



Ref: TSCCL/Projects/51(Art District)/2018

REQUEST FOR PROPOSAL FOR
“Design, Build, Operation and Maintenance of
Art District & Design Studio” under
Implementation of the Smart City Mission in
Tirupati

Issued by:

The Managing Director,
Tirupati Smart City Corporation Limited,
Tirupati Municipal Corporation,
13-29-M9-1-00, Tilak Road, East Tirupati - 517501,
Chittoor District, Andhra Pradesh.
Email: tsccltirupati@gmail.com

TIRUPATI SMART CITY CORPORATION LIMITED

Ref: TSCCL/Projects/51(Art District)/2018

Tirupati Smart City Corporation Limited (“TSCCL”) desires to invite Request for Proposal [RFP] for selection of “**Design, Build, Operation and Maintenance of Art District & Design Studio**” under Implementation of the Smart City Mission in Tirupati”. The detailed RFP including EMD, TOR, Eligibility criteria etc., can be downloaded from website of www.tender.apecurement.gov.in from **31-10-2018** onwards.

The last date for online submission of bids is **20-11-2018** before 16:00 hrs Indian Standard Time (“IST”). Opening of Bid is schedule at **22-11-2018** at 17:00 hrs IST. All other details including any extension, clarifications, amendments, corrigendum, addendum etc., will be uploaded on the below mentioned website and may not be published in any other sources. Therefore, the bidders are advised to regularly visit the websites to keep themselves updated and privy to the latest information.

For more details contact:

Tirupati Smart City Corporation Limited,
Tirupati Municipal Corporation, 13-29-M9-1-00, Tilak Road,
East Tirupati - 517501, Chittoor District, Andhra Pradesh.

Website:

<https://tender.apecurement.gov.in>

For any queries related to the Bidding Documents please send an email to

E-mail : tsccltirupati@gmail.com

cc : Rajendra.Raut@aecom.com

Sd/-

**Managing Director
Tirupati Smart City Corporation Limited
Tirupati**

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DISCLAIMER

The information contained in this Request for Proposal document (the "RFP") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of the Employer or any of their employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is neither an offer nor invitation by the Employer to the prospective Bidders or any other person. The purpose of this RFP is to provide interested entities with information that may be useful to them in preparing their bids (the "Bid") including all the necessary submissions and the financial offers pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the Employer in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Employer, its employees or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Employer accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Employer, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way during the Bidding Process.

The Employer also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP.

The Employer may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP.

The issue of this RFP does not imply that the Employer is bound to select a Bidder or to appoint the Selected Bidder for the Project and the Employer reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the Employer or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and the Employer shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.

The Bidder should carefully note down the cut-off dates for the carrying out each e-tendering process / activity. Every effort is being made to keep the Website upto date and running smoothly 24 x 7 by the Service Provider. However, Employer takes no responsibility, and will not be liable for, the website being temporarily unavailable due to any technical issue at any point of time. In that event Employer will not be liable or responsible for any damages or expenses arising from any difficulty, error, imperfection or inaccuracy with this Website. It includes all associated services or due to such unavailability of the Website or any part thereof or any contents or any associated services. The bidders must get their activities of e-tendering processes done well in advance so as to avoid any inconvenience due to unforeseen technical problem if any. The Employer will not be responsible for any incomplete activity of e-tendering process of the bidder due to technical error/ failure of website and it cannot be challenged by way of appeal, arbitration and in the Court of Law. The bidder must get done all the e-tendering activities well in advance.

Important Dates

S. No.	Activity	Deadline
1	Release of RFP	31-10-2018
2	Last date of receipt of Pre-Bid queries	09-11-2018 at 13:00 Hrs
3	Posting of response to Pre-Bid queries	12-11-2018 at 17:00 Hrs
4	Last date for online submission of Bids	20-11-2018 at 16:00 Hrs
5	Date of submission of Hard Copies of documents - Demand Draft of Bid Processing Fee + [EMD / Bid Security] - Original Bank Guarantee + 02 Sets of Photostat copies + 01 set of Soft Copy (Non-Writeable CD/DVD Copy)	22-11-2018 at 16:00 Hrs
6	Date of opening of Pre-qualification Bids	22-11-2018 at 17:00 Hrs
7	Declaration eligible / qualified bidders	Will be notified later
8	Date of Technical presentation	Will be notified later
9	Date of opening of Financial bids	Will be notified later
10	Validity of Bid	180 days from Bid Due Date

Note:

1. All above events shall be held at "Tirupati Municipal Corporation / TUDA Office, Tirupati"
2. In the event of the date specified above being declared as a state holiday the due date shall be the next following working day.
3. Request to all the aspirant Bidders to submit their bids through online on AP e-procurement web portal : <https://tender.apecurement.gov.in> on or before the time as specified in Sl. No.: 04
4. Sealed Bids [Sl. No.: 05 - Hard Copies submission] received after due date and time will be rejected.

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1. Introduction

1.1 About Tirupati

With the India Smart Cities Challenge, the Government of India has taken the first step towards realizing its vision of building 100 smart cities across the nation. As part of the India Smart Cities Challenge under Ministry of Urban Development, Government of India, Tirupati is one of the cities that was selected in Round 2 and was ranked 4th amongst a nation-wide competition between 67 cities.

Tirupati is known as the spiritual center of Andhra Pradesh with about daily 75,000 pilgrims visit Tirumala for Darshan of Lord Venkateshwara., besides other historical temples, and is referred to as the "Spiritual Capital of Andhra Pradesh". It was named the "Best City" for the year 2012-13 by Ministry of Tourism. Tirupati has strong cultural and is a melting pot of various festivals, is considered the Medical Hub of Andhra Pradesh and is home to numerous hospitals.

Tirupati city is located in Chittoor district in the state of Andhra Pradesh. The Tirupati Corporation (TMC) spread is around 27.44Sq Km and includes 50 Wards. According to 2011 census, the City's population is around 3, 74,260.

The Smart City Plan for Tirupati revolves around the vision of creating - "**A 21st century pilgrimage city that promotes Arts, Innovation & Sustainable Growth**".

1.2 About the Tirupati Smart City Corporation Limited (TSCCL)

A Special Purpose Vehicle (SPV) was incorporated with the name "Tirupati Smart City Corporation Limited" (TSCCL) on 28th November 2016, to implement the projects proposed under the SCP.

1.3 Tirupati Municipal Corporation (TMC)

Tirupati Municipal Corporation is the largest ULB in the Chittoor district. It is located 550 Km from State Capital and 71 Km from District Headquarters. It was established as 3rd grade city in the year 01/04/1886 and upgraded as Corporation with w.e.f. 02/03/2007.

It is spread over an area of 27.44Sq. Km with a population of 4, 59,985 (3, 74,260 as per 2011 census). TMC is also the headquarters of Tirupati (urban) mandal, and of the Tirupati revenue division. It is the 9th most populous city in Andhra Pradesh and seventh most urban agglomerated city in the State.

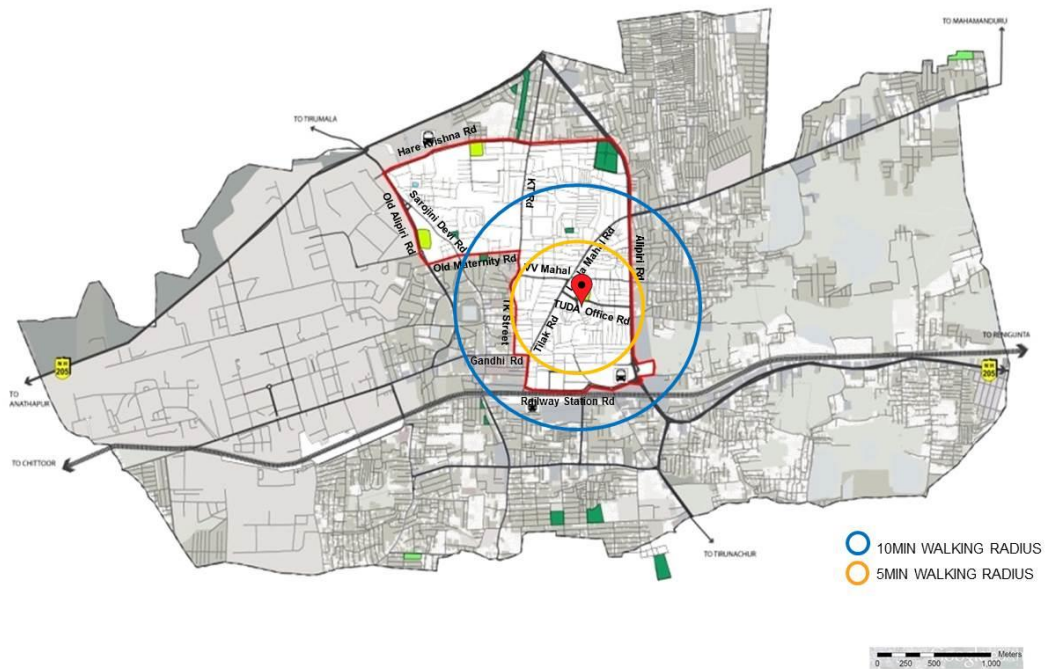
1.4 Name of Work
“Design, Build, Operation and Maintenance of Art District & Design Studio” under Implementation of the Smart City Mission in Tirupati”.

Aligning with the Smart City Vision, Tirupati will focus on Integration of local arts and crafts with the city’s urban fabric by celebrating cultural, spiritual & social values. Additionally, this project is envisioned to provide a platform for celebrating arts and crafts; demonstrating arts and craft and function as a centre of excellence by having a skill development centre that allows technology to enhance design and production capabilities of local craftsman. Inculcating technology based learning amongst school going students is another objective of this project.

