



ITI LIMITED

Network Systems Unit
(A Govt. of India Undertaking)
Dooravaninagar. P.O. Bengaluru – 560 016
Tel : 080-25662284, 25650054
www.itiltld.in

TENDER DOCUMENT

Ref No: ITI/NSU PROJ/GFGNL /GIS/01

Date: 22 Apr 2021

TENDER FOR SELECTION OF “PROJECT IMPLEMENTATION AGENCY” (PIA) FOR GIS DATA COMPATIBILITY SOLUTION DELIVERY WITH PLATFORMS OF GFGNL& BBNL. UPLOADING THE GIS DATA OF BHARATNET PHASE 2 PROJECT IN STATE OF GUJARAT UNDER GFGNL (Package A) IN GIS SYSTEM OF BBNL

The Tender will be received up to 1215 hrs on 30 Apr 2021 and opened on the same date i.e., 30 Apr 2021 at 1300 hrs

**GM - Projects (Network Systems Unit)
ITI Limited
F-100, West Wing,
Dooravaninagar, Bangalore-560016**

CONTENT

		Page No.
Chapter 1	Introduction	3
Chapter 2	Eligibility Conditions for The Bidders	4
Chapter 3	Scope of Work	6
Chapter 4	Delivery, Payment Terms and Penalties	9
Chapter 5	Bid Fees and Bid Submission and Other Terms	11
Chapter 6	General Conditions of Contracts	17
Annexure- I	Bank Guarantee Proforma	40
Annexure -II	Pre-Contract Integrity Pact	42
Annexure-III	Proforma of Agreement	50
Annexure- IV	Declaration of Tenderers	52
Annexure -V	Non-Disclosure Agreement	53
Annexure – VI	Declaration that the Bidder has not been Black listed / Debarred	57
Annexure – VII	Form for Bid Securing Declaration	58
Annexure -VIII	Technical Specification of GIS mapping of OFC Routes for BharatNet on BBNL GIS portal	59

**Network System Unit
ITI Limited
Dooravaninagar, Bangalore – 560016**

TENDER FOR SELECTION OF “PROJECT IMPLEMENTATION AGENCY” (PIA) FOR GIS DATA COMPATIBILITY SOLUTION DELIVERY WITH PLATFORMS OF GFGNL& BBNL. UPLOADING THE GIS DATA OF BHARATNET PHASE 2 PROJECT IN STATE OF GUJARAT UNDER GFGNL (Package A) IN GIS SYSTEM OF BBNL

CHAPTER 1 – INTRODUCTION

- 1.1 ITI Limited, a Central Public Sector Undertaking under the Department of Telecommunications, Ministry of Communications & IT, is a leading Telecom equipment manufacturer and solution provider in India.
- 1.2 ITI Limited is the successful bidder and PIA for BharatNet Phase 2 at Gujarat. BharatNet Phase 2 project at Gujarat is a state led model and executed in partnership via MoU between BBNL, a Government of India undertaking funded by USOF and administrated by DOT being respective functionaries of Government of India and that of Government of Gujarat SPV known as Gujarat Fiber Grid Limited (GFGNL).
- 1.3 “BharatNet Phase 2, Gujarat Package A” part of BBNL state led model is henceforth addressed as “GFGNL Package A” in context of ITI Limited being the successful bidder and PIA for GFGNL Package A.
- 1.4 ITI Limited Invites technical and commercial tender proposal from Technology Firms and service providers in the domain of GIS implementation, GIS platform creators, licensors, operators, developers, GIS data base processors & aggregators to participate and contribute to the need & deliver GIS Data compatibility implementation between two existing platforms that of GFGNL GIS Package A and existing BBNL GIS platform.
- 1.5 ITI now invites tenders from interested Project Implementation Agency” PIA” (“Bidders”) for GIS data compatibility solution delivery with platforms of GFGNL& BBNL. For the purpose of uploading GIS data of the OFC Network with approximately 18000 KM consist of 223 OLT’s and 4261 ONT’s.

CHAPTER 2 – ELIGIBILITY CONDITIONS FOR THE BIDDERS

- 2.1. The Bid can be submitted by a Sole Bidder. The Bidder must be an Indian registered company and GST registered and should have at least 3 years of operations in India as on bid submission date.
- 2.2. The bidder's Average Annual Financial **Turnover** of at least Rs. 1 Crore during the last 3 audited financial years (2017-18, 2018-19 and 2019-20) ending 31st March-2020.
- 2.3. The Bidder should be a profit making company in each of the last three years.
- 2.4. The Bidder should have positive net worth as of 31st March 2020.
- 2.5. Audited and certified financial statements, including Audited Annual Reports shall be submitted as proof for eligibility conditions as above.
- 2.6. The Bidder should have an experience in GIS mapping & GIS tools and should have done GIS projects for Telecom/Utilities for above product and Solutions in the last three financial years (2017-18, 2018-19 and 2019-20). Documents in the form of certificates from customers for having executed should produce documentary evidence (work completion certificate mentioning the quantity) of past or current other work orders or purchase order and project completion / project ongoing certificates in any utility domain of GIS activity like telecom, oil & gas, electricity grid, mines, minerals mapping etc.
- 2.7. The Bidder should have at least 2 years of minimum experience in utilities asset mapping prominent in GIS platforms like ESRI ArcGIS., Batch Geo. Google Earth Pro., ArcGIS Online., ArcMap. Google Maps API., Maptitude., ArcGIS Pro., MapInfo Pro., QGIS., Google Places etc. A record or documentary evidence of such capability and inclusion in any of the platform listed to be provided.
- 2.8. Should have an employee strength and working team size of minimum at least 10 technically qualified team members comprising of Engineering Graduate or Diploma Engineers with GIS domain work experience of minimum 2 years assigned specifically for telecom projects with thorough understanding on Telecom underground assets / entities. A typical team should comprise of technical team lead, suitable number of technical processing team members along with MIS reporting co-coordinators. Prospective partner should provide in advance the proposed team composition information and working team timesheets should be duly company attested and sent along with billing for payment consideration.
- 2.9. All necessary IT tools like Laptop, desktops, and its software licensing, usage liabilities, maintenance of technical staff, expenses related to travelling to Ahmedabad / Gandhinagar Project offices, shifting of executives, tools, laptops, servers, licenses, on demand customer meet / interview expenses and any incidental expenses, additional efforts, are to be managed and borne by prospective partner with no additional claim of whatsoever nature – monetary or documentary would be admissible to the offices of ITI Limited, BBNL or GFGNL.
- 2.10. Mandatory placement and presence of one designated and qualified SPOC at Gandhinagar / Ahmedabad stationed physically onsite throughout the duration of project and maintenance, i.e. 2

years against the proposed fixed contract but extendable up to 5 years with additional charges to be provided as part of BBNL GIS support function. Rest of Suitable team members may operate from principal location of prospective partner without need of additional attendance to be accounted beyond project completion sign off stage or 2 years whichever is earlier

- 2.11. The Bidder should not have been black listed/debarred by any Govt. department or any PSU in India during last three (3) years as on bid submission date. An undertaking in the company letter head shall be submitted by the Bidder as per **Annexure-VI**.
- 2.12. Bidder should submit Solvency Certificate valued at least Rs.1 Cr from any scheduled bank issued within 6(six) months from the Tender submission date.
- 2.13. Bidder shall be capable of providing compliance to the Technical and Functional requirements specified by the customer. They shall also be in a position to meet any additional enhanced requirements of the customer during the course of the tender.
- 2.14. Organizational experience of working with large, complex and geographically distributed organizations in Governmental and Non-Government. Enclose copies of Purchase Orders and Project completion certificates as much possible while providing above information.
- 2.15. Vendor shall bear its own expenses towards certification, validation, QA inspection, delivery, etc.
- 2.16. Vendor / Bidder should use licensed software only for the entire scope of work. No pirated software to be used for any part of the project.
- 2.17. Some areas of detail to include in each example (this is a non-exhaustive list, please provide additional information that you deem relevant) are:
 - a) What are/were the exact GIS Tools/ products/services provided?
 - b) What is the average size (revenue, number of devices, volume of data collected and analysed, etc.) and type of program? How is/was the engagement structured and how did your staff engage with the customer staff?
 - c) Is/was the engagement successful? In what way did you measure success of the delivered products/services?
 - d) Is the engagement still on-going; if not, why not?
 - e) Please provide supporting information for each example, along with reference contact information.
 - f) ITI reserves the right to contact these references without prior notification to the Vendor.

CHAPTER 3 – SCOPE OF WORK

- 3.0** Scope of work is defined as below:
- 3.1** ITI project implementation agencies have uploaded GIS data in GFGNL server as per the requirement. Bidder should be capable of downloading the data from GFGNL GIS server, validate it, correct the data on the system, identify gaps if any. In case of any require field visit to collect the required data, coordinate with concerned other project implementation agency of ITI Ltd and get the required data. Convert the data in the required format and upload in the BBNL server successfully without any error. Details are given in the table below.
- 3.2** GIS data has to be extracted block wise from GFGNL GIS system or raw data and do the necessary corrections, conversion to desired format and upload in the BBNL GIS system
- 3.3** Generation of inventory report based on GIS report as per the requirement given below.
- 3.4** Work has to be processed and progress to be achieved Island wise (Island is the area segregation for project implementation). There are Three islands (areas) in this project. Each island is subdivided in to Blocks (sub area). Total 84 blocks. Each block is served by multiple OLTs for fiber optic high speed communication.
- 3.5** Selected bidder has to coordinate with GFGNL, GFGNL GIS vendor, BBNL, ITI and Project implementation agencies of ITI and TPA. However, ITI officials will support the selected bidder for successful completion of activities.
- 3.6** Should use genuine licensed software only.
- 3.7** Brief summary of data available in GFGNLGIS and BBNL GIS requirement is given below. This is only a brief summary for the work not limited full scope of activity. Detailed technical specification of BBNL is enclosed.
- 3.8** Should there be an eventuality that the pace of progress is not coming from the deployed PIA(s) 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 PIA ,alternate/additional vendor may be chosen from amongst the bidders who were technically qualified in the process of this very tender under consideration or by inviting separate competitive financial bids for such pending work from such interested companies. Cost escalation if happens in this process, shall be recoverable from the faltering PIA(s).
- 3.9** In case of multiple bidder ITIL will have right to award contract to multiple vendors at L1 price. However, bidder quoted L1 price will be awarded 60% of the work and additional vendor accepting the L1 price will be awarded 40 % of the work.

S I	Parameters	GFGNL GIS	BBNL GIS	Notes
1	Network Asset layer Captured Count	28	6	Scope is to showcase 6 entities data from GFGNL GIS to BBNL GIS
2	Method of GIS Input	DGPS, Approved templates	State (GFGNL GIS) exported information	Block wise Exported data in SHP files to be handed over to BBNL
3	Block Measure	Block wise	Block wise	
4	Network asset entity names	Location (5 entities) Block, GP, SDC, SNOC, EXH OSP (11 entities) Cable, Coupler, Duct, Handhole, Manhole, Pole, PrimarySplitter, SecondarySplitter, Site, SpliceClosure, Trench Network Element (12 entities) ONT, FDMS, IPS, OLT, DWDM, L2Switch, RFMS, L3Switch, MediaConverter, Router, Server, UPS	OLT, ONT, Joints, Splitter, Route Indicator (RI), OFC	6 Entities as required by BBNL GIS needs to be specially exported after filtering out other entities from GFGNL GIS and sent to BBNL in SHP Files with data sanitisation, geometry corrections etc.
5	Asset Count / quantity scope to be captured	Existing GIS at approx 13000 fiber KM and ongoing by OSP Partners. No scope of participating / prospective partner	Participating / prospective partner to capture and showcase information from GFGNL Data to BBNL GIS : OLT = 213, ONT = 3925+336, Joints = 9000 Nos Approx, Splitters - 2130 Nos Approx, Route Indicator = 64000 Approx, OFC = 18000KM Approx.	
6	Other dependencies		(1)Data Sanitisation check and validation of GFGNL GIS Data (2) Geometric correction (3) Incomplete incontinuity completion of trench line logical extensions (4) OLT wise data fetching and modelling in BBNL GIS to be stitched to form Block wise data and thereby submission of block wise information in SHP format to BBNL GIS (5) Guide, mentor, co-ordinate OSP partner for shortcoming to be completed in GFGNL GIS thereby getting the required information for BBNL GIS(6) Publish daily MIS dashboard and stake holder actionable inputs in prescribed format (7) Obtain successful GIS Sign off from BBNL and GFGNL block wise.	

3.10 Deliverable:

The GIS Professional Services scope for this engagement will include the following:

BBNL Data Submission

- 1) Extract Data layers from GFGNL existing GIS application.
- 2) Correct Data errors and geometry, including but not limited to snapping and topology correction meeting BBNL officials QA audit requirements
- 3) Update all nomenclature of all assets in the layers prescribed for submission as per BBNL data requirement as mentioned in Annexure 5
- 4) Provide block wise report on data readiness to ITI for BBNL Submission
- 5) The final output submitted should be Block level data in Shape File format only.
- 6) GIS software Licenses for rework of the GIS data shall be managed and cost borne on successful bidder.
- 7) Block Data shall be considered complete only upon upload into the BBNL GIS portal managed by NIC
- 8) Daily progress dashboard to be published outlining ITI OSP specific support requirement.
- 9) Provide block wise completion schedule to ITI for blocks where complete data is available in the GFGNL GIS
- 10) Successful sign off for delivery of BBNL Data as per scope of this proposal to the satisfaction of GFGNL & BBNL
- 11) The responsibility of QA/QC leading to successful sign off would be responsibility of successful bidder

OLT Wise Reports

- 1) GIS Team will extract all the as-built layers from GIS system after the Block wise data is submitted to BBNL and approved.
- 2) OLT Boundary will be created manually
- 3) OLT wise report will be generated for each of the as-built Entities in GFGNL GIS system
- 4) The OLT wise reports will be shared for all OLTs in a block with ITI within one week of approval of Block Level Data by BBNL
- 5) If required OLT wise data is not updated by PIA/OSP Partners, successful bidder will share the status to ITI weekly
- 6) Successful bidder will be responsible to coordinate with OSP Partners for updating missing information during the process of generating the OLT wise reports.
- 7) Successful bidder will involve in Training OSP Partners for missing data update in GFGNL system
- 8) Successful bidder will generate the OLT Wise report for OLTs which have complete data.
- 9) Successful bidder will generate 23 Entities i.e., Cable, Coupler, Duct, Hand hole, Manhole, Pole, Primary Splitter, Secondary Splitter, Site, Splice Closure, Trench, ONT, FDMS, IPS, OLT, DWDM, L2Switch, Media Converter, Router, Server, UPS based asset information – OLT wise in Spread sheet format. This spreadsheet data would be used for OSP, ISP Material reconciliation and would be used to compare and finalize the project material consumption as arrived through GIS methodology.
- 10) Timeline of completion & submission of proposed work island wise that is for Island 1 is 20 days, Island 2 - 40 days (20 days after completion of Island1) and for Island 3 - 60days from PO date, failure to provide would attract LD clauses and penalty at 5% of the non-completed work.

3.1 Technical Specifications of GIS mapping of OFC Routes for BBNL given in ANNEXURE- III.

CHAPTER 4 –DELIVERY, PAYMENT TERMS AND PENALTIES & AWARD OF CONTRACT

4.1 Delivery

60 days from the date of PO / work order

4.2 Payment Terms

Sl. No.	Details	INVOICE FOR ISLAND 1	INVOICE FOR ISLAND 2	INVOICE FOR ISLAND 3
1	Advance payment	Nil		
2	1 st payment: On completion of GIS data upload for Island 1 in BBNL GIS system and acceptance by BBNL / GFGNL or their representatives	50%		
3	2 nd payment: On completion of GIS data upload for Island 2 in BBNL GIS system and acceptance by BBNL / GFGNL or their representatives	20%	50%	
4	3 rd payment: On completion of GIS data upload for Island 3 in BBNL GIS system and acceptance by BBNL / GFGNL or their representatives	20%	20%	50%
5	4 th payment: 3 Months from the date of completion of all GIS data and acceptance by BBNL without any issue observed		20%	40%
6	5 th payment: Final payment - 1 year after completion of all 3 island GIS data upload successfully and accepted by BBNL	10%	10%	10%

4.2.1 The following documents shall be submitted along with bills for payment

4.2.1.1 Block wise acceptance certificate of GIS data by BBNL / GFGNL or their representatives

4.2.1.2 Route length island wise for billing certified by ITI officials.

4.2.1.3 All payments shall be released after certification of Delivery and Implementation Milestones by BBNL/BBNL Appointed TPA.

