes and through ducts shall be measured by use of RODO Meter/Measuring Tape or any acceptable modern tool in practice generally acceptable for the purpose as per the choice of ITIL. The length should be cross verified with the marking of lengths on the cables. The lengths shall be recorded in sheet provided in the measurement book. But the payable length shall be based on the trench length.

17.1.7 **Method of measurement** -The measurement of the work shall be done activity-wise as and when the item of work is ready for measurement. The methods of measurement of various items are enumerated as under:

Measurement of Depth of Trenches. The cable route shall be divided into a number of segments each of maximum 200 Meters length bounded by identifiable landmarks at both the ends of the segments. If landmarks are not available, length of segment may be maintained at 200 Meters. The measurement of depth shall be recorded at each point of measurement (POM) in the measurement book in Meters in the multiples of 5 Centimeters. For example, 97 centimeters will be recorded as 95 centimeters and 103 centimeters as 105 centimeters. The points of measurements shall be at a distance of 10 Meters starting from 0 (Zero) Meter. For example, if the length of segment is 75 Meters, the POMs shall be at 0 M, 10 M, 20 M, 30 M, 40 M, 50 M, 60 M, and 70 Meters. The last POM shall be at 75th Meter to be recorded against residual POM. This is a general procedure but a special procedure as per the need of project or the instructions of the user can be made and followed for the measurement and recording provided the payability by ITIL not impacted adversely. During the execution of work there may be depth deviations due to site conditions and other obstacles.

Depth deviation shall be considered on case to case basis by Project Director, (Engineer in Charge of the Project), based on merit of the case duly recommended by local monitoring agency of Army.

The depth deviation approval must be taken by PIA through ITIL from end user at the time of execution only with all supporting documents.

In case of lesser depth, the bidder shall compulsorily provide adequate protection to offset the reduced depth in the following manner:

- **0 Cms. to 50 Cms**. Not Permitted
- **50 Cms. to 90 Cms**. RC Concreting, No GI & No Brick
  Hill Area – Direct RC Concreting on HDPE
  Rocky Soil - Direct RC Concreting on GI Pipe (50 mm)
- **90 Cms. to 120 Cms**. GI
- **> 120 cm**. No protection, however the payment shall be made as following:

Approved rate x (Actual Depth in cm/165).

Note: However, PIA shall take prior permission of ITIL and User for digging lesser depth based on site constraints such as rocky area, presence of pipelines, power cables, City Congestion or RoW Condition etc.

(THE PROVISIONS IN THE SPECIFICATIONS AT ANNEXURE I, SHALL PREVAIL IN CASE OF ANY CONFLICT)

- **Measurement of lengths and profiles of strata and protection.**
  The measurements of length of trenches are on running Meter basis, irrespective of type of soil encountered while digging. The type of protection utilized (item code – wise) to include RCC Half Round and Full Round Pipe, DWC HDPE Pipe, GI Pipe, MS Weld Mesh etc in a segment shall be recorded in the measurement book in the sheet provided for this purpose.
- **Measurement of length of cable**. The length of cables laid in trenches, through pipes and through ducts shall be measured by use of OTDR. **The payment shall be made as per the RODO Meter readings and not as per the OTDR readings.** The length should be cross-verified with the marking of lengths on the cables. The lengths shall be recorded in sheet

provided in the measurement book.

- **Measurement of other items.**
  (i). Termination of Cable in Building Premises/Equipment Room/Shelter and number of joints.
  (ii). Numbering of Poles/Pillars/Cabinets/Boxes.
  (iii). Counting of Bricks laid over the duct.
  (iv). Length of GI/RCC pipes used for special protection.
  (v). The length of Rocky strata encountered.
  (vi). Numbering of Network Components such as Route Indicators, Joint Markers, Splice Chambers, Manholes, Splice Locations, OLA (Optical Line Amplifiers) and Optical Distribution Frames (ODF/FDF) etc.
  (vii). The rates payable shall be per KM length including Trenching-HDD, Crossing of Bridges, culverts, railway Sections, highways etc. etc. for all kinds of Strata and all kind of regions, for complete work.

17.1.8 The PIA shall sign all the measurements recorded in the measurement book. This will be considered as an acceptance by the PIA, of measurements recorded in the MB. In case PIA fails to attend at the measurements or fails to countersign or to record the difference, then in any such events the measurements taken by Designated Officer-in- charge or his subordinate as the case may be, shall be final and binding on the PIA and the PIA shall have no right to dispute the same.

17.1.9 The Designated Officer or the User's representative before accepting the invoice for sections covered by each set of measurement may carry out test check by re-opening trench at as many locations as necessary and bills will be processed only when he is personally satisfied of the correctness of entries in the "measurement Book" and also when he is satisfied of other aspects of the work as per the terms of the contract. The PIA shall provide the necessary assistance of labour for re-opening of trench for test check by the Designated Officer. Separate payment shall not be made to the PIA for excavation of such test checks.

17.1.10 Measurement of the work of cable Blowing/pulling through pipe/duct will be taken equal to the length of the pipe / duct through which the cable has been pulled and not the total length of the cable pulled through pipe/duct. However, the cable pulling/blowing cost is inclusive in this tender.

17.1.11 In case of HDD, depth of the pipes and depth AT shall be done during the drilling from Entry pit towards Exit pit only. Hence the Depth AT for the HDD work shall be done in real time along with supporting documents.

18. Inspection and Quality Control:

18.1 The Quality of Works: The importance of quality of Optical Fibre Cable Construction works especially laying of multiple PLB pipes/coils using open trenching and trenchless technology method cannot be over-emphasized. The quality and availability of connectivity and success of overlay access network depends upon quality of laying of Optical Fibre Cable. Further, the OF cables are vulnerable to damages due to work of other agencies.

18.2 **It is imperative that the PIA(s) is/are fully conversant with the construction practices especially laying multiple pipes by trenchless technology using HDD machine and shall be fully equipped to carry out the work in accordance with the specifications**. The PIAs are expected and bound to ensure quality in construction works in accordance with specifications laid down. The PIA shall engage adequate and experienced supervisors to ensure that works are carried out as per specifications and with due diligence and in a professional manner. The PIAs shall satisfy himself/themselves that the work conforms to the quality specifications before offering the same for Acceptance and Testing by the User.

18.3 An assessment of extent of interest shown by the PIAs in executing the works with

requisite quality may be recorded and used in evaluating the PIAs' Performance Rating.

18.4 In addition to Acceptance Testing being carried out and supervision by Constructions Officers, all works at all times shall be open to inspection by any representative of ITIL or the end User. The PIAs shall be bound, if called upon to do so, to offer the works for inspection without any extra payment.

18.5 **Site Order Book**: The site order book is one of the primary records to be maintained by the Site In charge supervising the work during the course of execution of works. The noting made by officers as well as PIAs, will form as basis for operation of many contractual clauses. The PIA shall remove all the defects pointed out by the officers in the Site order book. The PIA or their authorized representatives shall also be at liberty to note their difficulties etc. in these books. The site order books may also be consulted at the time of making final payments to the PIA. The site order book shall be maintained Link wise by the PIA.

18.6 Work shall be recorded in the site register by the site Engineer. The PIA or his authorized representative shall sign in the site register held by the site Engineer.

18.7 Due to underground utilities, if the manhole cannot be constructed at the site marked in the survey, the decision of the user shall be final and binding on the PIA. If it is decided to shift the manhole within the neighborhood, the PIA shall construct at the place shown by the site engineer in consultation of the user.

19. Testing and Acceptance Testing:

19.1 The work shall be deemed to have been completed only after the same has been accepted by the Acceptance Testing Team of the User. The PIA shall make test pits at the locations desired by A.T. Officers for conducting test checks without any extra payment. The PIA shall restore the pits after test measurements to its original shape. The PIA shall be responsible to provide test/measurement tools and testers for conducting various acceptance tests.

19.2 **Scope of Acceptance and Testing:** The purpose of acceptance and testing is to verify integrity of measurement and quality of work done. The A.T. Officer shall not be responsible for recording of measurements for the purpose of billing and contractual obligations. However, if the measurements taken by AT officer are found to be lesser than the measurements recorded by the officer responsible for recording the measurements, the measurement taken by AT officer shall prevail without prejudice to any punitive action against the PIA as per provisions of the contract and the officer recording the measurements. The PIA shall be obligated to remove defects/deficiencies pointed out by the AT officer without any additional cost to ITIL or to the user.

19.3 **Offering the work for acceptance and testing:** The PIA representative responsible for construction, after having satisfied himself of completion of work ready for AT for completed link shall offer the work to AT Officer of the user for conducting Acceptance and Testing. The work shall be offered for AT as soon as part of work is complete in all respects. The work against any work order can be offered for AT in a number of stages.

19.4 IT SHALL BE THE SOLE RESPONSIBILITY OF THE PIA TO GET THE WORK DONE, TESTED AND ACCEPTED BY THE USER.

20. WARRANTY:

20.1 The PIA shall warrant that the material supplied for the work for which it was responsible, shall be new and free from all defects and faults in material, workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for materials of the type ordered and shall perform

in full conformity with the specifications and drawings. The PIA shall be responsible for any defects that may develop under the conditions provided by the contract and under proper use, arising from faulty materials, design or workmanship such as corrosion of the equipment, inadequate quantity of materials, deficiencies in the construction practices etc. and shall remedy such defects at his own cost when called upon to do so by the ITIL who shall state in writing in what respect the supplies or the services are faulty. This warranty shall survive inspection or payment for, and acceptance of goods, but shall expire except in respect of complaints notified prior to such date, **twenty-four months after the final Network acceptance testing and makeover of the network to the user.**

20.2 If it becomes necessary for the PIA to replace or renew any defective portion/portions of the works and material under this clause, the provisions of the clause shall apply to the portion / portions of works and or material so replaced or renewed or until the end of the above mentioned **period of twenty-four months**, whichever may be later. If any defect is not remedied within a reasonable time, as prescribed by the ITIL, the ITIL may proceed to do the work at the PIA's risk and costs, but without prejudice to any other rights which the ITIL may have against the PIA in respect of such defects.

20.3 **The Cable joint shall be guaranteed for the fault free working**. In case of failure of the joint due to poor workmanship i.e. failure of joint without external damage, with in the stipulated period of warrantee, the PIA shall repair the joint(s) at his own cost within the stipulated timelines**, failing which the ITIL may carry out the repairs and compensation equivalent to five times of the approved/assessed rate of the jointing work plus the cost of materials used shall be** recovered from the PIA from his pending bill/SD or any amount due to him without prejudice to any other action as per terms and conditions of the tender. The material used to mend such defects shall be borne by the PIA.

20.4 Replacement under warranty clause shall be made by the PIA free of all charges at site including freight, insurance, cost of works and other incidental charges

21. **AUDIT AND TECHNICAL EXAMINATION:**

21.1 ITIL shall have the right to cause an audit and technical examination of the work and the final bills of the PIA including all supporting vouchers, abstract etc. to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the PIA under the contract or any work claimed by him to have been done by him under the contract and found not to have been executed, the PIA shall be liable to refund the amount of over payment and it shall be lawful for ITIL to recover the same from him in the manner prescribed in clause or in any other manner legally permissible and if it is found that the PIA was paid less or more than what was due to him under payment shall be duly reconciled between ITIL and the PIA.

21.2 Any sum of money due and payable to the PIA (including security deposit returnable to him) under this contract may be appropriated by the ITIL for the payment of a sum of money arising out or under any other contract made by the PIA with the ITIL

22. **PAYMENT TERMS:**

22.1 **Procedure for Preparation and settlement of bills:**

22.1.1 All items of work involved in the work order shall be completed in all respects before preparing the bills for the work against the work order. The details of payment of bills is enumerated as under:

i) 80% progressively on completion of OFC links (Cable Laying end to end) as per entries recorded/certified in measurement Books maintained for this purpose, duly signed by the authorized representatives of the USER and authorized representative of ITIL and on receipt of the payment from

customer/ end user.

ii) 10% on completion of AT of all OFC links given to PIA.

iii) 10% on handing/ taking over and completion of AITP (Acceptance Testing) jointly signed by authorized Board of Representatives of the USER and authorized representative of ITIL or within one year of completion of the awarded Zone.

iv) Payments shall however be linked with completion of all other activities as per Specifications, SoW, ABD and submission of material account etc. for each link.

NB: 1. Payment shall be made only for the OFC laid or Erected not for the Spare loops provisioning, for maintenance etc.

2. The payment towards maintenance services during warranty if requisitioned, shall be from the date of start of warranty period and be paid quarterly (equally divided for the period of Warranty), after deducting the LD charges levied, if any by the user on non-compliances of Maintenance, T&C towards OFC.

22.1.2 The PIA shall prepare the final bill in triplicate after completion of the work entrusted after acceptance and testing and submit the same to project in-charge of work. The final bill shall be prepared for all the measurements of all items involved in execution of complete work order. The PIA shall prepare the final bill containing the following details:

- The bill for all the quantities as per Measurements at the approved rates.
- Store reconciliation statement furnishing account of stores received against the **Work Order** and returned/reconciled with the designated delivery Points with requisite verifications from store in-charge or the officer in-charge of the work.
- RoW Permission copy or Security refund order as per the conditions.
- Details of recoveries/penalties for delays, damages to various departmental/Third party properties as per provisions of the contract. In case no recovery is to be made, NIL report needs to be submitted.
- Details of empty cable drums.
- Copy of the Wage Register, Attendance Register, Monthly EPF & ESI Deposit Challan may also be demanded as an option.

22.2 Procedure for payment for substandard works:

22.2.1 The PIAs are required to execute all works satisfactorily and in accordance with the specifications. If certain items of work are executed with unsound, imperfect or unskilled workmanship or with materials of any inferior description or that any materials or articles provided by him for execution of work are unsound or of a quality inferior to that contracted for or otherwise, not in accordance with the contract (referred to as substandard work hereinafter), the Designated Officer in-charge shall make a demand in writing specifying the work, materials or articles about which there is a complaint.

22.2.2 Timely action by Site-In-charge/Supervisors of PIA: Timely reporting and action, to a great extent, can prevent occurrence of substandard work, which will be difficult or impossible to rectify later on. It is incumbent on the part of PIA's Site-In-charge, supervising the work, to get rectified the defects in work in time during progress of the work.

22.2.3 Once a defective work is pointed out to the PIA by ITIL or the User, asking the PIA to rectify/replace/remove the substandard item of work in a defined time period. After expiry of such time period, if the PIA fails to rectify/replace/remove the defect, the defects shall be got rectified/replaced/removed through some other agency at the risk and cost of the PIA.

22.2.4 Non-reporting of the substandard work in time by ITIL or the User shall not in any way entitle the PIA to claim that the defects were not pointed out during execution and as such the PIA cannot be absolved of the responsibility for substandard work and associated liabilities.

22.2.5 **Authority and Procedure to accept substandard work and payment thereof**: There may be certain items of work pointed out as substandard which may be difficult to rectify and in the opinion of ITIL Authority or user, the items in question will not materially deteriorate the quality of service provided by the construction. The payment shall be deducted on prorate basis if it has prior approval of the designated officer I/c. Else, the deduction shall be at double the rate of prorate that too only if such portion of lesser depth has been secured by way of extra protection. A working group may also be made who shall take into account the approximate cost of material/work pointed out as substandard and recommend the rates payable for substandard work or item in question. The recommendations however must be preapproved by the user.

22.2.6 Record of substandard work: The items adjudged as substandard shall be recorded properly underlined and highlighted.

22.3 No claim for delayed payment due to dispute etc: No claim for interest or damage will be entertained or be payable by the ITIL in respect of any amount or balance which may be lying with the ITIL owing to any dispute, difference or misunderstanding between the parties or in respect of any delay or omission on the part of the Engineer in charge in making intermediate or final payments or in any other respect whatsoever.

23. LIQUIDATED DAMAGES/COMPENSATION CLAUSE:

23.1 Liquidated Damages clause for Delays in the PIA's performance:

23.1.1 The time allowed for completion of the work as per work order shall be strictly adhered by the PIA and shall be deemed to be the most important aspect of the contract on the part of PIA and shall be reckoned from the day, work order is issued by ITIL. The work shall, throughout the stipulated period of contract, be proceeded with all due diligence to achieve the desired progress uniformly, and the PIA shall pay as LD for delay in execution of the work @ 0.5 % of the cost of the delayed link for each week of delay or part thereof, till it reaches 10 % value of the work awarded. Once the LD payable as above, approaches 10 (ten) percent of the cost of the work, the competent authority reserves the right to short close the work order and get the remaining work done at the risk and cost of the PIA.

23.1.2 The Minimum Expected Pace of Work: 0.5 KM per day

This is an averaged output to be counted from the date of first Work order to the date of completion of the link(s) and would include local holidays/bundh days etc. But the progress has to be monitored on daily basis and the PIA shall be liable to maintain the per day average for the work done.

23.1.3 The progress of work shall be monitored Link wise and on Daily basis.

(a). In case of encountering the rocky strata, the allowed pace shall be halved for such rocky portion.

(b). The survey reports being available before hand, the work orders shall be issued showing the time period of completion keeping link length, strata in view.

23.1.4 As already explained, the work orders shall be issued link wise and there should be no impact on the pace of work on account of number of Work Orders

issued parallelly.

23.1.5 ITIL shall be in its rights to attach importance to any link(s) and PIA has to impart priority in completion of such important links.

23.1.6 The delay caused if any shall be calculated link wise, with the prioritized links first. In case of multiple work orders, the average pace of work (0.5 KM/day), shall guide before imposing any LD except the priority links which would fetch penalty if not completed within allowed time lines, irrespective of maintaining overall average progress.

23.1.7 The calculation for the delay caused and penalty accrued shall be done on each 30th day (Month end) from the first Work Order.

23.1.8 In case, the penalty is accrued due to slow progress of links or due to poor average, but the same is compensated in future without impacting overall project, by increased pace of progress by the PIA, it shall be optional with ITIL to re-consider the LD imposed, by averaging the work out-put on larger period of calculation or with multiple number of links.

23.1.9 PIA needs to make efforts and arrange RoW for all the links in the awarded zone immediately after award of the tender and would not demand grace in meeting the above time lines for execution of OFC Laying work.

23.1.10 A special onetime, 30 days period may be allowed for submitting and approving the survey reports after issuing work order.

23.1.11 Although the completion of any link is linked with the signing of the MB and acceptance of the link for 1st phase of payment by the User, but in cases of the link being final as per the report of ITIL and is no action is pending to be taken by the PIA but the AT of the link is not taken up or completed by the user, the delay for the LD purposes for such link shall cease. However, such link shall not be considered as commissioned till accepted by the user.

23.1.12 The days on which work is not done due to reasons beyond the control of PIA, such as natural calamities, law & order situation, local Government's proclamation etc; as accepted by the user, shall not be counted towards penal delay.

23.1.13 The closure or slowing of work on account of expected seasonal changes or mass movement such as Flood, Snow, other public functions in the awarded Zone/Region shall not be a valid reason for claiming relaxation in time lines of work. The PIA shall plan the work in such a way so as to maximize the work output in the available working window.

23.1.14 LD for delay in completion of the work shall be recoverable from the bills of the PIA and/or by adjustment from the security deposit (PBG) or from the bills of any other contract. However, adjustment from security deposit will be made only when the contract has been terminated or at the time of final settlement of bills on completion of work.

23.1.15 The sequence of work order(s) for any route or section shall be as chosen by the work awarding authority. PIA would not claim to ask for any section or route to be executed first.

23.1.16 In case of slow progress of the work in a Zone or region of the Zone, awarded to a particular PIA, if the user interest does not permit extension of time limit for completion of the work, then ITIL will have the full right to restrict the scope of the contract, to such fraction of the work as it may deem fit in the interest of the project and get the balance work executed at the risk and cost of the PIA. All such payments shall be recovered from the PIA's pending bills or security deposit.

23.1.17 ITIL reserves the right to cancel the contract and forfeit the security deposit if the PIA fails to commence the work within 10 days after issue of the work order or as the time permitted by the competent authority.

23.1.18 The slow pace of work shall be a reason enough to award the work to alternate agency.

24. PROTECTION OF LIFE AND PROPERTY AND EXISTING FACILITIES:

24.1 The PIA is fully responsible for taking all possible safety precautions during preparation for and actual performance of the works and for keeping the construction site in a reasonable safe condition. The PIA shall protect all life and property from damage or losses resulting from his construction operations and shall minimize the disturbance and inconvenience to the public.

24.2 If the excavation of trench alters the contours of the ground around road and highway crossing in such locations become dangerous to traffic, the PIA shall at his own cost, take all necessary precautions to protect public and shall comply with all the ITIL regulations as to placing of warning boards (Minimum size 3' x 2'), traffic signals, barricades, flags etc. at such location. If the PIA does not put the warning signal as per above directions, then a compensation of Rs. 500/- per day shall be levied on the PIA, till the directions are compiled by the PIA. The PIA shall take due precautions to avoid damages to other pipe lines, water, mains, sewers, telephones, telegraphs and power conduits, laid wires poles and guy wires, railways, highways, bridges or other underground or above ground structure and/or property crossing or adjacent to the cable trench being excavated.

24.3 The PIA shall restore the cut portions of BT/Concrete roads to their original conditions immediately on completion of the pipe laying works. If the restoration work is not satisfactory with reference to the standards prescribed by the Corporation/ Highways/respective RoW granting authority, the amount equal to the charges as claimed by the Corporation/Highways will be recovered from the PIA.

24.4 Attention of the PIA is drawn to the rules regarding laying of cables at road crossing, along Railways Bridges, Highways safety precautions while working in Public Street. The PIA in writing shall obtain the detailed engineering instructions from the Designated Officer of the area.

If the PIA does not provide the barricades, warning cones, warning tapes and work notice board, the same shall be provided by ITIL and 1.5 times of the cost of the items shall be recovered from the PIA apart from the penalty accrued on noncompliance.

24.5 The PIA shall be solely responsible for location through approved non-destructive means and ensuring the safety of all existing underground pipeline, electrical cables, and or other structures.

24.6 The PIA shall be solely liable for all expense for and in respect of repairs and / or damage occasioned by injury of or damage to such underground and above structures or other properties and undertake to indemnify the ITIL from and against all actions, cause of actions, damages, claims and demands what-so- ever, either in law or in equity and all losses and damages and costs (inclusive between attorney and client), charges and expenses in connection therewith and / or incidental thereto. The PIA shall take all responsibilities and risks in crossing other pipelines and cables and shall be responsible for protecting all such existing pipelines, poles, electric lines, sewers, cables or other facilities from damage by the PIA's operation in connection with the work. The PIA without cost of the ITIL shall promptly repair any damage incurred.

24.7 The current market value of any commodities lost as a result of any damage to the aforesaid existing facilities shall be paid by the PIA together with such additional sums necessary to absolve the personal of property damages, resulting there from.

24.8 PIA Shall restore the cut / damage portion carried for HDD/execution work of BT/concrete road to their original condition on completion work at their own cost.

25. Penalty/Compensation

25.1 **<u>Compensation/Penalty for causing inconvenience to the Public:</u>**

25.1.2 To ensure progress during the execution of work and to cause minimum inconvenience to the public, PIA shall cause to lay duct/cable and close such trenches expeditiously. The PIA shall not leave the trenches open for more than 24 hours at a stretch in a route at a time and should take due precautions to avoid any mishap. In case of any accident, the PIA shall be fully responsible for the same and any compensation imposed on this account by any statutory authority shall be paid by the PIA. In case of failure to pay the same by the PIA it shall be recovered from his pending payment/security deposit.

25.1.3 The PIA shall not be allowed to dump the empty cable drums/waste materials in Govt./public place, which may cause inconvenience to Govt./Public. If the PIA does not dispose off the empty cable drums/waste materials within 3 days of becoming empty, the ITIL is at liberty to dispose off the drum in any manner deemed fit along with the costs incurred by the ITIL in disposing off such materials. The ITIL may also levy a compensation up to Rupees ten thousand for each such default/incident.

25.2 **Compensation for cutting / damaging the old cables/Burried Properties:**

25.2.1 **Compensation for cutting/damaging the old cables:**

During excavation of trench utmost care is to be taken by the PIA, so that the existing underground cables/Pipes/lines/properties are not damaged or cut. In-case any damage/cut is done to the existing cables, a compensation as per the schedule and procedure of the agency put to loss and inconvenience caused has to be compensated/settled by the PIA. Besides the above penalty/compensation, the PIA shall carry out such repairs for restoration of the damaged cables/Pipes/properties free of charge and to the satisfaction of the person or agency concerned. In case of damage to the cables of the user, apart from the damage compensation, the cost of jointing kits, shall also be borne by the PIA. If PIA fails to repair the damage, the cost of repair (including cost of Labour + Material) and any other damages if any, shall be recovered from the PIA.

25.2.2 Penalty to damage stores/materials supplied by the ITIL while laying:

The PIA while taking delivery of materials supplied by the ITIL at the designated place shall thoroughly inspect all items before taking them over. In case of execution of the work, if any material is found damaged/working unsatisfactorily, then a penalty equivalent to the cost of material + 10% as penalty shall be recovered from the PIA's payments/securities.

However, PIA will not be penalized for any manufacturing defect or poor workmanship of the material supplied by ITIL, which shall however be intimated immediately on receipt.

26. LABOUR WELFARE MEASURES AND WORKMAN COMPENSATION:

26.1 Obtaining License before commencement of work:

The PIA shall ensure all labor regulations and follow the relevant Contract Labour Act and the Contract Labour Regulations, Minimum Wages act etc before commencement of the work, and continue to have a valid license as required until the completion of work. The PIA shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act. Any failure to fulfill the statutory requirements may attract the penal provisions in this contract and PIA shall be fully responsible.

26.2 INSURANCE:

Without limiting any obligations or liabilities, the PIA shall at his own expense, take and keep comprehensive insurance including third party risk for the plant, machinery, men, materials etc. brought to the site and for all the work during the execution. The

PIA shall also take out workmen's compensations insurance as required by law and undertake to indemnify and keep indemnified the ITIL from and against all manner of claims and demands and losses and damages and cost and expenses that may arise in regard to same or that the ITIL may suffer or incur with respect to and / or incidental to the same.

27. **COMPLIANCE WITH LAWS AND REGULATION:**

27.1 During the performance of the works the PIA shall at his own cost and initiative fully comply with all applicable laws of the land and with any and all applicable by-laws rules, regulations and orders and any other provisions having the force of law made or promulgated or deemed to be made or promulgated by the Government, Governmental agency or ITIL, municipal board, Government of other regulatory or Authorized body or persons and shall provide all certificates of compliance therewith as may be required by such applicable law, By-laws, Rules, Regulations, orders and / or provisions. The PIA shall assume full responsibility for the payment of all contributions and payroll taxes, as to its employees, servants or agents engaged in the performance of the work specified in the PIA documents. If the PIA shall require any assignee or sub- PIA to share any portion of the work to be performed hereunder, the same may be assigned, sub-leased or sub-contracted to comply with the provisions of the clause and in this connection the PIA agrees as to undertake to save and hold the ITIL harmless and indemnified from and against any/all penalties, actions, suits, losses and damages, claims and demands and costs (inclusive between attorney and client) charges and expenses whatsoever arising out or occasioned, indirectly or directly, by failure of the PIA or any assignee or sub- PIA to make full and proper compliance with the said by-laws, Rules, Regulations, Laws and Order and provisions as aforesaid.