The Employer has taken up different projects for implementation under smart cities. Building a state of the art Art District with a Design Studio and learning/teaching facilities is one such project taken up for implementation.

1.5 Location

ARTS District & Design Studio



1.6 RFP Format

The intent of this RFP is to invite bids from the Bidders for “**Design, Build, Operation and Maintenance of Art District & Design Studio**” under **Implementation of the Smart City Mission in Tirupati**”. The Request for Proposal (RFP) consists of three volumes viz.

1. RFP Volume 1: Instruction to Bidders

Volume 1 details the instructions with respect to the bid process management, technical evaluation framework, and the technical & financial forms.

2. RFP Volume 2: Scope of work including Functional & Technical Specifications

Volume 2 of the RFP provides information regarding the Project Implementation Plan, business requirements/applications to be covered and corresponding process related documentation, scope of work for the selected bidder and functional requirements.

3. RFP Volume 3: Conditions of Contract and Contract Forms

Volume 3 contains the contractual, legal terms & conditions applicable for the proposed engagement.

Volume 1: Instruction to Bidders

1.1. Fact sheet

This RFP is meant for the exclusive purpose of submitting the e-bid in accordance with the terms and conditions specified herein and this RFP shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued

Sl #	Item	Description
1.	Method of Selection	The method of selection is QBLCS- Quality Based Least Cost Selection.
2.	Availability of RFP Documents	Download from www.tender.aeprocurement.gov.in
3.	Date of RFP Issuance	31-10-2018
4.	Bid Processing fee (Non-refundable and Not - exempted)	Indian Rupees 25,000/- (Indian Rupees Twenty Five Thousand only) shall be paid via Demand Draft in favor of the "Managing Director, Tirupati Smart City Corporation Limited", Payable at Tirupati.
5.	Bid Security/Earnest Money Deposit (EMD)	Indian Rupees 3,00,000 (Indian Rupees Three Lakh only) by online / Bank Guarantee (as per format attached in Annexure 5(b))
6.	Last date and time for Submission of Pre-Bid Queries	09-11-2018 at 13.00 Hrs
7.	Posting of responses to queries (on website)	Respective bidder's e-mail ID's / www.tender.aeprocurement.gov.in
8.	Last Date and time for Bid submission (On or before)	20-11-2018 at 16:00 Hrs
9.	Date, time for opening of Pre-Qualification Bids	22-11-2018 at 17:00 Hrs
10.	Bid validity	Bid must remain valid up to 180 (One Hundred & Eighty) days from the actual date of submission of the Bid.
11.	Project Duration	Design and Build, construction and operation period - 9 Months + Operation & Maintenance for 5 years (Five) including 02 (Two) years of Defect Liability Period . However Design Studio shall be functional in 6 Months
12.	Currency	Indian Rupees (INR) only
13.	Name and Address for Correspondence	Attention: Managing Director, Tirupati Smart City Corporation Limited (TSCCL), Tirupati Corporation, 13-29-M9-1-00, Tilak Road, East Tirupati, Chittoor District, Andhra Pradesh. Pin Code : 517501 Electronic mail address: tsccltirupati@gmail.com with a copy to Rajendra.Raut@aecom.com

1.2 Definitions/Acronyms

Terms	Meaning
ABD	Area Based Development
Authority / Client / Employer / TSCCL	Tirupati Smart City Corporation Limited
BIS	Bureau of Indian Standards
BOM	Bill of Material
BOQ	Bill of Quantities
BS	Bid Security
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditure
CEA	Central Electricity Authority
CEO	Chief Executive Officer
CVg / CV	Curriculum Vitae
DD	Demand Draft
DSCR	Debt Service Coverage Ratio
EMD	Earnest Money Deposit
GCC	General Conditions of Contract
GoAP	Government of Andhra Pradesh
GoI	Government of India
HOD	Head of Department
INR	Indian Rupee
IRR	Internal Rate of Return
ISO	International Standards Organization
LoA	Letter of Acceptance
MCT / TMC	Municipal Corporation Tirupati
MD	Managing Director, Tirupati Smart City Corporation Limited
NASDAQ	National Association for Securities Dealers Automated Quotations
NIT	Notice Inviting Tender
NPV	Net Present Value
OEM	Original Equipment Manufacture
O&M	Operations & Maintenance
PBG	Performance Bank Guarantee / Performance Security
PCC	Particular Conditions of Contract
PDD	Proposal Due Date
PLF	Plant Load Factor
PoC	Proof of Concept
PPP	Public Private Partnership
PQ	Pre-Qualification
RFP	Request for Proposal
SCP	Smart City Proposal of Tirupati
SNA	State Nodal Agency
SOP	Standard Operating Procedures
SPV	Special Purpose Vehicle
Supplier/ Implementing Agency / Contractor	Successful Bidder
TEC	Technical Evaluation Committee
TOR	Terms of Reference
TQ	Technical Qualification
TTC	Tirupati Town Center
UAT	User Acceptance Testing
USD	US Dollars

"Appointed Day" means the date of signing of this Agreement by the Parties or the date of handing over the Project Site to the Contractor, whichever is later.

"Authority / Client / Employer/ TSCCL" shall mean Tirupati Smart City Corporation Limited.

"Authorization" means the consent given by the Andhra Pradesh Pollution Control Board to the "Operator of a Treatment/Disposal Facility".

"Bidder" means a single entity or consortium of members submitting the proposals.

"Bid Security" shall mean the Security furnished by the Bidder. "City" means the city of Tirupati

"Contractor / Implementing Agency / Supplier" shall mean the Selected Bidder which enters into the Contract Agreement with Authority pursuant to issuance the LOA.

"Contract Agreement" shall mean the agreement entered between the Authority and the Contractor pursuant to this RFP.

"Contract Period" is as defined in Fact Sheet of this RFP.

"Consortium" shall mean two or more parties coming together for submission of Bid in response to "this RFP" pursuant to Memorandum of Understanding signed between them.

"Damages" shall mean the damages payable by either Party to the other of them, as set forth in the Contract Agreement.

"Document" or "Documentation" means documentation in printed or written form, or in tapes, discs, drawings, computer programmes, writings, reports, photographs, films, cassettes, or expressed in any other written, electronic, audio or visual form in relation to this Project.

"Financial Bid" shall mean a document quoting Percentage of revenue as royalty on sale of compost to the Nodal Agency i.e. Fertilizer Company or agricultural department by the Contractor in response to the RFP including clarifications and/or amendments and modifications made till the date of submission.

"Letter of Acceptance" or "LoA" means the letter issued by the Authority to the Selected Bidder whose Bid has been accepted by Authority pursuant to this RFP for undertaking and executing the Project in conformity with the terms and conditions as set forth in this RFP and the Contract Agreement.

"TMC" mean Tirupati Municipal Corporation.

"TSCCL" mean Tirupati Smart City Corporation Limited.

"Liquidated Damage" shall mean any loss/losses caused or sustained by TSCCL, Authority due to non-performance of any act as per the Scope of Work of this RFP or performance or carrying out of any act expressly or impliedly prohibited by the TSCCL / TMC, Authority as per the terms and conditions of Contract Agreement

"Local Authority" shall mean Tirupati Smart City Corporation Limited ("TSCCL").

"Municipal Authority" shall mean Tirupati Municipal Corporation ("TMC").

"Operation & Maintenance" means the operation and maintenance of the Project and includes all matters connected with or incidental to such operation and maintenance, provision of services and facilities in accordance with the provisions of this RFP and Contract Agreement;

"Operation & Maintenance Period" means the period commencing from the date of signing of the Contract Agreement and ending on the last day of the Contract Period unless terminated earlier.

"Parties" means the parties to the Contract Agreement collectively and "Party" shall mean any of the parties to the Contract Agreement individually;

"Performance Security" means the guarantee for performance of its obligations to be procured by the Contractor in accordance with the Contract Agreement.

"Project" means all the activities envisaged to be carried out under this RFP;

"Request for Proposal" or "RFP" means invitation of bids setting forth technical and commercial terms and conditions, of the bid and includes this document, the Contract Agreement and all the Annexure and appendices attached to RFP and addendums issued by TSCCL

"Service provider" means authorities who provide services like water, sewerage, electricity, telephone, roads, drainage etc.

"Specifications and Standards" means the specifications and standards relating to the quality, quantity, capacity and other requirements for the Project and any modifications thereof, or additions thereto expressly approved by, the Authority;

"SPV" means a special purpose vehicle company, to be incorporated by Selected Bidder (in case of Consortium,) under the provisions of the Companies Act 2013, pursuant to issuance of the LOA, for implementation of the Project in terms of Contract Agreement.

"Selected Bidder" shall mean the Bidder to whom the LOA has been issued.

"Taxes" means any Indian Taxes including Service Tax, Excise duties, Customs duties, Value added tax, Sales tax, Local taxes, Cess and any impost or Surcharge of like nature (whether Central, State or local) on the goods, materials, equipment and services incorporated in and forming part of the Project charged, levied or imposed by any Government Instrumentality or Municipal Authority or Tirupati Smart City Corporation Limited but excluding any interest, penalties and other sums in

relation thereto imposed on any account whatsoever

"Termination" means termination of this Contract Agreement pursuant to Termination Notice in accordance with the provisions of the Contract Agreement but shall not, unless the context otherwise requires, include the expiry of the Contract Agreement due to efflux of time in the normal course.