Note: All Payments shall be made in Indian Rupees Only

Payment shall be released by the purchaser against the invoices raised by PIA on Providing all the relevant documents timely and are complete in all reference or payment received from the Customer whichever is later. All payments shall be made through RTGS only.

Payments should be subject to deductions of any amount for which the PIA is liable under the NIT conditions. Further, all payments shall be made subject to deduction of TDS (Tax deduction at Source) as per the current Income-Tax Act/GST.

4.3 Liquidated damages and Penalties:

- 4.3.1 The PIA shall perform the Services and comply in all respects with the critical dates and the parties hereby agree that failure on part of the PIA to meet the critical dates without prejudice to any other rights that the Purchaser have, may lead to the imposition of such obligations as are laid down in the Delay and Deterrent Mechanism and/or levy of penalty as set and/or termination of the Contract at the discretion of the Purchaser.
- 4.3.2 Penalties shall be capped to maximum of 15% of total cost of Project Value. Beyond 15% the Purchaser has the right to terminate the contract or a portion or part of the work thereof. The purchaser shall give 30 days' notice to the PIA of its intention to terminate the Contract and shall so terminate the Contract unless the Bidder initiates remedial action acceptable to the Purchaser during the 30 days' notice period.
- 4.3.3 ITI Limited may without prejudice to its right to effect recovery by any other method, deduct the amount of liquidated damages from any money belonging to the PIA in its hands (which includes the ITI Limited's right to claim such amount against PIA's Bank Guarantee) or which may become due to the PIA. Any such recovery or liquidated damages shall not in any way relieve the PIA from any of its obligations to complete the Works or from any other obligations and liabilities under the Contract.
- 4.3.4 Delay in execution of the work, if attributable to the Bidder, shall attract Liquidated Damages.
- 4.3.5 The maximum LD will be limited to 15% of the Purchase Order value.
- 4.3.6 Additional penalties shall also be applicable if any other expenditure, due to poor quality of work observed up to 12 months after completion of the total work as per ITI's Purchase Order and the same will be recovered from Bidder before releasing their PBG/ Security Deposit.

CHAPTER 5 – BID FEES AND BID SUBMISSION AND OTHER TERMS INSTRUCTIONS TO BIDDERS

5.0 Invitation to Bid:

Bids are invited from companies/ firms to participate in this Tender for Selection of “Project Implementation Agency” (PIA) GIS Data Compatibility Solution Delivery within Platforms of GFGNL & BBNL who meet the minimum eligibility criteria as specified in this Tender.

5.1 Bid Preparation Costs

5.1.1 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 ITI to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process.

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

5.2 Authentication of Bid

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

5.3 Bid Submission

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

5.3.2 Tender document fee of Rs. 5,000/- (Rupees Five Thousand Only) plus GST @18% (Total Rs. 5,900/-) shall be payable with the bid. This shall be submitted as a Demand Draft or through NEFT or bank transfer or Pay Order drawn at a Scheduled Bank/Post Office in favor of ITI Limited (N S UNIT), Dooravani Nagar, Bangalore - 560016, along with the bid document. A valid MSME certificate has to submit along with the bid for tender fee exemption. The Bank details for crediting/Transferring money to ITIL is as below.

State Bank of India,
Account No: 10637729843
IFSC CODE: SBIN0009077
Branch: IFB Bangalore

5.3.3 The Tender document fee is non-refundable.

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

5.3.5 EMD is not required for this tender as per the Government of India Ministry of finance procurement policy division office memorandum dated 12 Nov 2020. However, bidder has to submit duly signed bid security declaration as per the Annexure

5.3.6 The successful bidders shall submit a Performance Bank Guarantee (PBG) from a Scheduled Bank to ITI for an amount equal to 3% of the work awarded valid for two years. The PBG should be submitted latest within 7 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.

5.3.7 Bids in prescribed format shall be submitted through e-tendering process

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

5.4 Important Information:

Sl. No.	Information	Details
1	Tender Number	Ref No: ITI/NSU PROJ/Gujnet/GIS /01 Dated 22 Apr 2021
2	Tender Name	Tender for Selection of “Project Implementation Agency” (PIA) for GIS Data Compatibility Solution Delivery with Platforms of GFGNL& BBNL. Uploading GIS data in BBNL server.
3	Work description/Nature of the work	GIS Data Compatibility Solution Delivery with Platforms of GFGNL& BBNL. GIS data loaded in GFGNL server to be downloaded validated and upload in BBNL GIS server in the required format.
4	Date of Issue/Publishing of the Tender	22 Apr 2021
5	Clarifications on Tender	Up to 27 Apr 2021 - 1730 hrs
6	Last Date and Time for Submission of Bids	30 Apr 2021, 12:15 Hrs
8	Date and Time of Opening of Technical Bids	30 Apr 2021, 13:00 Hrs
9	Date and Time of Opening of Financial/Commercial Bids of Technical suitable bidders	30 Apr 2021 at 15:30 Hrs. If any change in the date and time, the same will be informed accordingly.
10	Tender Fee	Rs. 5,900/-(Rupees Five Thousand Nine Hundred only) including GST
11	EMD	Not required. Bid security declaration to be submitted
12	Solvency Certificate	Rupees 1 Crore from any scheduled bank issued within 6(six) months from the Tender submission date
13	Bid Validity	90 Days
14	Validity of the contract	One Year (extendable)
15	Attachments/Annexures	Formats and Specifications
16	Tender issuing Authority	General Manager – Projects (NSU), NS Unit, ITI Limited, Dooravaninagar, Bangalore – 560016

5.5 CLARIFICATIONS:

Bidders desirous of seeking clarifications on the Tender may send their queries through email to:

vbs_nsu@itilttd.co.in

5.6 On the Bid opening day, technical bids will be opened first and shortlisted.

5.7 Bids without authenticated proof of Bid document fee, bid security declaration and other technical compliances as required and prescribed in this Tender, will be rejected.

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

General Manager – Projects(NSU)
NS Unit, ITI Limited
F-100, West Wing,
Dooravaninagar,
Bangalore-560016
E-mail: vbs_nsu@itilttd.co.in

5.9 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.

5.10 ITI 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.

5.11 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 ITI.

5.12 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.

5.13 Also, ITI 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.

5.14 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.

5.15 Commercial bids of technically shortlisted bidders will be opened as per schedule above. If any change in the date and time, the same will be informed accordingly.

5.16 BID PRICES:

5.16.1 The bidder shall quote the item wise price inclusive of all incidentals and inclusive of all taxes and levies but exclusive of Goods and service tax. Goods and Service tax shall be paid extra, as applicable.

5.16.2 The bidder shall quote against all the items. Bids not having quote for all the items/components as per the financial bid format, essential or allied, shall be termed as incomplete and liable for rejection.

5.16.3 Unit price per KM basis to be submitted in the following format. All taxes, duties applicable for work should be included in the pricing. However, GST will be paid at actuals extra.

5.16.4 Contract will be awarded to technically & commercially shortlisted L1 bidder.

BILL MATERIAL

S. No	Item Description as per Technical Specifications	Unit	Approx. Qty	Rates Per KM (Rs)	Itemized Bid Value
	BBNL Data Submission		(A)	B	X=A*B
1	<p>Extract Data layers from GFGNL existing GIS application. Correct Data errors and geometry, including but not limited to snapping and topology correction meeting BBNL officials QA audit requirements, update all nomenclature of all assets in the layers prescribed for submission as per BBNL data requirement as mentioned in Annexure 5, Provide block wise report on data readiness to ITI for BBNL Submission. The final output submitted should be Block level data in Shape File format only. GIS software Licenses for rework of the GIS data Block Data shall be considered complete only upon upload into the BBNL GIS portal managed by NIC and acceptance by BBNL. Daily progress dashboard to be published outlining ITI OSP specific support requirement. Provide block wise completion schedule to ITI for blocks where complete data is available in the GFGNL GIS. Successful sign off for delivery of BBNL Data as per scope and satisfaction of GFGNL & BBNL including responsibility of QA/QC leading to successful sign off</p> <p>Preparation of spreadsheet OLT service area wise for complete assets deployed.</p>	Km	18000		
Total Bid Value of work (Excluding GST) In Rs.					

5.17 PERIOD OF VALIDITY OF BIDS:

- 5.17.1 Bid shall remain valid for 90 days from date of opening of the bids (Qualifying Bid). A Bid valid for a shorter period shall be rejected by ITIL as non-responsive.
- 5.17.2 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.

5.18 SIGNING OF BID:

- 5.18.1 The bidder shall prepare, as a part of his bid, the bid documents duly signed on each and every page establishing the conformity of his bid to the bid documents of all the works to be executed by the bidder under the contract. E-tender bid process to be followed
- 5.18.2 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.

5.19 Disclaimer:

- 5.19.1 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.
- 5.19.2 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.
- 5.19.3 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.
- 5.19.4 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
- 5.19.5 Bid received / submission after due date and time will not be considered.

5.23 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.
c.	Memorandum & Articles of Association.
d.	Audited financial statements for the last 3 years. (2017-18, 2018-19 & 2019-20) and CA certificate in case of Unaudited report of 2019-20 with an undertaking to submit the audited report, soon it is available.
e.	Certificate from Statutory Auditor/CA specifying the Annual Turnover during last three years (2017-20).
f.	EMD not applicable. Bidder has to submit duly signed Bid-securing declaration. Format enclosed in Annexure VII
g.	Experience Certificates: The Bidder should have an experience in GIS mapping & GIS tools and should have done GIS projects for Telecom/Utilities for above product and Solutions in the last three financial years (2017-18, 2018-19 and 2019-20). The experience as required to meet eligibility conditions during the last 3 years only (period ending 31 st March 2020), shall be considered.
h.	Positive Net Worth Certificate for the last 3 years (2017-20).
i.	Solvency Certificate from the banker for the minimum amount of Rs.1 Cr from any scheduled bank issued within 6(six) months from the Tender submission date
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 company 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 ITI from any claims / penalties / statutory charges, liquidated damages, with legal expenses etc.
q.	NDA (Non-Disclosure Agreement) as per Annexure-V
r.	Pre-Contract Integrity Pact Annexure –II
s.	A detailed exhibit on the "Approach and Methodology", bidder proposes to adopt if the project is awarded to it
t.	List of All necessary IT tools like Laptop, desktops, and its software licensing, usage liabilities, maintenance of technical staff, expenses related to travelling to Ahmedabad / Gandhinagar Project offices, shifting of executives, tools, laptops, servers, licenses, on demand customer meet / interview expenses and any incidental expenses, additional efforts, are to be managed and borne by prospective

	partner with no additional claim of whatsoever nature – monetary or documentary would be admissible to the offices of ITI Limited, BBNL or GFGNL
u	Self-certified list of Employees with EPF & ESI Details.
v	An undertaking to submit PBG along with LOI acceptance for 3 % of the order value valid through defect liability period within 7 days' time.
w	All other docs as mentioned in this Tender elsewhere.

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.

CHAPTAR 6 - GENERAL CONDITIONS OF CONTRACTS

6.1 DEFINITION AND INTERPRETATIONS:

6.1.1 GENERAL:

In this general conditions of contract, the following terms shall have the meaning hereby assigned to them except where the context otherwise requires.

6.1.2 COMPANY:

Company shall mean ITI LIMITED, Network Systems Unit having its registered office at Bengaluru.

6.1.3 MANAGEMENT:

Management shall mean the officer nominated by the Company to deal with the matters pertaining to the contract. The Officer so nominated shall be intimated to the Bidder after the acceptance of the contract.

6.1.4 CHIEF ENGINEER:

Chief Engineer shall mean the officer-In-charge of the Engineering Department of the Project.

6.1.5 ENGINEER:

Engineer shall mean the Chief Engineer / Chief Manager, Deputy Chief Engineer / Manager, Senior Engineer / Deputy Manager, Executive Engineer / Assistant Manager, Assistant Executive Engineer / Engineer, Asst. Engineer or any other nominee for the execution of the work. The term Engineer- in – Charge shall also have the same meaning as the Engineer.

6.1.8 ENGINEER’S Representative:

Engineer’s Representative shall mean the Assistant Engineer in Direct charge of the works and shall include any Junior Engineer/ Construction Assistant /Junior supervisors etc., appointed by the Company.

6.1.9 BIDDER:

‘Bidder’ shall mean the person, firm or company who has entered into agreement for the execution of works and shall Include their executor’s, successor’s, administrator’s and permitted assigns.

6.1.10 CONTRACT:

Contract shall mean the contract documents collectively, comprising agreement, Notice Inviting Tender, General terms and conditions, special terms and conditions, specifications, Time schedule of works, information and instructions to tenderers, accepted schedule of rates, and other documents and drawings constituting the tender and accepting thereof.

6.1.11 WORKS:

Work shall mean the works to be executed in accordance with the contract.

6.1.12 SPECIFICATION’S:

Specifications shall mean all directions, provisions and requirements attached to the Contract which pertain to the method and manner of performing the work or works to the quantities and qualities of

work or works and the materials to be furnished under the contract for the work or works as may be amplified or modified by the Company or the Engineer during performance of the contract in order to provide for unforeseen conditions or in the best interest of the work or works.

6.1.13 ACCEPTED SCHEDULE:

Accepted Schedule in relation to the Contract means the schedule or schedules or quantities and the rates quoted /modified by the Bidder in respect of which the Tender is accepted.

6.1.14 DRAWINGS:

‘Drawings’ shall mean the maps, drawings, Plans, and tracings or prints thereof annexed to the contract and shall include any modification of such drawings as may be issued or approved in writing by the Engineer from time to time after survey is carried out by Bidder and duly approved by BBNL.

6.1.15 CONSTRUCTIONAL PLANT:

‘Constructional Plant’ shall mean all appliances or things of whatsoever nature required for the execution, completions or maintenance of the works or temporary works (as herein after define) but does not include materials or other things intended to form or forming part of the permanent work.

6.1.16 TEMPORARY WORKS:

‘Temporary work’ shall mean all temporary works of every kind required for the execution, completion or maintenance of the works.

6.1.17 SITE:

‘Site’ shall mean the lands and other places on or through which the works are to be carried out and any other lands or places provided by the company for the purposes of the contract.

6.1.18 PERIOD OF MAINTENANCE:

12 months from the date of final completion of contract under defect liability period.

6.1.19 Letter of Acceptance:

‘Letter of Acceptance’ is an intimation by a letter to the Tenderer that his/their tender has been accepted in accordance with the provisions contained in that letter.

6.1.20 APPROVED:

‘Approved’ means approved in writing by the Engineer including subsequent written confirmation of previous verbal approval and Approval means approval in writing including as aforesaid.

6.1.21 CONTRACT VALUE:

‘Contract value’ means the sum accepted or the sum calculated in accordance with the prices accepted in the tender and/or the contract rates as payable to the Bidder for the entire execution and full completion of the work.

6.1.22 WORK ORDER:

‘Work Order’ shall mean the order in writing by the Engineer, intimating the Bidder to commence the work wholly or partly, showing the date of commencement and completion of the work as a whole or the part so ordered to be commenced.

6.1.23 DATE OF COMMENCEMENT:

‘Date of Commencement’ is the date or dates for commencing the whole or part of the work as set out in or ascertained in accordance with the individual work orders or any subsequent agreed agreements thereto.

6.1.24 DATE OF COMPLETION:

‘Date of Completion’ is the date or dates for completion of the whole work as set out in or ascertained in accordance with the individual work orders or the tender documents or any subsequent agreed agreements thereto.

6.1.25 DEVIATION:

‘Deviation’ order means an order given in writing by the Engineer to effect an alteration in addition to or deduction from the scope or nature of the contract.

6.1.26 ACCEPTING AUTHORITY:

‘Accepting Authority’ is officer nominated by the management to accept a tender/ tenders up to a particular value.

6.1.27 MONTH:

‘Month’ shall mean the calendar month of the Gregorian Calendar.