27.2 The PIA shall also comply with the rule and regulation of EPF & ESI as per government rule and regulation from time to time at his own cost and expenses. The PIA shall indemnify the ITIL from any act or action in future or during the course of work in this regard at his own cost and expense. ITIL reserves the right to withhold an amount from the bills of PIA/security deposit to comply with any such direction which may be so issued by any authority or statutory body in case of non-compliance of these rule and regulation by the PIA.

28. **TOOLS AND PLANTS**

The PIA shall provide at his own cost all tools, plants appliances, implements, measuring instruments etc. required for proper execution of works. The PIA shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works, counting, weighing and assisting the measurements for examination at any time and from time to time. The PIA shall be responsible to make all arrangements, at his own cost for dewatering of trenches / ducts and de-gasification of the ducts before carrying out the work. The PIA shall also be responsible to make arrangements at his own cost, for water required for carrying of works at sites including curing of CC/RCC works, failing which the same may be provided by the Designated Officer-in- charge of ITIL at the expense of the PIA and the expenses shall be deducted from any money due to the PIA under this contract or otherwise.

29. **Rescission / Termination of Contract:**

29.1 **Circumstances for rescission of contract:** Under the following conditions the Tender Issuing Authority may rescind the contract:

i. If the PIA commits breach of any item of terms and conditions of the contract.
ii. If the PIA suspends or abandons the execution of work and the engineer in-charge of the work comes to conclusion that work could not be completed by due date for completion or the PIA had already failed to complete the work by that date.
iii. If the PIA had been given by the officer-in-charge of work a notice in writing to rectify/replace any defective work and PIA fails to comply with the requirement within the specified period.
iv. PIA, either directly or through their employees or agents commits any breach of their obligations hereunder.
v. PIA, either directly or through their employees, violates the confidentiality of the information of ITIL or the user, Uses or divulges any documents, data, or other information to its own formation not directly involved in the work execution or to any third party.
vi. Such suspension or termination is necessary, in the sole discretion of ITI, to comply with:
• any applicable law, regulation or court order, the Rules
• Security requirements,
• Legal proceeding or settlement which may affect ITI or any of its affiliates.
• Revelation of a fact proving information submitted by the PIA during bid process to be as false.

29.2 Before effecting the final termination, all the pending financial issues have to be settled between PIA and ITI Ltd. In such a case, PIA shall peacefully handover all the executed portions of the project and works on 'as is where is basis' including all the material, documentation and all the records etc. so that implementation of the project do not get adversely impacted. In such a situation, PIA shall not be entitled for any compensation and/or claim whatsoever.

29.3 Upon rescission of the contract, the security deposit of the PIA shall be liable to be forfeited and shall be absolutely at the disposal of the ITIL as under:

29.3.1 Measurement of works executed since the date of last measurement and up to the date of rescission of contract shall be taken in the presence of the PIA or his authorized representative who shall sign the same in the MB. If the PIA or his authorized representative do not turn up for joint measurement, the measurement shall be taken by ITIL officer, authorized for this purpose after expiry of due date given for joint measurement. The measurement taken by the officer so authorized shall be final and no further request for joint measurement shall be entertained.

29.3.2 The unused material (Supplied by the ITIL) available at site, shall be transported back by the ITIL to the Store at the risk and cost of the PIA. If any such material is found damaged/lost then the compensation shall also be recovered from the PIA as per conditions in tender documents/bid.

29.3.3 The un-executed work shall be got executed through any other PIA/agency approved in the city or adjoining area or anywhere else in the same state or other state by ITIL at the approved rates of that particular area/city/state or to execute the work directly, as is convenient or expedient to the ITIL at the risk and cost of the PIA. In such an event no compensation shall be payable by the ITIL to the PIA towards any inconvenience/loss that he may be subjected to as a result of such an action by the ITIL. In this regard the decision of ITIL shall be final and binding. In all these cases, expenses which may be incurred in excess of the sum which would have been paid to the original PIA if the whole work had been executed by him shall be borne and paid by the original PIA and shall

be deducted from any money due to him by the ITIL under the contract or his any other account whatsoever anywhere in the ITIL or from a security deposit.

29.3.4 The certificate of the Designated Officer in-charge of work as to the value of work done shall be final and conclusive against the PIA, provided always that action shall only be taken after giving notice in writing to the PIA.

29.4 **Termination for Insolvency:**

The ITIL may at any time terminate the Contract by giving written notice to the PIA, without any compensation to PIA, if the PIA becomes bankrupt or the level of solvency declined as declared and shown at the time of bidding or otherwise insolvent as declared by the competent court provided that such termination will not prejudice or affect any right or action or remedy which has accrued or will accrue thereafter to the ITIL.

Such action may also be initiated on deterioration of financial strength of the PIA as claimed during the bid process such as solvency and liquidity.

29.4 Optional Termination by ITIL (other than due to default of the PIA):

29.5.1 The ITIL may, at any time, at its option cancel and terminate this contract by a written notice to the PIA, in which event the PIA shall be entitled to payment for the work done up to the time of such cancellation.

29.5.2 In the event of the termination of the contract, the PIA shall forthwith clear the site of all the PIA's materials, machinery and equipment and hand over possession of the work / operations concerned to the ITIL or as the ITIL may direct.

29.5.3 The ITIL may, at its option, cancel or omit the execution of one or more items of work under this contract or any part of such items without any compensation, whatsoever, to the PIA.

29.5.4 The notice for rescission of contract to the PIA shall expressly state the precise date and time from which the rescission would become effective. The following safe guards shall be taken while issuing the final notice –

i. During the period of service of notice and its effectiveness, the PIA should not be allowed to remove from the site any material/equipment belonging to the ITIL.

ii. The PIA shall give in writing the tools and plants he would like to take away/remove from the site. Such of the materials as belong to him and which may not be required for future execution of balance work may be allowed by the Designated Officer in-charge of work to be removed with proper records.

iii. No new construction beneficial to the PIA shall be allowed.

iv. Adequate ITIL security arrangement in replacement of the PIA watch and ward shall be made forthwith.

30. **FORCE MAJEURE:**

30.1 If any time, during the continuance of this contract, the performance in whole or in part by either party or any obligation under this contract shall be prevented or delayed by reason of any war, or hostility, acts of the public enemy, civil commotion sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts or act of God (Herein after referred to as events) provided notice of happenings of any such eventuality is given by either party to the other within 21 days from the date of occurrence thereof, neither party shall by reason of such event be entitled to terminate this contract nor shall either party have any such claim for damages against the other in respect of such non-performance and work under the contract shall be resumed as soon as practicable after such event may come to an end or cease to exist, and the decision of the ITIL as to whether the work has been so resumed or not shall be final and conclusive, provided further that if the performance, in whole or part of any obligation under this contract is prevented or delayed by reason of any such event for

a period exceeding 60 days, either party may, at his option terminate the contract.

30.2 Provided also that if the contract is terminated under this clause, the ITIL shall be at liberty to take over from the PIA at a price to be fixed by the ITIL, which shall be final, all unused, undamaged and acceptable materials, bought out components and stores in the course of execution of the contract, in possession of the PIA at the time of such termination of such portions thereof as the ITIL may deem fit excepting such materials, bought out components and stores as the PIA may with the concurrence of the ITIL select to retain.

31. **ARBITRATION (Applicable in case of supply orders/Contracts with firms, other than Public Zone Enterprise)** (Not applicable in cases valuing less than Rs. 5 lakhs) Except as otherwise provided elsewhere in the contract, if any dispute, difference, question or disagreement arises between the parties hereto or their respective representatives or assignees, in connection with construction, meaning, operation, effect, interpretation of the contract or breach thereof which parties unable to settle mutually, the same shall be referred to Arbitration as provided hereunder:

i. A party wishing to commence arbitration proceeding shall revoke Arbitration Clause by giving 60 days' notice to the designated officer of the other party. The notice invoking arbitration shall specify all the points of disputes with details of the amount claimed to be referred to arbitration at the time of invocation of arbitration and not thereafter. If the claim is in foreign currency, the claimant shall indicate its value in Indian Rupee for the purpose of constitution of the arbitral tribunal.

ii. The number of the arbitrators and the appointing authority will be as under:

Claim amount (excluding claim for counter claim, if any)	**Number of arbitrator**	**Appointing Authority**
Above Rs. 5 lakhs to Rs. 5 crores	Sole Arbitrator to be appointed from a panel of arbitrators as may be fixed by ITIL.	ITIL (Note: ITIL will forward a list containing names of three arbitrators to the other party for selecting one from the list who will be appointed as sole arbitrator by ITIL)
Above Rs. 5 crores	3 Arbitrators	One arbitrator by each party and the 3rd arbitrator, who shall be the presiding arbitrator, by the two arbitrators. ITIL will appoint its arbitrator from its panel.

iii. Neither party shall appoint its serving employee as arbitrator.

iv. If any of the Arbitrators so appointed dies, resigns, becomes incapacitated or withdraws for any reason from the proceedings, it shall be lawful for the concerned party/arbitrators to appoint another person in his place in the same manner as aforesaid. Such person shall proceed with the reference from the stage where his predecessor had left it both parties' consent for the same; otherwise, he shall proceed de novo.

v. Parties agree that neither party shall be entitled for any pre-reference or pendente-lite interest on its claims. Parties agree that any claim for such interest made by any party shall be void.

vi. Unless otherwise decided by the parties, Fast Track procedure as prescribed in

Section 29 B of the Arbitration Conciliation Act, 1996 and amended in 2015 for resolution of all disputes shall be followed, where the claim amount is upto Rs. 5 crores.

vii. The Arbitration proceeding shall be held at Bengaluru.

viii. Subject to the aforesaid conditions, provisions of the Arbitration and Conciliation Act, 1996 amended in 2015 and any statutory modifications or re-enactment thereof shall apply to the arbitration proceedings under this clause.

32. **SET OFF:**

Any sum of money due and payable to the supplier (including security deposit refundable to him) under this contract may be appropriated by the purchaser or the ITIL or any other person(s) contracting through the ITIL and set off the same against any claim of the Purchaser or ITIL or such other person or person(s) for payment of a sum of money arising out of this contract or under any other contract made by the supplier with the Purchaser or ITIL or such other person(s) contracting through the ITIL. In case of set off of the security deposit against any claim of the purchaser or ITIL or such other person or person(s) for payment of a sum of money arising out of this contract or under any other contract made by the supplier with the Purchaser or ITIL or such other person(s) contracting through the ITIL, the GST on such set off will be borne by the supplier. GST would not be liable on security deposit. But if supplier's security deposit is set off against any claim of the purchaser or ITIL or such other person or person(s) for payment of a sum of money arising out of this contract or under any other contract made by the supplier with the Purchaser or ITIL or such other person(s) contracting through the ITIL, then GST would be levied on such amount as being set off.

33. **Indemnity:**

The PIA shall fully indemnify and defend ITIL and its representatives & employees and hold ITIL, its representatives, employees harmless from the following :-

33.1 Damages and losses caused by its negligent or intentional act or omission or any damages and losses caused by the negligent act of any third party or agency engaged by the PIA;

33.2 Damages or compensation payable at law in respect of or in consequence of any accident or injury to any workman or other person engaged by PIA.

33.3 Damages and losses resulting from the non-compliance with the established obligations; Third Party claim against ITIL or its nominated agency that any Deliverables/Services/Equipment provided by the PIA infringes a copyright, trade secret, patents or other intellectual property rights of any third party in which case the PIA shall defend such claim at its expense and shall pay any costs or damages that may be finally awarded against ITIL or its nominated agency.

33.4 If any Deliverable is or likely to be held to be infringing, the PIA shall at its expense and option either (i) procure the right for ITIL to continue using it, or (ii) replace it with a non-infringing equivalent, or (iii) modify it to make it non-infringing.

33.5 Any environmental damages caused by it and/or its representatives or employees or employees of any third party or agency engaged by the PIA;

33.6 Abundant care shall be taken by the PIA to ensure safety of all the patrons, public persons and work force employed or associated during the execution of the project from the ill effects of epidemics like COVID-19 by taking all necessary precautionary measures as stipulated by the Local agencies and the Government and also comply the SOP issued by Ministry of Home Affairs.

33.7 Breach (either directly by it or through its representatives and/or employees) of any representation and guarantee declared herein by it;

33.8 From any and all claims, actions, suits, proceedings, taxes, duties, levies, costs, expenses, damages and liabilities, including attorneys' fees, arising out of, connected with, or resulting from or arising in connections with the services provided due to neglect omission or intentional act.

33.9 Any liability or penalty (including taxation issues) which may be imposed by the Central, State or Local Authorities.

34. **Liability of the PIA towards the Purchaser:**

34.1 Except in case of gross negligence or willful misconduct on the part of the PIA or on the part of any person or company acting on behalf of the PIA in carrying out the Services, the PIA, with respect to damage caused by the PIA to ITIL resulting in bodily injury, death or damage to physical property with respect to all claims arising under this Contract, shall in aggregate not be liable to ITIL:

i. For any indirect or consequential loss or damage; and

ii. For any direct loss or damage that exceeds the total payments payable under this contract to the PIA hereunder.

34.2 This limitation of liability shall not affect the PIA liability, if any, for direct damage to Third Parties resulting in bodily injury, death or damage to physical property caused by the PIA or any person or firm/company acting on behalf of the PIA in carrying out the Services. Notwithstanding anything stated to the contrary in the tender, Limitation of liability, including for direct damage to Third Parties, shall be to the extent of 100% of the total cost of the project calculated up to and as on the date when such section / clause is required to be invoked.

35. **Transfer of Ownership:**

35.1 The PIA must transfer all titles to the assets and goods procured for the purpose of the project to the end user.

35.2 In case of any loss/damage to the Material or any equipment due to any reason before the transfer of ownership, the same shall be made good at the cost of PIA.

36. **Confidentiality:**

36.1 The PIA shall not use Confidential Information, the name or the logo of the ITIL except for the purposes of providing the Service as specified under this Tender;

36.2 The PIA shall not, either during the term or after expiration of this Contract, disclose any proprietary or confidential information relating to the Services, Contract or the network architecture, User's deployment/Link details or other plans and operations at all to any third party.

36.3 The PIA may only disclose Confidential Information in the following circumstances: with the prior written consent of the ITIL;

(i) to a member of the PIAs' Team ("Authorized Person") if:

a) the Authorized Person needs the Confidential Information for the performance of obligations under this contract;

b) the Authorized Person is aware of the confidentiality of the Confidential Information and is obliged to use it only for the performance of obligations under this contract.

36.4 The PIA shall sign a Non-Disclosure Agreement (NDA) with the ITIL on mutually agreed terms & conditions. The PIA and its antecedents shall be bound by the NDA. The PIA shall be responsible for any breach of the NDA by its antecedents or delegates.

36.5 PIA shall notify the ITIL promptly if it is aware of any disclosure of the Confidential Information otherwise than as permitted by this Contract or with the authority of the ITIL.

36.6 The ITIL reserves the right to adopt legal proceedings, civil or criminal, against the PIA in relation to a dispute arising out of breach of obligation by the Bidder(s) under this clause.

37. **Suspension of Work:**

37.1 The PIA shall, if ordered in writing by the ITIL, temporarily suspend the works or any part thereof for such a period and such a time as ordered, then PIA shall not be entitled to claim compensation for any loss or damage sustained by him by reason of temporary suspension of the works as aforesaid but shall be eligible for the payment (of products/services delivered and accepted as per the instructions of ITIL) during the suspension period as per contract.

37.2 An extension of time for completion, corresponding with the delay caused by any such suspension of the works as aforesaid shall be granted to the PIA after having due concurrence of end user, if request for same is made and that the suspension was not consequent to any default or failure on the part of the PIA.

37.3 In case the suspension of works is not consequent to any default or failure on the part of the PIA and lasts for a period of more than 2 months, the PIA shall have the option to request the ITIL to terminate the Contract with mutual consent.

38. **No Assignment:**

The PIA shall not transfer any interest, right, benefit or obligation under this Contract without the prior written consent of the ITIL.

39. **Successors:**

39.1 This contract is personal to PIA and shall not be assignable by PIA without the prior written consent of ITIL.

39.2 PIA shall not appoint subcontractors to perform any part of the Services under the Agreement, without ITIL's prior written consent.

39.3 ITIL may assign its rights under this Agreement, without the prior consent of PIA, to any successor in interest to ITIL, whether by way of merger, reorganization or sale of assets (including any sale of a line of business).

39.4 This Agreement shall inure to the benefit of and be binding upon ITIL and its successors or assigns.

40. **Integrations:**

PIA shall at all times carry out his scope of work and implementation of the project in a close integration with ITIL and the USER and their representatives.

41. **Survival:**

The provisions of the clauses of this Contract in relation to documents, property, Intellectual Property Rights, indemnity, publicity and confidentiality and ownership survive the expiry or termination of this Contract and in relation to confidentiality, the obligations continue to apply unless the ITIL notifies the PIA of its release from those obligations.

42. **Entire Contract:**

The terms & conditions laid down in the RFP and all the annexures thereto as also the Bid and any attachments/annexes thereto shall be read in consonance with and form an integral part of this Contract. This Contract supersedes any prior Contract, understanding or representation of the Parties on the subject matter.

43. **Severance:**

In the event any provision of this Contract is held to be invalid or unenforceable under the applicable law, the remaining provisions of this Contract shall remain in full force and effect.

44. **Publicity:**

The PIA shall not make or permit to be made a public announcement or media release about any aspect of this Contract unless the ITIL first gives the Bidder/PIA its written

consent.

45. **Waiver:**

45.1 Any waiver of any provision of this Contract is ineffective unless it is in writing and signed by the Party waiving its rights.

45.2 A waiver by either Party in respect of a breach of a provision of this Contract by the other Party is not a waiver in respect of any other breach of that or any other provision.

45.3 The failure of either Party to enforce at any time any of the provisions of this Contract shall not be interpreted as a waiver of such provision.

46. **Modification:**

Any modification of this Contract shall be in writing and signed by an authorized representative of each Party.

47. **Time is of Essence:**

Time shall be of the essence in respect of any date or period specified in this Tender or any notice, demand or other communication served under or pursuant to any provision of this Tender and in respect of the completion of the Services by the PIA by the completion date.

48. **Access to Premises:**

From time to time PIA or its employees may access Sites to deliver or install Materials or perform Services. PIA shall fully familiarize itself with ITIL and end user's applicable customer's safety, security and conduct rules and regulations at any Site. PIA shall take appropriate care of any property owned by ITIL and its customers which is in PIA's custody, care, or control; and, such care shall not be less than that taken by PIA with respect to its own similar property (but in no event shall less than due care be employed) and PIA shall be responsible for any loss of, or damage to, such property while in the custody, care or control of PIA.

49. **Construction and Interpretation of Agreement:**

The language in all parts of this Agreement shall in all cases be construed simply, as a whole and in accordance with its fair meaning and not strictly for or against any Party. The PIA hereto acknowledges and agree that it has been given the opportunity to independently review this tender with legal counsel, and that PIA has the requisite experience and sophistication to understand, interpret and agree to the particular language of the provisions hereof. Accordingly, in the event of an ambiguity in or dispute regarding the interpretation of this this tender or the contract emanating as its result, shall not be interpreted or construed against ITIL.

50. **Governing Law:**

This Contract shall be governed in accordance with the laws of India.

51. **Jurisdiction of Courts:**

The courts of India at Bengaluru have exclusive jurisdiction to determine any proceeding in relation to this Contract.

SECTION IX: SPECIAL (COMMERCIAL) CONDITIONS OF THE TENDER

1. GENERAL:

1.1 The ITIL reserves the right to disqualify such bidders who have a record of not meeting contractual obligations against earlier contracts entered into with the ITIL.

1.2 The ITIL reserves the right to black list a bidder for a suitable period in case he fails to honor his bid or submits false certificates or false bank instruments to defraud ITIL and to faulter ITIL's bidding process. Such black listing or disqualification order would be for a minimum period of one year and maximum for three years.

1.3 No consortium partner shall be allowed.

1.4 The ITIL reserves the right to counter offer price(s) against price(s) quoted by any bidder.

1.5 Any clarification issued by ITIL, in response to query raised by prospective bidders shall form an integral part of bid documents and it may amount to amendment of relevant clauses of the bid documents.

1.6 While considering the experience of any bidder having executed underground OFC Laying in hilly terrains, the average HASL of the ends of any link with Via Stations points enroute, executed by the bidder shall be taken to assess the eligibility. The enroute points chosen to prove the average height of any route would not be more than five and be spreaded evenly from the end points. The links/routes having average minimum HASL not qualifying the minimum eligibility criteria for the zone, shall not be considered for counting the total Hilly terrain experience.

In the cases, where the HASL of some route/points is not easily available, the average HASL of the district(s) having such route shall be considered.

1.7 Tender will be evaluated as a single package of all the items given in the price schedule for this Zone/Region only.

1.8 The work in Zone or Link to be executed by ITIL may be split up between two or more sub-zones or may accept any bid in part and not in its entirety, if considered expedient by ITIL management before award or after award of the work.

1.9 All works to be done under the contract shall be executed as per the direction and subject to the approval in all respects of the Designated Officer or Site Engineer in-charge of Link who shall be entitled to direct at what point or points and what manner they are to be commenced.

1.10 The work shall be accepted only after Acceptance Testing carried out by ITIL and the USER team, as per prescribed testing schedule and work/material passing the inspection test successfully.

1.11 If the PIA shall desire an extension of time for completion of the work on the grounds of unavoidable hindrance in execution of work or any other ground, he shall apply in writing to the Designated Officer on the same day of occurrence of hindrance on account of which he desires such extension as aforesaid. In this regard the decision of ITIL shall be final.

1.12 If at any time after the commencement of the work, ITIL feels that execution of whole or part of work, as specified in the tender is not required to be carried out, then the ITIL shall give notice in writing of the fact to the PIA who shall have no claim to any payment of compensation whatsoever on account of any profit or advantage which he might have derived in consequence of the full amount of the work not having been carried out neither shall have any claim for compensation by reason of any alterations having been made in the original specifications, drawings, designs and instructions which shall involve any curtailment of the work as originally contemplated.

1.13 After the work commences, the PIA or his authorized representative(s) shall always be present at the site. The representative shall be authorized by the Designated Officer in-charge based on the PIA's request.

1.14 The Right of Way (RoW) shall be obtained by the successful PIA on behalf of the User,

including various permissions from authorities like water, power, utilities, traffic police before start of execution of work. PIA has to coordinate with relevant departments of government or concerned authority or local authority for ROW permission for laying of fiber cable for and on behalf of Indian Army (User). PIA needs to do required documentation for ROW application and follow up. PIA will be responsible for getting ROW permission in time, to match delivery timelines and payment of ROW charges i.e. DN amount or BG charges paid by ITIL to concern ROW Authorities and PIA will be responsible for getting NOC from concern ROW Authority.The work shall be carried out as per terms and conditions and timelines mentioned in the RoW permission. The PIA shall deploy adequate men and machine so as to complete the work within permitted time.

1.15 Since the pace of progress is also linked with the RoW, same shall be given highest priority and shall not be delayed on want of submission of RoW Documents .

1.16 If the work is not progressing as per the schedule, the work may be either restricted or terminated.

1.17 After the ducts are laid by either Open trenching method or by HDD, the duct integrity test shall be carried out immediately on the same day or by next day to facilitate the PIA to commence the manhole work.

1.18 If any one or more number of ducts are found to fail the duct integrity test, additional laying/ HDD of pipe/s shall be carried out by the PIA at no extra cost. The cost of the damaged pipe(s) shall be recovered from the PIA with overhead charges if incurred.

1.19 The fact that the PIA is working simultaneously in more links in the same Zone, will not absolve him from the responsibility of completing the work in time allocated for the ordered Link.

1.20 The price quotes have been asked link wise in for this zone only. It is a common prudence that the terrains having higher altitudes and rocky strata would demand more efforts and expenditure to accomplish. In case it is observed that the links falling in difficult terrains/ areas have been quoted with lower price than those falling in comparatively plain and soft strata shall be termed as non-serious bids and shall be liable for rejection. This shall be applicable particularly for this awarded Zone.

2. QUALITY OF WORK:

The User shall be the final judge of the quality of the work and the same has to meet the satisfaction of the ITIL as per the specifications laid down for the purpose. Laxity or failure to enforce compliance with the contract documents by the ITIL and / or its representative shall not manifest a change or intent of waiver, the intention being that, notwithstanding the same, the PIA shall be and remain responsible for complete and proper compliance with the contract documents and the specification therein. The representative of Tender Issuing Authority has the right to prohibit the use of men and any tools, materials and equipment which in his opinion do not produce work or performance to meet the requirement of the contract documents.

3. INCIDENTALS:

(i) No additional charges, for laying of Second duct in the same trench if required to be laid within 0.05% of the total route length, beyond which this shall be payable @ 5% of the per KM charges, fixed for the main Supply & Service Items for the respected geographical area.

(ii) No additional charges for the leading-in OFC in the premises of the user, without trenching/HDD, for a fraction of 0.05% of the total route length, beyond which this shall be payable @ 5% of the per KM charges, fixed for the main Supply & Service Items for the respected geographical area. The leading in shall be done as per the standards prescribed for the internal wiring specifications for OFC laying such as FTTH.

(iii) There may be circumstances wherein, the substantial time is lapsed between the OFC Link completion and the final acceptance of the network and start of the

Warranty phase OFC Maintenance at Appendix "A" of Annexure VII which shall be measured and recorded quarterly and needs to be within permissible limits with reference to the initial records.

(iv) All the material and services required for the maintenance of the OFC links shall be the responsibility of the PIA except the OFC cable and HDPE duct. The OFC and HDPE duct shall be supplied to the PIA on imprest basis @ 1% of the RKM of the Links completed, to be reconciled and recouped after the same is exhausted by 50%. The PIA would require to give the details and account of each incidence consuming the OFC and duct out of the said imprest stock. In case this material is consumed on any activity caused due to carelessness or default of PIA and same shall be charged to the account of PIA. The imprest stock shall be handed over to PIA from a pre-determined node/place in the Zone.

(v) A usual wastage allowance towards jointing/spoilages etc for HDPE duct supplied by ITIL shall be allowed @ 2.5% and for the OFC @ 0.5% of the link KMs completed, shortages beyond this shall be chargeable.

4. TAXES AND DUTIES:

PIA shall pay all rates, levies, fees royalties, taxes and duties payable or arising from out of, by virtue of or in connection with and/or incidental to the contract or any of the obligations of the parties in terms of the contract documents and / or in respect of the works or operations or any part thereof to be performed by the PIA and the PIA shall indemnify and keep indemnified the ITIL from and against the same or any default by the PIA in the payment thereof. However, service tax (GST) shall be paid extra by ITIL as applicable.

5. AWARD OF CONTRACT & DISTRIBUTION OF WORK:

5.16 The ITIL shall consider award of contract to L-1 bidder whose offer has been found technically, commercially and financially acceptable. The L-1 bidder is one whose overall quote is the lowest for the awarded Zone. However, the competitiveness and genuineness of L-1 rates shall be an underlined criterion before acceptance of such rates and efforts may be made to reach such rates with the L-1 bidder.

5.17 Should there be an eventuality that the pace of progress is not coming from the deployed PIA(s) in any of the link of awarded Zone as a whole or with some links of a Zone and the LDs are mounting towards outer limits, ITIL shall resort to awarding the whole or part of such work to alternate PIA at Risk & Cost of the defaulting PIA. The alternate PIA may be chosen from amongst the bidders who were technically qualified in the process of this very tender for the Zone under consideration or for any other Zone by inviting separate competitive financial bids for such pending work from such interested bidder Companies/Entities. Cost escalation if happens in this process, shall be recoverable from the faltering PIA(s) of such Zone/Link(s).