Interpretations:

1. Words comprising the singular shall include the plural and vice versa.
2. A reference to any gender includes the other gender.
3. An applicable law shall be construed as reference to such applicable law including its amendments or re-enactments from time to time.
4. A reference to any agreement is a reference to that agreement and all annexes, attachments, exhibits, schedules, appendices and the like incorporated therein, as the same may be amended, modified, supplemented, waived, varied, added to, substituted, replaced, renewed or extended, from time to time, in accordance with the terms thereof
5. The terms "include" and "including" shall be deemed to be followed by the words "without limitation", whether or not so followed.
6. Any date or period set forth in this RFP shall be such date or period as may be extended pursuant to the terms of this RFP; A time of day shall save as otherwise provided in any agreement or document be construed as a reference to Indian Standard Time.
7. Any reference to a person shall include such persons successors and assignees.
8. Different parts of this contract are to be taken as mutually explanatory and supplementary to each other and if there is any differentiation between or among the parts of this contract, they shall be interpreted in a harmonious manner so as to give effect to each part.
9. A reference to a "writing" or "written" includes printing, typing, lithography, scanned and other means of reproducing words in a visible form
10. The terms "hereof", "herein", "hereto", "hereunder" or similar expressions used in this RFP mean and refer to this RFP and not to any particular Article.
11. In case of any inconsistency between the terms mentioned in the RFP and the literary term, the meaning best construed in furtherance of the objectives of this RFP shall prevail
12. Where there is a discrepancy between amount in figures and in words, the latter shall prevail
13. The table of contents and any headings or sub headings in the contract has been inserted for case of reference only & shall not affect the interpretation of this agreement

2. **Instruction to Bidders**

Preamble:

This Volume of the Bidding Documents provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the TSCCL. It also provides information on bid submission, opening and, on contract award.

Further in all matters arising out of the provisions of Volume of I, II and III of the Bidding Documents, the laws of the Union of India shall be the governing laws and courts of Tirupati shall have exclusive jurisdiction.

2.1 **Back ground:**

- a) The Tirupati Smart City Corporation Limited (the “Authority / Client / Employer / TSCCL”) is engaged in the implementation of the Smart City Mission projects in Tirupati and as part of this endeavor, the Authority has decided to undertake to procurement and service requirement for **“Design, Build, Operation and Maintenance of Art District & Design Studio” under Implementation of the Smart City Mission in Tirupati** (the “Project”) and has, therefore, decided to carry out the bidding process for selection of an entity as the bidder to whom the Project may be awarded.
- b) The selected Bidder (the “Contractor/ Implementing Agency”) shall be responsible for designing, engineering, procurement and construction of the Project under and in accordance with the provisions of an engineering, procurement and construction contract (the “Contract”) to be entered into between the Implementing Agency and the Authority in the form provided by the Authority as part of the Bidding Documents pursuant hereto. The Implementing Agency shall also be responsible for the maintenance of the project during the Operation and Maintenance period and liable for rectification and change any defect or deficiency in the Project after completion of the Construction Period, which is expected to be as per clause 2.1.(c).
- c) The “Contract” shall mean and include the general conditions, specification, schedules, drawings, form of Bid, covering letter, schedule of prices, or the final general conditions, any special conditions applying to the particular contract specification and drawings and the agreement to be entered into [A formal agreement shall be entered into between the bidder and the Authority for the proper fulfillment of the contract] of these general conditions, all of which must be accepted under the signatures and stamp of the bidder in order to construe the same within the meaning of Contract.

- d) The Agreement sets forth the detailed terms and conditions for award of the project to the Implementing Agency, including the scope of the Implementing Agency's services and obligations.
- e) The statements and explanations contained in this RFP are intended to provide a better understanding to the Bidders about the subject matter of this RFP and should not be construed or interpreted as limiting in any way or manner the scope of services and obligations of the Implementing Agency set forth in the Agreement or the Authority's rights to amend, alter, change, supplement or clarify the scope of work, the work to be awarded pursuant to this RFP or the terms thereof or herein contained. Consequently, any omissions, conflicts or contradictions in the Bidding Documents including this RFP are to be noted, interpreted and applied appropriately to give effect to this intent, and no claims on that account shall be entertained by the Authority.
- f) The Authority shall receive BIDs pursuant to this RFP in accordance with the terms set forth in this RFP and other documents to be provided by the Authority pursuant to this RFP (collectively the "Bidding Documents"), and all BIDs shall be prepared and submitted in accordance with such terms on or before the BID due date specified in Important Dates / Fact Sheet for submission of BIDs (the "BID Due Date").
- g) "Plant Work or Works" shall mean and include plant and materials to be provided and work to be done by the bidder under the contract.
- h) Tech "Specification" shall mean the specification annexed to these general conditions and the schedules there to (if any).
- i) "Tests on completion" shall mean such tests as prescribed by the requirements of specification and performance & operation of the plant to be made by the bidder before the plant is taken over by the authority.
- j) "Taking over" shall mean taking over of the plant by the authority after completion of "tests on completion" and completion of 72 hours/three days of continuous trouble-free operation of the plant without any outages/ breakdowns attributable to the implementing Agency.
- k) "Commercial use" shall mean that use of the work, which the contract contemplates or of which it is to be commercially capable.
- l) "Month" shall mean calendar month.
- m) "Writing" shall include any manuscript, typewritten or printed statement, under or

over signature or seal as the case may be.

- n) Words importing persons shall include firms, companies, Department, and other bodies whether incorporated or not.
- o) Words importing the singular only shall also include the plural and vice versa where the context requires.
- p) "Governmental Approval" means any approval, consent franchise, permit certificate, resolution, concession, license or authorization issued by or on behalf of any applicable Governmental Authority for the purpose of setting up of the project and / or for sale and purchase of the project pursuant to the agreement.
- q) " Governmental Authority" means any central, state, regional, district town city, or municipal government, whether domestic or foreign, or any development agency, bureau or other administrative, regulatory or judicial body of any such government.

2.2 Brief description of Bidding Process

- a) The Authority has adopted a single stage two part system (referred to as the "Bidding Process") for selection of the Bidder for award of the Project. Under this process, the bid shall be invited under two parts. Eligibility and qualification of the Bidder will be first examined based on the details submitted under first part (Technical Bid) with respect to eligibility and qualifications criteria prescribed in this RFP. (The "Bidder", which expression shall, unless repugnant to the context, include the members of the Consortium). The Financial Bid under the second part shall be opened of only those Bidders whose Technical Bids are responsive to eligibility and qualifications requirements as per this RFP.
- b) Interested bidders are being called upon to submit their BID in accordance with the terms specified in this Bidding Document. The Bid shall be valid for a period of as mentioned in the FACT Sheet from the date specified in Important Dates / Fact Sheet for submission of BIDs (the "Bid Due Date").
- c) The complete Bidding Documents including the draft Agreement and other annexures / schedules for the Project is enclosed for the Bidders. Subject to the aforesaid documents and any addenda issued subsequent to this RFP Document, will be deemed to form part of the Bidding Documents.
- d) Bidders are advised to examine the Project in greater detail, and to carry out, at their cost, such studies as may be required for submitting their respective BIDs for award of the contract including implementation of the Project.

- e) BIDs will be evaluated for the Project on the basis of the Quality cum Cost based selection required by a Bidder for implementing the Project (the "BID Price"). The total time allowed for completion of construction under the Agreement (the "Construction Period") and the period during which the Implementing Agency shall be liable for maintenance and rectification of any defect or deficiency in the Project after completion of the Construction Period (the "Defect Liability Period") shall be pre-determined, and are specified in the draft Agreement forming part of the Bidding Documents.
- f) Other details of the process to be followed under this bidding process and the terms thereof are spelt out in this RFP.

2.3 General

- i. While every effort has been made to provide comprehensive and accurate background information, requirements and envisaged proposal(s) specifications, Bidders must form their own conclusions about the proposal(s) needed to meet the Authority's requirements. Bidders and recipients of this RFP may wish to consult their own legal advisers in relation to this RFP.
- ii. All information supplied by Bidders as part of their bids in response to this RFP, may be treated as contractually binding on the Bidders, on successful award of the assignment by the Authority on the basis of this RFP.
- iii. No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of Authority. Any notification of preferred bidder status by Authority shall not give rise to any enforceable rights by the Bidder. Authority may cancel this public procurement at any time prior to a formal written contract being executed by or on behalf of Authority.
- iv. Bids shall be received by the Authority on the e-Procurement portal www.tender.approcurement.gov.in before the time and date specified in the schedule of the RFP notice. In the event of the specified date for the submission of Bid offers being declared a public holiday by the Government of Andhra Pradesh, the offers will be received up to the appointed time on the next working day. The Authority may, at its discretion, extend this deadline for submission of offers by issuing corrigendum and uploading the same on e-Procurement portal.
- v. Telex, cable or facsimile offers will be rejected.
- vi. **Source of Fund:** The TSCCL are empowered with grant of funds from Govt. of India and Government of Andhra Pradesh to be utilized for execution of this Project. All eligible payments under the contract(s) for the package for which this Invitation for Bids is issued shall be made by the TSCCL.