6.1.28 SINGULAR & PLURAL:

6.1.29 Word imparting the Singular number shall also include the plural and vice versa where the context so requires.

6.1.30 HEADINGS & MARGINAL HEADINGS:

6.1.31 The headings and Marginal headings in these General Conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof, or be taken into consideration in thereof or the context.

6.2 GENERAL OBLIGATION:

6.2.1 EXECUTION CORRELATION & INTENT CONTRACT DOCUMENTS:

The Contract documents shall be signed in duplicate by the accepting authority and the Bidder. The contract documents are complementary, and what is called for by any one shall be binding as if called for by all the intention of the documents is to include all Labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work not covered not covered by or property inferable from any heading or class of the specifications shall not be supplied by the company to the Bidder unless distinctly specified in the contract documents. Materials or works described in words which so applied have a well know technical or trade meaning shall be held to refer to such recognized standard.

6.2.2 LAWS GOVERNING THE CONTRACT:

The Contract shall be governed by the laws for the time being in force in the republic of India

6.2.3 Compliance to Regulation & Bye-Laws:

The Bidder shall confirm to the provision of any status relating to the works and regulations and bye-laws of any local authority and of any water and electric companies or undertakings with those system the work is proposed to be connected and shall before making any variations from the drawings or the specifications that may be necessitated by so confirming, given to the Engineer notice specifying the variation proposed to be made and the reason for making the variation and shall not carry out such variation until he has received instructions in writing from the Engineer in respect thereof. The Bidder shall be bound to give all notices required by statute, regulations or Bye-Laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

6.2.4 COMMUNICATION TO BE IN WRITING:

All notices, communications, references and complaints made by the company or the Engineer or the Engineer's Representative or the Bidder INTERSE concerning the work shall be in writing and no notice, communication, reference or complaint not in writing shall be recognized.

6.2.5 SERVICE OF NOTICE ON BIDDER:

The Bidder shall furnish to the Engineer the name, designation and address of his authorized agent and all complaints, notices, communications, and references shall be deemed to have been duly given to the Bidder if delivered to the Bidder or his authorized agent or left at or posted (Registered Post) to the address so given and shall be deemed to have been so given in the case of posting on the day on which they would have reached such address in the ordinary course of post or on the day on which they were so delivered or left in case of hand delivery. In the case of contract by partners, any change in the constitution of the firms shall be forthwith notified by the Bidder to the Engineer with a copy of the accepting authority.

6.2.6 OCCUPATION AND USE OF LAND:

No land belonging to or in the possession of company shall be occupied by the Bidder without the permission of the Company. The Bidder shall not use or to be used, the site for any purpose other than that of executing the works.

6.2.7 ASSIGNMENT OR SUBLETTING OF CONTRACT:

The Bidder shall not assign or sublet the contract or any part thereof or allow any person to become interested therein any manner whatsoever without the special permission of the company, provided always that execution of the details of the works by petty contract under the direct and personal supervision of the Bidder or his agent shall not be deemed to be subletting under this clause. The permitted sub-letting of work by the Bidder could not establish any contractual relationship between the sub-Bidder and the company and shall not relieve the Bidder of any responsibility under the contract.

6.2.8 STORES ARRANGED BY THE BIDDER: Not applicable

6.2.9 REPRESENTATIVE ON WORKS:

The Bidder shall when he is not personally present on the site of works, place and keep a responsible agent at the works during working hours who shall on receiving reasonable notice, present himself to the Engineer and orders given by the Engineer or Engineer's representative to the agent shall be deemed to have the same force as if they had been given to the Bidder before absenting himself, the Bidder shall furnish the name and address of his agent for the purpose of his clause failure on the part of the Bidder shall render him liable for the consequences mentioned hereafter.

6.2.10 RELICS: Not applicable

6.2.12 INDEMNITY AND CHARGES:

6.2.12.1 INDEMNITY AND CHARGES PAYABLE:

The Bidder shall indemnify and save harmless the company from and against all actions, suits, proceedings, losses costs, damages, claims and demands of every nature and description brought or recovered against the company by reason of any act or omission of the Bidder, his agents or employees in the execution of the work or in regarding of the same. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to use of the company without references to the actual loss or damage sustained and whether or not damage shall have been sustained.

6.2.12.2 PATENT RIGHT:

The Bidder shall fully indemnify the company or the agent/ servant or employees of the company, against any action claim or proceeding relating to infringement or the use of any patent or design or any alleged patent or design rights, and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the events of any claims being made or action brought against the company or any agent or servant, or employee of the company or in respect of any of the matters aforesaid the Bidder shall immediately be notified thereof for taking necessary action provided that the payment of indemnify shall not apply when such infringement has taken place in complying with the specific directions issued by the company, but the Bidder shall pay any royalties payable in respect of any such use.

6.2.12.3 OCTROI AND OTHER DUTIES:

All charges on account or Octroi, or other duties or any other levy as the case may be for the materials obtained for the works shall be borne by the Bidder. GST shall be paid extra at actuals, as per the Tax invoice.

6.2.12.4 ROYALTIES:

Except where otherwise specified the Bidder shall pay all tollage and other royalties, rent, and other payment or compensation (If any) for getting stone, sand, gravel, clay, and other material required for the works or temporary works or any of them.

6.2.12.5 Delay and Extension of Time:

If the Bidder has delayed at any time in the progress of the works by any act or neglect of the employees of the company or by any other Bidder employed by the company under Separate Contracts in connection with the Works mentioned in clause no. 3.2.4 , or by strikes, lockouts, fire unusual delay in transportation unavoidable casualties of any cause beyond the Bidder's control, or by delays authorized by the Engineers pending arbitration or by any cause which the Engineer shall decide to justify the delay, then the time of completion of the works shall be extended for such reasonable time as the engineer may decide.

6.2.12.6 Extension of Time on Company Account:

In the event of any failure or delay by the company to hand over the Bidder possession of the lands, necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the company due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the contract or alter the character thereof entitle the Bidder to damages or compensation thereof but in any such case extension or extensions of the completion date as may be considered reasonable may be granted to the Bidder.

6.2.12.7 Time to be Essence of the Contract and Liquidated Damages:

The time for completing the works or portions where off by their respect dates or extended dates fixed for their completion shall be deemed to be the essence of the contract, and if the Bidder shall fail to complete the work within the time prescribed, the company shall if satisfied that the works can be completed by the Bidder within a reasonable short time thereafter be entitled, without prejudice to any other right or remedy available on that behalf, to recover by way of ascertained and liquidated, damages, a sum equivalent to as indicated in the below chart attached. If the company is not satisfied that the works can be completed by the Bidders and in the event of failure on the part of the Bidder to complete the works with in the further extension of time allowed as aforesaid the company shall be entitled without prejudice to any other right or remedy available on that behalf, to appropriate the Bidder's security deposit and rescind the contract under clause 6.8.3 of these conditions, whether or not actual damage is caused by such default. The amount of compensation will be adjusted or set off against any sum payable to the Bidder under this or any other contract provided always that the entire amount of compensation to be paid under this clause shall not exceed 15 % of the contract value as a whole.

Penalties applicable in case of Non-compliance with delivery timelines / Milestone as defined in Project Implementation Schedule for GIS updation.

6.2.13 Illegal Gratification:

Any bribe, commission, gift or advantage given, promised or offered by or on behalf of the Bidder or his partner, agent or servant or anyone on his or on their behalf to any officer, or employee of the company or to any person or his or their behalf in relation to the obtaining or the execution of this or any other contract with the company shall in addition to any criminal liability which may incur, subject to the Bidder to the recession of the contract and all other contracts with company and to the payment of any loss of damage resulting from such rescission, and the company shall be entitled to deduct the amounts so payable from any money due to the Bidder under the contract or any other contracts with the company.

6.2.14 Everything at Bidder's Risk:

The Bidder shall undertake all risks and liabilities of whatsoever nature arising out of the works Including by way of implications but not by way of limitations all risks attendant on the nature of site, sub-soil, the levels and consistency of strata in or on which the works are to be found or constructed. Also all risk of fire, Earthquakes, riots, war, gales, storms, winds, variations or water level, sub soil and quantities of water to be pumped, discharged of water courses, Rains traffic delays and any other causes of whatsoever nature whether within or beyond Bidder's control, which may affect or damage the works during the construction and all damages which may happen on any way howsoever to the works shall be made good by the Bidder at his own risk and costs.

6.2.14.1 Insurance of work:

Unless otherwise instructed by the accepting authority the Bidder shall on signing the contract insure the works and keep them insured until the virtual completion of the contract against loss or damages by fire and / or earthquake in an office to be approved by the accepting authority in the Joint names of the accepting authority and the Bidder for such amount (Including Consultant fees) as may be called upon to do so by the accepting authority. Such policy shall cover the property of the company and shall not cover any property of the Bidder or of any Sub- Bidder or Employee. The Bidder should deposit the policy and receipts of the premium with the accepting authority within 21 Days from the date of signing the contract unless otherwise instructed by the accepting authority. The default of the Bidder insuring as provided above, the company on his behalf may so insure and may deduct the premiums paid from any sum due, or which may become due to the Bidder. The Bidder shall as soon as the claim on the policy is settled, or the work reinstated by the insurance office should they elect to do so, proceed with all due diligence with the completion of the works in the same manner as though the fire had not occurred and in all respects under the same conditions of contract. The Bidder in case of rebuilding or reinstatement after fire shall be entitled to such extension of time for completion as the Engineer may deem fit.

6.2.15 No Visitor or Photographer:

The Bidder shall neither allow any visitor on the works nor take or allow to be taken any of photographs without the permission of the Engineer in writing.

6.2.16 Work Site Order Book:

The Bidder will be required to keep a properly bound book at site of work as work site order book. The pages of the book will be numbered and initialed by the Engineer. Any special orders and instructions to be issued to the Bidder shall be recorded in this book by the Engineer or his representative and noted it. The book shall be the property of the company.

6.3.0 EXECUTION of WORKS:

6.3.1 Bidder's Understanding:

6.3.1.1 It is understood and agreed that the Bidder has by careful examination satisfied himself as to nature and location of the work, the confirmation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the execution of the works. The general and local conditions, which can in any way

affect the works under the contract. No claim whatsoever on this account shall be entertained at a later date.

6.3.1.2 Commencement of Works:

The Bidder shall commence the works on the date or dates indicated in the work order in writing to this effect from Engineer and shall proceed with the same with due expedition and without delay.

6.3.1.3 Time and Progress Chart:

A detailed time and progress chart for the execution of various items of work within the overall period of completion shall be prepared jointly by the Engineer and the Bidder, signed by both the parties and shall adhered to.

6.3.2 Compliance to Engineer's Instructions:

6.3.2.1 The Engineer shall direct the sequence in which the several parts of the works shall be executed and the Bidder shall execute without delay all orders given by the Engineer from time to time but the Bidder shall not be relieved thereby from his/their responsibility for the due performance of the works in all respect.

6.3.2.2 Alterations to be authorized:

No alterations in or additions to or omission or abandonment of any part of the work shall be deemed authorized, except under instructions in writing from the Engineer, and the Bidder shall be responsible to obtain such instruction in each and every case.

6.3.2.3 Extra works by another Agency:

Should works over and above those included in the contract be required to be executed at the site, the Bidder shall have no right to be entrusted with the execution of such works which may be carried out by another Bidder or Bidders or by other means at the option of the company.

6.3.2.4 Separate Contracts in connection with the Works:

The Company shall have the right to let out other contracts in connection with the works. The Bidder shall afford such other Bidders reasonable opportunity for the storage of their materials and the execution of their work and shall properly connect and coordinate his work with theirs. If any part of the Bidder's work depends for proper results upon execution of the work of another Bidder, the Bidder shall inspect and promptly report to the Engineer and any defect in such work that render it unsuitable for such proper results and execution. The Bidder's failure to inspect and report shall constitute an acceptance of other Bidder's work as fit and proper for the reception of his work, except as to defects which may develop in the other Bidder's works after the execution of his work.

6.3.3 Instruction of Engineer's Representative:

6.3.3.1 Any instruction or approval given by the Engineer's representative to the Bidder in Connection with the works shall bind the Bidder as though it had been given by the Engineer provided always as follows.

6.3.3.1.1 Failure of the Engineer's representative to disapprove any work or materials shall not prejudice the powers of the Engineer thereafter to disapprove such work or materials and order the removal or breaking up thereof.

6.3.3.1.2 If the Bidder shall be dissatisfied by reason of any decision of the Engineer's representative, he shall be entitled to refer the matter to the Engineer who shall there upon confirm or vary such decision.

6.3.4 Adherence to Specifications and Drawings:

6.3.4.1 The whole of the works shall be executed in perfect conformity with the specifications and drawings of the contract. If the Bidder performs any work in a manner contrary to the specifications or drawings or any of them and without such reference to and approval from the Engineer in writing he shall bear all the costs arising or ensuing there from shall be responsible for all loss to the decision.

6.3.4.2. One complete set of Drawings / softcopies of files furnished for the work, shall be kept in good condition on the job. This set shall be designated 'Record Prints' A complete and exact record of any and all differences between the work as actually constructed and erected and the design indicated on the design drawings shall be approved by the Engineer in writing before any alterations work is started. All 'Record Prints' will become the property of the company.

6.3.4.3 Compliance with Bidders and Request for Details:

The Engineer shall furnish with reasonable promptness after receipt by him of the Bidder's request in writing for the same additional instruction by means of drawings or otherwise, necessary for the proper execution of the works or any part thereof. All such drawings and instructions shall be consistent with the contract documents and be reasonably inferable there from.

6.3.4.4 Meaning and Intent of Specifications and Drawings:

If any ambiguity arises as to the meaning and Intent of any provisions of the specifications and drawings or as to execution or quality of any work of materials of the Engineer thereon shall be final subject to appeal (within 7 days of such decision being intimated to the Bidder) to the Engineer – in –charge who shall have the powers to correct any errors, Omission, or discrepancies in the specifications, drawings, classifications of work or materials, and those decision in the matter in dispute or doubt shall be final, inclusive and binding.

6.3.5 Work on Holidays and During Night:

The Bidder shall not carry out any work on holidays and between sunset and sunrise without previous permission of the engineer in writing.

6.3.6 Damage to Company's Property and Private Life and Property:

The Bidder shall be responsible for all risk to the works and for trespass and shall make good at his own expense all loss or damage whether to the works themselves or any other property of the Company of the lives, persons connection with the works until they are taken over by the company and this although all reasonable and proper precautions may have been taken by the Bidder, and in case the company shall be called upon to make good any such costs, loss and damages, or to pay compensation (including that payable under the provisions of the workman's thereof) to any person or persons sustaining damages as aforesaid by reason of any act, or any negligence or omission of the part of the Bidder the amount of any costs or charges(including costs of charges in connection with legal proceedings), which the company may incur in reference thereof shall be charges to the Bidder. The company shall have the power and right to pay or to defend or compromise any claim of threatened legal proceedings or in anticipation or legal proceedings being instituted consequent on the action or default of the Bidder, to take such steps as may be considered necessary or desirable to word off or mitigate the effect of such proceeding, charging to the Bidder, as aforesaid any sum or sums or money which may be paid and any expenses whether for reinstatement or otherwise which may be incurred and the propriety of any such payments, defense or compromise and the incurring of any such expenses shall not be called in question by the Bidder. .

6.3.8 Provision of Efficient and Competent Staff:

The Bidder shall place and keep on the works at all-time efficient and competent staff to give the necessary directions to his workmen and to see that they execute their work in sound proper manner and shall employ only such supervisor, workmen and laborer's in or about the execution of any works as are careful and skilled in their various trades and callings.

The Bidder shall at once remove from the works any agent, permitted sub-Bidder, supervisor workmen or laborer who shall be objected to by the Engineer, if any and whenever required by the Engineer, he shall submit a correct return showing the names of all staff and workmen employed by him. In the event of the Engineer being of the opinion that the Bidder is not employing on the works a sufficient number of staff and workmen as is necessary for the proper completion of the works within the time prescribed. The Bidder shall forthwith or receiving intimation to this effect take on the additional number of staff and labour specified by the Engineer within seven days of being so required and failure on the part of the Bidder to comply to rescind the Bidder under clause 6.8.3 these conditions.