5.18 The work needs to be executed link wise, once the work order(s) for the link(s) to be executed is issued by ITIL. The PIA cannot demand the work order for specific link(s) for what so ever justification. The work orders may be restricted if unfinished links are pending for the reasons of the PIA. The site encumbrances if any, needs to be managed by the PIA and shall not be the acceptable cause for the pending links. The decision and judgement of Designated Site In-charge of ITIL shall however be final in all such cases of issue of Work order(s).

6. SUPPLY AND MAINTENANCE OF STORES:

6.16 ITIL will provide HDPE duct ,OFC and FDF to the selected bidder's warehouses, from warehouse PIA will carry the materials to the site at their own cost. PIAs material i.e Chambers(Man Hole, Hand Hole) Joint closure, Warning Tape, ERM,GI,CRM and other accessories required to execute the OFC links will be arrange and kept in the PIAs warehouse.

6.17 The supply of HDPE Duct and OFC cable shall generally be made against the specific Link(s) as requisitioned by ITIL and RoW already arranged for the link. PIA needs to keep pace and account of the material received and consumed, link wise. The PIA shall not divert the material issued for specific link or part of the link, towards unauthorized link(s) unless such re-allocation is allowed by ITIL. The security of the material laid or kept in its stock shall be the responsibility of the PIA and if the stores received, accounts to more than 20% of the laid, PIA may be asked to submit a separate PBG against the stores demanded.

6.18 In case any quantity of HDPE Duct or OFC cable issued by ITIL, is lost, wasted or consumed unaccounted, same shall be charged to the PIA's account @ Rs.**50/Mtr** for duct and @ **Rs.100/Mtr** for OFC cable.

IN CASE OF ANY CONFLICT BETWEEN GENERAL COMMERCIAL CONDTIONS AND SPECIAL COMMERCIAL CONDITIONS OF TENDER, LATTER SHALL PREVAIL.

SECTION X: GENERAL OFC CONSTRUCTION PRACTICES

1. The detailed survey of all the links in the awarded zone needs to be carried out by the PIA for the implementation of the project. The ROW for assigned Links/Zone as per the survey, needs to be applied and arranged after assent of the User. Considering existing ground utilities and terrain conditions, a detailed layout plan shall be submitted by PIA for ITIL/User's acceptance. Survey plan shall have detailed drawings, GIS information based, route maps in KMZ/KML and in the given formats (The necessary GIS hardware and software shall be arranged by ITIL). Once route plan is verified and approved, PIA has to coordinate and pursue with the relevant departments of government or concerned authority or local authority for ROW permission for creation of the fiber network. PIA needs to do required documentation for ROW application. PIA will be responsible for getting ROW permission (wherever required) in time, to match delivery timelines. The request letters shall be prepared in favour of the concerned RoW granting authorities on behalf of the user with and without references of ITIL and PIA as instructed by site in charge or by way of general instructions in this regard. ROW charges, payable to the RoW granting authorities against their invoice/demand letter, shall be paid initially by ITIL which shall be reimbursed by the user. The RoW shall be applied and obtained for the entire duration of the project (10 Years from the date of final makeover to user after N/W AT). A repository of (Photocopy) of ROW payment will be maintained by PIA and ROW payment receipts from various ROW agencies mentioning link wise details (distances etc) including the period covered will be submitted along with the bill for reimbursement.

2. OFC Links will be laid for creating the Access and Back-bone of Army's Communication Network. OFC network route will be laid to connect various Nodes via pre-decided routes. Activities will include but not limited to survey of routes, deployment of HDD machine, open trenching, Manhole/Chamber fixing, coupler fixing, OFC pulling in duct and sporadic overhead laying as per Tender construction guidelines. Choice of Implementation through HDD method or Open trench method or Aerial and side of the road shall be negotiable with ITIL or the end user's representative, whose decision shall prevail in case of any conflict. Implementation of Optical fiber cable network with HDD method or Open trench method or Aerial method and side of laying will be finalized before the issue of work order.

3. OFC data base shall be created during the laying of route. Following attributes of the optical fibre cable will be included. These attributes, will be upgraded during each iteration, while developing the application: - (a) Route Chart, Month/Year of laying, Details of Terminations, Nodes, Route layouts-waypoints, type of OFC (number of fibers), important landmarks, Crossings/Bridges/Man-holes, Fibre patching/joints, distance from last joint, etc. Number of joints along a given route with exact location (Eight-Figure Grid-Reference) also required.

4. The work which shall be carried out as per the Construction Specifications contained in this Tender document. In case of any doubt or conflict, Engineering Instructions and specifications annexed shall generally be referred.

   Supply of material for creation of OFC network except HDPE pipes and OFC cable and FDF shall be arranged by the PIA as per the make/model/specifications.

   In case of specific make ITIL shall fix the ceiling price after negotiating with the Source(s) of such item(s) and PIA shall be free to arrange such items but with the assured Quality at any rate but not more than the ceiling price in it's own interest. It may be kept in mind by the PIA that each and every store used in the network has to be of best quality and reliability which shall not only be put to rigorous testing by the user but also needs to

support the network for at least 10 years and the same needs to be assured from the source of such supplies.

5. For understanding Execution of the project in detail, bidder is advised to go through the Construction Specification & Guidelines as annexed.

Other Terms:

- Gantt chart/road Map of delivery visibility of each route should be submitted by PIA.
- PIA should give DPR (Daily Progress Report) along with as per the format shared by the User/ITIL. This can be modified as per requirement from time to time
- PIA to share material requirement for next month by 7th of current month and should provide rolling forecast for 3-month requirement.
- PIA's corresponding payment may be withheld and separate PBG asked, if Fiber/Duct/FDF Material inventory exceeds > 20% than used.
- Line Amplifiers/Repeaters wherever needed on the way (at in between stations), FDF needs to be installed as per the plan/Survey approved by User/ITIL.
- Dedicated resources to be employed for daily progress report, MIS and Inventory management etc.

THESE ARE GENERAL CONSTRUCTION PRACTICES OF OFC. IN CASE OF ANY CONFLICT BETWEEN THESE AND SPECIFIC TECHNICAL SPECIFICATIONS AT ANNEXURE-I, LATTER SHALL PREVAIL.

SECTION-XI: LIST OF DOCUMENTS TO BE SUBMITTED AS A PART OF THE BID

Check list of documents/information to be submitted with the bid:	
a.	Bidder's Profile.
b.	Certificates of Incorporation/ Partnership deed
c.	Memorandum & Articles of Association.
d.	Audited financial statements for the last 3 years. (2023-24,2024-25 and 2025-26) and CA certificate in case of Unaudited report of 2025-26 with an undertaking to submit the audited report, soon it is available.
e.	Certificate from Statutory Auditor/CA specifying the Annual Turnover from Telecom Infrastructure services during last three years (2023-26).
f.	**EMD** (for a Value as indicated in **Table-I)** in the form of BG/payment through eWizard payment gateway valid for 135 days from a Nationalized / Scheduled bank as per format at **Annexure-III** (in case of EMD being in BG form)
g.	Experience Certificates: Work Order / Agreements of the Project along with completion certificates clearly highlighting Scope of the Work (SOW), Bill of Material (BOM), cost of the Project(s) with specific mention of the cost towards OFC laying (Underground and Aerial, separately) and the area of work to ascertain the geography towards claim of experience in Hilly terrains, where applicable. The experience as required to meet eligibility conditions during the last 5 years only (period ending 31st March 2026), shall be considered.
h.	Net Worth positive and the bidder company being profitable, certificate for the last 3 years (2023-26).
i.	Liquidity certificate from the banker/ Chartered Accountant (CA) for the minimum amount as mentioned atTable-I
j.	GST Registration Certificate.
k.	Copy of PAN Card.
l.	CIN (Corporate Identity Number).
m.	Self-declaration in **Annexure-VI.** non barring from business on account of blacklisting etc.
n.	Authorization letter in the bidder company's letterhead authorizing the person signing the bid for this Tender and Power of Attorney (POA).
o.	Clause by clause compliance to all the terms and conditions.
p.	Undertaking in letter head to indemnify ITIL from any claims / penalties / statutory charges, liquidated damages, with legal expenses etc.
q.	NDA (Non-Disclosure Agreement) as per **Annexure-IV** (to be submitted in advance to obtain the Link details)
r.	List of Node Locations/Links for the Network execution, follow-up and obtaining the RoW for and on behalf of the user (After Signing NDA).
s.	Pre-Contract Integrity Pact **Annexure –V**
t.	A detailed exhibit on the "Approach and Methodology", bidder proposes to adopt if the project is awarded to it, refer Section IX Clause 2.
u.	List of Tools & Implements such as JCB, HDD M/Cs, Splicing Machines etc as mentioned in table-I with ownership proof by the bidder.

v.	Self-certified list of Employees for being on rolls of the bidder as per table-I, with verifiable EPF & ESI Details.
w.	An undertaking to submit PBG along with LOI acceptance for 5 % of the contract value valid for 36 months, extendable further till onset of warranty phase.
x.	Financial Bid Formats Annexure-IX
y.	BOM for Delivery of OFC Links Annexure-VII
z.	Warranty SLA and Testing/Inspection Requirements Annexure-VIII
aa.	All other docs as mentioned in this Tender elsewhere.
ab.	Undertaking regarding litigation/ arbitration
ac	Site survey Report Annexure XI. which mandate by ITI official ITI followings address AGM-A ITI Limited, Gangtok 2nd Taxi Stand, Lingding , PS-Tadong Near Lingding Junior High School, Gangtok (Sikkim)-737102

Note:

- ITIL or its nominee reserves the right to cross check / validate the authenticity of the documents submitted and the information provided in the Pre-qualification and Eligibility criteria. The requisite support to prove the claims must be provided by the Bidder failing which the supporting document shall be taken as not proved followed with attached consequences of false claim.

SECTION-XII: GLOSSARY

Abbreviation/ Acronym	Description
ABD	As Built Diagram
ITIL	ITI Limited
User	Director General of Signals
RoW	Right of Way
HDPE-PLB	Pre Lubricated-High Density Polyethylene
FTF	Fibre Termination Frame
HH	Hand Hole
MH	Man Hole
AITP	Acceptance & Inspection Procedure
GIS	Geographic Information System
PIA	Project Implementation Agency
KMZ/KML	Keyhole Markup Zip/ Keyhole Markup Language
FDF	Fibre Distribution Frame
GI Pipe	Galvanized Iron Pipe
MAF	Manufacturer Authorization Form
OFC	Optical Fibre Cable
BRO	Border Road Organization
MES	Military Engineering Service
NHAI	National Highway Authority of India
PWBG	Performance cum Warranty Bank Guarantee

Annexure I
Technical Specification
OFC laying practice

References:

(a) Laying Practises of OFC by HDD Method: BSNL Engineering Instructions Number TR/OFC/A-001 issue No 01 dated 31 January 2007

(b) Introduction of Micro Tunnelling for Laying of OFC: BSNL Engineering Instructions Number TR/COFC/A-002, issue No 01 dated 22 February 2010.

(c) Laying Practices of OFC (Local Area Network OFC): BSNL Engineering Instructions Number D-001, issue No IV dated 31 January 2007.

(d) Provision of Hand Hole in case of HDD on OFC Laying: BSNL Engineering Instructions Number TR/COFC/I-004, issue No 01 dated 04 October 2011.

(e) Installation Practice of Self-Supporting Metal Free Aerial OFC: BSNL Engineering Instructions Number TR/COFC/I-001, issue No 01 dated 10 June 2011.

Horizontal Directional Drilling (HDD)

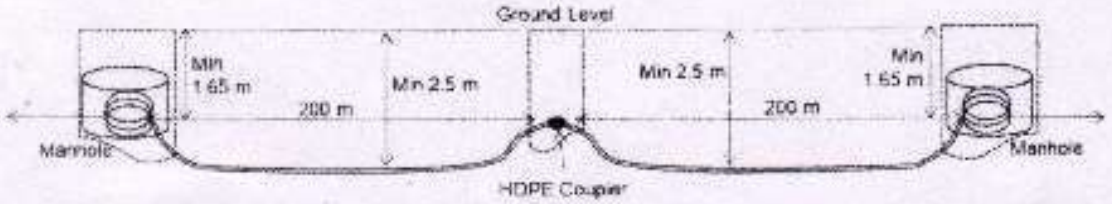
1. HDD method of OFC laying is an excellent alternative to conventional Open Trenching method. HDD process is highly suitable for soft soil terrain and urban areas where above-ground obstructions exist that are expensive, inconvenient or impossible to disturb. HDD method is also suitable for various types of crossings such as - highway, road, canal, nullah, etc. Important instructions of HDD laying process are given in succeeding paragraphs.

2. **Manhole** with minimum depth of **1.7 m** and suitable cross-section to accommodate a pre-cast chamber of **1.2 m** diameter to be opened for the **Entry Pit** and the **Exit Pit** before drilling is commenced.

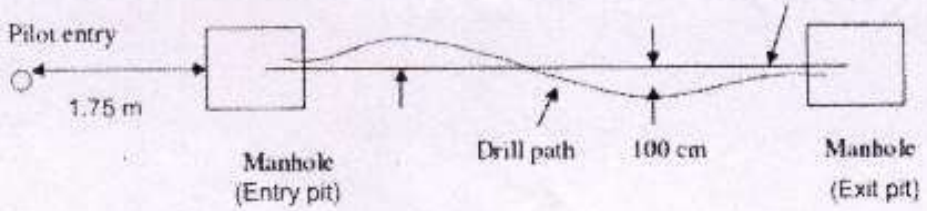
3. Depth of drilling at the Entry/ Exit Pit should be minimum **1.65 m**.

4. Drilling depth along the route should be more than **2.50 m**. This depth may be achieved at a distance of **10 m** from the leading edge of the Manhole. In **exceptional case**, the depth of the trench could be **less than 2.50 m** due to undulating terrain. However, in no case, it should be less than **1.20 m**.

5. The HDD machine should be capable of drilling for **minimum 150 m** at a time without fail in the soft soil. However, the drill lengths of **200 m** are desirable.



6. **Curves**. Curves/ deviations if encountered should be very smooth. The deviations should not be more than **100 cm** from the mean line joining the centre of entry pit and the centre of the exit pit. A nylon wire shall be fixed between these two pits before the drilling operation. Bottom of the trenches should be at uniform level without any abrupt ups and downs. After the trenching is done for sufficient length, the bottom levelling should be inspected for uniformity to ensure that pipe should be laid without sharp bends.



7. The OFC preferably be laid straight as far as possible along the road. When the OFC is laid along the National Highways, Cable should run along the road land boundary or at a distance of **15 to 30 m** from the centre line of the road where the road land is wider.

8. During HDD process, the depth and offset of the pilot is to be recorded at every **3 m** using a duly calibrated hand-held tracker.

9. **Important Parameters to be Checked**.

(a) Dimension of entry/ exit pit (Manhole): **Minimum Depth 1.7 m & cross-section to accommodate a pre-cast chamber of 1.2 m diameter.**

(b) Drill length: **200 m.**

(c) Depth of drilling (from culvert bed for HDD crossings): more than **2.5 m.**

(d) Minimum depth of drilling at entry/ exit pit: **1.65 m.**

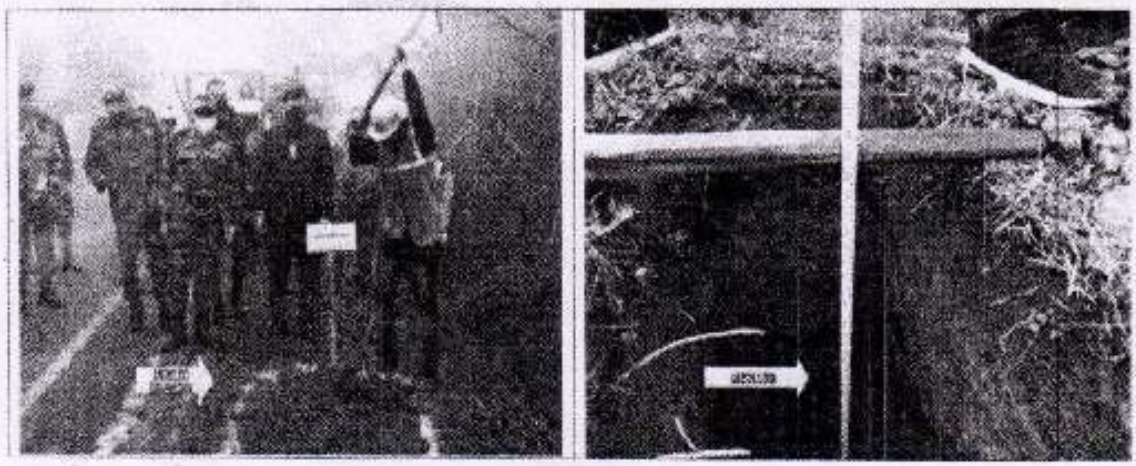
(e) Distance between Pilot Entry to Entry Pit (Man Hole): **1.75 m.**

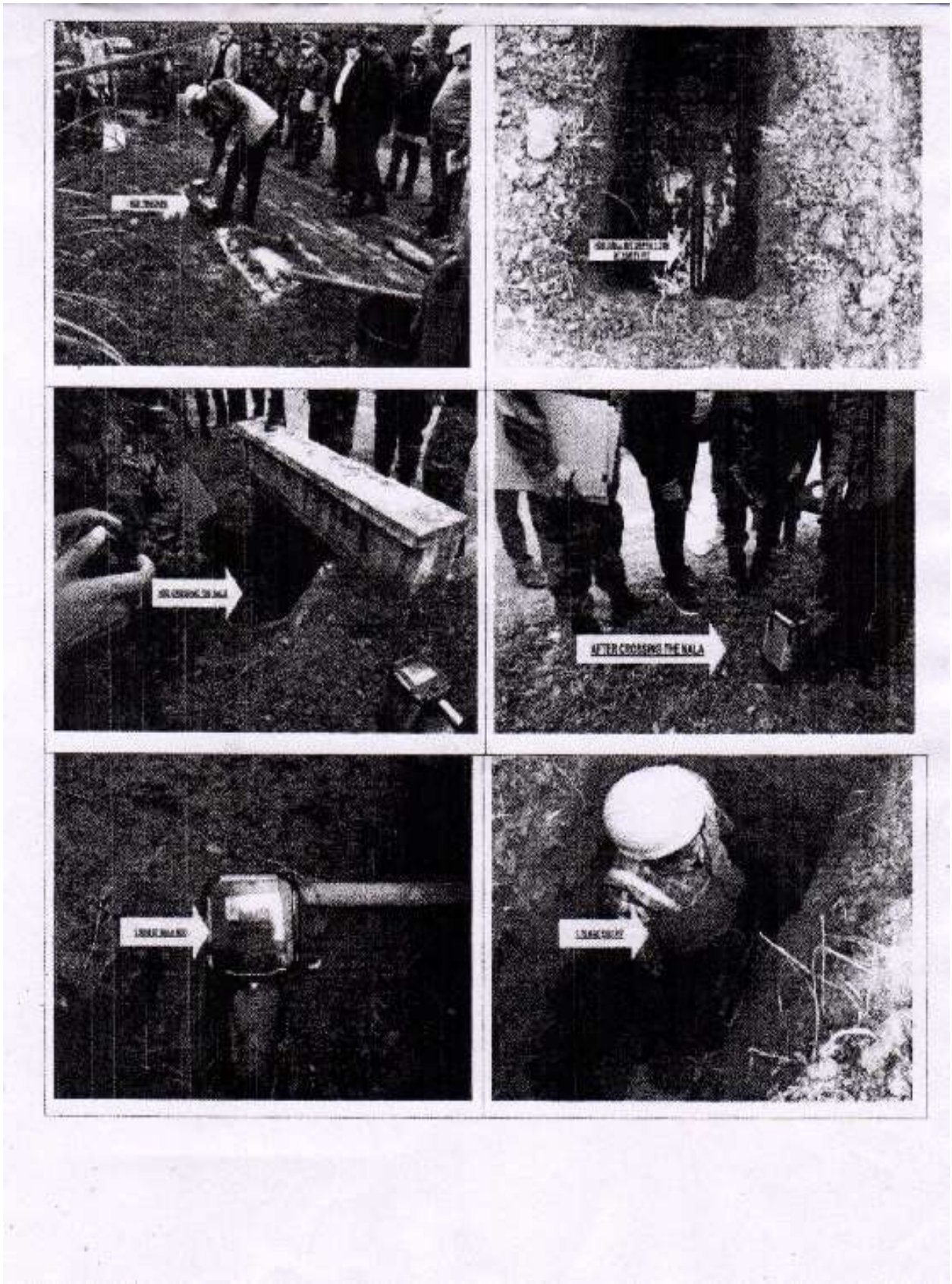
(f) Deviation of HDD: Not more than **100 cm.**

(g) Pilot recording **at every 3 m.**

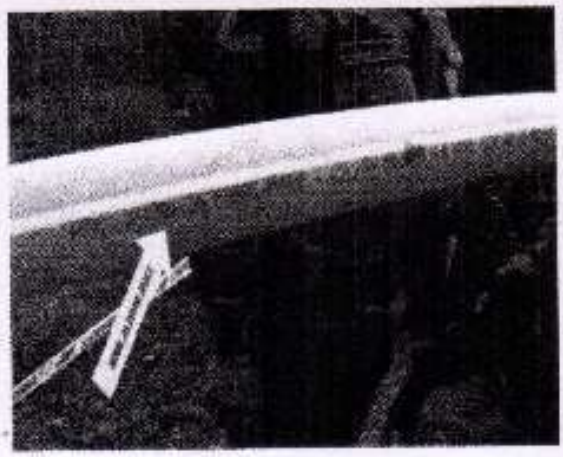
(h) Buffer distance of HDD drilling from road: **15 - 30 m.**

Photographs: HDD Method of OFC Laying

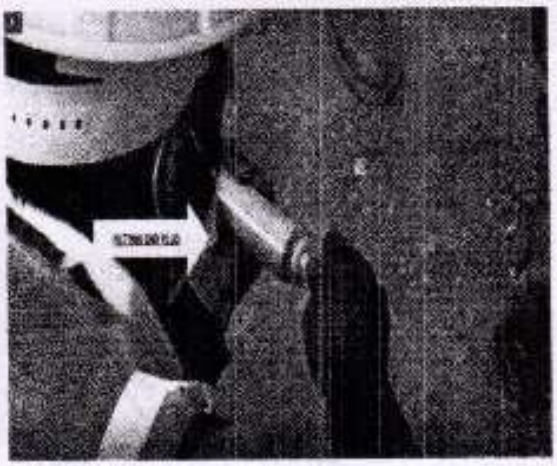



AFTER CROSSING THE NALA

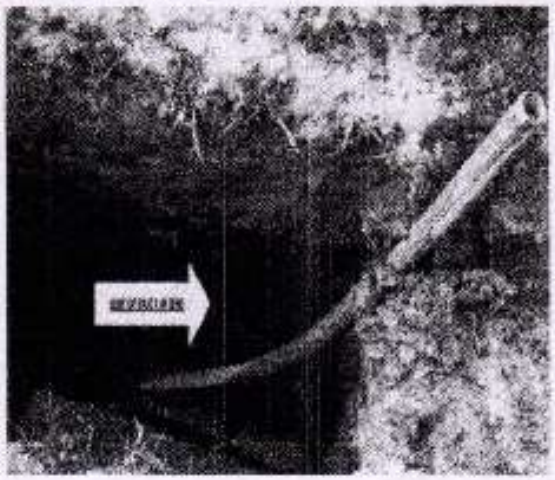
10. **Pulling of Duct in HDD Method**. Chinese finger is attached with duct on one side and with HDD bit on the other side. When HDD bit is pulled back, the affixed HDPE pipe at exit pit of HDD also moves in the path of HDD to reach entry pit of HDD.



HDPE Duct marking



Fixing end plug to attach Chinese finger



Open Trenching

11. Open Trenching method for OFC laying is used in rocky terrain, non-urban areas and for cross-country routes where above-ground obstructions do not exist. It is also adopted in areas where HDD method is not suitable due to soil configuration. Succeeding paras enumerate the key aspects involved in Open Trenching method.

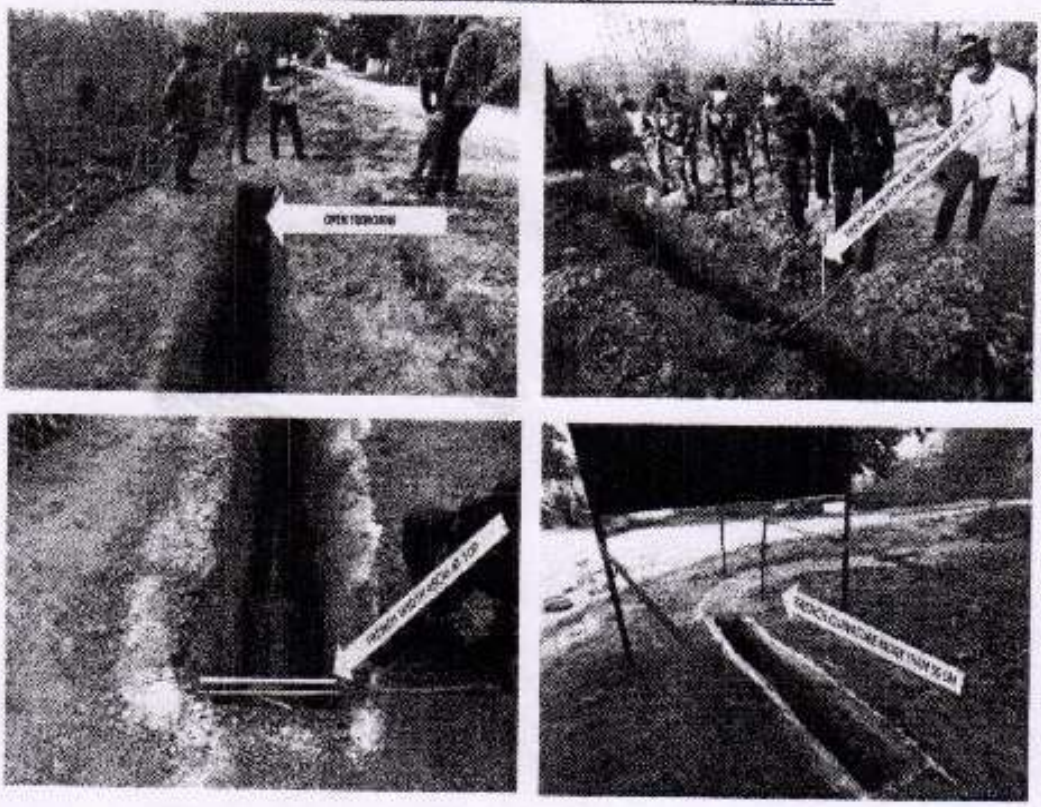
12. **Width of Trench**. Top and bottom width of the trench should normally be **45 cm** and **30 cm** respectively. Some of key aspects to be checked are:-

(a) In loose soils, it may be necessary to increase the width at the top (more than **45 cm**) to avoid collapsing of trench.

(b) Whenever curves or deviations are encountered, it should be a very smooth curve and the radius of the curvature should be more than **50 cm**.

(c) Longitudinal brick layering on top of HDPE pipe in Open Trenching method is mandatory for both cross country and built up areas.