2.4 Eligible Bidders

Sole Bidder	<ul style="list-style-type: none">Entity having registration under Indian companies Act 1956/2013 or as amended
Consortium #	<ul style="list-style-type: none">Max 3 Contracting firms/companies are allowed in a consortiumOne of the consortium members should lead the consortium and should be registered in India with appropriate Government Organization. In case of Company, should be registered under Companies Act 1956/2013 or as amended.All the consortium members are equally responsible and jointly & severally liable under this RFP for Successful completion of the project.
<p># In case of consortium, the list of participants needs to be declared Consortium members cannot be changed during the project period. If any of bidders/members of one consortium becomes members of the other consortium, both the consortiums will be disqualified.</p>	

The Lead Bidder shall be authorized by the consortium members for

- i. The management of all Consortium members who are part of the bid.
- ii. The design, construction and installation of all products and services submitted in their bid and as part of the contract.
- iii. To incur liabilities and receive instructions for and on behalf of any and all consortium members. Entire execution of the Contract, including payment, shall exclusively by/with the Lead Bidder
- iv. Entire execution of the Contract, receipt of payments etc., on behalf of consortium
- v. Ensuring that all the bid compliance is met by the consortium members (mentioned in the bid, failing which bid can be disqualified).

2.5 Compliant Bids/Completeness of Response

- a. Bidders are advised to study all instructions, forms, terms, requirements and other information in the RFP documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.
- b. Failure to comply with the requirements of this paragraph may render the bid non-compliant and the Bid may be rejected. Bidders must:
 - i. Include all documentation specified in this RFP, in the bid.
 - ii. Follow the format of this RFP while developing the bid and respond to each element in the order as set out in this RFP.
 - iii. Comply with all requirements as set out within this RFP.

2.6 Bidder to Inform

The Bidder shall be deemed to have carefully examined the Terms & Conditions, Scope, Specifications, and Schedules of this RFP. If bidder has any doubts/clarifications as to the meaning of any portion of the Conditions or the specifications they shall, before the last date for Submission of Pre-Bid Queries, set forth the particulars thereof and submit them to Authority in writing in order that such doubt may be removed or clarifications are provided.

2.7 Bid Preparation and Presentation costs

The Bidder shall bear all costs associated with the preparation and submission of its bid, including visits for the purpose of clarification of the bid, if so desired / any Presentation as may be required in accordance with the conditions of this RFP and the authority shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

2.8 Pre-bid Clarification

Bidders Queries

Any clarification regarding the RFP document and any other item related to this project can be submitted to Authority as per the submission mode and timelines mentioned in the Fact Sheet. The pre-bid queries should be submitted in excel sheet format, along with name and details of the organization submitting the queries.

Authority shall not be responsible for ensuring that the bidders' queries have been received by them. Any requests for clarifications post the indicated date and time shall not be entertained by Authority.

Bidders must submit their queries as per the format mentioned in Section 5 - Annexure I. Queries should be submitted at <<email ID>> with cc to <<email ID>> within the date and timelines as specified in the Fact Sheet.

Bidders are advised to share the Pre-Bid queries in two formats, one is in excel sheet (in *.xls Format) and as well as another in signed and scanned copy of the file (in *.pdf format) and format as per in Section 5 - Annexure I

Responses to Pre-Bid Queries and Issue of Corrigendum

Authority will not organize a pre-bid meeting.

Authority will respond to any request for clarification or modification of the bidding documents. Authority shall formally respond to the pre-bid queries. No further

clarifications shall be entertained after the date and time of submission of queries.

Authority shall endeavor to provide timely response to all queries. However, Authority makes no representation or warranty as to the completeness or accuracy of any response made in good faith. Authority does not undertake to answer all the queries that have been posed by the bidders.

Any modifications of the RFP Documents, which may become necessary as a result of the Pre-Bid queries, shall be made by Authority exclusively through a corrigendum. Any such corrigendum shall be deemed to be incorporated into this RFP. However, in case of any such amendment, the bid submission date may be extended at the discretion of Authority.

Any corrigendum/notification issued by Authority, subsequent to issue of RFP, shall only be available / hosted on the website URL mentioned in the fact sheet. Any such corrigendum shall be deemed to be incorporated into this RFP.

2.9 Bid Processing Fee / Bid Document Fee and Transaction Fee

RFP can be downloaded from the website URL mentioned in the fact sheet.

Bid Processing Fee / Bid Document Fee ***as mentioned in the FACT Sheet*** shall be paid via Demand Draft in favour of the "Managing Director, Tirupati Smart City Corporation Limited", Payable at Tirupati. The Bid Processing Fee / Bid document fee is mandatory and non-refundable.

Without the payments of Bid document fee the bids will be taken as incomplete and non-responsive and shall not be considered.

Transaction Fee (As per G.O. Ms. No. 4, dated 17-02-2015 IT&C Dept.): It is mandatory for all the participating bidders to pay electronically the transaction fee to M/s Vupadi Technologies through "Payment Gateway Service on E-Procurement platform". The Electronic Payment Gateway accepts all Master and Visa cards issued by any bank and Direct Debit facility / Net Banking of ICICI Bank, HDFC to facilitate the transaction. As prevalent Government GST Norms + Bank Charges for Credit Card Transaction Amount payable to M/s. Vupadi Technologies (Vupadi) shall be applicable.

Corpus fund charges towards 'e' procurement services at 0.0345% of estimated contract value with a cap of Rs.10,000/- for all works with estimated contract value up to Rs.50.00 Crores and Rs. 25,000/- for works with estimated contract value above Rs. 50.00 Crores from successful bidder payable in the shape of DD drawn in favour of Managing Director, APTS, Hyderabad payable at Hyderabad at the time of concluding agreement.

2.10 Bid Security/Earnest Money Deposit (EMD)

Bid Security/EMD as mentioned in the FACT Sheet shall be through a Bank Guarantee from a nationalized bank in India. No exemption for submitting the Bid Security/ EMD will be given to any agency. Bid security/EMD in any other form will not be entertained.

For Unsuccessful bidders: The bid security of all unsuccessful bidders would be refunded without interest by Authority on finalization of the bid in all respects by the successful bidder.

For Successful bidders: The bid security, for the amount mentioned above, of successful bidder would be returned without interest upon submission of Performance Bank Guarantee / Performance Security by the successful bidder. The successful bidder should however pay the PBG / Performance Security at 5% on Bid Contract Value / EMD whichever is higher at the time of signing the agreement in the shape of Bank Guarantee from a nationalized Bank or unconditional in the form given in the RFP document from any Nationalised Bank.

In case bid is submitted without the bid security then Authority reserves the right to reject the bid without providing opportunity for any further correspondence to the bidder concerned.

The E.M.D /PBG/ Performance Security given in the form of bank guarantee on a nationalized shall be valid for the duration of contract period plus defect liability period and in case any valid extension of contract period is granted, the validity of BG shall also be extended for the corresponding period. The bank guarantee on nationalized bank furnished by the bidder towards additional security amount shall be valid till the work is completed in all respects.

The Bid Security/ EMD shall be forfeited and appropriated by the authority as mutually agreed genuine pre-estimated compensation and damages payable to Authority for the time, cost and efforts of the authority, without prejudice to any other right or remedy that may be available to the authority under the RFP or in law under the following conditions:

- a. If a bidder withdraws or modifies its bid during the period of bid validity or any extension agreed by the bidder thereof;
- b. If a bidder is disqualified in accordance with clause 2.2;
- c. If the bidder tries to influence the evaluation process or engages in corrupt, fraudulent, coercive or undesirable practice or restrictive practice;
- d. If the bidder is declared as the successful bidder and it
 - Withdraws its proposal during negotiations. However, failure to arrive at a consensus between authority and the successful bidder shall not be constructed as withdrawal of proposal by successful bidder;
 - Fails to sign and return, as acknowledgement, the duplicate copy of the

- letter of award;
- Fails to submit the performance bank guarantee / Performance Security and/or sign the contract in accordance with this RFP;
- Fails to fulfil any other condition precedent to the execution of the contract, as specified in the letter of award;
- Fails to execute the contract.

2.11 Bid Validity Period

The EMD submitted along with the bid will remain valid for validity period mentioned in the Fact Sheet.

In exceptional circumstances, prior to expiry of the bid validity period, the authority may request that the bidders to extend the period of validity for a specified additional period at Bidder's cost. The request and the responses to the request shall be made in writing. If validity of their Bids is extended the Earnest Money Deposit (EMD) shall also be extended for a corresponding-period. A bidder may refuse the request without risking forfeiting the EMD, but in this case, the bidder will be out of the competition for the award. Bidder agreeing to the request will not be required or permitted to modify its bid, but will be required to ensure that the bid remains secured for a correspondingly longer period.

On completion of the validity period, unless the Bidder withdraws his/her/their bid in writing, it will be deemed to be valid until such time that the Bidder formally (in writing) withdraws bid.

2.12 Contents of Bid

The hard copy bids should be submitted in separate envelopes which in turn shall be packed in a separate envelope and sealed as "Request for Proposal for selection of **Design, Build, Operation and Maintenance of Art District & Design Studio under Implementation of the Smart City Mission in Tirupati**" and not to be opened except in the presence of Bid Evaluation Committee.