6.3.9 Workmanship and Testing:

6.3.9.1 The whole of the works and /or supply of materials specified and provided in the contract that may be necessary to be done in order to form and complete any part thereof shall be executed in the best and most substantial workman like manner with materials of the best approved quality of their respective kinds agreeable to the particulars contained in or implied by the specifications and as referred to in and represented by the drawings or in such other additional particulars, instructions and drawings as may be found requisite to be given during the carrying on the works and to entire satisfaction of the Engineer according to the instructions and directions which the Bidder may from time to time receive from the Engineer. The materials may be subjected to tests by means of such machines, instruments and appliances as the Engineer may direct and wholly at the expenses of the Bidder.

6.3.9.2 Removal of improper work and material:

The Engineer and the Engineer's representative shall be entitled to order from time to time:

6.3.9.2.1 The removal from the site with the time specified in the order of any materials which in his opinion are not in accordance with the specification and drawings.

6.3.9.2.2 The substitution of proper and suitable materials.

6.3.9.2.3 The removal and proper re-execution (Not withstanding of previous tests thereof or on account payments thereof) of any work which in respect of materials or workmanship is not in his opinion in accordance with the specification, and in case of default on the part of the Bidder in carrying out such orders, the company shall be entitled to rescind the contract under Clause 6.8.3 of these conditions.

6.3.10 Facilities for Inspection:

The Bidder shall afford the Engineer and the Engineer's Representative every facility for entering in upon every portion of the work at all hours for the purpose of inspection or otherwise and shall provide all labour, materials, planks, ladders, pumps appliances and things of every kind for the purpose an Engineer and the Engineer's Representative shall at all times have free access to every part of the works and to all places at which materials for the works are stored or being prepared.

6.3.11 Temporary Works:

All the temporary works necessary for the proper execution of all the works shall be provided and maintained by the Bidder and subject to the consent of the Engineer shall be removed by him and at his expense when they are no longer required and in such manner as the Engineer shall direct. In the event of failure on the part of the Bidder to remove the temporary works, the Engineer will cause them to be removed and cost as incurred by supervision

and other incidental charges shall be recovered from the Bidder. If temporary huts are provided by the Bidder on the company's land which shall at the request of Bidder be allotted by the Engineer in writing for labour engaged by him for the execution of the works. The Bidder shall arrange for handing over vacant possession of the said land after the work is completed, if the Bidder's labour refuse to vacate, and have to be evacuated by the company necessary expenses incurred by the company in connection therewith shall be borne by the Bidder.

6.3.12 Supply of Tools, Plant and Materials:

Tools, Plant and Materials Supplied by Company:

The Bidder shall take all reasonable care of all the Tools, Plant and Materials or other property whether of a like description or not belonging to the company and committed to charge for the purpose of the works and shall be responsible for all damage or loss caused by him, his agents or his workmen or others while they are in his charge. The Bidder shall sign accountable receipts for tools, plant and materials made over to him by the Engineer and on completion of the works shall hand over the unused balanced of the same to the Engineer in good order and repair, fair wear and tear accepted and shall be responsible for any failure account for the same or any damage done thereto.

6.3.16 Precautions:

All the necessary precautions for safe working at site for execution of work for their staff and tools, computers should be the responsibility of bidder / contractor.

6.3.17 Provisions of Access to Premises:

Necessary access permission for the work premises to the designated / authorized representative of the bidder / contractor will be arranged by ITI.

6.3.18 Suspension of Works:

6.3.18.1 The Bidder shall on the order of the Engineer in writing suspend the progress of works or any part thereof for such times and in such manner as Engineer may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the Engineer.

6.3.18.1.1 If such suspension is provided for in the contract

OR

6.3.18.1.2 Necessary for the proper execution of the works or by reasons of weather conditions or by some default on the part of the Bidder.

OR

6.3.18.1.3 Necessary for the safety of the works or any part thereof, the Bidder shall not be entitled to any extra costs if any incurred by him during the period of suspensions of the works, but in the event of any suspension ordered by the Engineer for Reasons other than aforementioned and when each such period of suspensions exceeds 14 days the Bidder shall be entitled to such extension of time for completion of the works as the engineer may consider proper having regards to the period or periods of such suspensions and such compensation as the Engineer may consider reasonable in respect of salaries or wages paid by the Bidder to his employees during the periods of such suspensions. Bidder shall not resume work or part of work so suspended by the Engineer without a written order from the Engineer to that effect.

6.3.18.2 Suspension lasting more than Three Month:

If the progress of the works or any part thereof is suspended on the order of the Engineer in writing for more than three Month at a time, the Bidder may serve a written notice to the Engineer requiring permission within 15 days from the receipt thereof to proceed with the work or part thereof in regards to which progress is suspended and if such permission is not granted with in that time the Bidder by a further written notice so served may (but is not bound to) elect to treat the suspension where it affects part only of the works as an omission of such part or where it affects the whole of the works as an abandonment of the contract by the company.

6.3.19 Rates for Items of Works:

Fixed. No variation accepted

6.3.20 Rates for Extra Items:

If any items of work carried out by the Bidder on the instructions of the Engineer which is not covered by the 'Accepted schedule of rates' (i.e. the Tendered Rates), rates for such additional, altered or substituted work shall be worked out in accordance with the following provisions in their respective order.

- i) If the rates for the additional altered or substituted work are not specifically provided in the contract for the work the rates will be derived from rates for similar class of work as are specified in the contract for the work.
- ii) If the altered, additional or substituted work included any work for which no rates are specified in the contract then such work shall be carried out at the rates entered in the CPWD Schedule of Rates 2016 (Civil) and the latest Schedule of Rates for Electrical Works, New Delhi minus / plus percentage which the total tendered amount bears to the estimated cost of the entire work put to tender.
- iii) If rates for the altered, additional or substituted work cannot be determined in the manner specified in sub clause (i) or (ii) above then rates for such work shall be worked out on the basis of the schedule of rates specified in sub clause (ii) above minus/plus the percentage which the total tendered amount bears to the estimate cost of the entire work put to tender. Provided always that if the rate for a particular part or parts of the items is not in the schedule of rates, the rates for such part or parts will be determined by the Engineer on the basis of the prevailing market rates, when the work was done.
- iv) If rates for the altered, additional or substituted work cannot be determined in the manner specified in sub clause (i) to (iii) above, then the Bidder shall within 7 days of the date of receipt of order to carry out the work, inform the Engineer of the rate which it is his intention to charge supported by analysis of the rate or rates claimed and the Engineer shall determine the rates on the basis of prevailing market rates and pay the Bidder accordingly. However, the Engineer by notice in writing will be at liberty to cancel his order to carry out such work and arrange to carry out it out in such manner as he may consider advisable, provided always if the Bidder commences the work or incur any expenditure before determination of the rate(s) herein before mentioned, then in such case the Bidder shall be entitled to be paid in respect of the work carried or expenditure incurred prior to date of determination of the rates as aforesaid to such rate or rates as shall be fixed by the company. But under no circumstances the Bidder shall suspend the work on plea of non-settlement of rates for items falling under this clause.

6.3.22 Clearance of Site:

6.3.22.1 Clearance of Site on Completion

6.4.0 VARIATION in EXTENT of CONTRACT:

6.4.1 Modifications to the Contract to be in Writing:

In the event of any of the provisions of the contract requiring to be modified after the contract documents have been signed, the modifications shall be made in writing and signed by the company and the Bidder. Any verbal or written arrangements abandoning, modifying, extending, reducing or supplementing the contract or any of the term thereof shall be deemed conditional and shall not be binding on the company unless and until the same is incorporated in a formal instrument and signed by the company.

6.4.2 Power of Modifications to Contract:

The Engineer on behalf of the company shall be entitled by order in writing to enlarge or extend, diminish or reduce the works or make any alterations in their design, character, position, site, quantities, dimensions or in the method of their execution or in the combination and use of materials for the execution thereof and to order any additional works to be done or any works not be done as provided on clause 6.4.2.2 the Bidder will not be entitled to any compensation for any reductions and for approved materials furnished against a specific order.

6.5.0 Valuation of Variations:

The enlargements extensions, dimensions, reduction, alterations or additions referred to in clause 6.4.2.1 shall in no degree affect the validity of the contract but shall be performed by the Bidder as provided therein and be subject to the same conditions, stipulations and obligations as if they had been originally and expressly included and provided for in the specifications and drawings and the amounts to be paid there for shall be calculated in accordance with the accepted schedule of rates and for extra items of works at the rates determined under the clause 6.3.21 of these conditions.

6.5.1 The Bidder shall prepare and furnish to the Engineer once in every month an amount giving full and detailed particulars of all claims for any additional expense to which the Bidder may consider himself entitled and of all extra or additional works ordered by the Engineer which he has expected up to and including the preceding month under the following sub-heads:

- a) Deviations from items and specifications provided in contract documents.
- b) Extra items of Work.
- c) Quantities in excess of those provided in the contract schedule.
- d) Items in respect of which the rates have not been settled.

No claim for payment for any such work will be considered which has not been included in such particular.

He should in addition furnish a clear certificate to the effect that the claims submitted by him as aforesaid cover all the claims and that no further claims shall be raised by him in respect of the works done up to and including the period under report.

6.5.1.2 Signing of 'No-Claims' Certificate:

The Bidder shall not be entitled to make any claim so ever against the company under or virtue of entertain or considered any such claim, if made by the Bidder, after he shall have signed "No Claim" certificate in favour of the company, in such form as shall be required by the company.

6.5.1.3 Submission of Bills:

The Bidder shall submit the bills as per time schedule for the completion of the work. The payment shall be made through NEFT/RTGS by the company.

6.6.0 MEASUREMENT CERTIFICATES and PAYMENTS:

6.6.1 Quantities in Schedule Annexed to Contract:

The quantities set out in the accounted schedule of rates are the estimated quantities of the works and they shall not be taken as the actual and correct quantities of the work to be executed by the Bidder in fulfilment of his obligations under the contract.

6.6.2 Measurements of Works:

The Bidder shall be paid for the works at the rates in the accepted schedule of rates and for extra works at the rates determined under clause 6.3.21 of these conditions on the measurements taken by the Engineer or the Engineer's representative in accordance with rules prescribed for the purpose by the company.

6.6.3 On Account Payments:

6.6.3.1 'On Account' Payment Not Prejudicial to Final Settlement:

'On Account' payments made to the Bidder shall be without prejudice to the final making up of the accounts (except where measurements are specifically noted in the measurement book as 'Final Measurement' and as such have been signed by the Bidder) and shall in no respect be considered or used as evidence of any facts stated in or to be inferred from such accounts nor of any particular quantity of work having been executed nor of the manner of its execution being satisfactory.

6.6.3.2 Manner of Payment:

Payment will be made through NEFT/RTGS

6.6.4 MAINTENANCE OF WORKS:

12 months from the date of final completion of contract under defect liability period.

6.6.5 Certificate of Completion of Work:

6.6.5.1 As soon as in the opinion of the engineer the work shall have been substantially completed shall have satisfactorily passed any final test that may be prescribed, the engineer shall issue a certificate of completion in respect of the works and the period of Maintenance shall commence from the date of such certificate, provided that the engineer may issue such a certificate with respect to any part of the works before the completion of the whole of the works or with respect to any substantial part of the work which has been both completed to the satisfaction of the engineer and occupier or used by the company and when any such certificate is given in respect of a part of the work, such part shall be considered as completed and the period of maintenance of such part shall commence from the date of such certificate.

6.6.6 Liability and Obligations:

6.6.6.1 Cessation of Company's liability:

The company shall not be liable to the Bidder for any matters arising out of or in connection with the contract or the execution of the works unless the Bidder shall have made a claim in writing in respect thereof before the issue of the Maintenance certificate under this clause.

6.6.6.2 Unfulfilled Obligations:

Notwithstanding the issue of the Maintenance Certificate the Bidder or/and (subject to clause 6.6.1) the company shall remain liable for the fulfillment of any obligations incurred under the provisions

of the Bidder prior to the issue of the Maintenance certificate which remains unperformed at the time such certificate is issued and for the purpose of determining the nature and extent of any such obligation the contract shall be deemed to remain in force between the parties hereto.

6.6.7.0 COMPANY'S LIEN ON ALL MONEYS DUE AND POST PAYMENT CHECK:

The company shall have a lien on and all or any moneys that may become due and payable to the Bidder under these presents and/or also on and over the deposit or security amount or amounts made under the contract and which may become repayable to the Bidder under the conditions in that behalf herein contained for ,or, in respect of any debt sum that may become due and payable to the company by the Bidder either alone or jointly with another or others and either under this and under any other contract or transactions of any nature whatsoever between the company and the Bidder.

The company reserves the right to carry out a post payment audit and/ or Technical examination of the works and the final bills including all supporting vouchers, abstracts etc., and to enforce recovery if as a result of such examination, any over-payment is discovered in respect of any work done by the Bidder or alleged to have been done by him under the contract and such recovery will be made by the company from the Bidder by any or all of the methods presented above. If on the other hand any under payment is discovered the amount shall be duly paid to the Bidder by the company. Further the company reserves the right to make such recoveries and adjustment notwithstanding the fact that the amount of the final bill may be included by one of the parties as an item of dispute before any arbitrator appointed under the arbitration clause of the contract and notwithstanding the fact that the amount of the final bill figures in the Arbitrators award. And further unless the Bidder pays and clear the claims of the company immediately on demand, the said debit or sum by the Bidder from the moneys, securities or deposit which may have become or will become payable to the Bidder or under these presents or under any other contract or transactions whatsoever between the Bidder and the company.

6.6.7.1 Signature on Receipts for Amounts:

Every receipts for moneys which may become payable or for any security which may become transferable to the Bidder, under these presents, shall notwithstanding anything to the contrary contained in the partnership deed, if signed in the partners in name by any one of the partners of a Bidders firm be a good and sufficient discharge to the company in respect of the money or security purported to be acknowledged, thereby and in the event of death of any of the Bidder partners during the tendency of contract, it is hereby expressly agreed that every receipt by any one of the surviving Bidder partners shall if so signed as aforesaid to be a good and sufficient discharge as aforesaid provided that nothing in this clause contained shall be deemed to prejudice shall be deemed to prejudices or affect any claim which the company may hereafter have against the legal representatives of the Bidders partner so dying or in respect of any breach of any of the conditions of the contract, provided also that nothing in this clause contained shall be deemed to prejudice or affect the respective rights or obligations of the Bidder partners and of the representatives of any deceased Bidder partner.

6.7.2 LABOUR:

6.7.2.1 WAGES TO LABOUR:

The Bidder shall comply with the provisions of the minimum wages act, (herein after referred to as the "said act") and the rules made thereunder in respect of any employees employed by him on road constructions or in building operations or in stone breaking or stone crushing or any other work being executed for the company by the Bidder for the purpose of carrying out this contract.

If, in compliance with terms of the contract, the Bidder supplies any labour to be used wholly or partly under the direct orders and control of the company whether in connection with any work being executed by the Bidder or

otherwise for the purpose of the company such labour shall for the purpose of this clause, still be deemed to be persons employed by the Bidder.

If any moneys shall, as a result of any claim or applications made under the said act be directed to be paid by the company, such moneys shall be payable to the company by the Bidder. On failure by the Bidder to repay the company aforesaid amount within seven days after a notice writing by the Engineer, the company shall be entitled to recover the same from any moneys due to accruing under this or any contract with the company.

6.7.3 INSURANCE:

The Bidder shall, at his own expense, carry and maintain insurance to the satisfaction of the company as follows:

If and when the Employees State Insurance Act is made applicable to the site of works, the Bidder agrees to and does hereby accept the full and exclusive liability for the compliance with all obligations imposed by the Employees State Insurance Act as modified from time to time and the Bidder further agrees to ensure the compliance of all sub-Bidders with the applications of the said Act. The Bidder further agrees to defend, indemnify and hold harmless the company from any liability or penalty which may be passed by any State or Local Authority by reason of any asserted violations by the Bidder or sub-Bidders of the Employees State Insurance Act and also from all claims, suits or proceedings that may be brought against the company arising under, occurring out of/or be Central or State Government authorities, or any political sub divisions thereof. The company shall retain such sums as may be necessary from the total contract value until the Bidder shall furnish satisfactory proof that all payments as required by the Employees State Insurance Act have been paid.