Photographs: Manual Trenching OFC Laying Method



13. **Depth of the Trench**. OFC shall be laid in the trench through PLB HDPE pipes at a depth of **1.50 m** as measured from top of the pipe. For this purpose, it will be desirable to have the trench dug to depth more than **1.60 m**. Reasons for not laying the cable at stipulated depth of **1.50 m** for following exception will be recorded with **documentary** and **photographic** proofs and certified by the PICG. In case of non-rocky soil where due to any obstruction in built up areas, it is not possible to dig deeper, a minimum depth of **1.00 m** from top of the pipe shall be maintained.

(a) **Important Parameters to be Checked** OFC be laid through HDPE pipes at a depth as mentioned below from the Natural Ground Level (NGL):-.

(i) Depth of HDPE from NGL: ≥ **1.50 m**.

(ii) Depth of Warning Tape from NGL: **800 mm**.

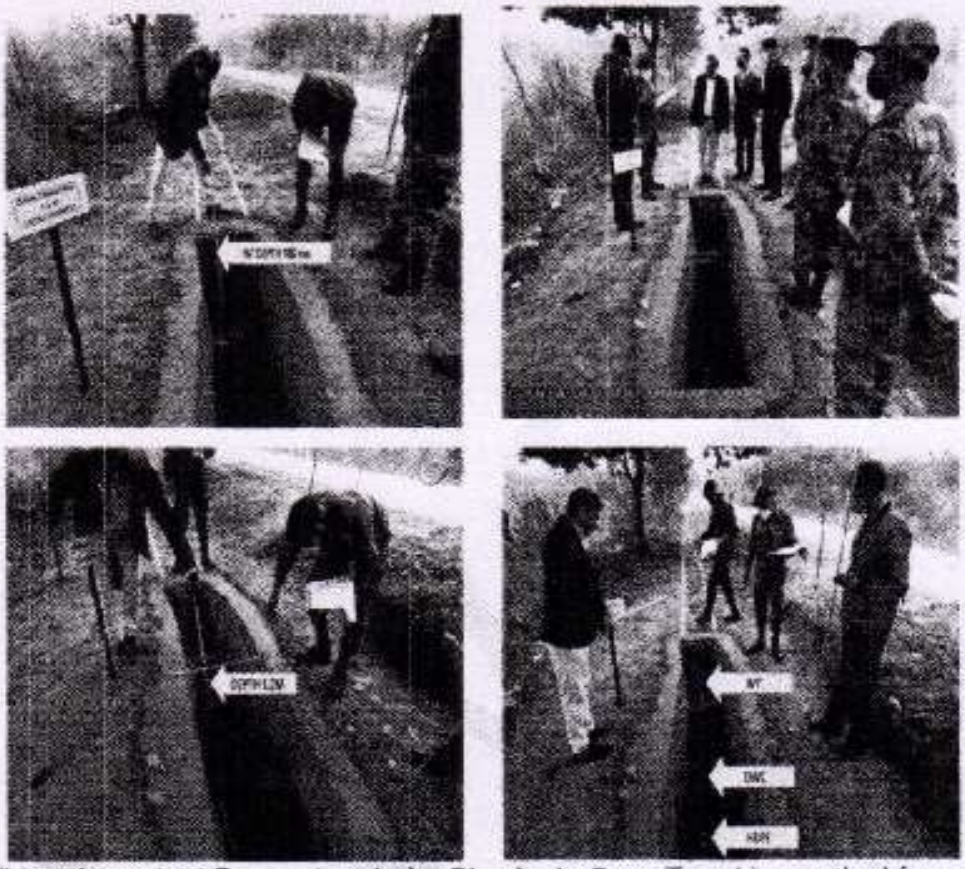
(iii) Depth of back filling between Warning Tape and NGL **800 mm**.

(iv) Depth of back filling between HDPE & Warning Tape: **850 mm**.

(v) Longitudinal brick layering between warning tape and HDPE pipe at **400 mm** below warning tape.

Open Trenching (Trench Depth of 1.5 M): Cross Country

Non-Rocky Soil (Trench Depth of 1.2 M): Cross Country



(b) **Important Parameters to be Checked**. Open Trenching method for a Depth of **1.2 m**: -

(i) Depth of HDPE and RCC from NGL: **1.2 m**.

(ii) Width of trench (top): **45 cm**.

(iii) Width of trench (bottom): **30 cm**.

(iv) Layout of bricks: Single Brick Longitudinal.

(v) Depth of Brick Line from NGL: **900 mm**.

(vi) Depth of Warning Tape: **600 mm** from NGL.

(vii) Depth of back filling between Warning Tape and NGL: **600 mm**.

(viii) Backfilling between Brick Line and HDPE: **300 mm**.

(c) **Open Trenching in Rocky Soil**. A minimum depth of **0.90 m** is to be achieved in case of rocky soil. Wherever the minimum depth of **0.90 m** in rocky soil cannot be adhered to, depth can further be reduced up to **0.50 m** but for such cases, relaxation will be accorded by DG Signals on specific recommendation of Command (Signals). In cases, where the depth is **less than 0.9 m** mechanical protection by reinforced concrete casing of four inch should be provided.

(d) Where rocky soil is encountered for a distance of **50 m** or less, the cable depth will be maintained at **1.50 m** in case of adjoining non-rocky soil.

(e) **Important Parameters to be Checked**.

(i) Depth of Trench: ≤ **0.9 m**.

(ii) Width of Trench (top): **45 cm**.

(iii) Width of Trench (bottom): **30 cm**.

(iv) Depth of Warning Tape from NGL: **500 mm**.

(v) Depth of HDPE from NGL: **700 mm**.

(vi) Diameter of RCC/ GI Pipe: **55 mm**.

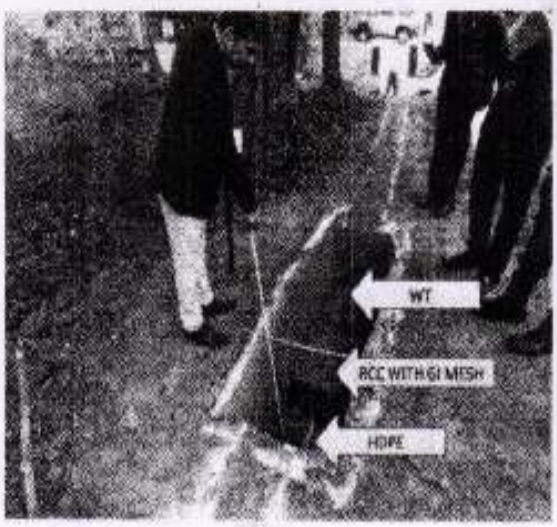
(vii) Depth of back filling from Warning Tape to NGL: **500 mm**.

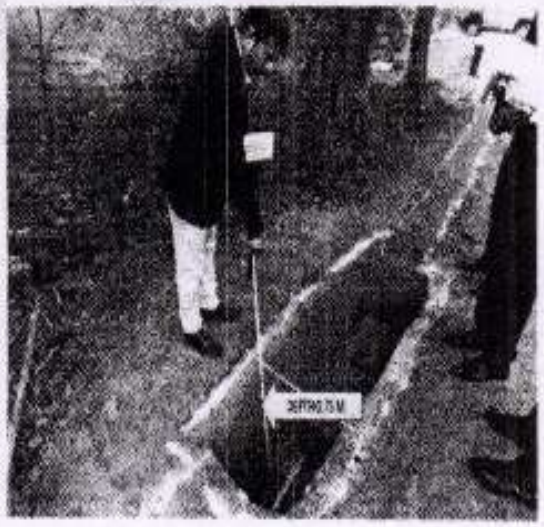
(viii) Dimension of RCC (incl GI Mesh) around HDPE: **200 x 200 mm**.

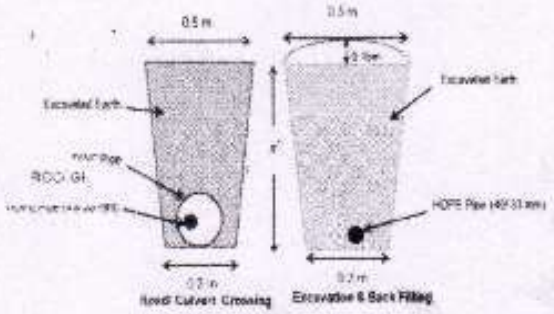
(ix) Depth of back filling from Warning Tape to RCC: **200 mm**.

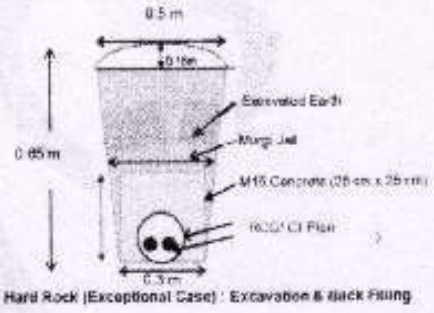
Note: Aspects in respect of Para 13 (e) (iv) & (vii) will be proportionately reduced as per reduction in depth of trench. However, Warning Tape will be laid minimum 200 mm from NGL.

Rocky Soil (Trench Depth of 0.9 M) (RCC with GI Mesh Protection)









Note : Depth of the trench 'd' varies
- 1.65 m for normal soil
- 1.20 m for Soft Rock
- 1.00 m for Hard Rock

14. **Mechanical Protection**.

(a) Suitable mechanical protection by using **RCC/ GI pipes** to be provided for all cables laid at a depth less than **1.20 m**. No protection, however, need be given if the cable depth is more than **1.20 m**.

(b) In all such cases where the depth is less than **0.90 m**, mechanical protection by reinforced **concrete casing** should be provided. The size of concreting may vary as per the number of HDPE ducts are being laid simultaneously.

(c) Any type of mechanical protection used will be **RCC/ GI Pipe** only.

(d) **Important Parameters to be Checked**.

(i) Depth of HDPE from NGL: **≤ 1.2 m**.

(ii) Width of trench (top): **45 cm**.

(iii) Width of trench (bottom): **30 cm**.

(iv) Depth of Warning Tape from NGL: **700 mm**.

(v) Diameter of RCC/ GI Pipe : **55 mm**.

(vi) Depth of back filling between Warning Tape & NGL: **700 mm**.

(vii) Depth of back filling between Warning Tape and HDPE/ RCC/ GI Pipe: **500 mm.**

(viii) Longitudinal brick laying between warning tape and HDPE pipe at **200 mm** below warning tape.

15. **Curves**. Curves or deviations encountered should be very smooth, with minimum **50 cm** radius of curvature. Bottom of the trenches should be at uniform level without any abrupt ups and downs. After the trenching is done for sufficient length, the bottom levelling should be inspected for uniformity to ensure that pipe should be laid without sharp bends.

16. After the trench is ready, bed of trench is prepared by even and soft layer of **5.0 cm sieved earth** and properly levelled.

17. **Brick Layering**. Brick layering will be carried out longitudinally on top of HDPE duct all across open trenching method in any type of soil.

Hilly Areas

18. OFC shall be laid on the **valley side** where depth as per Para 13 above may be achievable. If the permission for laying the OFC is not available on the valley side, then the OFC shall be laid on the hill side. The PLB pipe laid, in hilly areas at depths lesser than **1.00 m** can be protected by direct concreting instead of using GI pipe and concreting thereafter. Laying of cable on hill side should be approved by Command (Signals), if the deviated trench stretch is upto **1.00 km** and in case the deviated stretches are longer than **1.00 km**, approval will be accorded by DG Signals, once recommended by Command (Signals).

19. **Important Parameters to be Checked**.

(a) Depth of HDPE from NGL (Valley Side): ≤ **1.5 m.**

(b) Width of trench (top): **45 cm.**

(c) Width of trench (bottom): **30 cm.**

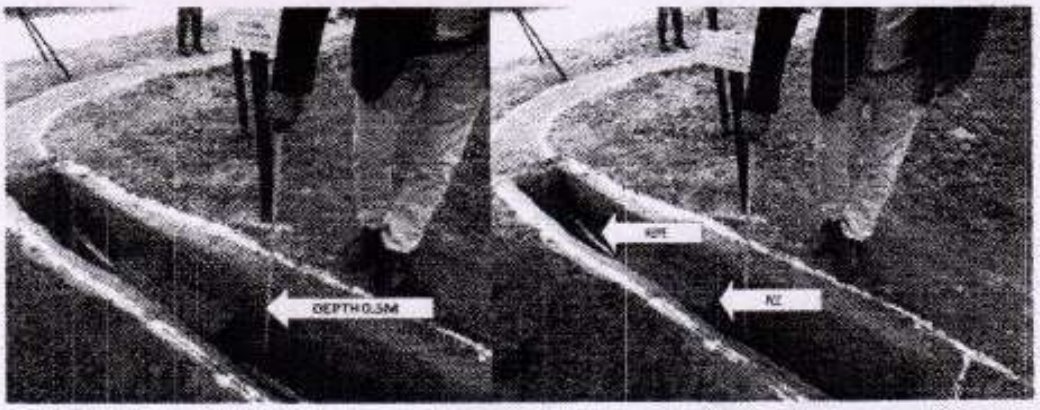
(d) Dimension of RCC Encasing: **250 mm x 250 mm.**

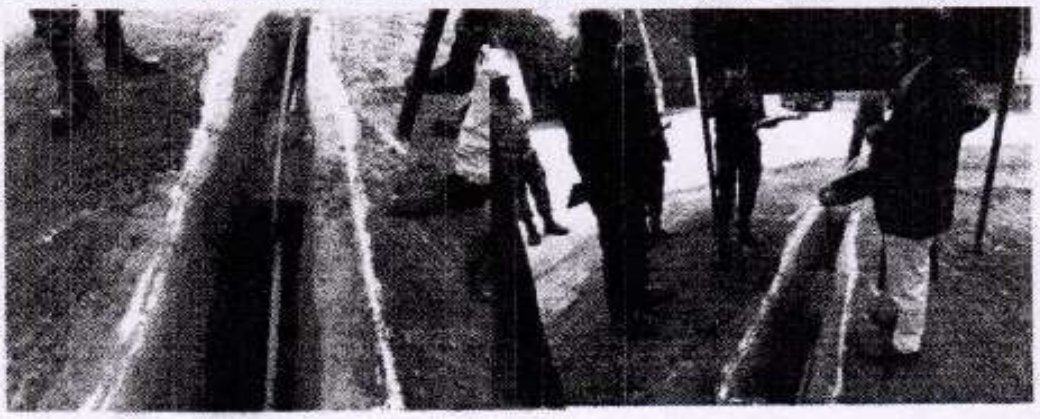
(e) Depth of back filling from NGL to RCC - **1.2 m.**

(f) Warning Tape (Valley Side) - **800 mm.**

Note: Aspects in respect of Para 19 (e) & (f) will be proportionately reduced as per reduction in depth of trench.

Hill Side Laying (Trench Depth 0.5 M) (RCC on HDPE)





20. **Built Up Areas (BUA).**

(a) The OFC shall be laid through HDPE pipes at a depth of **1.5 m** and additional protection by using RCC/ GI pipes shall be provided.

(b) Only in exceptional cases the depth of cable laying may be relaxed to **1.0 m** in non-rocky soil and **0.9 m** in rocky soil as in case of cross country routes.

(c) **Important Parameters to be Checked**. Open Trenching method for a depth of **1.5 m**:-

(i) Depth of HDPE from NGL: **≥ 1.50 m.**

(ii) Depth of Warning Tape from NGL: **800 mm.**

(iii) Depth of back filling between Warning Tape and NGL: **800 mm.**

(iv) Depth of back filling between HDPE & Warning Tape: **850 mm.**

(v) Longitudinal brick layering between warning tape and HDPE pipe at **400 mm** below warning tape.

(d) **Important Parameters to be Checked**. Open Trenching method for a depth of 1.2m.

(i) Depth of HDPE and GI Pipe from NGL: **1.2 m**

(ii) Width of trench (top): **45 cm**

(iii) Width of trench (bottom): **30 cm**

(iv) Layout of bricks: Single Brick Longitudinal

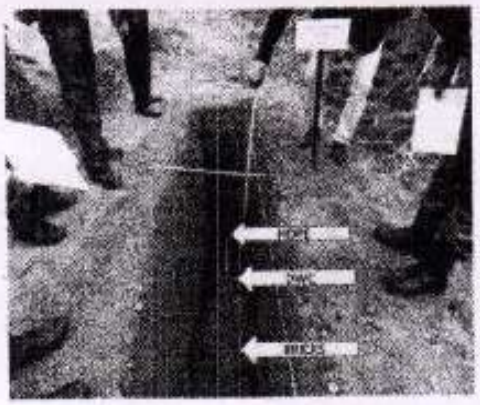
(v) Depth of Brick Line from NGL: **900 mm**

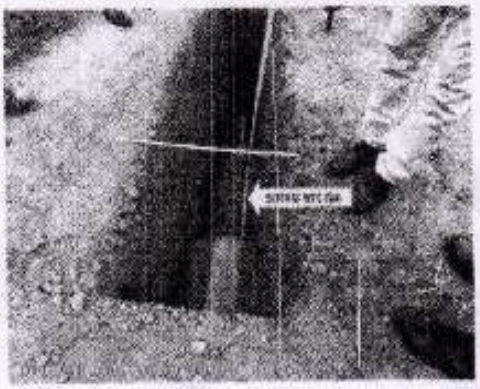
(vi) Depth of Warning Tape from NGL: **600 mm**

(vii) Depth of back filling between Warning Tape and NGL: **600 mm**

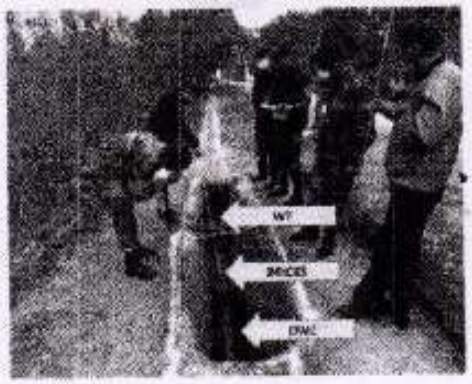
(vii) Backfilling between Brick Line and HDPE: **300 mm**

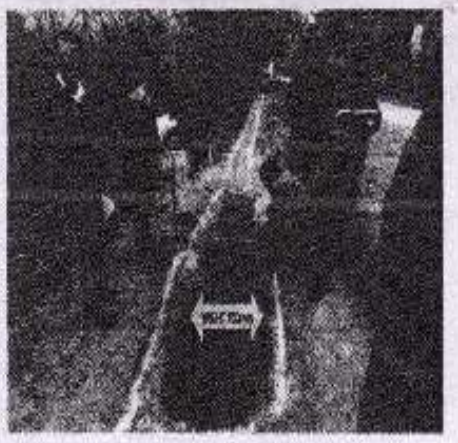
Built Up Area 1.5 M Depth





Built Up Area ≤ 1.2 M Depth
(Relaxed to 1 M & 0.9 M in the Case of Non-Rocky Soil & Rocky Soil respectively)





Crossings

21. **Rail Bridges/ Crossings**. On rail bridges/ crossings the OFC shall be laid through HDPE pipe which shall be encased in suitable cast iron/ RCC pipe as prescribed by Railway authorities. The OFC shall be laid, as per the lay of the ground and terrain conditions, at a depth of **1.5 m** through HDPE pipe encased in RCC pipes which shall extend **3 m** on either side of the end of road, to take care of any future expansion. Various types of crossings, as given below, may exist enroute:-

(a) **Rail Crossing using HDD**.

(i)	Dimension of Entry/ Exit pit	- **1.5 m x 1.5 m x 1.7 m**
(ii)	Drill length	- **70 m** (incl 30 m on both sides of railway track)
(iii)	Depth of drilling	- **2.5 m** from NGL (excl Rail Embankment)
(iv)	Depth of drilling at Entry/ Exit pit	- **1.75 m**

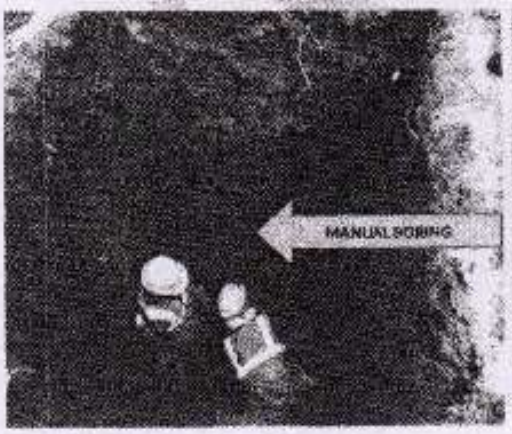
(b) **Rail Crossing: Manually** (aka Moling Method)

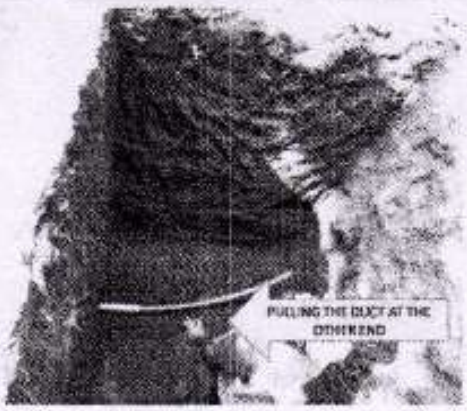
(i)	Dimension of Entry/ Exit pit	- **1.5 m x 1.5 m x 1.7 m**
(ii)	Protection	- **GI pipe**
(iii)	Distance of pit from Railway Track	- **3 m**
(iv)	Depth of drilling from NGL at entry/ exit pit	- **1.65 m**

Note: At Railway crossings, mole system is also used for boring hole under railway track and GI/CI pipe is introduced through the hole.

Rail Crossing by HDD

Rail Crossing by Manual Boring





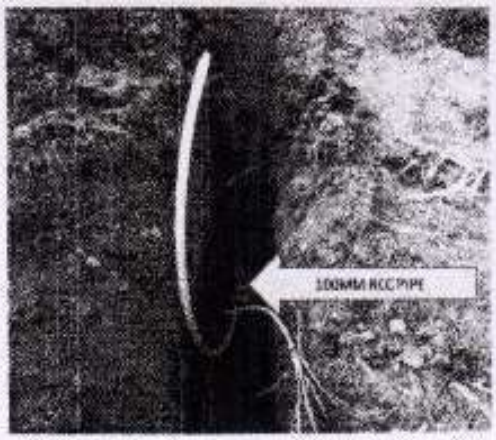
22. **Road Crossings.**

(a) The OFC shall be laid at a depth of **1.50 m** through HDPE pipe encased in RCC pipes which shall extend up to **3.00 m** on either side of the end road to take care of any future expansion. Depth of **1.50 m** can be further reduced depending on nature of soil and other conditions in accordance with details given at Para 13 above.

(b) **Important Parameters to be Checked**. Road crossing Open Trenching.

(i)	Depth of Trench:	**1.75 m.**
(ii)	Width of Trench (top):	**45 cm.**
(iii)	Width of Trench (bottom):	**30 cm.**
(iv)	Protection:	RCC pipe of **100 mm** diameter.
(v)	Extension of RCC:	**3 m** pipe at the both side of road

Open Trench Road Crossing



On Culverts/ Bridges/ Nullahs

23. Various options are available for laying the OFC along the parapet wall of the culverts/ bridges/ nullahs. These options are described below and depicted at figures 3a, 3b, 3c, 3d & 3e of BSNL Engineering Instructions referred at Para (c) of References Section. The cable shall be laid at **1.5 m** depth below the bed of Nullah through HDPE pipe and protection provided by using RCC of minimum internal diameter of **100 mm** / GI pipe of suitable diameter. One of these options, may be adopted depending upon site conditions as per the lay of the ground and terrain conditions encountered enroute. Approach roads to these bridges/ culverts will also be protected by using RCC/ GI pipes up to **2.00 m** on both sides:-

(a) If the bridge or culvert is broad and is having sufficient cushioning, the pipes can be buried inside the cushioning.

(b) If the bridge/culvert is provided with raised and hollow foot path or wheel guard, the HDPE pipe encased in GI pipe can be buried inside the hollow foot path or can be laid over the wheel guard and chambered.

(c) If the 'supporting pillars are having projections and between pillars the distance is less, then the HDPE pipe with GI encasing could be laid over the pillar projections.

(d) If none of the solutions is possible, then outside the parapet wall, GI troughs can be fitted with suitable clamps. For smaller bridges, the HDPE pipes can be laid inside the trough. However, for long bridges, HDPE pipes need not be laid inside the trough. While laying the cable, glass wool or other cushioning items may be used. In either case, the gaps between two troughs after putting the lids should be thoroughly covered to prevent entry of rodents.

24. Following types of Culvert crossings may be available during the OFC laying apart from HDD based culvert crossing: -

(a) **Culvert Crossing using GI Pipe and Foam.**

(i)	Protection	- GI Pipe & Foam.
(ii)	Diameter of GI Pipe/ Foam	- **55 mm.**
(iii)	Protection at the end of GI Pipe Extension	- PCC.
(iv)	Depth of PCC from NGL	- **600 mm.**
(v)	Orientation	- Outside Culvert.
(vi)	PCC Dimension	- **300 x 300** mm^2 (W x H).

(b) **Culvert Crossing using GI Pipe Clamping.**

(i)	Diameter of GI Pipe	- **55 mm.**
(ii)	Orientation of GI Pipe	- Outside Culvert.
(iii)	Protection of GI Extension till NGL	- PCC.
(iv)	PCC Dimension	- **300 x 300** mm^2.

(c) **Dry Nala Crossing using RCC Pipe.**

(i)	Diameter of RCC pipe	- **100 mm.**
(ii)	Depth of RCC pipe from NGL	- **1.65 m.**
(iii)	Back filling from NGL	- **1.65 m.**

(d) **Crossing using GI Pipe and PCC.**

(i)	Diameter of GI Pipe	- **55 mm.**
(ii)	Orientation of GI Pipe	- Inside Culvert.
(iii)	Protection of GI Pipe Extension	- PCC.
(iv)	Depth of PCC	- **600 mm** from NGL.
(v)	PCC Dimension	- **300 x 300** mm^2.

25. Following types of bridge crossings may be available during the OFC laying:-

(a) **Bridge Crossing using GI Pipe Clamping.**

(i)	Diameter of GI Pipe	- **55 mm.**
(ii)	Orientation of GI Pipe	- Outside Culvert.
(iii)	Protection of GI Pipe Extension	- Cement Chamber.

(b) **Bridge Crossing using GI Pipe and PCC.**

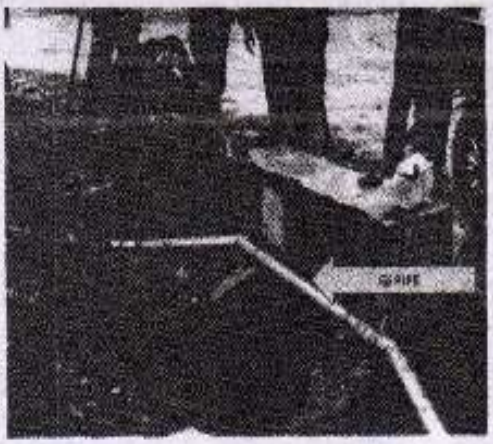
(i)	Diameter of GI Pipe	- **55 mm.**
(ii)	Orientation of GI Pipe	- Inside Bridge.
(iii)	Protection of GI Pipe Extension	- PCC.