The four sets of documents (each enveloped separately and packed in a master envelope are required to be submitted for evaluation. The Sets will comprise of:

Document Set	Name of Document	Content
One	RFP Document fee & Bid Security/Earnest Money Deposit (EMD)	a. Scanned copy of payment of RFP Document Fee b. Scanned Copy of bank Guarantee taken for Bid Security/Earnest Money Deposit (EMD) / Online payment Receipt c. Mode of Submission: Online + Hard Copy + Soft copy (non-writable CD/DVD)
Two	Pre-Qualification Bid	a. Pre-Qualification bid as per Section 6.1 and 6.2 along with the required supporting documents. b. No Deviation Certificate as per Section 6.5 c. Total Responsibility declaration as per Section 6.6 d. Mode of Submission: Online + Hard Copy + Soft copy (non-writable CD/DVD)
Three	Technical bid	a. Technical Bid b. Mode of Submission: Online + Hard Copy + Soft copy (non-writable CD/DVD)
Four	Financial bid	a. Financial bid b. Mode of Submission: ONLY ONLINE

- a. The Bidder shall provide all the information sought under this RFP. The Authority will evaluate only those Bids that are received in the required formats and complete in all respects.
- b. Please note that Prices should NOT be indicated in the Technical Bid but should only be indicated in the Financial Bid.
- c. The Financial Proposal shall be submitted only on www.tender.apecurement.gov.in and not by any other means, failing which the Authority shall reject the Bid.
- d. Technical Proposals will be opened online at www.tender.apecurement.gov.in the specified address, date and time. The Price Proposals shall remain sealed and will be held in custody on online portal. The Technical Proposals will be evaluated. No amendments or changes to the Technical Proposals will be permitted once bid get validated online. Technical Proposals, which does not conform, to the specified requirements will be rejected as deficient Bids.
- e. **Documents Establishing the Conformity of the Goods to the Bidding Document**
 - To establish the conformity of the Goods and Related Services to the Bidding Document, the Bidder shall furnish as part of its Technical Proposal the documentary evidences
 - The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial

responsiveness of the Goods and Related Services to those requirements

- Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by Bidder in the Schedule of Supply, are intended to be descriptive only and not restrictive

f. The Technical Proposal shall contain the following:

- Technical Proposal Submission Sheet;
 - Written confirmation authorizing the signatory of the Bid.
 - Documentary evidence establishing the Bidder's eligibility to bid as per clause 3.6.
 - Documentary evidence that the Goods and Related Services conform to the Bidding Document;
 - Information in Appendix's of Technical proposal Submission Sheet
 - Documentary evidence establishing the Bidder's qualifications to perform the contract.
 - Manufacturers authorization if applicable
 - Any other document required as per the Bid Data Sheet and Tender
- g. Each bid must be typed or written in indelible ink and an authorized representative of the bidder shall sign the bid and physically initial and stamp all pages of the bid. The authorization shall be by way if a written power of attorney executed in the format attached as Annexure-8. The name and position held by the person signing of the proposal must be typed or printed below.
- h. All the pages of the bid must be sequentially numbered. The bid documents must contain in the beginning of the document, a list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bid.
- i. The original bid shall be prepared in indelible ink. It shall contain no interlineations or overwriting, except as necessary to correct errors made by the Bidder itself. Any such corrections must be initialed by the person (or persons- Power of Attorney) who sign(s) the bids.
- j. Failure to submit the bid before the submission deadline specified in the Fact Sheet / Important Dates would cause a bid to be disqualified.
- k. The physical submission of the bid has to be accompanied by soft copy [Non-Writable CD/DVD].
- l. The Bidder shall submit the Technical Proposal and the Price Proposal online using the appropriate Submission Sheets furnished in Bidding Forms. These forms must be completed without any alterations to their format, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.
- m. Interested bidders shall submit completed RFP in sealed envelope along with soft copy, DD of Bid Processing Fee, Bid security / EMD and super-scribed the project title with all supporting documents like – Design Intent in brief identifying suitable technology, qualifications, Profile of Organization, financial strength (certified financial statements as per RFP) and expertise to undertake the project. The bidders must furnish the details on the technology adopted and success elsewhere. The bidder shall also submit a conceptual financial model for the project with

proper justifications and proofs along with financial statements to demonstrate the bidder's capability of carrying out such project either individually or jointly in consortium with others. All the documents duly signed by the authorized signatory of the bidder, must be delivered to the undersigned through Speed Post / Courier service /by person so as to reach the office of Managing Director, TSCCL at the address, not later than last date of bid submission date and it shall be the responsibility of the bidder to send it on time. Authority will not take any responsibility for any delay or non-receipt.

- n. Authority will not accept delivery of bid by fax or e-mail.
- o. This RFP's enclosed formats / Annexures/ Documents, no document should be left unfilled; otherwise the RFP filing will not be valid and the incomplete RFP response will not be considered for any evaluation. All the pages of the documents should be signed by the authorised signatory of the lead Bidder and the scanned copies of the documents should be uploaded in the e-procurement portal.
- p. A prospective bidder requiring any clarification on RFP documents may contact the RFP Inviting officer at the address indicated in the NIT. The RFP inviting officer will also respond to any request for clarification, received through post /e-mail.
- q. The bidders who are desirous of participating in e-procurement shall submit their technical bids, financial bids etc., in the standard proscribed in the RFP documents displayed at e-market place.
- r. The bidders should upload the scanned copies of all the relevant certificates, documents etc., in the e-market place in support of their technical bids. The bidders shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity.
- s. Even while execution of the work, if found that the bidder had produced false / fake certificates in the bidding process for his selection, he will be black listed and the contract will be terminated.
- t. All duties, taxes, and other levies payable by the contractor as per State/Central Government rules, shall be included in the RFP percentage quoted by the bidder, however keeping in view the maximum reimbursable amounts specified in Financial Bid.
- u. The documents shall be prepared and scanned in different files (in *.pdf or *.jpeg format) and uploaded during the online submission of Bid.
- v. The Bidder must also upload certificates stating that the information furnished by him is genuine and he must also give self-declaration regarding value of ongoing works. The documents are to be uploaded in *.zip format only.
- w. The authority will not hold any risk and responsibility for the loss in transit during uploading of the scanned document, for the invisibility of the scanned document online, and any other problem(s) encountered by the bidders while submitting his bids online.
- x. Related certificates, documents etc., duly self-attested are to be scanned and uploaded on to the e-procurement platform at www.tender.apecurement.gov.in in support of items mentioned in clause.

- y. Any other condition regarding receipt of bidders in conventional method appearing in RFP document may be treated as Non-applicable.
- z. Any incorrectness / deviation noticed in the soft copies will be viewed seriously and apart from cancelling the RFP duly forfeiting the EMD, criminal action will be initiated including suspension of business.
- aa. If any discrepancy found between the online submission and the physical submission, the bid submitted online shall prevail and be considered as final.
- bb. Both physical and online bid submission are mandatory, if anyone is not submitted, the bid shall be considered as non-responsive bid.
- cc. The Bidders shall be responsible for all of the costs associated with the preparation of their Bids and their participation in the Bidding Process. The Authority will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.
- dd. Bidder shall quote for full quantity against all items. Part bids are liable for rejection. Therefore, the bidder is advised to study all terms and conditions of the RFP including technical specifications for submitting complete and comprehensive bid.
- ee. Failure to comply with any of the terms and conditions or instructions of the offer with insufficient particulars which are likely to render fair comparison of tender as a whole impossible may lead to rejection even if otherwise it is a competitive offer/ Bid.
- ff. **Local Conditions:** It will be imperative on each Bidder to fully inform himself of all local conditions and factors which may have any effect on the execution of the works covered under these documents and specifications. The Authority will not entertain any request for clarifications from the Bidders, regarding such local conditions. It must be understood and agreed that such factors have properly been investigated and considered while submitting the proposals. No claim for financial adjustment to the contract awarded under these specifications and documents will be entertained by the authority neither any change in the time schedule of the contract nor any financial adjustment arising thereof which are based on the lack of such clear information, its effect on the cost of the works to the Bidder shall be permitted by the authority.
- gg. The three envelopes shall be placed in an outer envelope, which shall be sealed. Each of the three envelopes shall clearly bear the following identification:
“Design, Build, Operation and Maintenance of Art District & Design Studio” under Implementation of the Smart City Mission in Tirupati and shall clearly indicate the name and address of the Bidder. In addition, the Bid Due Date should be indicated on the right hand top corner of each of the envelopes.

Each of the envelopes shall be addressed to:

ATTN. TO : The Managing Director,
Tirupati Smart City Corporation Limited,
c/o. Tirupati Municipal Corporation, Tilak Road, Tirupati – 517501,
Chittoor District, Andhra Pradesh, India.
E-mail: tsccltirupati@gmail.com

If the envelopes are not sealed and marked as instructed above, the Authority assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.

hh. Bids submitted by fax, telex, telegram or e-mail shall not be entertained and shall be rejected

ii. **Note to the bidder for e-tendering:**

In participation in e-tendering of Authority, it is mandatory for prospective bidder to get registered on website www.apecurement.gov.in. Thus, it is advised to all prospective bidders to get registration by making online registration fees. It is mandatory that the bidder is required to sign their bids online using Digital Signature Certificates, so the same should be obtained the same at the earliest if not obtained already.

For further information regarding issue of Digital Signature Certificate, the bidder may visit website www.apecurement.gov.in it is to be noted that it may take upto 0 to 10 working days for issue of Digital Signature Certificate. Authority shall not be responsible for any delay in issue of Digital Signature Certificate.

If bidder is bidding first time for e-tendering, then it is obligatory on the part of bidder to fulfil all formalities such as registration, obtaining Digital Signature Certificate etc., well in advance. Bidder must positively complete online e-tendering procedure at www.apecurement.gov.in

For any type clarifications bidder can visit www.apecurement.gov.in and for helpdesk <http://www.apecurement.gov.in/helpdesk.html>

jj. Bidder may contact the officials at TSSCL to get any other information about the equipments and vehicles required.

kk. **One RFP per Bidder:**

Each bidder shall submit only one RFP for the work. A bidder who submits more than one RFP will cause dis-qualification of all the RFPs submitted by the Bidder. A Bidder bidding individually or as a member of a Consortium shall not be entitled to submit another bid either individually or as a member of any Consortium, as the case may be.