6.7.4 PROVISION OF PAYMENT OF WAGES ACT:

The Bidder shall comply with the provisions of the payment of wages Act and the rules made thereunder in respect of all employees employed by him on the works. If in compliance with the terms of the contract the Bidder supplies any labour to be used whole or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of company such labour shall nevertheless be deemed to comprise persons employed by the Bidder and any moneys which may be ordered to be paid by the company shall be payable to the company by the Bidder. On failure of the Bidder to repay such moneys to the company within 7 days after a notice in writing by the Engineer, the company shall be entitled to deduct from any money due to the Bidder (whether under this contract or any other contract). The decision of the Engineer upon any question arising out of the effect or force of this clause shall be final and binding upon the Bidder.

6.7.5 REPORTING OF ACCIDENTS TO LABOUR:

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

6.7.6 WORKMEN'S COMPENSATION:

6.7.6.1 PROVISION OF WORKMEN'S COMPENSATION ACT:

- i) Insurance shall be effected for all the Bidder's Employees engaged in the performance of this contract. If any of the work is sublet, the Bidder shall require the sub-Bidder to provide workmen's compensation and Employee Liability Insurance for the latter's employees unless such employees are covered under the Bidder's insurance, or by reason of the work provided for by this contract whether brought by employees of the Bidder by third parties.

- ii) In every case in which by virtue of the provisions of the workmen's compensation Act, company is obliged to pay compensation to a workman employed by the Bidder in executing work the company will recover from the Bidder the amount or the compensation so paid, and without prejudice to the right of company under the said Act, company shall be at liberty to deduct it from the security deposit or from any sums payable to the Bidder, whether under this contract or otherwise company shall not be bound to contest any claim made against it under the said act except on the written request of the Bidder and upon his giving to company full security for all costs for which company might become liable in consequence of contesting such claim.

6.8.0 DETERMINATION of CONTRACT:

6.8.1 RIGHT OF COMPANY TO DETERMINE THE CONTRACT:

The company shall be entitled to determine and terminate the contract at any time should in the company's opinion, the cessation of work become necessary owing to paucity of funds or from any other cause whatsoever, in which case the value of approved materials at site and of work done to date by the Bidder will be paid for in full at the rates specified in the contract. Notice in writing from the company of such determination and the reasons there for shall be conclusive evidence thereof and binding upon the Bidder.

6.8.2 PAYMENT ON DETERMINATION CONTRACT BY COMPANY:

Should the contract be determined under clause 8.1 and the Bidder claims payment for expenditure incurred by him in the expectation of completing the whole works, the company shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer. The Bidder shall, however, have no claim to any payment whatsoever on account of profit and advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the determination of the contract. The company's decision on the necessity and propriety of such expenditure shall be final and conclusive.

6.8.3 DETERMINATION OF CONTRACT OWING TO DEFAULT OF CONTRACT:

If the Bidder should –

6.8.3.1.1 Become bankrupt or insolvent

6.8.3.1.2 Make an arrangement, with or assignment in favour of his creditors, or agree to carry out the contract under a committee of Inspection of his creditors.

Or

6.8.3.1.3 Being a company or corporation, go into liquidation (Other than a voluntary liquidation for the purpose of amalgamation or reconstruction).

Or

6.8.3.1.4 Have an execution levied on his goods or property on the works.

Or

6.8.3.1.5 Assign the contract or any part thereof otherwise than as [provided in condition 6.2.6 of these conditions.

Or

6.8.3.1.6 Abandon the contract

Or

6.8.3.1.7 Persistently disregard the instructions of the Engineer, or contravene any provisions of the contract.

Or

6.8.3.1.8 Fail to adhere to the program of work by a margin of 10% of the stipulated period.

Or

6.8.3.1.9 Fail to remove materials from the site or to pull down and replace work after receiving from the Engineer's notice to the effect that the said materials or work have been condemned or rejected under condition of contract.

Or

6.8.3.1.10 Fail to take steps to employ competent or additional staff and Labor as required under condition of contract

Or

6.8.3.1.11. Fail to afford Engineer or Engineer's Representative proper facilities for inspecting the works or any part thereof.

Or

6.8.3.1.12 Promise offer or give any bribe, Commission, Gift or advantage either himself or through his partner, agent or servant to any officer or employee of the company, or to any person on his or in their behalf in relation to the execution of this or any other contract with company.

Then and in any of the aforesaid cases, the Engineer on behalf of the company may serve the Bidder with a notice in writing to that effect and if the Bidder does not within 7 days after the delivery to him of such notice proceed to make good his default in so far as the same is capable of being made good and carry on the work or comply with such directions as aforesaid to the entire satisfaction of the Engineer, the company shall be entitled after giving 42-hour notice in writing under the hand of the accepting authority to rescind the contract as a whole or in a part or parts(as may be specified in such notice) and adopt either or both of the following courses.

- a) To carryout whole or part of the work from which the Bidder has been removed by the employment of the required labour and materials, the costs of which shall include lead, lift, freight, supervision and all such incidental charges.
- b) To Measure up the whole or part of the work from which the Bidder has been removed and to get it completed by another Bidder.

The manner and method in which such work is completed shall be in the entire discretion of the accepting authority whose decision shall be final and in both cases (a) and (b) mentioned above and company shall be entitled to:

- i) To forfeit the whole or such portion of the security deposit as it may consider fit.

AND

- ii) To recover from the Bidder the cost of carrying out the work in excess of the sum which would have been payable according to the certificates of the Engineer to the Bidders, if the works had been carried out by the Bidder under the terms of the contract, such certificate being final and binding upon the Bidder, provided however, such recovery shall be made only when the cost incurred in excess is more than the security deposit proposed to be forfeited and shall be limited to the amount by which the cost incurred in excess is more than the security deposit proposed to be forfeited and shall be limited to the amount by which the cost incurred in excess, exceeds the security deposits proposed to be forfeited. The amount thus to be forfeited or recovered may be deducted from any moneys then due or which at any time thereafter may become due to the Bidder by the Company under this or any other Bidder or otherwise.

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

6.8.3.2 RIGHT OF COMPANY AFTER RESCISSION OF CONTRACT OWING TO DEFAULT OF BIDDER.

In the event of any of several of the courses, referred to in conditions 6.8.3 of this clause, being adopted:

- 6.8.3.2.1 The Bidder shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any commitments or made any advance on account or with a view to the execution of the works or the performance of the contract and Bidder shall not be entitled to recover or be paid any sum for any work thereto or actually performed under the contract unless until the Engineer shall have certified the performance of such work and the value payable in respect where of and the Bidder shall only be entitled to be paid the value so certified.
- 6.8.3.2.2 The Engineer or the Engineer's representative shall be entitled to take possession of any materials, tools, implements, machinery and buildings on the works or on the property on which these are being or ought to have been executed, and to retain and employ the same in the further execution of the works or and part thereof until the completion of the works without the Bidder being entitled to any compensation for the use and employment there of or for wear and tear or destruction thereof.
- 6.8.3.2.3 The Engineer, shall as soon as may be practicable after removal of the Bidder fix and determine ex-party or by or after reference to the parties or after such investigation or inquiries as he may consider fit to make or institute and shall consider fit to make or had at the time of rescission of the contract been reasonably earned by or would reasonably accrue to the Bidder in respect of the work then actually done by him under the contract and what was the value of any unused, or partially used materials, any construction plant and temporary works upon the site.
- 6.8.3.2.4 The Company shall not be liable to pay to the Bidder any money on account of the contract until the expiration of the period of maintenance and thereafter until the cost of completion and maintenance damages (if any), and all other expenses incurred by the Company have been ascertained and the amount thereof certified by the Engineer. The Bidder shall then be entitled to receive only such sum or sums (if any) as the Engineer may certify would have been due to him upon due completion by him after deducting the said amount, but if such amount exceeds the sum which would have been payable to the Bidder, shall upon demand, pay to the Company the amount of such excess and it shall be deemed a debit by the Bidder to the Company and shall be recoverable accordingly.

6.8.3.3 TERMINATION OF CONTRACT FOR DEATH:

If the Bidder is an individual or a proprietary concern and the individual or the proprietor dies and if the Bidder is a partnership concern and one of the partner dies then unless the company is satisfied that the legal representative of the individual Bidder or of the proprietor of the proprietary concern and in the case of partnership, the surviving partners, are capable of carrying out and completing the contract, the company shall be entitled to cancel the contract as to its incomplete part without the company being in any way liable to payment of any compensation to the estate of the deceased Bidder and/or to the surviving partners of the Bidders firm on account of the cancellation of the contract. The decision of the company that the legal representative of the deceased Bidder or the surviving partners of the Bidder's firm cannot carry out and complete the contract shall be final and binding on the parties. In the event of such cancellation the company shall not hold the estate of the deceased Bidder and/or the surviving partners of the Bidder's firm liable for damages for not completing the contract.

6.9.0 SETTLEMENT OF DISPUTES:

6.9.1 MATTERS FINALLY DETERMINED BY THE COMPANY

All disputes or difference of any kind whatever arising out of or in connection with the contract, whether during the progress of the works or after completion and whether before or after the determination of the contract, shall be referred by the Bidder to the Company and the Company shall within a reasonable time after their representation make and notify decision thereon in writing. The decisions, direction and certificates with respect to any conditions given and made by the Company or by the Engineer on behalf of the Company which matters are referred to herein after as accepted matters shall be final and binding upon the Bidder and shall not be set aside or be attempted to be set aside on account of any informality, omission, delay of error in proceeding in about the same or any other ground or for other reason and shall be without appeal.

6.9.2 DEMAND FOR ARBITRATION:

6.9.2.1 If the Bidder be dissatisfied with the decision of the Company, on any matters in question, dispute or difference on any account or as to the withholding by the Company of any certificates to which the Bidder may claim to be entitled to or if the Company fails to make a decisions within a reasonable time, when and in any such cases but except in any of the expected matters with in ten days of the receipt of communication or such decisions or after the expiry of reasonable time (which reasonable time will in no case exceed three months) as the case may be shall demand in writing that such matters in question, dispute or difference be referred to Arbitration. Such demand for Arbitration shall be delivered to the Company by the Bidder and shall specify the matters which are in question, dispute or difference and such disputes or difference of which the demand has been made and no other matter shall be referred to arbitration.

6.9.2.2 OBLIGATION DURING PENDENCY OF ARBITRATION:

Work during the contract shall unless otherwise directed by the Engineer, continue during proceedings and no payment due or payable by the Company shall be withheld on account of such proceedings provided, however, it shall be open for the arbitrator to decide whether such work should continue or not during arbitration proceedings.

6.9.2.3 ARBITRATION:

Except where otherwise provided for in the contract, all questions and dispute relating to the meaning of the specifications, designs, drawings, estimates, instructions and conditions herein mentioned and as to the quality of workmanship, or materials used on the work or as any way arising out of or relating to the contract, designs, drawings, specifications, estimates, Instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of work or after the completion or abandonment thereof shall be referred to the sole arbitration of accepting authority and if the accepting authority is unable or unwilling to act, to the sole arbitration of some other person appointed by the accepting authority. There will be no objection if the arbitrator so appointed is an employee of the ITI LIMITED and that he had to deal with the matters to which the contract relates and that in the course of his duties as such he has expressed views on all or any of the matters in disputes of difference.

The Arbitrator to whom the matter is originally referred being transferred or vacating his office being unable to act for any reason, the accepting authority as aforesaid at the time of such transfer, vacation of office or inability to act shall appoint another person to act as Arbitrator in accordance with the terms of the contract. Such person shall be entitled to proceed with the reference from stage at which it was left by his predecessor. It is also a term of this contract that no person other than a person appointed by accepting authority, as aforesaid, should act as arbitrator and if for any reason, that is not possible, the matter is not to be referred to Arbitration at all. In all cases where the amount of the claim on dispute is Rs. 50,000/- (Rupees fifty thousand) and above, the arbitrator shall give reason for the award. It is also terms of this contract that the venue of the arbitration shall be Corporate Office of ITI Limited, Dooravaninagar, Bengaluru, 560016.

It is term of the contract that the party invoking arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute.

It is also a term of the contract that if the Bidder(s) does/do not make any demand for Arbitration in respect of any claim(s) in writing within ninety days [90] of receiving the intimation from the Company, that the bill is ready for payment the claim of the Bidders will be deemed to have been waived and absolutely be barred and the Company shall be discharged of all liabilities under the contract in respect of these claims.

The arbitrator(s) may from time to time with the consent of the parties enlarge the time for making and publishing the award.

Subject as aforesaid the provisions of the Arbitration and Conciliation Act 1996 and subsequent latest amendment or any statutory modification or re-enactment thereof & the rules made there under & for the time being in force shall apply to the arbitration proceedings under this clause.

The decision of the Arbitrator shall be final and binding on the parties to this Contract.

Each party shall bear its own cost of preparing and presenting its case. The cost of Arbitration including the fees and expenses of the Arbitrator shall be shared equally by the Bidder and the Company.

6.9.2.4 Jurisdiction of Courts: For any legal matters arising out of this contract, the designated courts in Bangalore only shall have jurisdictions.

6.9.3 On demand from the company or statutory authorities like the labour/PF/ESI/Commissioner during the course of execution or after, the Bidder has to arrange the required documents, certificates and fulfill all statutory obligations. Signature of the Bidder

6.10 SPECIFICATIONS AND SPECIAL CONDITIONS

6.10.0 Specifications:

6.10.1 The work shall be executed in strict accordance with the accepted conditions of contract, bill of quantities, specifications and orders as may be issued by the Engineer-in-Charge and his representatives.

6.10.2 If Specifications for any item of work are not covered by any of the documents mentioned in NIT, the same shall be decided and conveyed by the Engineer-in-charge to the Bidder.

6.10.3 In case of conflict amongst the provisions of bill of quantities, specifications and drawings the following precedence shall be followed.

- a) Descriptions of item in the bill of quantities.
- b) Provisions in the specifications.
- c) Provision in the drawings.

6.10.4 In the case of conflict amongst the various drawings, the decisions of Engineer - in-charge shall be final and binding.

6.10.5 Samples of all the materials and workmanship proposed to be employed in the execution of works, shall be got approved from the Engineer –in-Charge in writing. The Engineer or his representative will reject all materials or workmanship not corresponding in quality or character with the approved samples. All expenses in this connection shall be borne by the Bidder.

6.10.6 Tests: If so required by the Engineer, the Bidder shall provide all facilities at site or at manufacturers work or in an approved laboratory for testing of materials/and/or workmanship. All the expenditure in respect of this shall be borne by the Bidder unless specified otherwise in the contract.

6.10.7 The Bidder shall, when required to do so by the Engineer, submit at his own cost, manufacturer's certificate of tests. Proof sheets, Mill sheets etc., showing that the materials have been tested in accordance with the requirements of this specification.

6.11.0 Special conditions

1. These special conditions shall be read in conjunction with general of the contract. Where the provisions of these conditions are at variance with the provisions of the general conditions of the contract, the provisions of these special conditions shall take precedence.
2. The Bill of quantities is to be read in conjunction with the form of Tender, Drawings, Conditions of Contract, specifications as these documents are jointly explanatory and descriptive of the works included in contract.

3. The rates quoted in the bill of Quantities are to be for full inclusive value of the work described under the several items, including all costs and expense which may be required in and for the construction and full protection of the work described, together with all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based. The quoted rates will be for all heights, lifts and leads unless otherwise mentioned specifically in the description of them.
4. The quantities of work in the schedule are not to be considered as limiting for the amount of work to be done by the Bidder. The quantities are an estimate of the amount of work to be executed and the work will be measured on completion and the Contract amount adjusted accordingly.
5. General directions and descriptions of work and materials given elsewhere in the contract documents are not necessarily repeated in the Schedule. Reference is to be made to the other documents for full information.
6. The Bidder will be held to have visited the site before preparing the tender and to have examined for himself the conditions under which the work will be carried out, including local conditions affecting labour and to have studied the items of the bill of quantities, the Drawings and specifications, clauses relating to them and to have satisfied himself that the rates quoted by him provide for all minor accessories and contingent works or services necessary for the works described even though they are not precisely defined.
7. All measurements, A/T, Bills etc. are required to be verified by TPA/ representative of BBNL as per the condition in RFP of BBNL.
8. Bidder is to upload all work progress on Web/ GIS block wise.
9. All Acceptance Test and verification of measurement will be carried out by TPA.
10. The quantity indicated in BOQ are tentative and may vary as per actual requirement.
11. All tools / software used in the project shall be with proper license to use and no pirated software to be used.