	(iv)	PCC Dimension	- **300 x 300** mm^2.
(c)	**Bridge Crossing using GI and PCC**		
	(i)	Diameter of GI Pipe	- **55 mm**.
	(ii)	Orientation of GI Pipe	- Inside Bridge.
	(iii)	Protection of GI Extension	- PCC.
	(iv)	PCC Dimension	- **300 x 300** mm^2.
(d)	**Bridge Crossing using GI and RCC**.		
	(i)	Diameter of GI Pipe	- **55 mm**.
	(ii)	Orientation of GI Pipe	- Inside Bridge.
	(iii)	Protection	- RCC (with GI Pipe & Iron Rod)
	(iv)	RCC Dimension	- **300 x 300** mm^2.

Culvert Crossing with GI Pipe & Foam

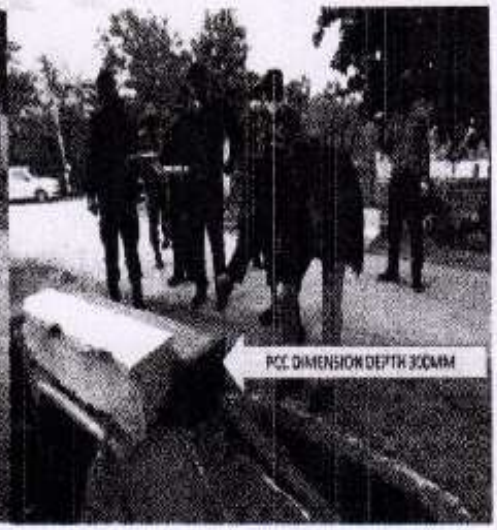
Note : GI pipe in place of DWC will be used.

Culvert Crossing with GI Clamping and PCC



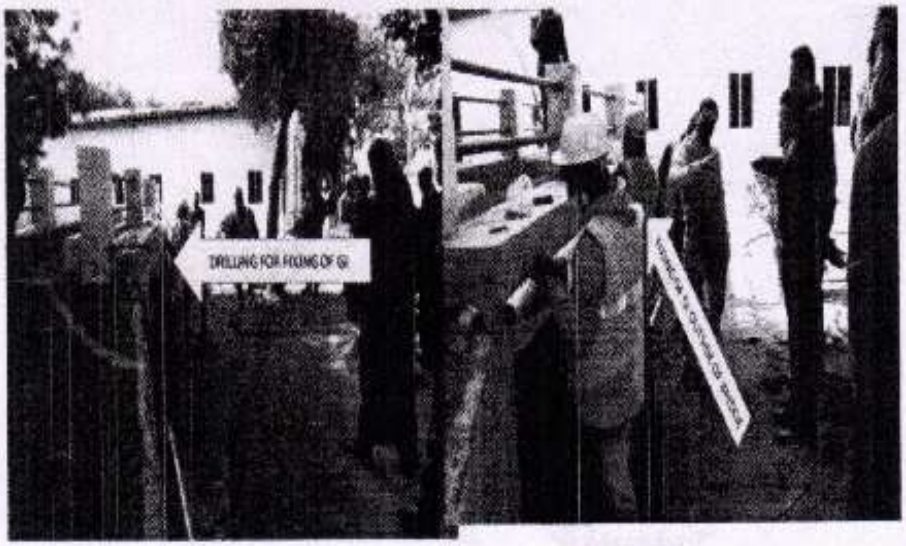
Culvert Crossing with RCC Pipe

Culvert Crossing using PCC and GI Pipe



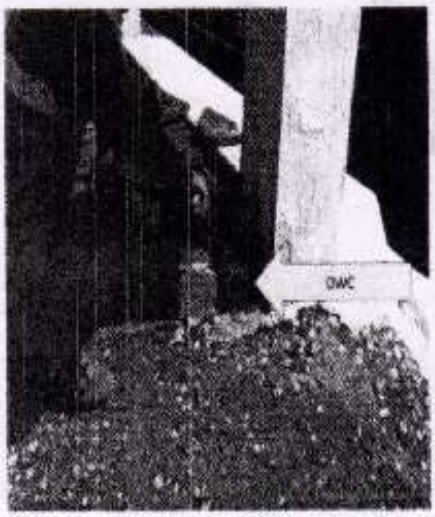
Note : *No DWC will be used, only GI pipe in place of DWC will be used.*

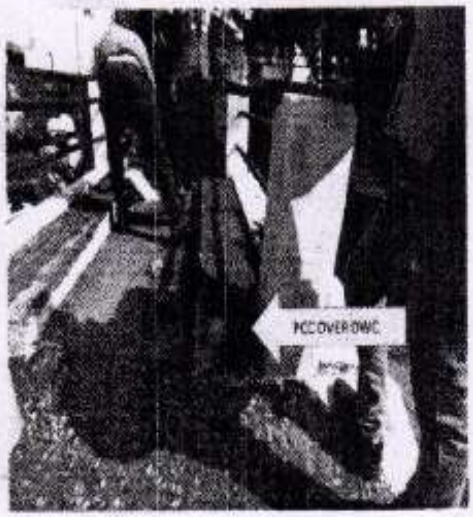
Bridge Crossing by GI Clamping



Bridge Crossing under the Kerb with DWC and PCC

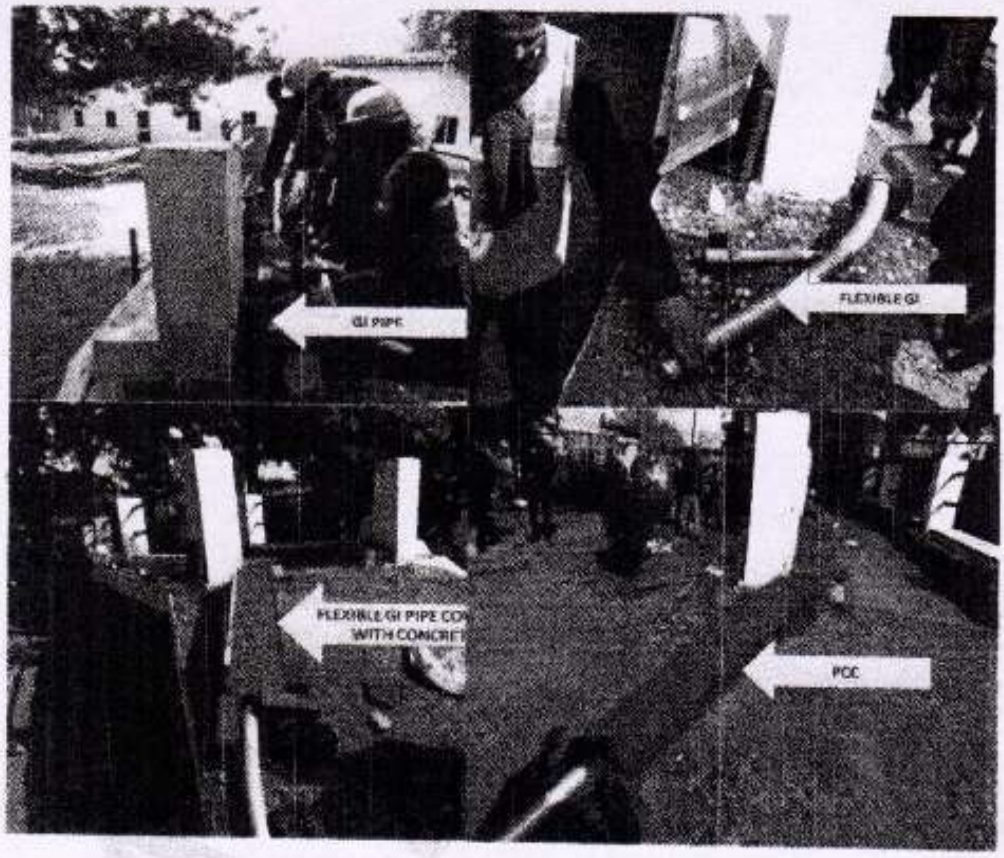
(GI Pipe will be used in place of DWC)



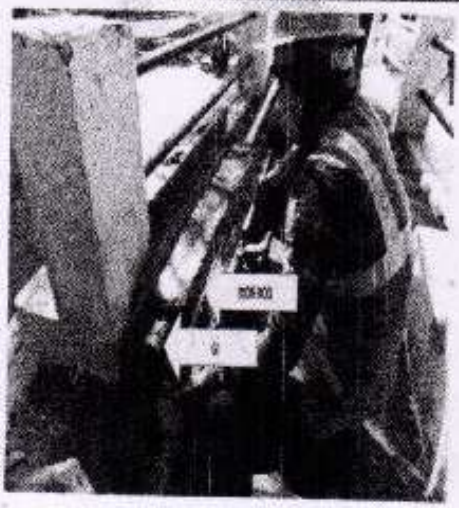


Note : No DWC will be used, only GI pipe in place of DWC will be used.

Bridge Crossing under the Footpath with GI and PCC



Bridge Crossing on Top of the Kerb with GI and RCC



26. **Nullahs Dry for Nine Months in a Year**. The Cable shall be laid at **1.50 m** depth below the bed of nullah through HDPE pipe and protection provided by using GI pipe of suitable diameter/ RCC pipe of minimum internal diameter of **100 mm**. The GI pipe/ RCC pipe shall extend **2.00 m** minimum beyond the end of Nullah on either side. Depth of **1.50 m** can further be reduced depending on nature of soil & other conditions in accordance with Para 9 above. With a view to minimise the damage to the OFC during flood season, the cable should be laid on upstream side of causeway at an approximate distance of about **4 times** than depth of the flow during high floods.

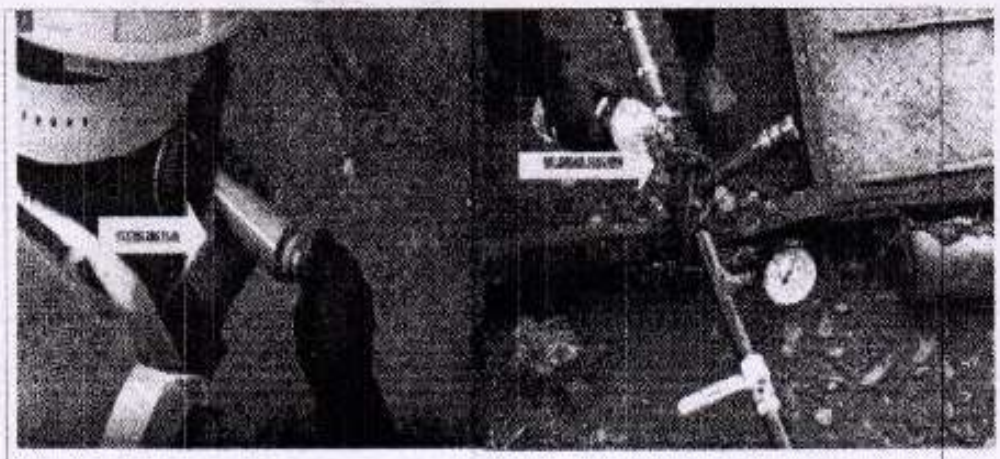
Duct Integrity Test (DIT)

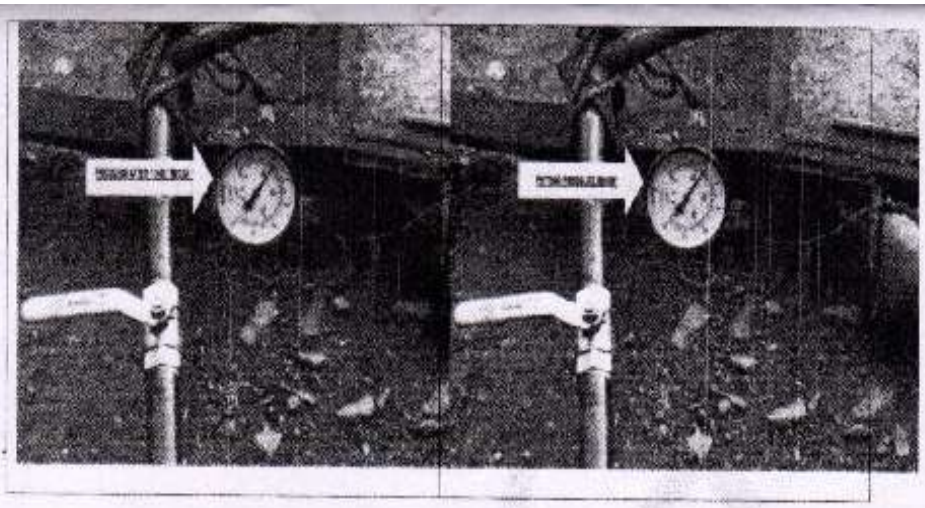
27. It is quite possible that the pipe may get elongated and its bore may get reduced in the process of pulling up the pipe which may ultimately result into difficulty in pulling cables. To overcome this, DIT should be conducted after the pipes are laid for verifying the continuity of the pipe. The DIT involves two tests:-

(a) **DIT-1**. One side of the HDPE pipe laid is sealed using the end plug and on the other side air compressor or blower is used to hold **the 5 N/cm^2** pressure inside the pipe under test. The **pressure should be held for 1 hour without any leakage**.

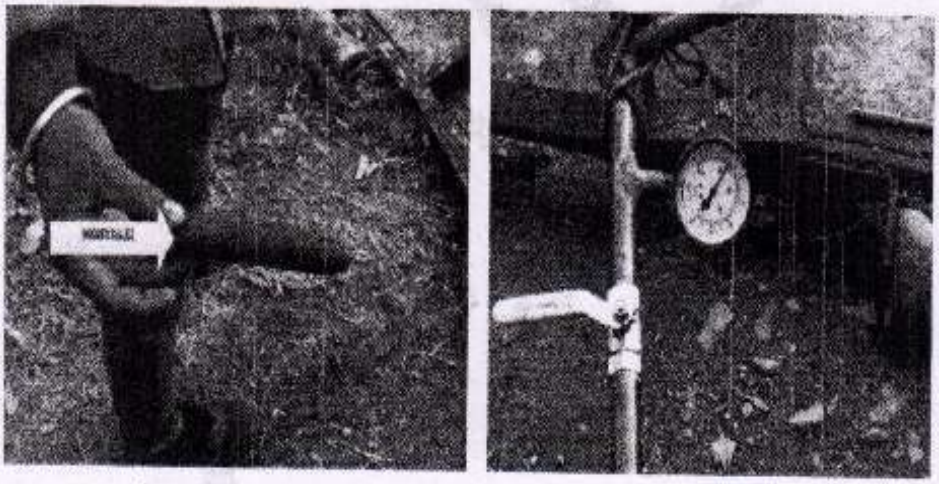
(b) **DIT-2**. A wooden bullet with **80%** of inner diameter of HDPE pipe (i.e. **26.4 mm**) and having a length of **5 cm** is blown from one side of the HDPE pipe. The other side of the pipe shall be left open. If the **bullet flies out without any blockage**, then the HDPE pipe laying is successful. Care should be taken by covering the end of the HDPE pipe with a nylon wire or a mesh so that the flying bullet shall not hit anyone.

Test- 1 (Pressure Holding Test for One Hour)





Duct Integrity Test- 2 (Bullet Passing through the Duct)

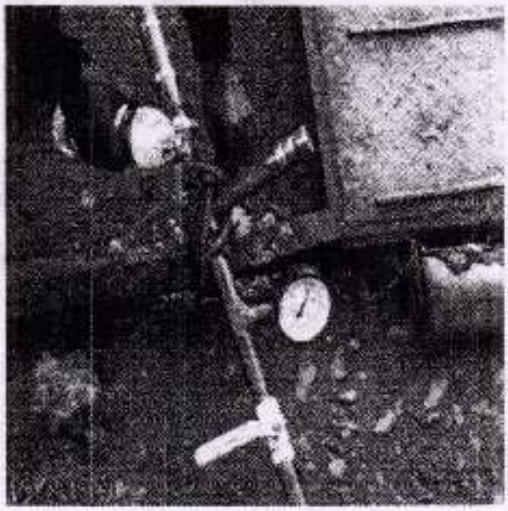


28. **Duct Cleaning**. There may be considerable time lapse between the pipe laying and cable laying. This intervening period could have heavy rains too. Therefore, there is possibility of dissolved muddy water entering into the HDPE pipes. This dissolved muddy water may transform into a thick paste or solid mud. **Cleaning of the pipes before the cable laying is absolutely necessary** to remove such obstructions. A **4 mm** nylon rope is already laid in HDPE pipe. One end of this rope is connected to Mandrill. The other end of mandrill is connected to another rope of **4 mm** size and suitable length to cover the distance between two manholes. The existing **4 mm** rope is pulled from other manhole and thus the mandrill will clear the pipes. Similar operation is then done by replacing mandrill with nylon brush and

rugs:-

(a) **Duct Cleaning by Sponging**. Cleaning of HDPE pipe is generally carried out to remove any obstruction by mud due to rain before laying of OFC. As per the BSNL Engineering instructions, the HDPE pipe is required to be cleaned by using mandrill attached with Nylon rope all along the HDPE pipe. This method is preferred if the ducting/ laying of OFC is carried out manually. If the ducting/ laying is carried out using blowing process, the method adopted for cleaning will be based on blowing process, in which a sponge is inserted from one end of the HDPE pipe and the pressure applied to blow the sponge out from the other side of the HDPE duct. While, it is blown out from the other side of HDPE pipe, the sponge cleans the pathway inside pipe and make it free from any sand/ muddy water. The process has to be repeated at least thrice or till the time the sponge comes out clean.

(b) After satisfactory completion of duct cleaning, OFC blowing will be carried out.



29. **OFC blowing into Duct**. Before starting the OFC blowing, make sure that duct is free of any obstacles / damage through proper duct cleaning.

OFC Blowing into Duct

Due to pressure, the OFC is blown into HDPE pipe. A figure of eight is required to be made for easy flow of OFC inside duct while blowing.

While receiving the OFC at the other end, again it should be collected and placed in the figure of eight.

Route Markers

30. **Cement Route Markers**. Cement Route markers should be installed in a span of **200 m,** at suitable bends/ corners, chamber locations and at every location where deviation is placed (from left to right of the road, nullah, canal, crossings, etc or vice versa). Following important points will be adhered to: -

(a). Route markers should be straight and facing the road side.

(b) Route markers should be offset **1.00 m** from the trench towards the jungle side.

(c) Route markers will be provided on both sides of bridge/ culvert.

(d) Cement route indicators will be staggered with Electronic Route Markers.

(e) **Marking and Color**.

(i) **Marking**.

Bold Engraved Marking with minimum letter size of **3.50 cm**.

(ii) **Color**.

(aa) Joint Indicator: **Red**

(ab) Route Indicator: **Dark Blue**

(ac) Letters/ Symbols: **White**

(f) Height of Rt/ Jt marker from NGL: >= **30 cm**.

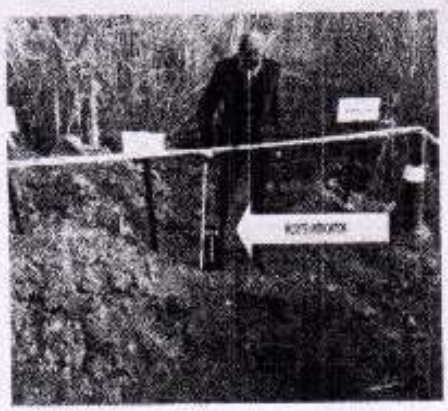
(g) Top Cross-section: **15 cm x 15 cm**.

(h) Base Cross-section: **30 cm x 30 cm**.

(j) Depth of ERM from NGL: **65 cm**.

31. **Numbering Scheme - Route Indicators**. The numbering scheme for route indicators will be **Joint No/ Route Indicator No** for that joint. For ex 2/6 indicator means 6th route indicator after 2nd joint. Additional joints on account of faults at a later date should be given number of preceding joint with suffix A, B, C and D. For example sign writing 2A on a joint indicator means, additional joint between Joint No. 2 and 3. The numbering of existing route/ joint indicator should not be disturbed on account of additional joints.

Route and Joint Indicators



32. **Electronic Route Markers (ERM)**. The ERMs will be placed every **200 m**. These would be staggered with reference to the Cement Route Markers in a manner that there should be a marker placed every **100 m** along the OFC route. Following important points will be adhered to: -

(a) The ERMs should be placed in the trench after partial backfilling of earth and should be aligned directly over the PLB duct such that it is not more than **3 feet** deep from the ground surface.

(b) In case HDD method is resorted to, then the placement of route markers shall be done at every point of use of the machine.

(c) The exact location of the ERM should be recorded as part of ABD documentation and in the measurement book.

Electronic Route Marker

33. **Hand Hole (HH)**. The purpose of the HH is to have more pulling points which can be easily located and opened so as to locate the fault. Besides this, the spare OFC cable in the HH can be used for jointing. Important instructions for HHs are:-

(a) **Depth**. Depth of the HH will be in line with the Min depth of HDPE pipe laid along the route, i.e. **1.65 m** for HDD mode of laying and appropriate trench depth in case of OT method.

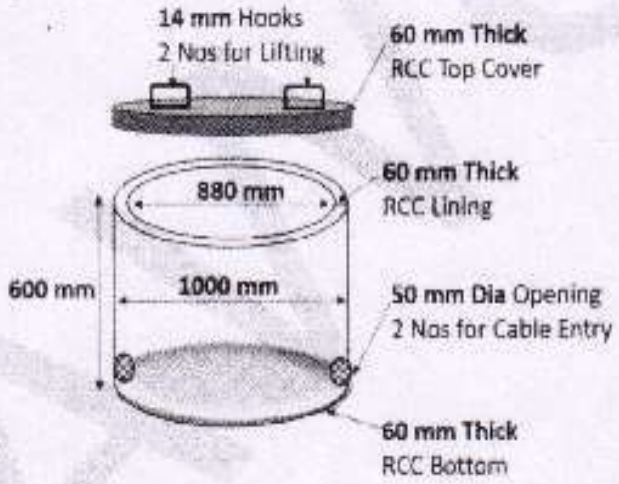
(b) Approximate length of cable (slack) to be kept in an HH will be **20 m** or **08** rolls kept horizontally.

(c) Minimum diameter of the roll in an HH will be **800 mm**. (safe limit of bending radius is about **15 times** the diameter of cable).

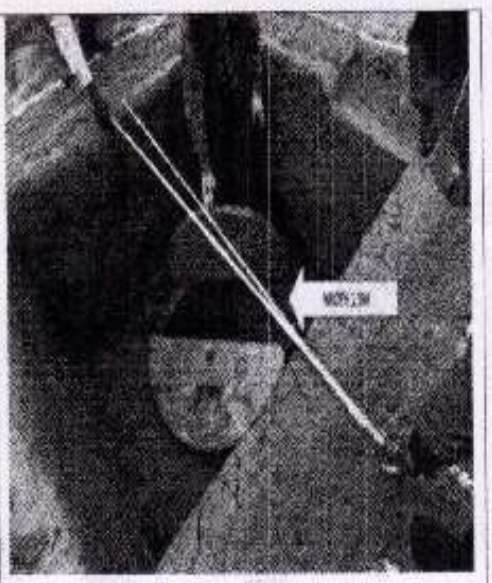
(d) A PVC/ HDPE or any suitable pipe should be kept vertically over the top of HH up to a height **5 cm** below surface. This will further help in locating the HH in future.

(e) Type of HH - **RCC Precast**.

(f) Overall dimension of Hand Hole pit in which precast **HH** Chamber will be kept: Minimum depth of **1.7 m** and cross-section to accommodate HH of **1.0 m** diameter.



Photographs: Hand Hole

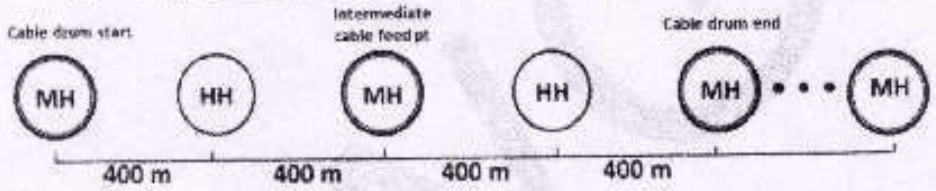


34. **Man Hole (MH)** A Manhole must be big enough for a technician to work comfortably. It is necessary to construct manholes at **locations of OFC joint closures**, **intermediate cable feed points** used for fibre blowing, **road bends**, **corners**, **ends of bridges**, **road/ rail/ canal crossings** and **Mob Optical Node locations**. A joint pit is always greater than splice closure length plus twice the minimum bending radius of the cable. In every manhole **30 m** cable coil will be kept as spare cable for jointing requirements. Route indicators are to be provided at each manhole. Design of the manhole will be as per **Figure 4(b), referred at Para 7** of Engineering Instructions given at **Para (c)** of References Section.

(a) Man Holes will be Pre Cast RCC structures (**60 mm** RCC thickness) of **1.20 m diameter and 0.8 m height with Single RCC ring lid**.

(b) Overall dimension of Man Hole pit in which precast MH Chamber will be kept: Minimum Depth of **1.7 m** and cross-section to accommodate MH of **1.2 m** diameter.

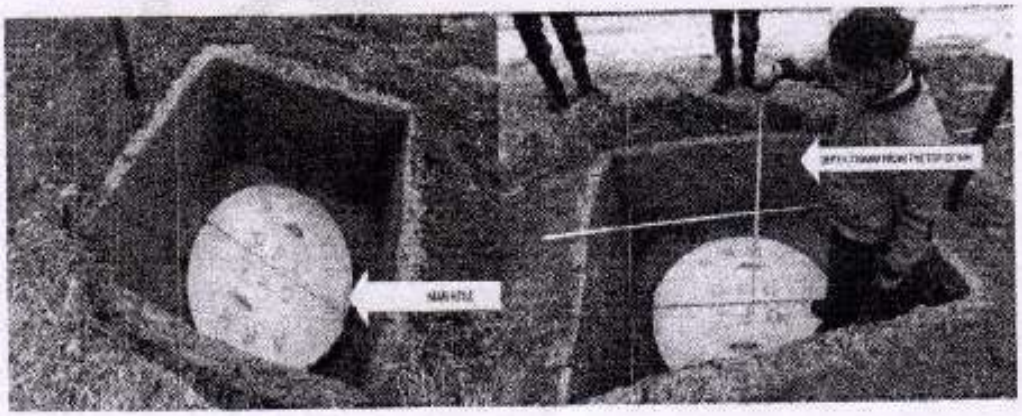
(c) **Layout of MH & HH.**

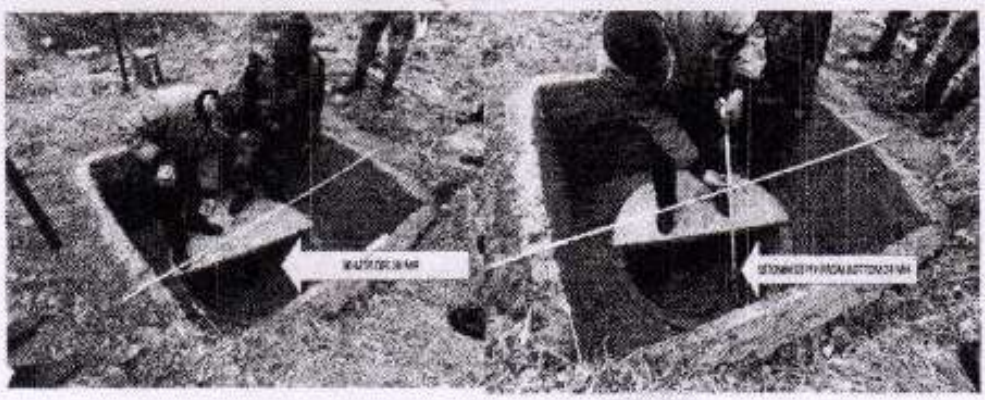


(d) OFC Slack left at each Man Hole - **30 m**.