2.13 Bid Formats

2.13.1 Pre-Qualification Bid Format

Section #	Section Heading	Details
1	Pre-Qualification Bid Covering Letter	As per format provided in section 6.1
2	Consortium Agreement / MOU	As per format provided in Annexure 7 of this Volume
3	About Bidder	As per format provided in section 6.2 of this document.
4	Bidder/Consortium Registration	<ul style="list-style-type: none"> • Certificate of Incorporation / Registration under companies Act, 1956 / 2013 or any suitable Act abroad • Consortium agreement clearly stating the roles and responsibilities of each member
5	Average Annual Turnover	Certificate from the Statutory auditor / CA clearly specifying the annual turnover for the specified years
6	Net worth	Certificate from the Statutory auditor/ CA clearly specifying the Positive Net worth of the firm
7	Undertaking for non-blacklisting clause	Undertaking by the authorized signatory as per format
8	Bidder Certifications	Copies of valid certificates in the name of the sole bidder or the Lead bidder in case of a Consortium
9	Power of Attorney	Documentary evidence as per format provided in Annexure 8 and 9
10.	Project Experience	Citation details of projects as per format in Section 7.4 and 6.7 as applicable.
11.	No Deviation Certificate	As per format provided in section 6.5
12.	Total responsibility certificate	As per format in 6.6
13	<p>Solvency Certificate: Bidder should have latest bank solvency certificate for an amount of at least equivalent to financial bid value in the current financial year. Certificate should be issued after 31.03.2018 and should clearly state that Banker shall be extending necessary financial support required for execution of the subject work</p>	Latest bank solvency certificate

2.13.2 Technical Bid Format

Section #	Section Heading	Details
1.	Technical Bid Checklist	As per format provided in section 7.1
2.	Technical Bid Covering Letter	As per format provided in Section 7.2
3.	About Bidder	<ul style="list-style-type: none">· Details about bidder (whether sole bidder or Consortium)· Bidder's General Information as required in Technical Criteria 3.6.
4.	Project presentation	Details as required in Technical Criteria 3.6.
5.	Project/credential summary	As per format provided in Section 7.3
6.	Bidder's Experience	Project citation as per format provided in section 7.4 and supporting documentary evidences and Self-certifications as per format in section 6.7 as Applicable
7.	Manufacturers'/Producers' Authorization Form	As per format provided in section 15
8.	Anti-Collusion Certificate	As per format provided in section 7.6
9.	Non-disclosure agreement	As per format provided in section 11 (Annexure 6)

2.13.3 Financial Bid Format

The Bidder must submit the Financial Bid in the formats specified in Section 8. The Financial Proposal shall be submitted only on www.tender.apecprocurement.gov.in and not by any other means, failing which the Authority shall reject the Bid.

Section #	Section Heading	Details
1.	Bid Price Sheet	As per format provided in Section 8 (Annexure - 4)

2.14 Language

The bid should be prepared and submitted by the bidders in English language only. If any submitted supporting documents (like notices, certificates, correspondences, proceedings, etc.) are in any language other than English, translation of the same in English language is to be provided (duly attested) by the Bidders. For purposes of interpretation of the documents, the English translation shall govern. Such translated documents shall be notarized and in case of any incorrectness of the translation, the bidder will be penalized. The bidder shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.

2.15 Authentication of Bids

An authorized representative (or representatives - Power of Attorney) of the Bidder shall initial all pages of the Pre-Qualification, Technical and Financial Bids.

Bid should be accompanied by an authorization in the name of the signatory (or signatories) of the Bid. The authorization shall be in the form of a written power of attorney accompanying the Bid or in any other form demonstrating that the representative has been duly authorized to sign.

2.16 Amendment of Request for Proposal

At any time prior to the due date for submission of bid, Authority may, for any reason, whether at its own initiative or in response to a clarification requested by prospective bidder(s), modify the RFP document by amendments. Such amendments shall be uploaded on the e-procurement portal website, through corrigendum and shall form an integral part of RFP document. The relevant clauses of the RFP document shall be treated as amended accordingly.

It shall be the responsibility of the prospective bidder(s) to check the Authority's website from time to time for any amendment in the RFP document. In case of failure to get the amendments, if any, Authority shall not be responsible.

In order to allow prospective bidders a reasonable time to take the amendment into account in preparing their bids, Authority, at its discretion, may extend the deadline for submission of bids. Such extensions shall be uploaded on website of the Authority.

Verbal clarifications and information given by the authority or any other person for or on its behalf shall not in any way or manner be binding on the authority.

2.17 Bid Price and quotation submission

The Bidder has to provide the financial bid in the formats as given in Annexure - 4. Bidders shall give the required details of all applicable taxes, duties, other levies and charges etc. in respect of direct transaction between Authority and the Bidder. **The financial bid must be uploaded on e-procurement only** and **should not** be printed or submitted with Prequalification / Technical Bid.

Bidders shall quote for the entire scope of contract on a "overall responsibility" basis such that the total bid price covers Bidder's all obligations mentioned in or to be reasonably inferred from the bidding documents

Prices quoted by the Bidder shall remain firm during the entire contract period and not subject to variation on any account.

The bidders shall quote in their proposals a firm lump sum price as per schedules provided for the entire scope.

The prices quoted shall be lump sum and on for destination basis inclusive of all taxes and duties. For the purpose of clarity, applicable taxes as on the date of submission of bid shall be quoted.

- a) **All priced quotations should be in Indian Rupees only.** – Bidders are requested to quote the price in figures and as well as in the words in the same box / place.
- b) The bidder should quote his lowest firm prices valid for the duration and completion of the contract. No enhancement of prices for what so ever reason will be allowed once the offer is accepted. Quotation should carry the name of the manufacturers for the plant offered.

The prices quoted by the Bidder shall be fixed.

A bid submitted with an adjustable price quotation shall be treated as non-responsive and rejected.

Any conditional bid with any deviations from the terms and conditions of RFP shall be disqualified.

The prices quoted by the Bidder in the Price Proposal Submission Sheet and in the Price Schedules shall conform to the requirements specified below.

- The price of the goods quoted should be on the basis of delivery to site on for destination basis [at Tirupati] including all customs duties and taxes, Entry tax, GST, transportation, packaging, transit insurance, service tax, sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of goods quoted. The price quoted should be inclusive of all FOR Tirupati.
- The prices quoted shall be lump sum and on for destination basis inclusive of all taxes and duties. For the purpose of clarity, applicable taxes as on the date of submission of bid shall be quoted.
- **A bid submitted with an adjustable price quotation shall be treated as non-responsive and rejected.**

Note:

***Rate per Unit / Unit Price inclusive of following:**

- All priced quotations should be in Indian Rupees only.
- Unit Price at Destination or Delivery point at Tirupati, Chittoor District, Andhra Pradesh, India.
- The price for inland transportation, insurance and other local costs incidental to delivery of the goods to their final destination (i.e., at Tirupati).
- The unit prices quoted shall be with comprehensive warranty.

- The Bidder shall quote for Estimate Schedule (along with basic price, GST and other charges such as installation and onsite comprehensive warranty maintenance service charges, if any) and Comprehensive Warranty in the specified places for all the materials, equipments & machineries having Technical Specifications mentioned in this bid document.
- The price of equipments & machineries (Ex-works, Ex-factory, Ex-showroom, Ex-warehouse or off-the-shelf, as applicable), including all duties and sales and other taxes (Inclusive of GST).
- On components and raw material used in the manufacture or assembly.
- On the previously imported equipment / machineries of foreign origin quoted ex-showroom, ex-warehouse, or off-the-shelf.
- Any Indian duties, sales and other taxes which will be payable on the goods if this Contract is awarded;
- Unit price including all applicable taxes/ customs duties/levies such as taxes, Entry tax, GST, Excise duty, Works Contract Tax, Octroi, Cess, transportation, packaging, transit insurance, service tax, sales and any other taxes and duties that are applicable for such contracts in the State of Andhra Pradesh as on the date of Opening of bid shall be considered and even already paid or payable on the components and raw material used in the manufacture or assembly of goods quoted.
- The prices quoted shall be lump sum and on for destination basis inclusive of all taxes and duties. For the purpose of clarity, applicable taxes as on the date of submission of bid shall be quoted.

The bidder should quote his firm prices valid for the duration and completion of the contract of **Design, Build, Operation and Maintenance of Art District & Design Studio” under Implementation of the Smart City Mission in Tirupati**. No enhancement of prices for what so ever reason will be allowed once the offer is accepted.

2.18 Insurance

Transit cum storage cum erection, testing and commissioning insurance is the responsibility of the bidder. Any loss or damage to the equipment for whatever reasons shall be to the account of the bidder. The bidder shall promptly make good the loss or damage by way of replacement and/or repair of the portion of the equipment damaged or lost, incidental to manufacture or acquisition, transportation, storage and delivery, irrespective of settlement of claims with the insurance underwriters. There shall be no extra cost to the authority on account of such replacement/repair of losses or damages for whatever reasons. All costs on account of insurance liabilities covered under the contract will be to the Bidder’s account and principal of the insurance will be to the authority.

2.19 Deviations and Exclusions

Bids shall be submitted strictly in accordance with the requirements and terms & conditions of the RFP. The Bidder shall submit a No Deviation Certificate as per the format mentioned in Section 6.5. The bids with deviation(s) are liable for rejection.