6.12.0 GIS data specifications:

1. Format: .shp format with mapping on GCS projection system with WGS 84 datum.
2. Base Map for Validation: NIC Base map.
3. Codification and Layer structure will be provided by BBNL/NIC.

6.12.1 General Specifications for both GIS mapping

1. Position of OFC Route @ every 10 Meter from the offset, Centre of Road.
2. Overhead or Underground alignment, type of execution (HDD, OT, Aerial etc.).
3. Depth of OFC (Recorded at the time of deployment), count of terminated and spare fibers, loop, make and size of cable deployed, Optical test results for each fibre.
4. Route marker details: Cement/electronic Route Marker (Lat-Long) details Route Marker Identification.
5. Road features: Length, width and type (RCC, Kuchha, pakka etc.). Variation in width of road may be recorded in meters taking offset from the centre of the road.
6. Other Operators/Utility: Presence of underground OFC of other operators, utility pipes, transmission cable etc. to be captured in drawing.
7. RoW: Railway authority, NH, Forest authority and any other authority limits shall be recorded along with OFC path. Information should be shown in drawing as text (aligned to road centreline) at start/end of every 400 meters drawing or at authority change within 400 meters.
8. Position of OLT, ONT, FPOI, Splitter, OFC Joints, Couplers, Manholes, Milestones, Culverts, Bridges/ nallah, water bodies, cross roads, railway crossings, flyovers etc. to be recorded in drawing.
9. Readings should invariably be recorded at every bend on the road, road/railway crossings, culverts, diversion etc. at every 5 meters.

10. For point feature like poles, trees, sewerage man holes, other utility chambers, transformers, bore well etc. which are approximately less than 1m diameter/length, shall be captured as a point and if the feature is more than 1m diameter/length, need to take the boundary. Every feature within survey corridor should be shown in drawing.
11. For all the linear features, geo coordinates shall be recorded at every turning point.
12. For all the utilities above ground viz. Poles, Manholes, and telecom nodes like BTS and telephone exchanges etc, details shall be recorded in a corridor of 50m (25m on either side of the road center line or ROW of road whichever is more).
13. To and/or from direction to village, town, city etc. shall be recorded for all roads.
14. All the road KM stones shall be shown in GIS using symbol provided.
15. All the property boundaries with in the corridor shown in GIS
16. Collection of data (Custodianship of GPON equipment, location of school, college, hotels, post office, other Govt. offices, key contacts in GP etc.) in each Gram Panchayat and other important locations. Contact numbers of all the above Offices to be obtained shown in shape files.

6.13.0 Stipulated Time Schedule and Penalties:

6.13.1 The key milestone dates (“critical dates”) * as anticipated by the Purchaser are:

S. No.	Deliverable	Timeline for completion	Liquidated damage	Remarks
1.	Issuance of Award of Contract (work order)	T0		
2.	Island 1	T0+20 Days	If the bidder fails to complete the scope of stipulated time schedule then a penalty of 3 % of total cost of incomplete scope per month shall be deducted	
3.	Island 2	T0+40 Days	If the bidder fails to complete the scope of stipulated time schedule then a penalty of 3 % of total cost of incomplete scope per month shall be deducted	
4.	Island 3	T0+60 Days	If the bidder fails to complete the scope of stipulated time schedule then a penalty of 3 % of total cost of incomplete scope per month shall be deducted	

7.0 Liquidated Damages

Liquidated damage % for delay in work is given in the above table with timeline for completion of work 6.13.1.

Maximum LD shall be 15% of total contract value.

7.0.1 The PIA shall perform the Services and comply in all respects with the critical dates and the parties hereby agree that failure on part of the PIA to meet the critical dates without prejudice to any other rights that the Purchaser have, may lead to the imposition of such obligations as are laid down in the Delay and Deterrent Mechanism and/or levy of penalty as set and/or termination of the Contract at the discretion of the Purchaser.

7.0.2 Penalties shall be capped to maximum of 15% of total cost of Project Value. Beyond 15% the Purchaser has the right to terminate the contract or a portion or part of the work thereof. The purchaser shall give 30 days' notice to the PIA of its intention to terminate the Contract and shall so terminate the Contract unless the Bidder initiates remedial action acceptable to the Purchaser during the 30 days' notice period,

7.0.3 The Purchaser may without prejudice to its right to effect recovery by any other method, deduct the amount of liquidated damages from any money belonging to the PIA in its hands (which includes the Purchaser's right to claim such amount against PIA s' Bank Guarantee) or which may become due to the PIA. Any such recovery or liquidated damages shall not in any way relieve the PIA from any of its obligations to complete the Works or from any other obligations and liabilities under the Contract.

REF NO. _____

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 be 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 of warranty period). Unless a demand is made against us to enforce a claim under this guarantee within three months from the date of expiry of warranty period, all your rights under this guarantee shall be forfeited and we shall be relieved and discharged from all liability hereunder.

DATE:
PLACE:

For _____ (indicate the name of Bank)

PRE CONTRACT INTEGRITY PACT

PURCHASE ENQUIRY/ORDER No.

THIS Integrity Pact is made on.....day of20.

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 WITNESSETH 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 Act or 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 origin 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 be 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: -

Shri Javeed Ahmad, IPS(Retd.)
M-1101, Shalimar Gallant Apartment,
Vigyanpuri ,Mahanagar,Lucknow-226006.

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 be 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 consortium 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 - III

Proforma of Agreement

An AGREEMENT made this day the ----- Between
..... (hereinafter called the “BIDDERS”) of the first part and M/s ITI LIMITED,
..... (hereinafter called the “COMPANY”) of the second part.

Whereas the Bidders have by tender dated-----offered to execute and fully complete the intended works in connection with the construction of

.....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 witnesseth as follows:

1. The BIDDERS covenant and agree with the COMPANY that the BIDDERS 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 part of the BIDDERS 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 of the COMPANY in every respect within the aforesaid time limit of Months from the stipulated in the work order, the BIDDERS 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 BIDDERS that it will pay to the BIDDERS at the several times and in the sums, proportions and manner in the said, general conditions,

special conditions in that behalf provided the amount accruing from time to time, but subject to Conditions therein contained.

4. This agreement further witnesseth that the BIDDERS hereby covenant with the COMPANY that in the event of the non-fulfillment in any respect by the BIDDERS 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 BIDDERS.
5. If the BIDDER 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 (Civil) or any officer of the COMPANY so authorized may, without prejudice to the right of the COMPANY to recover from the contractors 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 BIDDERS without prior notice and get the balance work executed through some other agencies and held the BIDDERS liable for all the losses and expenses incurred by the COMPANY. The decision of the General Manager (Civil) 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 datedand letter no datedthe 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 witnesseth that the BIDDERS are responsible for any accident or other compensation payable to the workman employed by the working under the control of BIDDERS 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 BIDDERS.

In witness where of the said parties here to have hereunto set their hands.

For, ITI LIMITED	For,
Authorised Signatory	PROPRIETOR

Witnesses:

1.
2.

Witnesses:

1.
2.

Place :

Date:

ANNEXURE- IV

DECLARATION OF TENDERERS

FROM.....
.....

.....
.....

TO
.....
.....

I/We..... have read the conditions of the tender and tender documents attached here to and agree to abide by such conditions. I/We offered to do ----- at the rates quoted in the attached schedule to complete the works on or before the dates mentioned in time schedule for completion of works.

1. I/We further agree to sign an agreement, bind to abide by the general conditions of contract and to carry out all works according to the specifications laid down in the tender papers. I/We hereby pay the earnest money ofby demand draft/banker's cheque. I/We bind myself/ ourselves to deposit the security deposit as prescribed within 15 days after receiving the notice that the contract has been awarded to me / us failing which I/We have no objection to the forfeiture of the earnest money in full; otherwise the said earnest money shall be retained by the said company towards security deposit as specified in the conditions. I/We further bind myself /ourselves to execute the contract document and to commence the work with 15 days after issue of work order in writing as aforesaid failing I/We agree to the company forfeiting the earnest money and security deposit deposited with them. The accepting authority shall also be at liberty to cancel the acceptance of tender, if I/We fail to deposit the security amount as specified or to execute an agreement or to start work as stipulated in the tender documents.
2. I/We hereby enclose declaration of my/our experience of execution of works of similar nature and magnitude carried out by me/us in the prescribed proforma, and also the income tax and sales tax clearance certificates.
3. The offer shall remain open for acceptance by the Accepting Authority for a **period 3 months** from the date of opening of the tender.

Date:

Signature of tenderer
with seal of the firm

witness.....
(Name in block letters)

Power of attorney in case the tender is signed by the authorized nominee must be enclosed.

Address:

Occupation:

Non-Disclosure Agreement

(Between M/s & ITI Ltd)

This Agreement is made between: xxxxx, a Company incorporated under the Companies Act, 1956, having its Registered Office at, CIN No (hereinafter referred to as “XXX” which shall include its successors and permitted assigns, herein after referred to as IP); and

ITI Limited, a Company incorporated under the Companies Act, 1956 having its Registered & Corporate Office at ITI Bhavan, Dooravaninagar Bangalore - 560016, INDIA, CIN No: L32202KA1950GOI000640 (hereinafter referred to as “ITI” which shall include its successors and permitted assigns). xxxxxxxxxxxxxx and ITI are hereinafter also referred to individually as “Party” and collectively as “Parties”. Background:

The Parties are evaluating and negotiating a potential contractual relationship, subject to mutually agreed definitive agreement, as per Tender No. -----due on issued by ITI Limited for “.....” (the "Project").

(A) XXX may in these evaluations and negotiations disclose certain Confidential Information (as defined below) to Company;

(B) The Parties agree that the disclosure and use of Confidential Information is to be made on the terms of this Agreement.

The Parties agree as follows:

1 Definitions

In this Agreement, the following definitions apply:

"Affiliate" means, at the time of disclosure of any Confidential Information, any legal entity that directly or indirectly controls, is controlled by, or under common control with, a Party.

"Agreement" means this Non-Disclosure Agreement, as amended from time to time under Section 8.

"Confidential Information" means any information that is disclosed or made available in any form by XXX to Company, or that Company has gained knowledge from XXX as a result of this Agreement, but only if:

- (a) such information is disclosed by XXX in writing, it is marked as confidential on disclosure;
- (b) such information is disclosed by XXX orally, it is identified as confidential on disclosure;
- (c) such information is disclosed in any other manner; it is designated in writing as confidential on disclosure; or
- (d) the nature of such information otherwise makes it clear that it is confidential;

but excludes information that:

- (e) is or becomes publicly available, except by an act or omission of Company,
- (f) is demonstrably developed at any time by Company without use of such information, or
- (g) is lawfully obtained at any time by Company from a third party without restrictions in its disclosure or use.

"Project" means the project defined under (A) in "Background".

"Purpose" means the evaluations and negotiations of a contractual relationship between the Parties for the Project.

2 Non-disclosure of Confidential Information

2.1 Subject to Section 4, Company must not disclose Confidential Information to any third party.

2.2 Company is liable for:

2.2.1 its loss or its unauthorized disclosure of Confidential Information, and

2.2.2 any loss or unauthorized disclosure of Confidential Information by any person that Company may disclose and has disclosed Confidential Information to under this Agreement.

2.3 But Company is not liable under Section 2.2 if both of the following conditions are fulfilled:

2.3.1 Company has used the same degree of care in safeguarding the Confidential Information as it uses for its own similar confidential information, but not less than a reasonable degree of care; and

2.3.2 Company notifies XXX immediately after it becomes aware of such inadvertent or unauthorized disclosure and takes reasonable measures to mitigate the effects of such disclosure and to prevent any further disclosure.

3 Use of Confidential Information

3.1 Company shall only use the Confidential Information for the Purpose.

3.2 The Confidential Information is provided "as is" without warranty of any kind and will remain the property of XXX.

3.3 Nothing in this Agreement assigns or transfers XXX's intellectual property rights in any Confidential Information to Company.

4 Permitted Disclosure of Confidential Information

4.1 Company may only disclose Confidential Information to its employee, consultant or Affiliate if the disclosure is necessary for the Purpose.

4.2 Company may disclose Confidential Information to its Affiliate or consultant, and the Affiliate or the consultant is entitled to use the Confidential Information, but only if:

4.2.1 the Affiliate or consultant uses the Confidential Information to the same extent as Company may under this Agreement; and

4.2.2 Company undertakes that any Affiliate or consultant that receives Confidential Information will comply with this Agreement or with separate confidentiality obligations as restrictive as this Agreement.

4.3 Subject to 4.2, Company may disclose Confidential Information to any other third party, but only if:

4.3.1 XXX consents in writing before disclosure; and

4.3.2 Company undertakes that any such third party that receives Confidential Information will comply with this Agreement or confidentiality obligations as restrictive as this Agreement.

4.4 Company may disclose Confidential Information if:

4.4.1 such disclosure is in response to a valid order of a court or any other governmental body having jurisdiction over this Agreement, or

4.4.2 such disclosure is otherwise required by law or the rules of any stock exchange on which the shares or other securities of either party or its Affiliates are listed,

but only if (to the extent possible) Company has first given prior written notice to XXX and made reasonable efforts to protect the Confidential Information on such disclosure.

5 Copying and return of furnished instruments

5.1 Company may not copy any instruments furnished by XXX and containing Confidential Information, unless and to the extent necessary for the Purpose.

5.2 Any models, computer programs, documents and other instruments containing Confidential Information remain XXX's property. Company shall at its own cost return or destroy any such instruments or its copies at XXX's request.

6 Non-disclosure of negotiations

Subject to Section 4, neither Party may disclose to any third party the fact that the parties are evaluating and discussing the Project, without the other Party's consent. This undertaking survives the termination of this Agreement.

7 Term and termination

7.1 This Agreement comes into force on the day that both Parties duly sign it. But this Agreement applies to any Confidential Information that may have been disclosed before this time in connection with the Purpose.

7.2 This Agreement terminates Five (5) years after the date both Parties signed it or earlier, if it is superseded by stipulations of any future agreement between the Parties for the Project or if the Parties decide to end the Project. Notwithstanding the above, the rights and obligations set forth in this Agreement which have accrued prior to termination shall survive the termination or earlier expiration of this Agreement for a period of five (5) years.

8 Amendments

This Agreement may only be amended or modified by written agreement between the Parties.

9 Governing law and arbitration

10 ARBITRATION

10.1 The Parties shall make best efforts to settle any/all disputes amicably within 30 days of communications thereof.

10.2 All disputes or differences whatsoever, arising out of this NDA including the interpretation of any provisions shall be settled by arbitration in accordance with the provisions of Indian Arbitration and Conciliation Act, 1996. The Arbitration panel contains three Arbitrators, one to be appointed by the ITI and the other by XXX and the third Arbitrator shall be appointed by Arbitrators appointed as above. The decision of the Arbitrators will be binding on all the Parties to this NDA. The language of the Arbitration Proceedings shall be English. The place of Arbitration Proceedings shall be Bangalore, India.

10.3 The above clauses on Arbitration shall survive for three (03) years even after the expiry/termination of NDA.

10.4 It is expressly understood and agreed by and between XXX and ITI that ITI is entering into this NDA solely on its own behalf and not on behalf of any other person or entity. In particular, it is expressly understood and agreed between the Parties that the Government of India is not a party to this NDA and has no liabilities, obligations or rights hereunder. It is hereby expressly understood and agreed that ITI is an independent legal entity with power and authority to enter into contracts solely on its own behalf under the applicable Laws of India and general principles of Contract Law. ITI represents and XXX expressly agree, acknowledge and understand that ITI is not an agent, representative or delegate of the Government of India. It is further understood and agreed between the Parties that the Government of India is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of the contract. Accordingly, XXX hereby expressly waive, release and forego any and all actions or claims, including cross claims, impleader claims or counter claims against the Government of India arising out of this contract and covenants not to sue the Government of India as to any manner, claim, cause of action or thing whatsoever arising of or under this NDA.

The Parties have signed two identical copies of this Agreement and have taken one copy each.