(e) OFC Slack left at each Hand Hole - **20 m**.

Photographs: Manhole (MH)





All Di-Electric Self Supporting (ADSS) Metal Free Aerial OFC

35. ADSS Aerial OFC is particularly useful in situations where underground cable laying is not possible. Over Head (OH) OFC is generally laid as a temporary measure till such time Under Ground (UG) OFC laying is not possible. In case of ASCON Phase IV project, ADSS Aerial OFC shall be laid only in case of non-feasibility of UG OFC laying is ascertained during joint route survey by ITI's & Army's representative and the same is approved by DG Signals. The installation practice of Aerial OFC will be strictly as per Engineering Instructions given at para (d) of the References Section above. Important highlights are given in succeeding paragraphs.

36. **Route Survey**. The route should be inspected before the actual installation of OFC. Survey of the aerial route should be carried out pole by pole.

37. **Over Head Alignment**. The existing route alignment wherever available should be used. On new routes, alignment should be erected. The span length must not exceed above **90 m**.

38. **Line Diagram**. A line diagram should be prepared to mark the poles & the actual distance between the poles in a splice section (Normally, **15 poles per km** are recommended). Additional poles should be erected if required to keep the span length within the specified limits. Care should be taken that the alignment is easily accessible from the road. It is necessary to keep a clear head way (Ground clearance) of **12 to 15 feet** in a section. Raise the height to minimum **16 feet** at all the road crossings. The number of road crossings, canals or nullahs, electric lines should be clearly marked in the line diagram.

39. **Hilly Regions**. Line erection rules must be strictly followed. Additional poles may be erected for better support to optical fibre cable & to avoid sharp curves & bends. Span lengths should be reduced to avoid sags in case of steep slopes.

40. **Tension Poles**. Tension poles are dead end or termination poles. The tension poles shall have dead end fittings. The dead-end fittings offer a continuous run of the aerial optical fibre cable. These fittings relieve the optical fibre cable of its compressive, bending & clamping stresses. The performed dead end fittings are suitably gritted for excellent tensile holding strength. Spare cable of **4 m** will be left at each tension pole.

41. **Selection of Tension Poles**. Selection of tension poles depends upon the actual site location of the route. Every fifth pole should be a tension pole in straight alignment. Splicing location poles should be tension poles or wherever alignment takes a sharp turn (more than **15 degrees**) should also be a tension pole.

42. **Suspension Poles**. The suspension pole assembly is designed to offer cushion to aerial optical fibre cable against the dynamic stress of Aeolian vibration at the suspension point. They also reduce static stresses at the Support point. All the intermediate poles between two tension poles will be suspension poles.

43. **Splice Location**. The splice closure of the aerial optical cable should be buried underground. Therefore it is necessary to fix & determine the splicing location as per the designated cable drum length. The size of the splice chamber will be of standard size as given in para 34 above. Minimum **10 m** of spare cable for coiling at each splice location.

Deviation

44. Approval for deviation, with respect to any aspect/ laying instruction laid down above will be sought from DG Signals/ ASCON Wkg Gp only under exceptional circumstances on case to case basis. The deviation form alongwith detailed justification duly supported with **documentary** and **photographic** proofs must be recommended by the PICG/ Command Signals.

ANNEXURE-II

BANK GUARANTEE PROFORMA

1. As agreed under the relevant terms and conditions of Purchase Order Ref ..... dt ..... (hereinafter called the said Purchase Order) between M/s. ITI Ltd., NS Unit, Dooravani nagar, Bangalore-560 016, India. (Hereinafter called the purchaser) and M/s. ..... (Hereinafter called the supplier) for supply of ..... the supplier hereby agrees to furnish a security Deposit against supply performance by way of an irrevocable Bank Guarantee for Rs..... (Rupees..... .....) We ..... (indicate the name of Bank) (hereinafter referred to as 'THE BANK' at the request of the supplier do hereby undertake to pay to the purchaser, an amount not exceeding Rs. ..... (Rupees. .....) against any loss or damage caused to or suffered or would be caused to or suffered by the Purchaser, by reasons or breach by the said supplier of any of the terms or conditions contained in the said Purchase Order.

2. We ..... (indicate the name of the Bank) do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on a demand from the purchaser stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the purchaser, by reason of breach by the said supplier of any of the terms and conditions contained in the said Purchase Order or by reason of the supplier's failure to perform the said Purchase Order. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee shall be restricted to an amount not exceeding Rs..... (Rupees.....)

3. The Bank further agrees that the Purchaser shall be the sole judge as to whether the said Supplier has committed any breach or breaches of any of the terms and conditions of the contract and the extent of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the Purchaser on account thereof, and the decision of the Purchaser that the said Supplier has committed such breach or breaches and as to the amount or amounts of loss, damage costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the Purchaser from time to time shall be conclusive, final and binding on the Bank.

4. We undertake to pay to the Purchaser, any money so demanded notwithstanding any dispute or disputes raised by the Supplier in any suit or proceedings pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

5. It shall not be necessary for the Purchaser to proceed against the Supplier before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the Purchaser may have obtained or obtains from the Supplier.

6. We ..... (indicate the name of Bank) further agree with the Purchaser, that the Purchaser shall have the fullest liberty without our consent and without effecting in any manner our obligation hereunder to vary any of the terms and conditions of the said Purchase Order or to extend time of performance by the said Supplier from time to time or to postpone for any time of from to time any of the powers exercisable by the Purchaser against the said Supplier and to forbear or enforce any of the terms and conditions relating to the said Purchase Order and we shall not relieved from our liability by reasons of any such variation, or extension being granted to said Supplier or for any forbearance, act or omission on the part of the Purchaser or any indulgence by the Purchaser, to the said Supplier or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

7. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Supplier.

8. We ..... (indicate the name of Bank) undertake not to revoke this Guarantee during its currency except with the previous written consent of the Purchaser, in writing.

9. Notwithstanding anything contained in the foregoing clauses, our liability under this guarantee is restricted to Rs.....(Rupees.....) and our guarantee shall remain in force until ..... (Date of expiry). Unless a demand is made against us to enforce a claim under this guarantee within twelve months from the date of expiry of validity, all your rights under this guarantee shall be forfeited and we shall be relieved and discharged from all liability hereunder.

DATE: For ..... (indicate the name of Bank)

PLACE:

Annexure-III
EMD BANK GUARANTEE PROFORMA

1. As agreed under the relevant terms and conditions of Enquiry Ref _____ dt _____ (hereinafter called the said Enquiry) between M/s. ITI Ltd., NS Unit, Dooravani Nagar, Begaluru-560016, India. (Hereinafter called the Purchaser) and M/s. _____ (hereinafter called the Bidder) for supply of _____, the Bidder hereby agrees to furnish EMD against supply performance by way of an irrevocable Bank Guarantee for Rs. _____ (Rupees. _____). We _____ (indicate the name of Bank) (hereinafter referred to as 'THE BANK' at the request of the Bidder do hereby undertake to pay to the Purchaser, an amount not exceeding Rs. _____ (Rupees. _____ _____) against any loss or damage caused to or suffered or would be caused to or suffered by the Purchaser, by reasons or breach by the said Bidder of any of the terms or conditions contained in the said Enquiry.

2. We _____ (indicate the name of the Bank) do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on a demand from the Purchaser stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Purchaser, by reason of breach by the said Bidder of any of the terms and conditions contained in the said Enquiry or by reason of the Bidder's failure to perform the said Enquiry. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee shall be restricted to an amount not exceeding Rs. _____ (Rupees. _____).

3. The Bank further agrees that the Purchaser shall be the sole judge as to whether the said Bidder has committed any breach or breaches of any of the terms and conditions of the contract and the extent of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the Purchaser on account thereof, and the decision of the Purchaser that the said Bidder has committed such breach or breaches and as to the amount or amounts of loss, damage costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the Purchaser from time to time shall be conclusive, final and binding on the Bank.

4. We undertake to pay to the Purchaser, any money so demanded notwithstanding any dispute or disputes raised by the Bidder in any suit or proceedings pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

5. It shall not be necessary for the Purchaser to proceed against the Bidder before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the Purchaser may have obtained or obtains from the Bidder.

6. We _____ (indicate the name of Bank) further agree with the Purchaser, that the Purchaser shall have the fullest liberty without our consent and without effecting in any manner our obligation hereunder to vary any of the terms and conditions of the said Enquiry or to extend time of performance by the said Bidder from time to time or to postpone for any time of from to time any of the powers exercisable by the Purchaser against the said Bidder and to forbear or enforce any of the terms and conditions relating to the said Enquiry and we shall not relieved from our liability by reasons of any such variation, or extension being granted to said Bidder or for any forbearance, act or omission on the part of the Purchaser or any indulgence by the Purchaser, to the said Bidder or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

7. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Bidder.

8. We _____ (indicate the name of Bank) undertake not to revoke this Guarantee during its currency except with the previous written consent of the Purchaser, in writing.

9. Notwithstanding anything contained in the foregoing clauses, our liability under this guarantee is restricted to Rs. _____(Rupees. _____) and our guarantee shall remain in force until _____ (Date of expiry of Bid validity). Unless a demand is made against us to enforce a claim under this guarantee within three months from the date of expiry of Bid validity, all your rights under this guarantee shall be forfeited and we shall be relieved and discharged from all liability hereunder.

PLACE:

DATE :

For _____ (indicate the name of Bank)

Annexure-IV

MUTUAL NON- DISCLOSURE AGREEMENT

This Agreement is made as of the ---------- 2026 between ITI Ltd. having its registered and corporate office at Dooravani Nagar, Bangalore-560016

And ----------hereinafter called ITI Ltd. which expression shall unless repugnant to the subject or the context mean and included its successors, nominees or assigns and (M/s. ----------) a company having its registered office at --------- ---------- herein after called "The Bidder" which expression shall unless repugnant to the subject or the context mean and include its successors, nominees or assigns.

Whereas in order to pursue the mutual business purpose of this particular Consultancy as specified in Exhibit A (the "Business Purpose"), ITI Ltd. and M/s ---------- ---------- recognize that there is a need to disclose to one another certain information, as defined in Para 1 below, of each party to be used only for the Business purpose and to protect such confidential information from unauthorized use and disclosure.

In consideration of the other party's disclosure of such information, each party agrees as follows:

This Agreement will apply to all confidential and proprietary information disclosed by one party to the other party, including information listed in Exhibit A attached hereto and other information which the disclosing party identifies in writing or otherwise as confidential before or within thirty days after disclosure to the receiving party ("Confidential information").

Information consists of certain specifications, designs, plans, drawings and /or technical information, and all copies and derivatives containing such information, that may be disclosed to one another for and during the purpose, which a party considers proprietary or confidential ("Information"). Information may be in any form or medium, tangible or intangible, and may be

Communicated/disclosed in writing, orally, or through visual observation or by any other means to one party (hereinafter referred to as the receiving party) by the other party (hereinafter referred to as one disclosing party). Information shall be subject to this Agreement, if it is in tangible form, only if clearly marked as proprietary or confidential as the case may be, when disclosed to the receiving party or, if not in tangible form, its proprietary nature must first be announced, and it must be reduced to writing and furnished to the receiving party within thirty (30) days of the initial disclosure.

M/s ---------- and ITI Ltd hereby agreed at during the Confidentiality Period:

ITI Ltd. RFP. No. _____

The receiving party shall use Information only for the Purpose, shall hold Information in confidence using the same degree of care as it normally exercises to protect its own proprietary information, but not less than reasonable care, taking into account the nature of the Information, and shall grant access to Information only to its employees who have a need to know, but only to the extent necessary to carry out the business purpose of this project as defined in exhibit A, shall cause its employees to comply with the provisions of this Agreement applicable to the receiving party, shall reproduce Information only to the extent essential to fulfilling the purpose, and shall prevent disclosure of information to third parties.

Upon the disclosing party's request, the receiving party shall either return to the disclosing party all Information or shall certify to the disclosing party that all media containing Information have been destroyed. Provided, however. That an archival copy of the Information may be retained in the files of the receiving party's counsel, solely for the purpose of proving the contents of the Information.

The foregoing restrictions on each party's use or disclosure of Information shall not apply to Information that the receiving party can demonstrate

was independently developed by or for the receiving party without reference to the Information, or was received without restrictions; or has become generally available to the public without breach of confidentiality obligations of the receiving party; or was in the receiving party's possession without restriction or was known by the receiving party without restriction at the time of disclosure; or

is the subject of a subpoena or other legal or administrative demand for disclosure; provided, however that the receiving party has given the disclosing party prompt notice of such demand for disclosure and the receiving party reasonably cooperates with the disclosing party's efforts to secure and appropriate protective

order; or is disclosed with the prior consent of the disclosing party; or

was in its possession or known to it by being in its use or being recorded in its files or computers or other recording media prior to receipt from the disclosing party and was not previously acquired by the receiving party from the disclosing party under an obligation of confidence; or the receiving party obtains or has available from a source other than the disclosing party without breach by the receiving party or such source of any obligation of confidentiality or non-use towards the disclosing party.

Each party agrees not to remove any of the other party's Confidential Information from the premises of the disclosing party without the disclosing party's prior written approval. Each party agrees to exercise extreme care in ITI Ltd. RFP. No. _____ protecting the confidentiality of any confidential information, which is removed, only with the disclosing party's prior written approval, from the disclosing party's premises. Each party agrees to comply with any and all terms and conditions the disclosing party's may impose upon any such approved removal, such as conditions that the removed confidential information and all copies must be returned by a certain date, and that no copies are to be make off of the premises.

Upon the disclosing party's request, the receiving party will promptly return to the disclosing party all tangible items containing or consisting of the disclosing party's confidential information all copies thereof.

Each party recognizes and agrees that all of the disclosing party's confidential information is owned solely by the disclosing party (or its licensors) and that the unauthorized disclosure or use of such confidential information would cause irreparable harm and significant injury, the degree of which may be difficult to ascertain. Accordingly, each party agrees that the disclosing party will have the right to obtain an immediate injunction enjoining any breach of this agreement, as well as the right to pursue any and all other rights and remedies available at law or in equity for such a breach.

Access to information hereunder shall not preclude an individual who has seen such information for the purpose of this agreement from working on future projects for the receiving party which relate to similar subject matters provided that such individual does not make reference to the information and does not copy the substance of the information during the confidentiality period. Furthermore, nothing contained herein shall be construed as imposing any restriction on the receiving party's disclosure or use of any general learning, skills or know how developed by the receiving party's personnel under this agreement, if such disclosure and use would be regarded by a person of ordinary skill in the relevant area as not constituting a disclosure or use of the information.

As between the parties, all information shall remain the property of the disclosing party. By disclosing information or executing this agreement, the disclosing party does not grant any license, explicitly or implicitly, under any trademark, patent, copyright, mask work protection rights, trade secret or any other intellectual property right. THE DISCLOSING PARTY DISCLAIMS ALLWARRANTIES REGARDING THE INFORMATION, INCLUDING ALL WARRANTIESWITH RESPECT TO INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS ANDALL WARRANTIES AS TO THE ACCURACY OR UTILITY OF SUCH INFORMATION.
Execution of this agreement and the disclosure of information pursuant to this agreement does not constitute or imply any commitment, promise, or inducement by either party to make any purchase, or sale or to enter into any additional agreement of any kind.

Either party's failure to enforce any provision, right or remedy under this agreement shall not constitute a waiver of such provision, right or remedy.

This Agreement will be construed in, interpreted and applied in accordance with the laws of India.

M/s ITI Ltd. has sole rights for the feasibility report submitted by M/s. ----------for its use with another successful bidder for next Phase (if any). If there is any conflict between earlier clauses and this clause, then this clause shall prevail.

That in case of any dispute or differences, breach & violation relating to the terms of the agreement. The

said matter or dispute, difference shall be referred to sole arbitration of Chairman ITI Ltd or any other person appointed by him. That the award of the arbitrator shall be final and binding on both parties. In the vent of such arbitrator to whom the matter is originally referred to is being transferred or vacates his office on resignation or otherwise or refuses to do work or neglecting his work or being unable to act as Arbitrator for any reasons whatsoever, the Chairman ITI Ltd shall appoint another person to act as Arbitrator in place of outgoing Arbitrator and the person so appointed shall be entitled to proceed further with the reference from the stage at which it was left by his predecessor. The M/s ---------- will have No Objection in any such appointment, that arbitrator so appointed is employee of ITI Ltd. The said Arbitrator shall act under the Provisions of the Arbitrator and Conciliation Act, 1996 or any statutory modifications or re-enactment there of any rules made thereof.

This Agreement and Exhibit A attached hereto constitutes the entire agreement of the parties with respect to the parties' respective obligations in connection with Information disclosed hereunder and supersedes all prior oral and written agreements and discussions with respect thereto. The parties can amend or modify this agreement only by a writing duly executed by their respective authorized representatives. Neither party shall assign this Agreement without first securing the other Party's written consent.

This Agreement will remain in effect for one year from the date of the last disclosure of Confidential Information., at which time it will terminate, unless extended by the disclosing party in writing.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by Their duly authorized officers or representatives.

(M/s----------)	(M/s ITI Ltd.)
Signature	Signature:
Name	Name:
Designation	Designation:
ITI Ltd RFP No.	
Exhibit A	

Business Purpose:

Confidential Information of M/s. ITI Ltd. w.r.t RFP No. _____

All sites and their related information.
All information shared in oral or in written form by ITI Ltd. with M/s ----------
Information downloaded or taken in physical form shall be returned/destroyed after use not copied.

ITI Ltd: ……	M/s ----------(Bidder)
Sign & Stamp	Sign & Stamp

Annexure-V

PRE CONTRACT INTEGRITY PACT

PURCHASE ENQUIRY/ORDER No.

THIS Integrity Pact is made on……day of ……..20.

BETWEEN:

ITI Limited having its Registered & Corporate Office at ITI Bhavan, Dooravaninagar, Bangalore – 560 016 and established under the Ministry of Communications, Government of India (hereinafter called the Principal), which term shall unless excluded by or is repugnant to the context, be deemed to include its Chairman & Managing Director, Directors, Officers or any of them specified by the Chairman & Managing Director in this behalf and shall also include its successors and assigns) ON THE ONE PART

AND:

…….. represented by……..Chief Executive Officer (hereinafter called the Contractor(s), which term shall unless excluded by or is repugnant to the context be deemed to include its heirs, representatives, successors and assigns of the bidder/contract ON THE SECOND PART.

Preamble

WHEREAS the Principal intends to award, under laid down organizational procedures, contract for ……. of ITI Limited (name of the Stores/equipment's/items). The Principal, values full compliance with all relevant laws of the land, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal has appointed an Independent External Monitor(IEM), who will **monitor** the tender process and the execution of the contract for compliance with the principles as mentioned herein this agreement.

WHEREAS, to meet the purpose aforesaid, both the parties have agreed to enter into this Integrity Pact the terms and conditions of which shall also be read as integral part and parcel of the Tender Documents and contract between the parties.

NOW THEREFORE, IN CONSIDERATION OF MUTUAL COVENANTS STIPULATED IN THIS PACT THE PARTIES HEREBY AGREE AS FOLLOWS AND THIS PACT WITHNESSETH AS UNDER:

SECTION 1 – COMMITMENTS OF THE PRINCIPAL

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:

a. No employee of the Principal, personally or through family members, will in connection with the tender for or the execution of the contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the personal is not legally entitled to.
b. The Principal will, during the tender process treat all bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all bidder(s) the same information

and will not provide to any bidder(s)confidential/additional information through which the bidder(s)could obtain an advantage in relation to the tender process or the contract execution.

c. The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employee, which is a criminal offence under IPC/PC Actor if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary action as per its internal laid down Rules/ Regulations.

SECTION 2 – COMMITMENTS OF THE BIDDER/CONTRACTOR

2.1 The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself observe the following principles during the participation in the tender process and during the execution of the contract.

a. The bidder(s)/contractor(s) will not, directly or through any other person or firm offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

b. The bidder(s)/contractor(s) will not enter with other bidders/contractors into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

c. The bidder(s)/contractor(s) will not commit any offence under IPC/PC Act, further the bidder(s)/contractor(s) will not use improperly, for purposes of competition of personal gain, or pass onto others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

d. The Bidder(s)/Contractor(s) of foreign original shall disclose the name and address of the agents/representatives in India, if any. Similarly, the Bidder(s)/Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any.

e. The Bidder(s)/Contractor(s) will, when presenting the bid, disclose any and all payments made, are committed to or intend to make to agents, brokers or any other intermediaries in connection with the award of the contract.

f. The Bidder(s)/Contractor(s) will not bring any outside influence and Govt bodies directly or indirectly on the bidding process in furtherance to his bid.

g. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or to be an accessory to such offences.

SECTION 3 – DISQUALIFICATION FROM TENDER PROCESS & EXCLUSION FROM FUTURE CONTRACTS

3.1 If the Bidder(s)/Contractor(s), during tender process or before the award of the contract or during execution has committed a transgression in violation of Section 2, above or in any other form such as

to put his reliability or credibility in question the Principal is entitled to disqualify Bidder(s)/ Contractor(s) from the tender process.

3.2 If the Bidder(s)/Contractor(s), has committed a transgression through a violation of Section 2 of the above, such as to put his reliability or credibility into question, the Principal shall be entitled exclude including blacklisting for future tender/contract award process. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the Principal taking into consideration the full facts and circumstances of each case, particularly taking into account the number of transgression, the position of the transgressor within the company hierarchy of the Bidder(s)/Contractor(s) and the amount of the damage. The exclusion will be imposed for a period of minimum one year.

3.3 The Bidder(s)/Contractor(s)with its free consent and without any influence agrees and undertakes to respect and uphold the Principal's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground including the lack of any hearing before the decision to resort to such exclusion is taken. The undertaking is given freely and after obtaining independent legal advice.

3.4 A transgression is considered to have occurred if the Principal after due consideration of the available evidence concludes that on the basis of facts available there are no material doubts.

3.5 The decision of the Principal to the effect that breach of the provisions of this Integrity Pact has been committed by the Bidder(s)/ Contractor(s) shall be final and binding on the Bidder(s)/ Contractor(s), however the Bidder(s)/ Contractor(s) can approach IEM(s) appointed for the purpose of this Pact.

3.6 On occurrence of any sanctions/ disqualifications etc arising out from violation of integrity pact Bidder(s)/ Contractor(s) shall not entitled for any compensation on this account.

3.7 subject to full satisfaction of the Principal, the exclusion of the Bidder(s)/ Contractor(s) could be revoked by the Principal if the Bidder(s)/ Contractor(s) can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption preventative system in his organization.

SECTION 4 – PREVIOUS TRANSGRESSION

4.1 The Bidder(s)/ Contractor(s) declares that no previous transgression occurred in the last 3 years immediately before signing of this Integrity Pact with any other company in any country conforming to the anti-corruption/ transparency International (TI) approach or with any other Public Sector Enterprises/ Undertaking in India of any Government Department in India that could justify his exclusion from the tender process.

4.2 If the Bidder(s)/ Contractor(s) makes incorrect statement on this subject, he can be disqualified from the tender process or action for his exclusion can be taken as mentioned under Section-3 of the above for transgressions of Section-2 of the above and shall be liable for compensation for damages as per Section- 5 of this Pact.

SECTION 5 – COMPENSATION FOR DAMAGE

5.1 If the Principal has disqualified the Bidder(s)/Contractor(s) from the tender process prior to the award according to Section 3 the Principal is entitled to forfeit the Earnest Money Deposit/Bid Security/ or demand and recover the damages equitant to Earnest Money Deposit/Bid Security apart from any other legal that may have accrued to the Principal.

5.2 In addition to 5.1 above the Principal shall be entitled to take recourse to the relevant provision of the contract related to termination of Contract due to Contractor default. In such case, the Principal shall

be entitled to forfeit the Performance Bank Guarantee of the Contractor or demand and recover liquidate and all damages as per the provisions of the contract agreement against termination.

SECTION 6 – EQUAL TREATMENT OF ALL BIDDERS/CONTRACTORS

6.1 The Principal will enter into Integrity Pact on all identical terms with all bidders and contractors for identical cases.

6.2 The Bidder(s)/Contractor(s) undertakes to get this Pact signed by its sub-contractor(s)/sub-vendor(s)/associate(s), if any, and to submit the same to the Principal along with the tender document/contract before signing the contract. The Bidder(s)/Contractor(s) shall be responsible for any violation(s) of the provisions laid down in the Integrity Pact Agreement by any of its sub-contractors/sub-vendors/associates.

6.3 The Principal will disqualify from the tender process all bidders who do not sign this Integrity Pact or violate its provisions.

SECTION 7 – CRIMINAL CHARGES AGAINST VIOLATING BIDDER(S)/ CONTRACTOR(S)

7.1 If the Principal receives any information of conduct of a Bidder(s)/Contractor(s) or sub-contractor/sub-vendor/associates of the Bidder(s)/Contractor(s) which constitutes corruption or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer of the Principal for appropriate action.

SECTION 8 – INDEPENDENT EXTERNAL MONITOR(S)

8.1 The Principal appoints competent and credible Independent External Monitor(s) for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extend the parties comply with the obligations under this pact.

8.2 The Monitor is not subject to any instructions by the representatives of the parties and performs his functions neutrally and independently. He will report to the Chairman and Managing Director of the Principal.

8.3 The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all product documentation of the Principal including that provided by the Bidder(s)/Contractor(s). The Bidder(s)/Contractor(s) will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The Monitor is under contractual obligation to treat the information and documents Bidder(s)/Contractor(s) with confidentiality.

8 .4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the project provided such meeting could have an impact on the contractual relations between the Principal and the Bidder(s)/Contractor(s). As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in specific manner, refrain from action or tolerate action.

8.5 The Monitor will submit a written report to the Chairman & Managing Director of the Principal within a reasonable time from the date of reference or intimation to him by the principal and, should the occasion arise, submit proposals for correcting problematic situations.

8.6 If the Monitor has reported to the Chairman & Managing Director of the Principal a substantiated suspicion of an offence under relevant IPC/PC Act, and the Chairman & Managing Director of the Principal has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.

8.7 The word **'Monitor'** would include both singular and plural.

8.8 Details of the Independent External Monitor appointed by the Principal at present is furnished below: -

IEM I

Shri Atul Jundall, IFS (Retd.)
3/10 Vishesh Khand
Opp. Little Friend School
Gomti Nagar, Lucknow-226010(UP)

IEM II

Shri Benny John,
IRS ((Retd.),
Villa No. 36, Kent Plam Villas,
Fort Valley Township, Athani, Kakkanad,
Ernakulam, Kerala- 682030

Any changes to the same as required / desired by statutory authorities is applicable.

SECTION 9 – FACILITATION OF INVESTIGATION

9.1 In case of any allegation of violation of any provisions of this Pact or payment of commission, the Principal or its agencies shall be entitled to examine all the documents including the Books of Accounts of the Bidder(s)/Contractor(s) and the Bidder(s)/Contractor(s)shall provide necessary information and documents in English and shall extend all help to the Principal for the purpose of verification of the documents.

SECTION 10 – LAW AND JURISDICTION

10.1 The Pact is subject to the Law as applicable in Indian Territory. The place of performance and jurisdiction shall the seat of the Principal.