2.20 Total Responsibility

Bidder should issue a statement undertaking total responsibility for the defect free operation of the proposal as per the format mentioned in Section 6.6.

2.21 Late Bids

RFP must be submitted not later than the date and time specified in RFP. In the event of the specified date / time for the submission of bids declared as holiday, the bids will be received on the next working day.

Late submission will not be entertained and will not be permitted by the e-Procurement Portal.

The bids submitted by telex/fax/e-mail etc. shall not be considered. No correspondence will be entertained on this matter.

Authorities shall does not be responsible for delay in submission of any online submission related or website related issues and date of submission cannot be extended for such reasons

Authority reserves the right to modify and amend any of the above-stipulated condition/criterion.

2.22 Right to Terminate the Process

Authority may terminate the RFP process at any time and without assigning any reason. Authority makes no commitments, express or implied, that this process will result in a business transaction with anyone. This RFP does not constitute an offer by Authority.

2.23 Non-Conforming bids

A bid may be construed as a non-conforming bids and ineligible for consideration:

- a. If it does not comply with the requirements of this RFP.
- b. If a bid does not follow the format requested in this RFP or does not appear to address the particular requirements of the scope.

2.24 Acceptance/Rejection of Bids

- a. Authority reserves the right to reject in full or part, any or all bids without assigning any reason thereof. Authority reserves the right to assess the Bidder's capabilities and capacity. The decision of Authority shall be final and binding.
- b. Bid should be free of over writing. All erasures, correction or addition must be clearly written both in words and figures and attested.

In the event of any assumptions, presumptions, key points of discussion, recommendation or any points of similar nature submitted along with the Bid, Authority reserves the right to reject the Bid and forfeit the EMD.

The authority reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to bidders. In case of annulment, all bids submitted and specifically, bid securities shall be promptly returned to the bidders.

The Authority reserves the right to verify all statements, information and documents submitted by the bidder in response to the RFP. Any such verification or lack of such verification by the authority shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any rights of the authority thereunder.

If there is any discrepancy in the financial bid, it will be dealt as per the following:

- a. Activities and items described in the Technical Proposal but not priced in the Financial proposal shall be assumed to be included in the prices of other activities or items and no corrections will be made to the Financial Proposal / Bid.
- b. If, in the price structure quoted for the required goods/services/works, there is discrepancy between the unit price and total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly.
- c. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.
- d. If there is a discrepancy between words and figures, the amount in words shall prevail.
- e. If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date up to which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of Authority, the bid is liable to be disqualified.

2.25 Confidentiality

From the time the bids are opened to the time of the contract is awarded, the bidder should not contact the client on any matter related to its qualification documents, Technical Bid and/or Financial Bid. Information relating to the evaluation of proposals and award recommendations shall not be disclosed to the bidders who submitted the bids or to any other party not officially involved with the bid process, until the publication of the contract award.

Any attempt by a bidder or anyone on behalf of the bidder to influence improperly the

client in the evaluation of the bids or award of the contract may result in the disqualification of its bid.

All the material/information shared with the Bidder during the course of this procurement process as well as the subsequent resulting engagement following this process with the successful bidder, shall be treated as confidential and should not be disclosed in any manner to any unauthorized person under any circumstances. The employees of the successful Lead bidder and Consortium members who are proposed to be deployed on the project need to furnish a Non-Disclosure Agreement (NDA) as per Annexure 6 in section 11.

2.26 Disqualification

The bid is liable to be disqualified in the following cases or in case bidder fails to meet the bidding requirements as indicated in this RFP:

- a. During validity of the bid, or its extended period, if any, the bidder changes its quoted prices.
- b. The bidder's bid is conditional and has deviations from the terms and conditions of RFP.
- c. Bid is received in incomplete form.
- d. Bid is not accompanied by all the requisite documents.
- e. Information submitted in technical bid is found to be misrepresented, incorrect or false, accidentally, unwittingly or otherwise, at any time during the processing of the contract (no matter at what stage) or during the tenure of the contract including the extension period if any.
- f. Financial bid is enclosed with the same document as technical bid.
- g. Bidder tries to influence the bid evaluation process by unlawful/corrupt/fraudulent means at any point of time during the bid process.
- h. In case any one party submits multiple bids or if common interests are found in two or more bidders, the bidders are likely to be disqualified, unless additional bids/bidders are withdrawn upon notice immediately
- i. If any of the Lead Bidder is also partner in any other bid, then all the affected bids shall be disqualified.
- j. Bids without EMD / Bid Security and as well as Bid Documentation / Bid Processing Fee will be disqualified.

Key Personnel

Authority has identified certain key positions and minimum qualifications for each of the positions that should be part of project team of the bidder (hereby referred to as "key personnel"). Details of these key positions are provided in Section 3.6.1.

The personnel proposed should possess good working knowledge of English language. No key personnel involved should have attained the age of 58 years at the time of

submitting the proposal. The client reserves the right to ask for proof of age, qualification and experience at any stage of the project.

Initial Composition; Full Time Obligation; Continuity of Personnel

Bidder shall ensure that each member of the Key Personnel devotes substantial working time as per the staffing schedule/ manpower plan to perform the services to which that person has been assigned as per the bid.

The bidder shall assess support personnel; both technical and administrative to undertake the project. If required, additional support and administrative staff shall be provided as needed for the timely completion of the project without any additional cost to the client. It is stressed that the time period of the assignment indicated in the Technical Requirements should be strictly adhered to.

Bidder shall not make any changes to the composition of the Key Personnel and not require or request any member of the Key Personnel to cease or reduce his or her involvement in the provision of the Services during the defined term of the engagement unless that person resigns, is terminated for cause, is long-term disabled, is on permitted mandatory leave under Applicable Law or retires. In any such case, the Authority's prior written consent would be mandatory.

Evaluations

Bidder shall carry out an evaluation of the performance of each member of the Key Personnel in connection with the Services at least once in each Contract Year. Bidder shall provide reasonable written notice to Authority of the date of each evaluation of each member of the Key Personnel. Authority shall be entitled to provide inputs to the bidder for each such evaluation. Bidder shall promptly provide the results of each evaluation to Authority, subject to Applicable Law.

Replacement

In case any proposed resource resigns, then the Bidder has to inform Authority within one week of such resignation.

Bidder shall promptly initiate a search for a replacement to ensure that the role of any member of the Key Personnel is not vacant at any point in time during the contract period, subject to reasonable extensions requested by Bidder to Authority.

Before assigning any replacement member of the Key Personnel to the provision of the Services, Bidder shall provide Authority with:

- a. A Resume / Curriculum vitae and any other information about the candidate that is reasonably requested by Authority; and
- b. An opportunity to interview the candidate.

The bidder has to provide replacement resource of equal or better qualification and

experience as per the requirements of this RFP.

If Authority objects to the appointment, Bidder shall not assign the individual to that position and shall seek an alternative candidate in accordance with the resource requirements of this RFP.

The bidder needs to ensure at least 4 weeks of overlap period in such replacements. Authority will not be responsible for any knowledge transition to the replacement resource and any impact /escalation of cost incurred by the bidder due to resource replacement.

High Attrition

If in the first 6 month period from the Contract Effective Date and in any rolling 12 months period during the Term of contract, 15 percent or more of the members of the Key Personnel cease or reduce their involvement in the Services for any reason other than with Authority's prior written consent, Bidder shall:

- a. provide Authority with a reasonably detailed explanation as to the reasons for such change, including, where applicable and permitted, notes from any exit interviews conducted by Bidder with any departing member of the Key Personnel; and
- b. if such change to Key Personnel has or is likely to have any material adverse impact on the provision of the Services or any substantial part thereof, undertake, at its own costs, such remediation acts as are reasonably necessary in order to improve the retention of the Key Personnel including making reasonable changes to the human resources policies and procedures applicable to the Key Personnel (including those related to compensation, benefits and other conditions so that they are competitive with the market) as may be necessary to ensure that such policies and procedures comply with Good IndustryPractice.

2.25 Fraud and Corrupt Practices

- a. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, Authority shall reject a Bid without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, Authority shall, without prejudice to its any other rights or remedies, forfeit and appropriate the EMD or PBG, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to Authority for, inter alia, time, cost and effort of Authority, in regard to the RFP, including consideration and evaluation of such Bidder's Bid.

Without prejudice to the rights of Authority under Clause above and the rights and

remedies which Authority may have under the LOA or the Agreement, if a Bidder is found by Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOA or the execution of the Agreement, such Bidder shall not be eligible to participate in any tender or RFP issued by Authority during a period of 3 years from the date such Bidder is found by Authority to have directly or through an agent, engaged or indulged in any Prohibited Practices.

- b. For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:
- i. “corrupt practice” means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of Authority who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOA or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of Authority, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the Award or the Agreement, who at any time has been or is a legal, financial or technical consultant /adviser of Authority in relation to any matter concerning the Project;
 - ii. “fraudulent practice” means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process or the execution of contract;
 - iii. “Collusive practices” means a scheme or arrangement between two or more bidders, with or without the knowledge of the Borrowers, designed to influence the action of any party in a procurement process or the execution of a contract.
 - iv. “coercive practice” means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the Selection Process;
 - v. “undesirable practice” means (i) establishing contact with any person connected with or employed or engaged by Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and
 - vi. “restrictive practice” means forming a cartel or arriving at any understanding or

arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process.

Will reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract;

Will sanction a party or its successor, including declaring ineligible, either indefinitely or for stated period of time to participate in TSCCL Bidding / Tender activities if it at any time determines that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, an TSCCL contract.