For and on behalf of
ITI Limited
(Authorized Signatory)
Name:
Designation:

For and on behalf of
XXXXXX
(Authorized Signatory)
Name:
Designation:

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

Form of Bid-Securing Declaration

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

**Scope of Work and Technical Specifications for
GIS mapping of
OFC Routes for BharatNet on BBNL GIS Portal (NIC)
(For GPoN and IP/MPLS)
Sepetember-2020 By PM & GIS Unit BBNL CO**

This document describes the process

For mapping the entire assets on the OFC route e.g. OLT/ Block Router, ONT/ GP Router, Joint, Splitter, Route Indicators, Landmark, Cable Sections and OFC etc. on the GIS platform of BBNL/NIC for laid or being laid by PIA (Project implementing Agency) against work order by SIA (State implementing Agency) for BharatNet Phase-II state led model.

Scope and Specifications:

1. Accuracy: Meter level accuracy (1 to 3 meters) with accuracy of less than 2 meter for more than 50% assets captured and accuracy of less than 3 meter for more than 95% assets captured.
2. Format: .shp format with mapping on GCS projection system with WGS 84 datum.
3. Base Map for validation: NIC Base map.
4. Codification and Layer structure will be provided by BBNL/NIC. Attached as Annexure – B for the states using GPON Technology and Annexure – C for the states using IP/MPLS Technology.
5. Uploading of geo tagged site images of physical asset locations of specified size up to 500 kb. t.
6. Calibration(optional): OTDR readings for calibration on each end of OLT, Splitter, Joint and ONT along with the coil length on each side.
7. **Interval of readings:** The coordinates of landmarks like Culverts, Bridges/ nallah, water bodies, cross roads, railway crossings, flyovers and public places like temples/mosques, bus-stop, PHC, Post office, School/College, shops etc. to be captured along with the route indicators (RI), cable joints, splitters etc. along the cable routes. One additional reading in the middle of the two manholes / RI should be recorded in the already laid network. Recordings are necessarily to be made at every fiber turn, bend along the route, road/railway crossings, culverts, diversion etc. Sufficient recordings at short intervals on the curvature of the route shall be made such that it should be mapped on GIS properly.
8. Overhead or Underground alignment, type of execution (HDD, OT, Aerial etc.).
9. Location of various assets like FPO/SJC/BJC, OLT, ONT, Manholes, Joint Chambers, Splitters, FTBs, FDMS route indicators etc. with geo-tagged images.
10. Count of terminated and spare fibers, loop, make and size of cable deployed, Optical test results for each fibre with the help of already recorded data by SIA and its fiber laying contractors. Port wise fibre built up and termination details. PON OTDR readings of FPOIs, Splitters and ONTs.
11. Route marker details: Cement/electronic Route Marker (Lat-Long) details Route Marker Identification.
12. Road features: Length, width and type (RCC, Kuchha, pakka etc.) variation in width of road in meters taking offset from the centre of the road may be obtained from ABDs already available with PIA.
13. Other Operators/Utility: Presence of underground OFC of other operators, utility pipes, transmission cable etc. to be captured wherever possible.
14. RoW start and end point (optional): Railway authority, NH, forest authority and any other authority.
15. For point feature like poles, sewerage man holes, other utility chambers, transformers, bore well etc. shall be captured as a point.
16. For all the utilities above ground viz. Poles, Manholes, and telecom nodes like BTS and telephone exchanges etc. details shall be recorded in a corridor of 50m (25m on either side of

- the road centerline of ROW of road whichever is more).
17. To and/or from direction to village, town, city etc. shall be recorded for all roads.
 18. The Geo Coordinates of all road KM stones shall be recorded and shown using symbol provided.
 19. The Geo Coordinates of all property boundaries with in the corridor shall be recorded and shown in drawing.
 20. Collection of data (Custodianship of GPON equipment, location of school, college, hotels, post office, other Govt. offices, key contacts in GP etc.) in each Gram Panchayat and other important locations. Contact numbers of all the above Offices to be obtained

III. Process of uploading of GIS data and verification

1. Engineering Survey of routes and uploading of data in GIS format (Shape Format) of OFC connectivity from existing OFC FPOI to respective ONTs in Gram Panchayats (GPs) where cable is already laid or being laid. (FPOI if applicable)
2. Uploading the Block wise / OLT wise data on GIS platform. BBNL/NIC shall provide on line tool and base maps for uploading and optimizing the captured data and information including fibre built up and termination details.
3. Validation of uploaded data shall be done in three stages:
 - a. **First Stage:** The contractor shall upload and verify the Block wise/ OLT wise data in the tool.NIC shall provide its base map to the contractor for validating and normalization of data.
 - b. **Second Stage:** Second level validation shall be done by SIA/BBNL State units.
 - c. **Third Stage:** Third level validation shall be done by NIC.
4. If the data correction is required at any of the stage mentioned above, the same may be sent to the previous stage for necessary correction. The contractor shall correct and upload the data again.
5. The contractor may edit/correct the data uploaded by them and submit for validation for next stage. After submission of data to next stage, the editing feature shall be freezed for contractor. The editing window shall be re-opened for contractor if some data correction is required at later stages.
6. NIC shall explore the automated workflow and pendency dash-boarding for the above process including generation of Auto-SMS and Email to the concerned approving authority.

IV. Guidelines for data uploading and validation:

Registration of Users:

1. **Contractor:** The Contractor User is allotted a set of OLTs from a Block and is allowed to edit the features only within those OLTs. The Contractor User is created by entering their details such as User Name, Password, Name, Address, E-Mail, selecting the State, District and Block from drop down lists, and by selecting the OLTs from a list within which he/she is allowed to edit.
2. **PIA and BBNL:** PIA shall validate the data uploaded by the Contractor and after PIA approval, the data shall be forwarded to BBNL PMU for next stage validation. The PIA/State and BBNL State Users shall be created by selecting the State from a drop down list and entering their other details.
3. **NIC:** The State User of NIC makes observations on the validations made by the BBNL State User. The NIC State User is also created by selecting the State from a drop down list and entering their other details.

a. Uploading and Editing of Data:

The editing module is available for the respective editing users, and the workflow of the module is as follows:

The editor will be prompted to select an OLT from a drop down list of all the OLTs that are allotted to that particular user.

- Secondly, the user will choose any one of the following layers to upload, from a drop down list: OLT, ONT, Splitter, Joint, OFC, RI and Landmark.
- On selecting the layer for upload, the user can now upload a shape file using the upload form provided in the module.
- On uploading the shape file, the data will be checked to see if the selected OLT features in that particular layer based on OLT code, if there are features present, those features will be purged from the layer, and the newly uploaded data will be added to the layer.
- In case the OLT does not have any features in that layer, then the data will be added directly to the editing layer.
- The contractor shall also upload the geo tagged images of OLT, ONT, Splitters and other important BharatNet assets.
- Each Layer will have a sample structure, which has to be followed while preparing the shape file for upload. This sample structure will be available for download through the module.

b. Workflow Automation and Dashboards:

The status module is available for the all users to monitor the complete status of the OLTs under each state including the dashboard of validation workflow. The module will function as described below:

- To see the pendency status, the User will first select the District from his State from a drop down list.
- The Blocks from the selected drop down list are populated in another drop down, from which the User can select his desired Block.
- On Selection of the block, the Statistics will be displayed for the following parameters,
 1. Total OLTs and ONTs in Block
 2. OLTs and ONTs for which data has been uploaded
 3. OLTs and ONTs for which the data has been accepted on validation
 4. OLTs and ONTs for which the data has been rejected on validation
 5. History and current status of pendency in workflow
 6. View observations from NIC
- For the PIA/State User, on click of the Statistics of OLTs for which data has been uploaded, a list displaying the OLTs uploaded by the contractor is displayed.
- For the BBNL State User, on click of the Statistics of OLTs for which data has been accepted by PIA, a list displaying the OLTs approved is displayed.
- For the NIC State User, on click of the Statistics of OLTs for which data has been accepted, a list displaying the OLTs validated by the BBNL State User is displayed.
- On selecting any of the OLTs from the aforementioned lists, the User is directed to the Validation Module.
- Auto SMS / Email shall be sent to the concerned user to do the necessary changes.
- OLT Name and Code to be shared by NIC and the same may be uploaded to the BBNL website.

c. Validation Module after Data uploading by contractor:

- **Contractor User**

- The contractor may edit/upgrade the data uploaded by them based on requirement before submission for next level validation by PIA. The Contractor shall furnish the necessary changes as suggested by PIA/BBNL/NIC from later stages.

- **PIA/ BBNL State User**

The user will have to select any one of the layers (OLT, ONT, Splitter, Joint, OFC, RI, and Landmark) to be validated for the selected OLT.

- A Grid showing a list of the features that have been added by the contractor for that particular layer is displayed.
- The grid has the following fields,
 - User Name of the Editing User who added the feature
 - Time Stamp of when the feature was added.
 - Layer Important fields used to identify the feature.
 - Accept/Reject button.
- On accept, the data is added to the main layer from the editing layer and sent to next stage.
- On reject, the data is sent back to the contractor user along with the remarks.

- **NIC User**

The user shall select any one of the layers (OLT, ONT, Splitter, Joint, OFC, RI, and Landmark) to be observed for the selected OLT.

- A Grid showing a list of the features that has been validated by the BBNL State User for that particular layer is displayed.
- The grid has the following fields,
 - User Name of the Editing User who added the feature
 - Time Stamp of when the feature was added.
 - Layer Important fields used to identify the feature.
 - "Observations" button.
- NIC User shall accept or reject the request based on his observations. If NIC user accepts the data, the uploaded data shall be considered correct and approved for future use. If NIC User rejects the data, on clicking "Observations", the NIC User can enter the observations he/she has made for that particular feature and sent it back for necessary corrections.

Annexure-B
Guidelines for Submitting GIS data of BharatNet-II
For GPON Technology

List of Layers to be shared:

- I. OLT
- II. ONT
- III. Joints
Splitter
- V. Route Indicator (RI)
- VI. OFC
- VII. FPOI (if existing fibre is being used)
- VIII. Landmarks

2. The schema of the data for each layer is enclosed herewith. All the layers should conform to the given schema.

3. The Network and route assets in layers I-VI & VII (if exists) listed above should be topologically error free i.e. OFC line should pass through the all the point assets except Landmarks.

Fields for the BBNL ABD Layer

OLT Layer			
SN	Field	Type	GPON Description
1	Name	String	OLT Name
2	Type	String	Asset Type (OLT)
3	Asset_Code	String	OLT Code
4	NMSOLT_CD	String	NMS OLT Code
5	Blk_Name	String	Block Name
6	Blk_Code	String	Block Code
7	Dt_Name	String	District Name
8	Dt_Code	String	District Code
9	St_Name	String	State Name
10	St_Code	String	State Code
11	Lat	Double	Latitude
12	Long	Double	Longitude
13	Coil_Len	Double	Coil Length
14	Remarks	String	if any
15	Obs	String	Observation
16	status	String	Editing Status/It should be blank
17	olt_ip	String	IP address of OLT
18	geo_photo	String	Photo with geolocation
19	vendor	String	UTL,L&T,ITI,TEJAS
20	phase	String	phase 1/2
21	model	String	BBNL/EPC/STATE/PPP
22	Technology	String	IP/MPLS or GPON

ONT Layer			
SN	Field	Type	Description For GPON
1	Name	String	ONT Name
2	Type	String	GP,BHQ, Horizontal ONT
3	Asset_Code	String	ONT Code
4	LGD_Code	String	LGD Code for Location
5	Location	String	Location Name of ONT
6	Loc_Type	String	School, College, GP,PANCHAYAT BHAWAN etc
7	OLT_Code	String	OLT Code
8	NMSOLT_CD	String	NMS OLT Code
9	NMSONT_CD	String	NMS ONT Code
10	Blk_Name	String	Block Name
11	Blk_Code	String	Block Code
12	Dt_Name	String	District Name
13	Dt_Code	String	District Code
14	St_Name	String	State Name
15	St_Code	String	State Code
16	Lat	Double	Latitude
17	Long	Double	Longitude
18	Coil_Len	Double	Coil Length
19	Remarks	String	BBNL Remarks
20	Obs	String	NIC Observations
21	status	String	Editing Status/It should be blank
22	olt_ip	String	IP address of OLT
23	Ont_mac_id	String	Mac Id of ONT
24	Otdr_len	Double	Length in meters
25	Conn_str	String	PIC-PON-ONT ID
26	Ont_sr_no	String	Device serial no.
27	Olt_block	String	Block code of OLT
28	backhaul	String	OFC/ Sat
29	geo_photo	String	Photo with geo-location
30	phase	String	1, 2
31	Route_code	String	

JOINT Layer				
SN	Field	Type	Description For GPON	For OLT TO OLT
1	Name	String	Joint Name	Joint Name
2	Type	String	BJC/SJC	BJC/SJC
3	Asset_Code	String	Joint ID for NMS 241L1J1	241L1_241L3J1
4	Location	String	Location Name	Location Name
5	Loc_Type	String	Location Type	Location Type
6	OLT_code	String	OLT Code 241L1	Blank
7	Blk_Name	String	Block Name	Block Name
8	Blk_Code	String	Block Code	Block Code
9	Dt_Name	String	District Name	District Name
10	Dt_Code	String	District Code	District Code
11	St_Name	String	State Name	State Name
12	St_Code	String	State Code	State Code
13	Lat	Double	Latitude	Latitude
14	Long	Double	Longitude	Longitude
15	rd_Offset	Double	Offset from Middle of the Road	Offset from Middle of the Road
16	coil_2_ont	Double	Length Towards ONT	Length Towards ONT
17	coil_2_olt	Double	Length Towards OLT	Length Towards OLT
18	Remarks	String	BBNL Remarks	BBNL Remarks
19	Obs	String	NIC Observations	NIC Observations
20	status	String	Editing Status/ It should be blank	Editing Status/ It should be blank
21	olt_ip	String	IP address of OLT	Blank
22	Otdr_len	Double	Length in meters	Length in meters
23	PHASE	String	1 or2	1 or2
24	Route_code	String		241L1_241L3 within same block 241L1_242L1 for Blk2Blk

FPOI Layer			
SN	Field	Type	Description For GPON
1	Name	String	FPOI Name
2	Location	String	Location Name
3	rd_Offset	Double	Offset from Middle of the Road
4	coil_2_ont	Double	Length Towards ONT
5	coil_2_olt	Double	Length Towards OLT
6	Lat	Double	Latitude
7	Long	Double	Longitude
8	Remarks	String	BBNL Remarks
9	Type	String	Joint or Splitter
10	Blk_Code	String	Block Code
11	Blk_Name	String	Block Name
12	Dt_Code	String	District Code
13	Dt_Name	String	District Name
14	St_Code	String	State Code
15	St_Name	String	State Name
16	OLT_code	String	NIC OLT Code
17	Asset_Code	String	Joint/Splitter ID
18	Loc_type	String	School, College, GP, etc
19	fpoi_id	String	Id of FPOI
20	OTDR-Len/ OTDR_Reading	String	PoN OTDR reading at FPOI from OLT
21	OLT_IP	String	IP Address of OLT connected to
22	Geo_photo	String	Photograph of FPOI with Geo-tagging
23	Obs	String	NIC Observations
24	status	String	Editing Status

Note: In case of existing fibre being used then FPOI layer also to be inserted

Splitter Layer			
SN	Field	Type	Description
1	Name	String	Splitter Name
2	Type	String	S2,S4,S8,S16
3	Asset_Code	String	Splitter ID
4	Location	String	Location Name
5	OLT_Code	String	NIC OLT Code
6	Blk_Name	String	Block Name
7	Blk_Code	String	Block Code
8	Dt_Name	String	District Name
9	Dt_Code	String	District Code
10	St_Name	String	State Name
11	St_Code	String	State Code
12	Lat	Double	Latitude
13	Long	Double	Longitude
14	rd_Offset	Double	Offset from Middle of the Road
15	coil_2_ont	Double	Length Towards ONT
16	coil_2_olt	Double	Length Towards OLT
17	Remarks	String	BBNL Remarks
18	Obs	String	NIC Observations
19	status	String	Editing Status/ It should be blank
20	geo_photo	String	Photo with geolocation
21	olt_ip	String	IP address of OLT
22	Otdr_len	Double	Length in meters
23	fiber_pos	String	Left/ Right of the road
24	direction	String	To wards GP or Block
25	Phase	String	1 or 2