10.2 The actions stipulated in this Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

SECTION 11 – PACT DURATION

11.1 This Pact begins when both the parties have legally signed it. It expires after 12 months on completion of the warranty/guarantee period of the project / work awarded, to the fullest satisfaction of the Principal.

11.2 If the Bidder(s)/Contractor(s) is unsuccessful, the Pact will automatically become invalid after three months on evidence of failure on the part of the Bidder(s)/Contractor(s).

11.3 If any claim is lodged/made during the validity of the Pact, the same shall be binding and continue to be valid despite the lapse of the Pact unless it is discharged/determined by the Chairman and Managing Director of the Principal.

SECTION 12 – OTHER PROVISIONS

12.1 This pact is subject to Indian Law, place of performance and jurisdiction is the Registered & Corporate

Office of the Principal at Bengaluru.

12.2 Changes and supplements as well as termination notices need to be made in writing by both the parties. Side agreements have not been made.

12.3 If the Bidder(s)/Contractor(s) or a partnership, the pact must be signed by all members and partners.

12.4 Should one or several provisions of this pact turn out to be invalid, the remainder of this pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

12.3 Any disputes/ difference arising between the parties with regard to term of this Pact, any action taken by the Principal in accordance with this Pact or interpretation thereof shall not be subject to any Arbitration.

12. 4 The action stipulates in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

In witness whereof the parties have signed and executed this Pact at the place and date first done mentioned in the presence of the witnesses:

For PRINCIPAL	For BIDDER(S)/CONTRACTOR(S)
……	……
(Name & Designation)	(Name & Designation)
Witness	Witness
1) ……	1)……...
2) …….	2)…….....

Annexure-VI

Declaration that the Bidder has not been blacklisted/debarred

(To be submitted on Non-Judicial Stamp Paper of Rs. 100/- duly notarized)

Place:
Date:

To,
<name and address>

Ref: Tender Notification no……dated…….

Subject: Declaration of Bidder being not blacklisted

Dear Sir,

It is certified that our firm/company or any of our entity is **not** black listed/Debarred from doing business or put on holiday list etc by any Govt. Organization / PSUs for any reason. However, if we fail to complete the awarded work / fulfill the Tender conditions or if any of the information submitted by our company or its employee or associate, proves to be false, ITI Ltd shall be free to take action / black list our firm / company notwithstanding of taking any other legal action."

Place :
Date :
Bidder's Company Seal :
Authorized Signatory's Signature :
Authorized Signatory's Name and Designation :

ANNEXURE – VII
BOM (Part of Main Supply & Services)

Ser No.	Items	Unit	Qty	Make & Model
1	Warning Tape	Kms.		
2	Joint Closure	Nos.		
3	GI Pipe	Mtr.	As per Requirement	As per relevant IS B Class
4	RCC Pipe	Mtr.	As per Requirement	NP-2 Class Pipe
5	DWC Pipe	Mtr.	As per Requirement	As per relevant IS 60 mm
6	Chamber	Nos.	As per Requirement	As per Specs & competent Authority
7	Bricks	Nos.	As per Requirement	As per Specs & competent Authority
8	RCC Route Indicator	Nos.	As per Requirement	
9	Electronic Route Marker – Over Ground (Every 500 Mtr)	Nos.		ATTL TRACE MARK B (Aishwarya Telecom)
10	Electronic Route Marker – Under Ground (Every 100 Mtr)	Nos.		ATTL TRACE MARK B (Aishwarya Telecom)
11	Electronic Locator	Nos.		
12	Any other associated equipment/Connectors/Accessories as required for commissioning of Links	Lot	As per Requirement	

ANNEXURE – VIII
WARRANTY AND AMC – SLA
INSPECTIONS AND MAINTENANCE

1. **Pre- Dispatch Inspection (PDI)** would be at the discretion of the customer at the OEM's factory premises. The User's representatives will carry out Pre-Dispatch Inspection (PDI) of the Equipment in order to check their compliance with specifications in accordance with Acceptance Test Procedures (ATP). Upon successful completion of Pre-Dispatch Inspection by User, the PIA and ITI will issue and sign a Certificate of Conformity in a pre-designed format as per the requirement of the equipment.

   The PIA shall intimate ITI at least **45 days** before the scheduled date of PDI.

   The User however reserves the right not to attend the Pre-Dispatch Inspection or to request for a next date. In case the User decides not to attend the PDI, the PIA shall be entitled to carry out said tests alone as scheduled. The Certificate of Conformity and the Acceptance Test Report will be signed by the PIA's QA representative alone and such documents bearing the sole signature of the PIA's QA representative shall have the same value and effect as if they have been signed by both parties.

2. **Joint Receipt Inspection (JRI)** of delivered goods and Services shall be conducted at the designated location(s) to be nominated by the user. The PIA would be informed of the date for JRI.JRI will consist of:-

   (a) Quantitative checking to verify that the quantities of the delivered goods and services correspond to the quantities defined in the contract and the invoices.

   (b) Complete functional checking of the Goods and Services as per specifications in this contract and as per procedures and tests laid down in **AITP**.

3. **Jointly Signed Documentary Proofs** or entries in Measurement Books maintained for this purpose having signatures of authorized representatives of the User and authorized representative of the PIA are required for: -

   User's endorsement verifying the conformation of the specifications of the OFC work after inspection by representatives of the User on site will form part of AITP.

   OFC Laying as per AITP. Following documents must form part of AITP:-

   (a) Certificate of inspection.

   (b) Proof of dispatch and its receipt at site by representative of the User at site (applicable for the Supply Items).

   (c) Measurement log books specifying the stores used on ground/works undertaken.

   (d) OTDR traces certifying the serviceability of the route/segment.

(e) Record of Hard Rock would be an essential pre-requisite.

(f) ATP as per format to be suggested by the PIA and approved by the User.

(g) Final handing & taking over after completion of Network AITP and rectification of all observations.

4. WARRANTY CLAUSE

The PIA would warrant that the goods/services supplied under this contract conform to technical specifications prescribed and shall perform according to the said Technical Specifications.

The PIA would warrant for a period of **24 months** from the date of final taking over the entire integrated network, (i.e. from date of Network AITP) that the goods/stores including software *components*, infrastructure and network integration support supplied under this contract and each component/service used in the manufacture there of shall be free from all types of defects/failures.

If within the period of warranty, the goods are reported by the User to have failed to perform as per the specifications, the PIA shall either replace or rectify the same as per clauses of warranty. Record of the down time would be maintained by User in log book. However, for critical components affecting the uptime of the network, the same will be repaired/replaced in-situ and the same needs to be catered for by pre-positioning of the spares/standby equipment. Spares and all consumables required for warranty repairs shall be provided free of cost by PIA. All activities including diagnosis, rectification, calibration, transportation etc, required for making equipment serviceable and available would be the PIA's responsibility. The PIA also undertakes to diagnose, test, adjust, calibrate and repair/replace the goods/equipment arising due to accidents by neglect or misuse by the operator or damage due to transportation of the goods during the warranty period, at the cost mutually agreed to between the User/ITIL and the PIA. The PIA shall intimate the assignable cause of the failure which is mutually agreeable. Details of the reasons leading to the conclusion must be furnished, so as to enable the User in ascertaining the legitimacy while accepting the same.

PIA hereby warrants that necessary service and repair back up during the warranty period of the l i n k s shall be provided by the PIA and he will ensure that the UPTIME of **99.97%** is maintained at all times within warranty period. In the event of not adhering to the specified Uptime for the equipment/system,per week penalty shall be levied as per terms and conditions defined in AMC/Warranty Contract.

If a particular equipment/goods fails frequently and/or, the cumulative down time exceeds **0.015%** of the warranty period (i.e. 3 hours) **or a common defect is noticed in more than 10% of the quantity of goods with respect to a particular system/sub-system/equipment/item/component/sub-component, complete system/sub-system/equipment/item/component/sub-component** shall be replaced free of cost

by the PIA within a stipulated period of ten days of receipt of the notification from the User duly modified/upgraded through design.

PIA shall associate technical personnel of maintenance

agency and QA of User during warranty repair and shall provide complete details of defect, reasons and remedial actions for averting recurrence of such defects.

The PIA warrants that the goods supplied will conform to the Temperature and Humidity conditions as mentioned at Annexure II to this contract.

NB: THE PROVISIONS MENTIONED ABOVE, IN CONFLICT IF ANY, WITH THE PROVISIONS AT ANNEXURE-VII, LATTER SHALL OVERRIDE.

Note:-

(i). **Fibre Repair Teams (FRTs)**. FRTs will be placed for maintenance of OFC Route during the warranty, duly approved by the USER (One FRT for a span of 125 KMs). Each FRT shall be available at the allotted route locations. The location of the FRT would be defined as approved by the User. However, their presence would be dynamic with no restriction across network area on the sole discretion of the User requirement.

(ii). Repair and replacement of all defective equipment/part including overhaul/factory repairs, as specified by the supplier in the technical manuals of the equipment.

(iii). All expenses incurred on replacement or repair of faulty equipment during warranty period shall be entirely borne by the PIA.

(iv). The Detailed Terms and conditions shall be same as that of AMC applicable to OFC and is appended as below (Appendix A to Annexure VII)

Appendix "A" to Annexure VII
OPTICAL FIBRE CABLE MAINTENANCE (DURING WARRANTY AND AMC)

OFC Maintenance

1. **Fiber Repair Teams (FRTs)**. Repair and maintenance of OFC routes will be the primary role of FRTs. PIA shall provide 01 **FRT.**
2. PIA shall provide OFC maintenance service on round the clock basis for rectifying the OFC fault within specified time from the time of generation of alarm by GIS based Remote Fibre Test and Measuring System (RFTMS) or lodging of complaint to the representative of PIA. FRT's will be placed as per ITIL's discretion for maintenance of OFC routes during the warranty and AMC period, as per the following details:-

   (a) **Equipping**. FRT's will be equipped with vehicle and other necessary accessories required to maintain/repair/replace the OFC.

   (b) **Maintenance of OFC**. FRT will cover and maintain a distance of Total 120 kms on the OFC route. Adjustments in route length if any for ease of management will be carried out in consultation with ITIL.

   (c) **Route length**. Route Length (**only to calculate responsibility of a FRT)** shall be the physical road length / trench length and not OFC cable length. Route Length is inclusive of in-city connectivity. The route length should be verified and certified by the PIA representative and ITIL representative after conducting the Survey during the Test Bed. The Survey Report should be duly signed by the signing authorities from both the parties.

   (d) **Specialized Engineer**. The PIA shall provide **one specialized Engineer** for OFC maintenance adequately trained on OFC maintenance. He shall be present at the time of restoration of a fault and shall submit report to the Commanding Officer of Network Signal Regiment/ITIL representative after the rectification of fault.

   (e) **Reporting**. After attending the fault & permanent restoration of Fault it will be logged in to the NMS on daily basis.

   (f) **Replacements**. PIA shall arrange to provide replacement of individuals belonging to FRT (at no extra cost) in case regular people are sick/ on leave within 24 hours. This clause is applicable for FRT and will not be read in conjunction of leave of MSO.

   (g) **Usage Report**. Weekly material / spares usage report will be submitted to ITIL by the PIA. The same shall be integrated and updated in NMS.

   (h) **Examination of Work before Covering Up**. The PIA shall give advance notice to ITIL or its representatives whenever any work or materials are intended to be covered up in the earth or walls or otherwise to be placed beyond the reach of measurement, in order that the work may be inspected or that correct measurement may be taken. In default of such notice, the same shall, at the discretion of ITIL or its representative, be uncovered and measured at the PIA's expenses. The work shall again be covered up at the PIA's expenses. Once finished work is inspected to ascertain the parameter

for digging and laying and OFC maintenance and the said work is found to be defective then the **PIA** shall bear the extra loss of redoing the OFC work.

3. **Time to Restore Fiber Cuts**.

(a) **Response Time**. The maximum response time is **01 (One)** Hour from the time alarm is generated in the NMS / fault is logged. The responsibility of informing the FRT regarding the occurrence of fault lies with the PIA's representative.

(b) **Localization Time**. The localization of fault will be done by GIS based RFTMS. In case GIS based RFTMS is faulty a localization time subject to maximum of 01 **(One)** hour will be permitted.

(c) **Vehicle Travel time**. The vehicle travel time will be defined by ITIL based on average travelling time from location of FRT to the faulty location of OFC.

(d) **Formula of Restoration Time**. Restoration Time = Response Time + Localization time + Vehicle Travel time + Repair time including excavation, splicing and covering up of Earth.

(e) **Restoration Time Limit**. The maximum restoration shall not exceed Five (05) hours in plains and shall not exceed 06(six) hours in hilly areas where approach roads are difficult.

(f) **Recording of Restoration of OFC**. Time taken from the time of generation of alarm in NMS / lodging the complaint to the PIA to the time of restoration of end-to-end traffic after rectification of OFC cut(s)/fault(s) including the traveling time will be logged in NMS. After restoration of the link, losses on the cable will be re- measured and entered in log and checked against the acceptable limits.

4. **Preventive Maintenance**

Preventive maintenance activities will be done by PIA monthly. Taking OTDR traces in all fibers, inspection and cleaning of all manholes / jointing pits etc as and when necessary (to be jointly decided by the ITIL and the PIA) will be done.

5. **Route Index Diagram (RID) of OFC Routes**. Maintenance of RIDs of the routes will be responsibility of PIA. One copy of RIDs of all OFC routes will be handed over to ITIL and the two sets will be reconciled by the 5th of each month. On termination of contract the RIDs will be handed over to ITIL.

6. Splicing involved in preventive action (aerial cabling splicing, taking OTDR traces etc.) will not be counted towards system outages but will be undertaken after permission of the ITIL. However, the same has to be converted to permanent within the stipulated timelines.

7. Preventive maintenance on the OFC routes will be carried out by the FRTs on daily basis subject to maximum running (of Vehicle) of 3600 Km per month and the same will be authenticated by the ITIL and will be at ITIL discretion.

8. **Logs**. Preventive maintenance activities will be logged in NMS and reviewed monthly and a satisfactory report needs to be signed by ITIL's representatives and Zonal manger during the monthly review meeting and forwarded to ITIL. The responsibility of maintaining the record will be with the Zonal Managers. The record will be put up periodically to the designated representative of the ITIL.

9. **PIA's Obligation**

PIA's obligations are as under:-

(a) **Location**. FRT will be located preferably on the OFC route on each stretch and will provide round the clock services. The deployment of FRTs and its locations will be finalized before commencement of the warranty during network AITP and will be approved by the ITIL.

(b) **Spares.** Spares for OFC include one time OFC spares, OFC for 20 % replacement (during the period of warranty and AMC) and spares for repair of OFC. PIA will cater for repair of at least 05 (five) fiber cuts to be maintained at one time with each of the FRTs. The stocking of these spares will be done at location in consultation and approval of ITIL. The spares should conform to latest TEC GR.

(c) **Liaison with other Agencies**. PIA will maintain good rapport and coordination with the entire local govt. & Non govt. bodies/ agencies, farmers, private construction agencies etc. to collect their plans, which may impact the OFC network in future.

(d) **Aerial Cabling**. During preventive maintenance as and when a network threatening activity is observed by PIA, necessary actions shall be undertaken by PIA to avoid fibre cut. However, if damage to OFC in a particular stretch cannot be avoided, the PIA shall create a shunt (aerial cabling) in time so that when the actual damage happens the network downtime is minimum that is equal to the splicing time involved at the two ends of the aerial cable. This is a preventive action. The cable used for this shall be aerial cable.

(e) **Permanent Restoration**. In case the site condition is not favorable for the immediate restoration of the fault, the temporary restoration of the OFC shall be carried out immediately. Permanent restoration of joint pits is to be carried out within **48 hours in plains and 96 hours in hills** from time of fault / OFC cut. Permanent restoration beyond 48/96 hours will be treated as outage and will attract penalties. Permanent restoration work of these temporary work/ joints will not be considered as breakdown time unless there is another cut during restoration job. In case the site is not conducive for permanent restoration within **48/96** hours arrangement of manpower will be done by PIA for safeguarding exposed OFC till permanent restoration. Penalty will not be imposed if delay is due to work by external agency like road widening, force majeure etc. However, Penalty will be applicable after the work by external agencies has been finished.

stipulated losses by laying overhead OFC initially which then shall be made underground on obtaining of fresh ROW permissions. The period from making the OFC functional on overhead OFC and the obtaining of fresh ROW permissions shall not be counted towards penalty on the PIA. The actual period required beyond the fresh ROW permission for laying/repair of underground OFC shall be decided by the ITIL in

consultation with vendor and the said period shall also not count towards penalty on the PIA.

(f) **Material Reconciliation**. It shall be the effort of the PIA to reduce wastage at every level. At the end of the specified work as per work order, ITIL would undertake a joint reconciliation of all the materials issued. The maximum allowable wastage for the various items are given below: -

(i) Conduits wastage not greater than 0.5%.
(ii) Cables wastage not greater than 0.5%.

(g) **Instruments and Tools**. Instruments and tools to include OTDR, Splicing Machine, Power Meter, Laser source, DG set (Compact Honda), Dewatering pump (compact ½ HP), Radiometer, Optical tool kit, Civil Tool kit, GSM Phone, Digital Camera, Electronic locator will be provided to each FRT. The equipment thus provided should be capable of handling the system with its specifications. **These instruments and tools will be replaced after every two years during the AMC period which amounts to total of 4 sets in complete life cycle of AMC**. On replacement, the old equipment will be handed over to ITIL. The PIA will ensure that the tools and test and measurement instrument of any FRT shall not be moved to any other FRT/sites/ works without permission of ITIL. Penalty for not providing the replacement items will be applicable if not delivered within 30 days of completion of second year, fourth year and sixth year of AMC. However, if the PIA fails to provide replacement in second, fourth and sixth years of AMC and the existing old equipment is faulty and remains so, then penalty shall be **1.5 times the deficiency of resource / equipment in FRTs.**

(h) The tools and test and measurement equipment provided by the PIA shall be inspected every month by ITIL's representative. If the quality of the tools or the technical standard (refer TEC GR) of any test and measurement instrument is found below average and declared so by the ITIL representative the PIA shall replace the instrument / tool with immediate effect.

(i) **OFC Parameters**. Before the commencement of the warranty ITIL and the PIA will tabulate the OTDR event and the power measurement of each stretch of OFC confirming to the technical requirements jointly and sign the same. Any variation of parameter for each fibre during the contract period shall be measured from this tabulation. Losses in dB will be the average loss over the route length measured on all the cores of fibres.

Ser No	OFC Route	Route Length in (km)	Losses in dB per core	Remarks

(j) **Damage to Other Cables / person / property etc**.

During the maintenance or fault rectification work, should any damage occur to any other cables, the complete cost of repair will be borne by the PIA. ITIL shall not be responsible or held liable for any damage to person or property consequently upon the use and or misuse or failure of any construction tools and equipment used by the PIA, even though such construction tools and equipment

may be furnished, rented or loaned by the PIA. The PIA accepts all responsibility in this connection and agrees to indemnify and save BUYER from any and all claims for said damages. In any case, the PIA shall be liable for all damages and consequences arising out of neglect in this regard.

(k) **Protection of Existing Plant and Equipment**. During construction activity by another PIA / agency, any plant, equipment or heavy machinery in the vicinity of ITIL's network, the PIA shall protect all existing structures, piping conduits, equipment and facilities of ITIL against damage.

(l) **Items with FRTs**. Items and material listed below will be placed at FRT locations for maintenance of OFC routes. In addition if any other item to maintain OFC is felt by ITIL / PIA it shall be incorporated in the list of items. Any additional items required by the FRT's will be provisioned by **PIA** without any additional cost. **PIA** shall arrange for logistics to provide facilities such as AC/DC power source, lighting arrangement, dewatering facility, DG sets etc., which may be required during the execution of maintenance job at the site.

Ser No.	Item Name	Quantity	Remarks
OFC Spare for maintenance (Stocked) (Location of spare to be decided in consultation with ITIL			
(i)	Unarmored composite OFC -24 Core NZDS metal free.	As reqd	As per BSNL TEC GR in vogue
(ii)	Aerial / composite OFC-24 Core NZDS metal free.	As reqd	As per BSNL TEC GR in vogue
(iii)	GI Pipes with minimum three holes per feet drilled in to the body to make it less vulnerable to theft	As reqd	Each of 20 ft. length and of 50 mm dia.
(iv)	500 Mtr. roll per drum of 40mm dia HDPE Duct of Gray, Blue and Purple colour (With stripes).	As reqd	
(v)	RCC Pipe - Half cut	As reqd	100mm dia, 1 mtr length
(vi)	RCC Pipe – Full	As reqd	100mm dia, 1 mtr length
(vii)	Splice Chambers	As reqd	As per Specification
(viii)	Route Markers	As reqd	As per Specification
(ix)	Cement Bags	As reqd	Best Quality
(x)	Ballies (up to 6 M)	As reqd	Best Quality

OFC Spare per FRT (For 05 Jointing at One go)			
(i)	Patch cords	As reqd	as specified by ITIL
(ii)	Couplers for HDPE Duct	As reqd	
(iii)	Simple Plug	As reqd	
(iv)	End Plug	As reqd	
(v)	Joint Closures	04 Nos	
(vi)	Mechanical Splices	100 Nos	
(vii)	Splicing sleeves	As reqd	
Instruments per FRT			
(i)	Vehicle	1	Light Vehicle, 3600 Km per month.
(ii)	OTDR	1	Latest TEC GR of BSNL in Vogue
(iii)	Splicing Machine	1	
(iv)	Power Meter	1	
(v)	DG Set	1	1.5 KVA portable – Honda Make
(vi)	Dewatering Pump	1	
(vii)	Rodo meter	1	Latest TEC GR of BSNL in Vogue
(viii)	Optical Tool Kit	1	
(ix)	Civil work tool	1	
(x)	GSM Phone	1	
(xi)	Digital Camera	1	
(xii)	Electronic Locator	1	Latest TEC GR of BSNL in Vogue
(xiii)	LASER Source	1	
Optical Tool Kit Per FRT			
(i)	Cable Sheath Cutter	2	
(ii)	Stripper	2	
(iii)	Cleaver	2	
(iv)	Ceramic Scissors	2	
(v)	Loose Tube Cutter	2	
(vi)	Fiber Cleaner	As Required	
(vii)	Visual Fault detector	1	
(viii)	Fiber Scope	1	
(ix)	Fiber Microscope	1	
(x)	Duct Cutter Simple	1	Preferably Taparia Make
(xi)	Duct Cutter Rotary	1	Preferably Duraline Make
(xii)	Chamfering Tool	1	Preferably Duraline Make, 1 each for 40/50/75mm
(xiii)	Allen Key Set	1 Set	Preferably Taparia Make

Civil work Tool Kit per FRT			
(i)	Mason Tool Kit	1 Set	
(ii)	Nylon Rope	500 mtr	Best Quality
(iii)	Tools for digging	2 each	Spades, Shovels, Pick-axe, Crow bar, Steel chain
(iv)	Emergency Light	1	With four hours' backup +S are batteries
(v)	Tent + Bamboo	1	Canvas/Tarpaulin waterproof Tent
(vi)	Warning Tape	500 mtr	Bright Color, work in progress printed
(vii)	Measuring Tape	100 mtr	

Note: -

1. All equipment / Vehicle to be approved by **ITIL** team will be inspected on regular basis. Any vehicle not being road worthy as communicated by **ITIL** team should be considered as non-availability of resource. Absence of any equipment as mentioned for each FRT during surprise inspection shall result in a suitable penalty per incident.

2. The tools and test and measurement instrument of any FRT shall not be moved to any other FRT / Sites / Work without written permission of ITIL representative.

10. **Penalties : OFC Maintenance any FRTs** - Penalties on account of any deficiency or deviation of OFC Maintenance are as under –

Ser No.	Category	Description	Amount (Rs)	Frequency
(a)	Manpower of FRT	If any manpower of FRT is not available penalty shall be levied on **PIA**.	Rs 9365	Per day per person
(b)	Resources/ equipment of FRT	If any equipment and resources of FRT is not available, penalty shall be levied per equipment/ resource not available.	Rs 9365	Per day
(c)	Vehicle	If vehicle of FRT is not available to **ITIL**	Rs 9365	Per vehicle per day

		without replacement, penalty shall be levied .		
(d)	Response time	In case the **PIA** fails to mobilize the FRT team to proceed to the fault location within one hour of the intimation of the fault by system / **ITIL**, penalty would be levied .	Rs 9365	Per hour per Incident till the FRT reaches the location
(e)	Not following official timings	FRT manpower absent for certain duration in a day during official timing will attract penal deductions.	Rs 234	Per hour per individual
(f)	Emergency situation	FRT manpower not reporting within 01(one) hour when called in emergency situation (off duty hours) will attract penal deductions	Rs 468	Per hour per individual
(g)	Penalty for Violation of Restoration time(MTTR)	In the event that rectification is delayed beyond the restoration time specified in the contract for any reasons attributable to the **PIA**, penalty will be imposed.	Rs 9365	Per incident Per day up to 72 hours and additional penalty of Rs 936 pe day overand above per day penalty.
(h)	Permanent Restoration	The time defined for permanent restoration 48/96 hours is not adhered to then a penalty would be levied	Rs 9365	Per incident Per day up to 72 hours and additional penalty of Rs 936 perday over and above per day penalty.
		If the splice losses in the fiber spliced in a cable during		

(j)	Splicing	any fault on an average are not limited to 0.05 dB then penalty will be imposed.	Rs 9365	Per instance per joint
(k)	Preventive Maintenance	Inability on the part of **PIA** to perform regular preventive O&M activity as per schedule mentioned	Rs 18730	Per incident
(l)	Unreasonable Degradation of OFC parameters	Cumulative loss including dispersion and jointing losses should not increase beyond 1 dB over any section of OFC route. (For example, if the loss increases between 1.01 to 2.0 dB the penalty would be 2.8 lakhs and in case the losses are between 2.01 to 3.0 dB the penalty would be 5.6 lakhs and so on).	Any violation, as a result of the repair of the cable or due to any other reason, shall invite a penalty of 2.8 lakhs per additional dB loss or part thereof	Per incident

PART IV - OTHER TERMS AND CONDITIONS

1. **Non Disclosure of Contract Documents**. Except with the written consent of the BUYER, other party shall not disclose the contract or any provision, specification, plan, design, pattern, sample or information thereof to any third party.
2. **Warranty of Item supplied during AMC Period**. The PIA warrants that the goods supplied under this AMC conform to technical specifications prescribed for equipment and shall perform according to the said technical specifications. The PIA warrants for a period of 24 months from the date of Final AITP, that the goods / stores supplied under this AMC and each component used during AMC shall be free from all types of defects / failures. If within the period of warranty, the goods are reported by the BUYER / ITIL to have failed to perform as per the specifications, the PIA shall either replace or rectify the same free of charge, maximum within 30 days of notification of such defect received by the PIA, provided that the goods are used and maintained by the ITIL as per instructions. Warranty of the equipment would be extended by such duration of downtime. Record of the down time would be maintained in NMS / by ITIL in logbook. Spares required for warranty repairs shall be provided free of cost by PIA.
3. **Performance cum Warranty Bank Guarantee**. A performance cum warranty Bank Guarantee (PWBG) bond equal to 5% (Five percent) of total project cost will be furnished in form of bank guarantee through public sector bank or private sector bank authorized by RBI, in favor of ITI Limited , Bangalore by the PIA. This shall cover up to period of warranty.
4. **Performance Bank Guarantee for AMC**. A Performance Bank Guarantee (PBG) for AMC period amounting to 5 % (Five percent) of Total AMC cost will be issued in form of Bank Guarantee will be furnished by PIA in favor of ITI Limited , Bangalore through public sector bank or private sector bank authorized by RBI. Advice of State Bank of India or any other back for confirmation of same is not required. The performance bank guarantee will remain valid up to 90 days after expiry of AMC period. In case, any claim or any other contractual obligations are outstanding, the PIA will extend the bond as asked by BUYER till such time the PIA settles all claims and completes contractual obligations. The performance bank guarantee bond will be subject to encashment by the BUYER, in case, conditions regarding adherence to warranty, delivery schedule, settlement of claim and other provisions of AMC are not fulfilled by the PIA.
5. **Payment procedure, Recovery of Liquidity Damage Charges, Penalties etc**.

   (a) **Payment procedure**. Payments will be made on **quarterly basis** during the time of AMC. The penal deductions will be calculated per quarter by respective Commanding Officers of the Network Signal Regiment /**ITIL** representative. The bills will be forwarded to **ITIL** for further processing.

   (b) **The LD's/Penalties Imposed during AMC period**. All LD's/penalties will be imposed on **PIA** on quarterly basis except for system Uptime.

   (c) **System Uptime Penalty**. The Penalty for maintaining the required system uptime will be imposed at the end of AMC year and will be adjusted against the payment of 4th quarter, once of the system uptime availability of the year is ascertained.

   (d) In case the AMC contract is awarded to the 3rdparty due to any reasons as deemed suitable to the BUYER, the LD/penalty applicable to PIA will be recovered for the pending bill / Performance Bank Guarantee submitted by the PIA.

6. **Sub Contract**. The **PIA** shall not sub-contract any part or the whole of the work. The PIA has no right to give, bargain, sell assign or sublet or otherwise dispose of the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the present contract or any part thereof. AMC will be governed by article of transfer and subletting as given in main contract document (Refer Article 27).

7. **Annual Lineup / Technical inspection**. Annual line up and technical inspection will be carried out Unit wise and or Zone wise or as defined by ITIL. All system parameters and network performance parameters if required by ITIL will be checked and optimization for performance / realignment / readjustment to meet the performance parameters will be done before the inspection including that of Test and measurement equipment.

8. **Log Book Maintenance**. All equipment will have log books. The faulty equipment/modules/cards shall have the Log book entry indicating the nature of the problem experienced, giving detailed information and fault diagnosis. The maintenance of log books shall be the responsibility of the PIA. The log books will be inspected by Zonal managers and managers during monthly visits.

9. **Packaging and Transportation**. PIA shall provide packing and transportation of the equipment/modules/cards in accordance with generally accepted methods for international shipping. PIA shall be responsible for any damage in transit.

10. **Training**. The PIA will train sufficient number of personnel of ITIL annually with the periodicity mutually agreed upon (in coordination with ITIL). Practical training will be imparted to ITIL personnel in the field by PIA engineers. The syllabus for training will be prepared by PIA in consultation with ITIL. ITIL will arrange the training place with all necessary resources like projector along with equipment/access to network.

11. **Communication**. PIA shall provide communication facilities to the maintenance teams. This shall include landline phone at office location and mobile phone to members of the maintenance teams for the purpose of contacting on an urgent need basis. The team-in-charge shall have mobile phone of mobile operator whose coverage is available in the desired section and it should be always being on.

12. **Octroi**. Any tax implications including octroi etc. during the transport within the territory shall be the responsibility of the PIA. No certificate in this regard shall be handed to PIA by ITIL. During the currency of the contract, the PIA shall be responsible for the safe custody of such materials till the final installation and will make good, any shortages/ damages which occur during transportation to the sites / storage at its cost.

13. **Product Support.** The PIA is bound by a condition that he is in a position to provide product support in terms of maintenance, materials and spares for a minimum period of eight years post warranty, including extended warranty, if any. Even after the said mandatory period, the PIA/OEM is bound to give at least two years notice to **the ITI Limited** prior to closing the production line so as to enable a Life Time Buy of all spares before closure of the said production line.

14. **Theft of Assets**. In case of theft/loss/damage to equipment/materials while in the custody of the PIA, BUYER shall assess and recover an amount equivalent to the loss incurred. This recovery shall be made against payments to PIA against various bills and various Bank Guarantees submitted by the PIA.

15. **Reporting of Theft and FIR.** Theft Incident Report shall be submitted by the **PIA** to concerned police station and photos taken immediately on the spot. FIR should be taken from concerned police station and submitted to the **ITIL.** If and when, the police station ask for signatures of ITIL representatives for registering the FIR, the same to be facilitated by ITIL.Optical Fiber Cable damage or theft / HDPE damage / manhole lid damage and the replacement of such Optical Fiber Cable are the responsibility of PIA.

16. **Patents and Other Industrial Rights**. The prices stated in the present contract shall be deemed to include all amounts payable for the use of patents, copyrights, registered charges, trademarks and payments for any other industrial property rights. The PIA shall indemnify the BUYER against all claims from a third party at any time on account of the infringement of any or all the rights mentioned in the previous paragraphs, whether such claims arise in respect of manufacture or use. The PIA shall be responsible for the completion of the supplies including spares & training irrespective of the fact of infringement of any or all the rights mentioned above.

17. **Penalty for Use of Undue Influence**. The PIA undertakes that he has not given, offered or promised to give, directly or indirectly any gift, consideration, reward, commission, fees brokerage or inducement to any person in service of the BUYER or otherwise in procuring the Contracts or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the contract or any other Contract with the Government for showing or forbearing to show favour or dis-favour to any person in relation to the contract or any other contract with the government. Any breach of the aforesaid undertaking by the PIA or any one employed by him or acting on his behalf (whether with or without the knowledge of the PIA) or the commission of any offers by the PIA or anyone employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1947 or any other act enacted for the prevention of corruption shall entitle the BUYER to cancel the contract and all or any other contracts with the PIA and recover from the PIA the amount of any loss arising from such cancellation. A decision of BUYER or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the PIA.

18. Giving or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the PIA towards any officer / employee of the BUYER or to any other person in a position to influence any officer / employee of the BUYER for showing any favour in relation to this or any other contract shall render the PIA to such liability / penalty as the BUYER may deem proper, including but not limited to termination of the contract, imposition of penal damages, forfeiture of the Bank Guarantee and refund of the amounts paid by the BUYER.

19. **Agents Agency Commission**. The PIA confirms that he has not engaged any individual or firm, whether Indian or foreign whatsoever, to intercede, facilitate or in any way to recommend to the Government of India or any of its functionaries, whether officially or unofficially, to the award of the contract to the PIA; nor has any amount been paid, promised or intended to be paid to any such individual or firm in respect of any such intercession, facilitation or recommendation. The PIA agrees that if it is established at any time to the satisfaction of the BUYER that the present declaration is in any way incorrect or if at a later stage it is discovered by the BUYER that the PIA has engaged any such individual / firm, and paid or intended to pay any amount, gift, reward, fees, commission or consideration to such person, party, firm or institution, whether before or after the signing of this contract, the PIA will be liable to refund that amount to the BUYER. The PIA will also be debarred from entering into any supply contract with the

Government of India for a minimum period of five years. The BUYER will also have a right to consider cancellation of the contract either wholly or in part, without any entitlement or compensation to the PIA who shall in such event be liable to refund all payments made by the BUYER in terms of the contract along with interest at the rate of 2% per annum above PLR rate. The BUYER will also have the right to recover any such amount from any contract concluded earlier with the Government of India.

20. **Access to Book of Accounts**. In case it is found to the satisfaction of the BUYER that the PIA has engaged an Agent or paid commission or influenced any person to obtain the contract as described in clauses relating to agents / agency commission and penalty for use of undue influence, the PIA, on a specific request of the BUYER shall provide necessary information / inspection of the relevant financial documents / information.

21. **Indemnification**. The PIA hereby releases and shall indemnify, defend and hold harmless the BUYER and its subsidiaries and affiliates and their officers, agents, employees, successors and assignees and authorized representatives against any and all suits, actions, legal or administrative proceedings, claims, damages, liabilities, interests, attorney's fees, costs and expenses of whatsoever kind or nature, including those arising out of damage to property (including but not limited to property of third parties, principal) and injury to or death of persons (including but not limited to the PIAs, employees and third parties) whether arising during or after completion of the work hereunder directly or indirectly caused, occasioned, or contributed to in or whole or in part, or claim to be caused, occasioned or contributed to in whole or in part, by reason of any act, omission, fault or negligence whether active or passive of the PIAs, sub- PIAs or of any one acting under its direction or control or on its behalf in connection with or incidental to this contract. The PIA shall pay and meet all expenses including legal costs incurred by BUYER in responding to and defending all such claims and the PIA shall meet and pay all damages awarded against BUYER and keep BUYER harmless and indemnify to the fullest extent. There will not be any claim insurance BUYER such amount shall be borne by the PIA himself. In the event, BUYER is required to pay any royalty, penalty or other sum by whatever name known to any of its contracting partners or agencies, either on account of time over runs or the project not being made operational in full by the PIA, or suffering any other disability, loss, damage or other inconvenience, on account of any delays or lapses in executing the project and rendering it fully operational, for any reasons not attribute directly to BUYER, the PIA agrees and undertake to indemnify, keep indemnify and save harmless BUYER from all such costs, damages, expenses, disability.

22. **Risk Purchase**. In the event the PIA fails to execute the work as per agreed productivity/ quality norms of works as mentioned elsewhere in this contract and timelines, BUYER after giving one week notice to the PIA can get executed/ re- executed the work through any other PIA /sub PIA / agencies as BUYER deems fit and at the costs and expenses of the PIA, provided however that the estimated cost for execution of such work as certified by the BUYER representative shall be less than the proportionate contract price. The benefit, there from, shall be to BUYER account. And if the same shall be estimated more than the proportionate contract price, the excess amount incurred by BUYER in this connection shall be reimbursed by the PIA, which may be adjusted by the BUYER against any outstanding dues payable to the PIA under this contract. BUYER shall have the right to retain and hold in its custody and possession of all requisite equipment, materials, tackles, machinery etc. belonging to the PIA in connection with the work, as it deems necessary so as to put them in use in the event the PIA does not perform/ fails to fulfill his obligations as per this agreement, or his

workmanship is found to be substandard or not as per specifications of BUYER, at any point of time during the tenure of this agreement. BUYER shall be at liberty to sell the materials belonging to the PIA if in the opinion of BUYER, it is necessary to avoid any loss / hardship/ damages that may be incurred by BUYER on account of the PIAS failure to execute the work to the satisfaction of BUYER.

23. **War time Support**. PIA shall extend its maintenance support during war time also. However, safety of the movement of materials and personnel of both PIA shall be the responsibility of the BUYER. The movement includes the journey from station and also from zone to zone. The security and safety of the personnel shall be the responsibility of the BUYER. The BUYER shall provide adequate escort till the job is completed and the personnel are shifted to safer place after the completion of the job.

24. **Cancellation of AMC**. In the event of the cancellation of the AMC at the behest of the BUYER due to non-performance or any other reason, the BUYER shall reserve the right to award the AMC to a third party. The ITIL shall make good the difference in amounts payable to the third party, the recovery of which shall be decided by the BUYER.

FIBRE REPAIR TEAM(FRT) consisting of Following –

Ser No.	Description of Resource
1	Supervisor
2	Splicer
3	Driver
4	labour (02)
5	Lt Vehicle depreciated amount per year
6	Fuel Charges for 3600Kms / month @ Rs. 12.50 per kms@75 Rs per litre ,@ 06 kmpl average of vehicle
7	Maintenance Charges for FRT vehicles
8	Instruments & Tools
9	One time OFC spares
10	Specialized Engineers for OFC maintenance for every 5 FRTs

Note:-

1. The cost breakdown has been extracted from CNC and given here to bring out the various heads of Establishment cost. Discounts offered under this head have not been factored and accounted. It is only to give the analytical breakdown under this head.
2. For subsequent years the cost is escalated by a factor of 5.5 % per year.

PENALTIES: OFC MAINTENANCE

1. The sample calculation for penalties for OFC maintenance is given below –

Ser No.	Category	Description	Amount
(a)	Manpower of FRT	Number of days absent by any employee in the month (monthly cycle)=05 days Over quarter such absentees - 10 days	9365 x 10 = Rs 93650
(b)	Resources/equipment of FRT	02 x contractually agreed resource / equipment in one FRT is not available for 03 days in one quarter. **Note**: List of agreed resources has to be carried by per FRT is mentioned under OFC Maintenance.	9365 x 02 (Number of resources) x 03 (No of days) = Rs 56190
(c)	Vehicle	Number of days for which FRT vehicle for one FRT is not available in one quarter = 04 Number of days for which another FRT vehicle is not available in one quarter = 06	(i) 9365 x 10 (No of days vehicles not available) = Rs 93650
(d)	Response time	(i) Alarm on OFC breakage/ Informed by ITIL at 20:00 Hrs. (ii) FRT reached at fault location (travel time is say 2 hours) at 23:30 hrs. (iii) Total late Response = 23:30hrs - 20:00hrs - 60 min (permitted response time) - Travel Time (02 Hours) = 1/2 hours.	9365 x 1 (Per hours late after permitted time) = Rs 9365
(e)	Not following official timing	(i) 01 person of FRT reported late at respective Node at 1030 hours. (ii) Entire FRT left the Node early at 1630 hours. (iii) Total hours of absence = (01 person x 01 hours) + 06 (members of FRT including specialist Engineer) x 01 (left Early by an hour) = 07 hours. (iv) Total hours of absent in that quarter by adding such incidents	Total penalty = 234 x 07 = Rs 1638

		are say 07 hours only.	
(f)	Emergency situation	Incident occurred and alarm raised at say 2250 hours. FRT reported at the location at 0300 hours next day. A delay of one (01) hour from expected response time as calculated for para (d).	9365 x 01 =Rs 9365
(g)	Penalty for violation of Restoration time (MTTR)	(i) Suppose the fault is reported / alarm generated at 0600 hours for a cut at a location which is four hours from the node in plains (travelling time). The fault is restored at 1800 Hours. Total time taken is 12 hours including response time of 01 hour of FRT and travel time of 04 hours as ascertained by ITIL and localization one hour and restoration time is 05 hours. The total delay is of 02 hours then. Converted in to day (= 01 day). (ii) Suppose the delay is 98 hours then penalty would be as – Upto 72 hours – 9365 Beyond 72 hours - 9365 + 936	(i) 9365 x 01 =Rs 9365 (ii) 9365 x 03 + 10301 x 2 + = Rs 48697
(h)	Permanent Restoration	Same as above except that permanent restoration time is 48/96 hours for plains/ mountains. This penalty is independent of penalty for violations of restoration time.	Calculation same as above
(j)	Splicing	(i) If the reading of losses after a joint in afiber increases by 0.05 dB or more, then penalty will be imposed. Regular log of losses per link will be maintained by Zonal managers and ITIL representatives. In case of discrepancy the log book of ITIL will be authority. (ii) If the reading of loss after the splice is 0.05 dBor more in three joints. Penalty will be imposed as given.	Rs 9365 x 03 (Number of joints having 0.05 dB or more loss) = 28095

(k)	Unreasonable Degradation of OFC parameter s	Cumulative loss including dispersion and jointing losses should not increase beyond 1 dB over any section of OFC route. (i) If the loss increases in dB over a section between 1.01 to 2.0 dB. (ii) If the losses increases and increase of loss is between 2.01 to 3.0 dB.	(i) 2.8 Lakhs (ii) 5.6 Lakhs And so on
(l)	Preventive Maintenance	Say the ITIL represents informs that one incidence of preventive maintenance has not been adhered by the FRT.	Rs 18730

ANNEXURE - IX

FORM OF BID-SECURING DECLARATION

Date:

[RFP No…….]

To
The ITI LIMITED
NS Unit
Bengaluru 560016

We, the undersigned declare that:

We understand that, according to your conditions, Bids must be supported by a Bid-securing Declaration.

We accept that we are required to pay the bid security amount specified in the Term and Condition, failure to do so will automatically exclude us from being eligible for Bidding or submitting Bid in any contract with the
employer for the period of two years if we are in breach of our obligation(s) under the term and condition
prescribe for ticketing vide invitation letter no: …….

a) Have withdrawn our Bid during the period of Bid validity specified by the Bidder in the Form of Bid; or
b) Having not accepted the correction of errors in accordance with the instructions to Bidders ITB or
c) Having been notified of the acceptance of our Bid by the Employer during the period of Bid validity.
i) Fail or refuse to furnish the performance security in accordance with the ITT, or
ii) Fail or refuse to execute the contract in accordance with the ITB.
We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier
of
i) Our receipt of your notification to us of the name of the successful Bidder: or
ii) Thirty (30) days after the expiration of our Bid.

Sign and Seal
Name of Authorized Official
Legal Stamp

ANNEXURE - X

PERFORMA OF AGREEMENT

An AGREEMENT made this day the-- Between
…… …….. (hereinafter called the "CONTRACTORS") of the first part and M/s ITI LIMITED, ……(hereinafter called the "COMPANY") of the second part.

Whereas the Contractors have by tender dated----------offered to execute and fullycomplete the intended works in connection with the
……for the company as set forth in the tender as amended and the drawings, general conditions, special conditions, specifications, bill of quantities and schedule hereto annexed according to the terms, obligations and conditions therein contained at and for an approximate total sum of Rs.
……(Rupees……
…….....……) and company has accepted such itemized rate tender in terms of its letter no
…… Dated ……

Now this AGREEMENT witnessed as follows:

1. The CONTRACTORS covenant and agree with the COMPANY that the CONTRACTORS will within the time of…….. months from the date stipulated in the work order and in the manner and pursuant and subject to all and singular the terms, obligations and conditions in the said tender as amended and the drawings, general conditions, special conditions, specifications, bill of quantities and schedule provide, contained and referred to execute and fully complete all and singular the works specified, described or referred to in and by the said tender as amended and the drawings , general conditions, special conditions, specifications, bill of quantities and schedule and will well truly observe, perform, fulfill, submit to and keep all the said terms, obligations, conditions, and matters in the said tender as amended and drawings general conditions, special conditions, specifications, bill of quantities and schedule contained and referred to and on the partof the CONTRACTORS to be observed, performed, fulfilled, submitted to or kept according to the true intent and meaning of the said tender as amended and the drawings general conditions, special conditions, specifications, bill of quantities and schedule. Any items not covered by the tendered rates will be worked out as per special conditions attached to the tender documents.

2. In case the work is not completed in the manner mentioned above to the complete satisfaction ofthe COMPANY in every respect within the aforesaid time limit of Months from the stipulated in the work order, the CONTRACTORS agree to pay a penalty of % of the value of the work order for each week of delay beyond the date stipulated for the completion, subject,however to a maximum of % of the work order. It is agreed that time is the essence of the contract.

3. In consideration of the premises the COMPANY covenants with the CONTRACTORS that it will pay to the CONTRACTORS at the several times and in the sums, proportions and manner in thesaid, general conditions, special conditions in that behalf provided the amount accruing from timeto time, but subject to Conditions therein contained.

4. This agreement further witnessed that the CONTRACTORS hereby covenant with the COMPANY that in the event of the non-fulfillment in any respect by the CONTRACTORS of the said covenants, terms, agreements, obligations will pay to the COMPANY all loss, damages, costs, charges and expenses as the COMPANY may be directly or indirectly put to in consequence of such non-fulfillment by the CONTRACTORS.

5. If the CONTRACTOR fail to perform the contract or carry out the contract to the satisfaction of the COMPANY within the period fixed for the purpose or at any time repudiates the contract before the expiry of such period, the General Manager or any officer of the COMPANY so authorized may, without prejudice to the right of the COMPANY to recover from the contactors damages for the breach of the contract, terminate the contract as the whole or terminate a part of the contract at the risk and cost of the CONTRACTORS without prior notice and get the balance work executed through some other agencies and held the CONTRACTORS liable for all the losses and expenses incurred by the COMPANY. The decision of the General Manager is final with regard to the satisfactory performance of the Contract and is binding on both the parties.

6. In the event of any disputes arising in connection with this contract, it is further agreed that such disputes shall be referred to the sole arbitrator as per the arbitration clause in the general terms and conditions of the contract.

7. The following documents are deemed to form Part and parcel of the agreement viz., the tender dated……and letter no…….. dated……..the general terms and conditions, special conditions, the specifications,the priced bill of quantities, the schedule of rates and dated… all of which for the purpose of identification have been signed by the…….. ……..on the behalf of the COMPANY, and…….. on behalf of acceptance and all letters referred therein will also form a part of this agreement.

8. This agreement further witnessed that the CONTRACTORS are responsible for any accident or other compensation payable to the workman employed by the working under the control of CONTRACTORS that the COMPANY has no sort of liability in the matter, and that if any payment would have to be made by the COMPANY, the same shall be reimbursed by the CONTRACTORS.

In witness where of the said parties here to have hereunto set their hands.

For, ITI LIMITED	For,
Authorized Signatory	PROPRIETOR

Witnesses:

1. ……

2. ……

Witnesses:

1. ……

2. ……

Place:
Date:

Annexure-XI

SITE VISIT CERTIFICATE

Name of Work: _____
Tender No.: _____
Project:
_____
Company Name: _____
Location(s): _____
Site Visit Date: _____

This is to certify and confirm that authorized representatives of M/s _____ have jointly visited and inspected the above-mentioned site/link along with the authorized representative of ITI Limited in connection with the above-mentioned work and for the purpose of assessing the site conditions for participation in Tender No. _____.

We hereby confirm that the site survey has been completed based on the actual conditions prevailing at the site. During the site visit/survey, the following aspects, among others, have been assessed and taken into consideration:

1. Right of Way (RoW) conditions along the proposed route/link.
2. Local hindrances and site constraints, if any.
3. Accessibility and feasibility of the proposed route/link.
4. Existing site conditions relevant to execution of the work.
5. Other local conditions that may have an impact on successful execution of the work.

The bidder confirms that the above site conditions have been duly examined and considered while preparing and submitting the bid. The bidder shall not subsequently claim lack of knowledge of the site conditions, RoW conditions, local hindrances, or other constraints observed or reasonably ascertainable during the site survey.

For the Bidder

Signature:

_____

Name:

_____

_

Designation:

_____

ANNEXURE - XII

हिंदी केवल एक भाषा नहीं बल्कि हमारी राष्ट्रीय पहचान है।

Azadi Ka Amrit Mahotsav

आईटीआई लिमिटेड
नेटवर्क सिस्टम्स यूनिट - वित्त
दूरवाणीनगर, बेंगलूरु - 560 016, भारत
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: +91 (80) 2565 1714
ई.मेल : cfm_nsu@itiltd.co.in
वेबसाइट : www.itiltd.in
CIN No. : L32202KA1950GOI000640

ITI LIMITED
Network Systems Unit - Finance
Dooravaninagar
Bengaluru-560 016, India.
Tel : +91 (80) 2566 0503
: +91 (80) 2565 1714
E-mail : cfm_nsu@itiltd.co.in
Website : www.itiltd.in
GSTIN No. : 29AAACI4625C2ZU

RTGS/NEFT/ECS Mandate Form

1	Name of the Beneficiary	M/s ITI Limited - Network Systems Unit
2	Beneficiary Address	Regd. & Corporate Office, ITI Bhavan, Dooravaninagar, Bangalore 560016
3	Bank Account No.	10637729843
4	IFSC Code	SBIN0009077
5	a) Bank Name	State Bank of India
	b) Branch Name	Industrial Finance Branch
	c) Branch Address	Residency Road, Bangalore - 560025
6	Type of Account	CC Account
7	PAN No.	AAACI4625C
8	Bank MICR Code	560002059

I do hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, the purchaser will not be responsible.

Kanchana

Date: 12/06/2024

Authorised Signatories
KANCHANA
Dy. Finance Manager
Network Systems Unit,
ITI Limited, Doorvaninagar,
Bangalore - 560016

Certified that the particulars furnished above are correct as per our records.

For STATE BANK OF INDIA
Manager
I.F.B., BENGALURU - 560 025

Date:

Signature of Bank Manager
With Bank Seal

Annexure C

Ref: NSU 6H 66H Dtd.27.08.2026 **Price Bid**

(I). MAIN SUPPLY & SERVICE ITEMS:

Sl.No.	Item Description	Link Name/(Via)	Link Trench Length (KM)	Quoted Rates Per KM (Rs)	Itemized Value (Qty x Rates)	% of GST	GST Amount in INR	Total Value in INR
			A	B	C=A x B		D	C+D
1	Execution (Complete with supply of items and Services as per SoW & Specs) including One year warranty/Defect liabilty period	3.6.22	39					
2	Maintenance of OFC during Warrantyfor 2 Years (Optional)	Complete route,executed by the PIA	39					
3	**TOTAL, Itemized Bid Value (X)**							

(II). Incidental Supply & Service Item (on need basis, after specific approval of the User):

Sl.No.	Items	Qty (KM)	Quoted Rate (Rs.) per KM	Value	% of GST	GST Amount in INR	Total Value in INR
		(a)	(b)	(c)=(a)x(b)		(d)	(c)+(d)
(i)	Erection of Aerial OFC Alignment, complete with material as per Specs. (Cable supply by ITIL)	Total Estimated Route KMs 10 KMs					
(ii)	Total Assessed Quote **(Y)**						
	OVERALL WEIGHTED BID PRICE FOR the "Working Zone ": X+Y						

Note:

a) Link details provided are for estimation purposes. Exact locations, distances (RKM) and other parameters/attributes needs to be ascertained by the bidder after reconciling with the list, receivable under NDA.

b) The Quantities and Weights applied to quoted bid prices are only indicative and assumptive to assess the comparative ranking. Actual quantities may vary as per actual site and work conditions.

27/08/2026

Annexure D

Additional instructions:

Sr. No	Events	Dates and descriptions	
1	Pre-bid training (Auction) to the intending bidders for online bidding by M/s.ITI Limited. Interested bidders can contact support numbers of M/s.ITI Limited.	Will be intimated to bidders by Corrigendum	
2	Auction Extension Details	Number of extension: Will be intimated to bidders by Corrigendum Prior Extension in Minutes : Will be intimated to bidders by Corrigendum Extension time in Minutes : Will be intimated to bidders by Corrigendum	
3	**Scheduled Date** & time of opening and closing of Reverse Auction	**Opening at** Will be intimated to bidders by Corrigendum	**Closing at** Will be intimated to bidders by Corrigendum
4.a	Minimum Bid Decrement(Rs.)	Will be intimated to bidders by Corrigendum	
4.b	Starting Bid(Rs.)	Will be intimated to bidders by Corrigendum	
4.c	Maximum Allowed Decrement	Will be intimated to bidders by Corrigendum	
5	Intimation for securing the position of the L-1 Bidder (Lowest bidder)	Will be intimated to bidders by Corrigendum	
6	Return of EMD of unsuccessful Bidders	As per NIT Conditions	

Contact details of e-Wizard portal support team

Sl No	Name	Indicative Territory	Contact Details	Email ID
1	Mr. Gagan T S	-	+91 8448288987	eprochelpdesk.01@gmail.com
2	Mrs. Sujatha K	-	+91 8448288989	eprochelpdesk.101@gmail.com
3	Mr. Chaitanya Y	-	+91 8448288985	eprochelpdesk.03@gmail.com
4	Mr. Nittin S	-	+91 8448288986	eprochelpdesk.44@gmail.com