OFC Layer				FOR OLT TO OLT
SN	Field	Type	Description	
1	Name	String	OFC Route name	OFC Route name
2	Type	String	Leased/Incremental	Backhaul
3	Asset_Code	String	Segment Code 241L1C1	241L1 241L3C1
4	OLT_Code	String	OLT Code 241L1	Blank
5	Blk_Code	String	Block Code	Block Code
6	Dt_Code	String	District Code	District Code
7	St_Code	String	State Code	State Code
8	CS	String	Cable Section	Cable Section
9	Seg_Length	Double	Route length	Route length
10	Start_Node	String	Starting Asset Code	Starting Asset Code
11	S_Coil_Len	Double	Starting Coil Length	Starting Coil Length
12	End_Node	String	Ending Asset Code	Ending Asset Code
13	E_Coil_Len	Double	Ending Coil Length	Ending Coil Length
14	num_fibre	String	6/12/24/48/96/144/288	6/12/24/48/96/144/288
15	status	String	Editing Status/ It should be blank	Editing Status/ It should be blank
16	Remarks	String	BBNL Remarks	BBNL Remarks
17	Obs	String	NIC Observations	NIC Observations
18	traverse	String	FIBRE POSITION e.g. 'U' For Underground, 'O' for Overhead	FIBRE POSITION e.g. 'U' For Underground, 'O' for Overhead
19	fiber_pos	String	Left/ Right of the road	Left/ Right of the road
20	direction	String	Towards GP or Block	OLT TO OLT
21	phase	String	1, 2	1, 2
22	Route_code	String		241L1_241L3 within same block 241L1_242L1 for Blk2Blk
23	Owner	String	BBNL/BSNL/PGCIL/RAILTEL and RoW Authority if applicable	BBNL/BSNL/PGCIL/RAILTEL etc

RI				FOR OLT TO OLT
SN	Field	Type	Description	
1	Name	String	RI NAME	RI NAME
2	Type	String	RI	RI
3	OLT_Code	String	OLT Code	BLANK
4	Blk_Name	String	Block Name	Block Name
5	Blk_Code	String	Block Code	Block Code
6	Dt_Name	String	District Name	District Name
7	Dt_Code	String	District Code	District Code
8	St_Name	String	State Name	State Name
9	St_Code	String	State Code	State Code
10	Lat	Double	Latitude	Latitude
11	Long	Double	Longitude	Longitude
12	rd_Offset	Double	Offset from centre of the Road	Offset from centre of the Road
13	CS	String	Cable Section	Cable Section
14	Remarks	String	BBNL Remarks	BBNL Remarks
15	Obs	String	NIC Observations	NIC Observations
16	coil_len	String	if any	if any
17	status	String	Editing Status/ It should be blank	Editing Status/ It should be blank
18	geo_photo	String	Photo with geolocation	Photo with geolocation
19	fiber_pos	String	Left/ Right of the road	Left/ Right of the road
20	direction	String	To wards GP or Block	OLT TO OLT
21	phase	String	1 or 2	1 or 2
22	Route_code	String		241L1_241L3 within same block 241L1_242L1 for Blk2Blk

Landmark Layer				For OLT TO OLT
SN	Field	Type	Description	
1	Name	String	Landmark Name	Landmark Name
2	Type	String	Asset Type	Asset Type
3	OLT_NAME	String	OLT Name	241L1_241L3
4	OLT_Code	String	OLT Code	BLANK
5	Blk_Name	String	Block Name	Block Name
6	Blk_Code	String	Block Code	Block Code
7	Dt_Name	String	District Name	District Name
8	Dt_Code	String	District Code	District Code
9	St_Name	String	State Name	State Name
10	St_Code	String	State Code	State Code
11	Lat	Double	Latitude	Latitude
12	Long	Double	Longitude	Longitude
13	Remarks	String	BBNL Remarks	BBNL Remarks
14	Obs	String	NIC Observations	NIC Observations
15	status	String	Editing Status/ It should be blank	Editing Status/ It should be blank
16	geo_photo	String	Photo with geolocation	Photo with geolocation
17	fiber_pos	String	Left/ Right of the road	Left/ Right of the road
18	direction	String	To wards GP or Block	OLT TO OLT
19	rd_offset	String	Offset from centre of the Road	Offset from centre of the Road
20	phase	String	1 or 2	1 or 2

Annexure-C
Guidelines for Submitting GIS data of BharatNet-II
For IP/MPLS Technology

List of Layers to be shared:

- I. Block Router
- II. GP Router
- III. OFC
- IV. Joints
Route Indicator (RI)
- VI. Landmarks

2. The schema of the data for each layer is enclosed herewith. All the layers should confirm to the given schema.

3. The Network and route assets in layers I-V listed above should be topologically error free i.e. OFC line should pass through the all the point assets except Landmarks.

OLT/Block Router Layer			
SN	Field	Type	IP/MPLS Description
1	Name	String	Block Router Name
2	Type	String	Block Router
3	Asset_Code	String	Block Router Code e.g. Block Code + "L1" i.e.3608L1
4	NMSOLT_CD	String	NMS Block Router Code
5	Blk_Name	String	Block Name
6	Blk_Code	String	Block Code
7	Dt_Name	String	District Name
8	Dt_Code	String	District Code
9	St_Name	String	State Name
10	St_Code	String	State Code
11	Lat	Double	Latitude
12	Long	Double	Longitude
13	Coil_Len	Double	Coil Length
14	Remarks	String	if any
15	Obs	String	Observation
16	status	String	Editing Status/It should be blank
17	olt_ip	String	IP Address of Block Router
18	geo_photo	String	Photo with geolocation
19	vendor	String	TPL/GSPL
20	phase	String	2
21	model	String	STATE
22	Technology	String	IP/MPLS

OLT/ Block Router DATA TABLE SCHEMA 1 For IP/MPLS Technology only			
SN	FIELD NAME	FIELD VALUE	Description For IP/MPLS
1	ASSET_CODE	3608L1	BlockCode + "L"+ 1,2... Depending on the Number of Block Routers in the Block
2	ROUTER_TYPE	HIGH CISCO ASR 9006	Router type
3	COUNT_GP	113	GP Count Total connected with Block Router
4	OFC_LEN	150.25	OFC length total km in the block
5	PORT40G1	Desc	Description
6	ADJCNT_B1	3609L1	Adjacent Block1 (asset code of the device connected)
7	DIRCTN_B1	WEST	Direction
8	PORT40G2	Desc	Description
9	ADJCNT_B2	3610L1	Adjacent Block2 (asset code of the device connected)
10	DIRCTN_B2	SOUTH(SOUTH- EAST)	Direction
11	port40G3	Desc	Description
12	ADJCNT_B3	3613L1	Adjacent Block3 (asset code of the device connected)
13	DIRCTN_B3	SOUTH	Direction
14	ROUTER_MAKE	CISCO	Router_maker name

OLT/ Block Router DATA TABLE SCHEMA 2 For IP/MPLS Technology only			
SN	FIELD NAME	FIELD VALUE	Description For IP/MPLS
1	ASSET_CODE	3608L1	BlockCode + "L"+ 1,2... Depending on the Number of Block Routers in the Block
2	PR_CODE	3608L1PR1	Physical ring 1/2/3/4 code
3	GP_COUNT_RING	33	GP Count of Ring-1/2/3/4
4	PR_PORT_A	1G0/1/0/0	Start Point Router Port No.
5	PR_PORT_B	1G0/1/0/3	Start Point Router Port No.
6	PR_PORT_C	1G0/1/0/4	Start Point Router Port No.
7	PR_PORT_D	1G0/1/0/2	Start Point Router Port No.

ONT / GP Router Layer			
SN	Field	Type	Description For IP/MPLS
1	Name	String	GP Router Name
2	Type	String	GP,BHQ, Horizontal Conn
3	Asset_Code	String	GP Router Code
4	LGD_Code	String	LGD Code for Location
5	Location	String	Location name of GP Router
6	Loc_Type	String	School, College, GP,PANCHAYAT BHAWAN etc
7	OLT_Code	String	Block Router Code
8	NMSOLT_CD	String	NMS Block Router Code
9	NMSONT_CD	String	NMS GP Router Code
10	Blk_Name	String	Block Name
11	Blk_Code	String	Block Code
12	Dt_Name	String	District Name
13	Dt_Code	String	District Code
14	St_Name	String	State Name
15	St_Code	String	State Code
16	Lat	Double	Latitude
17	Long	Double	Longitude
18	Coil_Len	Double	Coil Length
19	Remarks	String	BBNL Remarks
20	Obs	String	Observations
21	status	String	Editing Status/It should be blank
22	olt_ip	String	IP Address of Block Router
23	Ont_mac_id	String	Mac Id of GP Router
24	Otdr_len	Double	Length in meters
25	Conn_str	String	Router Port Details
26	Ont_sr_no	String	Router Serial Number
27	Olt_block	String	Block Code of Block Router
28	backhaul	String	OFC /Sat
29	geo_photo	String	Photo with geolocation
30	phase	String	2
31	Route_code	String	RING PR CODE 3608L1PR1

ONT/ GP Router DATA TABLE SCHEMA 1 For IP/MPLS Technology only			
SN	FIELD NAME	FIELD VALUE	Description For IP/MPLS
1	ASSET_CODE	122841N1	LGDCODE + N1 (For GP), B+BlkCode+N1 (for BHQ) e.g.B3608N1
2	ROUTER_TYPE	CISCO ASR 920	Router type
3	GPROUTER_IP	10.128.66.109	IP address of GP router
4	ADJ_RING		If connected to another ring, the ring code
5	ADJ_ONT_CODE		Asset code of the ADJECENT router on the other ring
6	HOSTNAME	BNB-MGI- LOMI- GSARDH1	Host Name
7	ROUTER_HIG	LOW	Router High/Low
8	EQUIPMENT	2109	Equipment ID number
9	ROUTER_MAK	CISCO	Router maker name
10	FROM	122843N1	From GP LGD Code+GPR
11	FROM_PORT	1G0/1/0/0	1G 0/1/2 & for 10Gig it will 10G
12	TO	122842N1	To GP LGD Code+GPR
13	TO_PORT	10G0/0/12	
14	LR_code	3608L1LR1	Logical ring code

OFC Layer				
SN	Field	Type	Description For IP/MPLS	For BLK RTR TO BLK RTR
1	Name	String	OFC Route name	OFC Route name
2	Type	String	LEASED / INCREMENTAL	BACKHAUL
3	Asset_Code	String	ROUTE CODE + C+ 1,2..- 3608L1PR1C1 & For RING 2- 3608L1PR2C1	ROUTE CODE + C+ 1,2..- 241L1_241L3C1 within same block 241L1_242L1C1 for BLK2BLK
4	OLT_Code	String	Block router code	BLANK
5	Blk_Code	String	Block Code	Block Code
6	Dt_Code	String	District Code	District Code
7	St_Code	String	State Code	State Code
8	CS	String	Cable Section	Cable Section
9	Seg_Length	Double	Route length	Route length
10	Start_Node	String	Starting Asset	Starting Asset
11	S_Coil_Len	Double	Starting Coil Length	Starting Coil Length
12	End_Node	String	Ending Asset	Ending Asset
13	E_Coil_Len	Double	Ending Coil Length	Ending Coil Length
14	num_fibre	String	NO OF FIBRES E.G. 48/96/...288	NO OF FIBRES E.G. 48/96/...288
15	status	String	Editing Status/ It should be blank	Editing Status/ It should be blank
16	Remarks	String	BBNL Remarks	BBNL Remarks
17	Obs	String	NIC Observations	NIC Observations
18	traverse	String	FIBRE POSITION e.g. 'U' For Underground, 'O' for Overhead	FIBRE POSITION e.g. 'U' For Underground, 'O' for Overhead
19	fiber_pos	String	Left/ Right of the road	Left/ Right of the road
20	direction	String	To wards GP or Block	BLKRTR TO BLKRTR
21	phase	String	2	2
22	Route_code	String	RING PR CODE 3608L1PR1, ADJ BLK RING CON code 3608L1PR1_3609L1PR3	blk2blk- 3608L1_3609L1, WITHIN SAME BLOCK 3608L1_3608L2
23	Owner	String	BBNL/BSNL/PGCIL/RAILTEL and RoW Authority if applicable	BBNL

JOINT Layer				
SN	Field	Type	Description For IP/MPLS	BLK RTR TO BLK RTR
1	Name	String	Joint Name	Joint Name
2	Type	String	BJC/SJC	BJC/SJC
3	Asset_Code	String	Route code+ J+1,2.... 3608L1PR1J1 3608L1PR1_3609L1PR3J1	Route code+ J+1,2.... 3608L1_3609L1J1 3608L1_3608L2J1
4	Location	String	Location Name	Location Name
5	Loc_Type	String	Location Type	Location Type
6	OLT_code	String	Block router code	BLANK
7	Blk_Name	String	Block Name	Block Name
8	Blk_Code	String	Block Code	Block Code
9	Dt_Name	String	District Name	District Name
10	Dt_Code	String	District Code	District Code
11	St_Name	String	State Name	State Name
12	St_Code	String	State Code	State Code
13	Lat	Double	Latitude	Latitude
14	Long	Double	Longitude	Longitude
15	rd_Offset	Double	Offset from Middle of the Road	Offset from Middle of the Road
16	coil_2_ont	Double	Length Towards GP	Length Towards GP
17	coil_2_olt	Double	Length Towards Block router	Length Towards Block router
18	Remarks	String	BBNL Remarks	BBNL Remarks
19	Obs	String	Observations	Observations
20	status	String	Editing Status/ It should be blank	Editing Status/ It should be blank
21	OLT_IP	String	IP address of Block router	BLANK
22	Otdr_len	Double	Length in meters	Length in meters
23	PHASE	String	1 or 2	2
24	Route_code	String	RING PR CODE 3608L1PR1, ADJ BLK RING CON code 3608L1PR1_3609L1PR3	blk2blk- 3608L1_3609L1, WITHIN SAME BLOCK 3608L1_3608L2

RI Layer				
SNo	Field	Type	Description For IP/MPLS	BLK RTR TO BLK RTR
1	Name	String	RI NAME	RI NAME
2	Type	String	RI	RI
3	OLT_Code	String	OLT Code	BLANK
4	Blk_Name	String	Block Name	Block Name
5	Blk_Code	String	Block Code	Block Code
6	Dt_Name	String	District Name	District Name
7	Dt_Code	String	District Code	District Code
8	St_Name	String	State Name	State Name
9	St_Code	String	State Code	State Code
10	Lat	Double	Latitude	Latitude
11	Long	Double	Longitude	Longitude
12	rd_Offset	Double	Offset from centre of the Road	
13	CS	String	Cable Section	Cable Section
14	Remarks	String	BBNL Remarks	BBNL Remarks
15	Obs	String	NIC Observations	Observations
16	coil_len	String	if any	if any
17	status	String	Editing Status/ It should be blank	
18	geo_photo	String	Photo with geolocation	Photo with geolocation
19	fiber_pos	String	Left/ Right of the road	Left/ Right of the road
20	direction	String	To wards GP or Block	BLKRTR TO BLKRTR
21	phase	String	1 or 2	2
22	Route_code	String	RING PR CODE 3608L1PR1, ADJ BLK RING CON code 3608L1PR1_3609L1PR3	blk2blk- 3608L1_3609L1, WITHIN SAME BLOCK 3608L1_3608L2

Landmark Layer				
SNo	Field	Type	Description For IP/MPLS	BLK RTR TO BLK RTR
1	Name	String	Landmark Name	Landmark Name
2	Type	String	LANDMARK	LANDMARK
3	OLT_NAME	String	Block Router Name	BLKRTR1_BLKRTR2
4	OLT_Code	String	Block Router Code	BLANK
5	Blk_Name	String	Block Name	Block Name
6	Blk_Code	String	Block Code	Block Code
7	Dt_Name	String	District Name	District Name
8	Dt_Code	String	District Code	District Code
9	St_Name	String	State Name	State Name
10	St_Code	String	State Code	State Code
11	Lat	Double	Latitude	Latitude
12	Long	Double	Longitude	Longitude
13	Remarks	String	BBNL Remarks	BBNL Remarks
14	Obs	String	Observations	Observations
15	status	String	Editing Status/ It should be blank	
16	geo_photo	String	Photo with geolocation	Photo with geolocation
17	fiber_pos	String	Left/ Right of the road	Left/ Right of the road
18	direction	String	To wards GP or Block	BLK RTR TO BLK RTR
19	rd_offset	String	Offset from centre of the Road	Offset from centre of the Road
20	phase	String	2	2