2.26 Conflict of Interest

- a. A bidder shall not have a conflict of interest that may affect the Selection Process or the proposal delivery (the "Conflict of Interest"). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, Authority shall forfeit and appropriate the EMD, if available, as mutually agreed genuine pre-estimated compensation and damages payable to Authority for, inter alia, the time, cost and effort of Authority including consideration of such Bidder's Bid, without prejudice to any other right or remedy that may be available to Authority hereunder or otherwise.
- b. Authority requires that the bidder provides proposals which at all times hold Authority's interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The bidder shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of Authority.
- c. **Conflicting Activities: Conflict between consulting activities and procurement of goods, works or non-consulting services:** A bidder that has been engaged by the client to provide goods, works, or non-consulting services resulting from or directly related to those goods, works, or non-consulting services. Conversely, a Bidder hired to provide consulting services for the preparation or implementation of a project, or any of its Affiliates, shall be disqualified from subsequently providing goods or works or non-consulting services resulting from or directly related to the consulting services for preparation or implementation.
- d. **Conflicting Relationships: Relationship with the client's staff:** A bidder (including its Directors, stakeholders or Management) that has a close business or family relationship with a professional staff of the client who are directly or indirectly involved in any part of
 - The preparation of the RFP for the assignment

- The Technical Specifications of the goods, works or services may not be awarded a contract, unless the conflict stemming from this relationship has been resolved in a manner acceptable to the client throughout the selection process and the execution of the contract.

2.27 Sub-Contracting

The bidder would not be allowed to sub-contract work, except for the following:

- Structure, Civil and Architectural works
- Cabling and fixtures work and all civil work during implementation.

Sub-contracting shall be allowed only with prior written approval of Authority. However, even if the work is sub-contracted, the sole responsibility of the work shall lie with the lead bidder. The lead bidder shall be held responsible for any delay/error/non-compliance etc. of its sub-contracted vendor. The details of the sub-contracting agreements (if any) between both the parties would be required to be submitted to Authority.

A list of all sub-Contractors that the bidder proposes to sub-contract the works mentioned above shall be set out as per format provided in Section 16 along with an undertaking as specified in Section 20 [Annexure -11].

2.28 Right to vary quantity by Authority.

- a. At the time of contract, the quantity of goods, works or services originally specified in the bidding documents may be increased or decreased. It shall be without any change in the unit prices or other terms and conditions of the Bid and the bidding documents.
- b. If the authority does not procure any subject matter of procurement or procures less than the quantity specified in the bidding documents due to change in circumstances, the bidder shall not be entitled for any claim or compensation except otherwise provided in the bidding document.
- c. Repeat orders for extra items or additional quantities may be placed, if it is provided in the bidding document, on the rates and conditions given in the contract if the original order was given after inviting open competitive bids. Delivery or completion period may also be proportionally increased.

2.29 Withdrawal, Substitution, and Modification of Bids

- a. No bid may be withdrawn, substituted or modified in the interval between the bid submission deadline and the expiration of the bid validity period specified by the bidder in the bid submission form, or any extension thereof agreed to by the bidder. Withdrawal of the bid during this interval may result in the forfeiture of the EMD / Bid Security.
- b. Any alteration / modification in the application or additional information supplied subsequent to the bid submission date, unless the same has been expressly sought for by the client, shall be disregarded.

- c. Bids withdrawn shall not be opened and processed further.
- d. Alternative bid shall not be permitted.

2.30 Site Visit

- a) The Bidder may wish to visit and examine the site or sites and obtain for itself, at its own responsibility and risk, all information that may be necessary for preparing the bid and entering into the Contract. The costs of visiting the site or sites shall be at the Bidder's own expense.
- b) Bidders are encouraged to submit their respective bids after visiting the project site and ascertaining for themselves the site conditions, traffic, location, surroundings, climate, availability of power, water and other utilities for construction, access to site, handling and storage of materials, weather data, applicable laws and regulations and any other matter considered relevant by them.
- c) The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose (upon a written request from bidder) of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
- d) A site visit conducted by the authority **shall be organized** on the written request of the bidder. The bidder shall intimate the Employer for site visit through Electronic mail tsccltirupati@gmail.com at least three (03) days in advance.
- e) Failure of a Bidder to make a site visit will not be a cause for its disqualification.
- f) No site visits shall be arranged or scheduled after the deadline for the submission of the Bids and prior to the award of Contract.

2.31 Acknowledgement by Bidder

- a. It shall be deemed that by submitting the bid, the bidder has:
 - i. Made a complete and careful examination of the RFP.
 - Received all relevant information requested from the authority.
 - ii. Accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of the authority relating to any of the matters referred to clause 2.30 above; and
 - iii. Agreed to be bound by the undertakings provided by it under and in terms hereof.
- b. The Authority shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of concerning or relating to the bidding process, including any error or mistake therein or in any information or data given by the authority.

2.32 Proprietary Data

All documents and other information supplied by the authority or submitted by bidder to the authority shall remain or become the property of the authority. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their bid. The authority will not return any bid or any information provided along therewith.

2.33 Contacts during Bid Evaluation

Bids shall be deemed to be under consideration immediately after they are opened and until such time the authority makes official intimation of award / rejection to the bidders. While the bids are under consideration, bidders and / or their representatives or other interested parties are advised to refrain, save and except as required under the bidding documents, from contacting by any means, the authority and / or their employees / representatives on matters related to the bids under consideration.

2.34 Maintenance Tools and Tackles

The proposal shall include all special tools and tackles required for the operation and maintenance of the equipment in each equipment package.

The Bidder shall indicate all the above items in the proposal sheets in the form of a schedule giving therein the description and the quantity of each item. The item wise Price to be quoted by the Bidder shall be furnished in the format, which will be delivered with the first shipment of the main equipment.

2.35 Drawings, Data and Literature to be furnished

The Bidder shall include in his offer the following:

Undertaking to furnish details of special precautions and instructions to be followed and check list for erection, testing and commissioning of the plant.

Undertaking to furnish all required drawings, documentations for assembly, erection, testing and commissioning of the plant. Instructions regarding storage, handling, precautions etc., and checklists at various stages, till the plant is installed.

Time schedule for design, manufacture, testing, shipment, installation and commissioning is to be enclosed.

2.36 Governing Law and Jurisdiction

The contract and the transaction contemplated therein shall be governed by and construed in accordance with the laws of India.

The contract and the transactions contemplated therein shall be subject to the exclusive jurisdiction of the competent courts in Tirupati, Andhra Pradesh, India.

If any disputes arises between the parties hereto during the subsistence or thereafter, in connection with the validity, interpretation, implementation or alleged material breach of any provision of the agreement or regarding a question, including the questions as to whether the termination of contract Agreement by one party hereto has been legitimate, both parties hereto shall endeavor to settle such dispute amicably. The attempt to bring about an amicable settlement is considered to have failed as soon as one of the parties hereto, after reasonable attempts gives 15 days' notice thereof to the other party in writing.

The place of arbitration shall be Tirupati, Andhra Pradesh, India.

The arbitration proceeding shall be governed by the Arbitration and Conciliation Act of 1996 as amended from time to time.

The Proceeding of arbitration shall be in English Language.

3. Selection Process for Bidder

3.1 Opening of Bids

The Bids shall be opened by Authority in presence of those Bidders or their representatives who may be present at the time of opening.

The representatives of the bidders should be advised to carry the identity card or a letter of authority from the bidder firms to identify that they are bonafide representatives of the bidder firm, for attending the opening of bid.

There will be bid-opening as follows,

1. Set 1 – RFP Processing Fee & Bid Security / EMD
2. Set 2 – Pre-qualification Bid
3. Set 3 – Technical Bid

The date and time for opening of Technical & Financial bid would be as mentioned in the Fact Sheet.

The Technical Bids of only those bidders who clears the Pre-qualification stage shall be opened.

The Financial Bids of only those bidders will be opened who score equal to or more than 70% in Technical Evaluation.

3.2 Preliminary Examination of Bids

Authority shall examine the bids to determine whether they are complete, whether the documents have been properly signed and whether the bids are generally in order. Any bids found to be nonresponsive for any reason or not meeting any criteria specified in the RFP, shall be rejected by Authority and shall not be included for further consideration.

Authority shall examine the Technical Proposal to confirm that all documents and technical documentation requested have been uploaded on online portal, and to determine the completeness of each document submitted.

Initial Bid scrutiny shall be held and bids will be treated as non-responsive, if bids are:

- a. Not submitted in format as specified in the RFP document
- b. Received without the Letter of Authorization (Power of Attorney)
- c. Transaction Fee
- d. Bid documentation / Bid Processing Fee.
- e. Earnest Money Deposit (EMD) / Bid Security.
- f. Technical Proposal Submission Sheet.
- g. Found with suppression of details
- h. With incomplete information, subjective, conditional offers and partial offers

submitted

- i. Submitted without the documents requested
- j. Non-compliant to any of the clauses mentioned in the RFP
- k. Manufacturer's Authorization, if applicable.
- l. With lesser validity period

Examination of Terms and Conditions; Technical Evaluation of Bids

Authority shall examine the Bids to confirm that all terms and conditions specified in Bid Document have been accepted by the Bidder without any material deviation or reservation.

Authority shall evaluate the technical aspects of the Bid submitted in accordance to confirm that all requirements specified in Schedule of Supply of the Bidding Document have been met without any material deviation or reservation.

If, after the examination of the terms and conditions and the technical evaluation, authority determines that the Technical Proposal is not substantially responsive it shall reject the Bid.

3.3 Evaluation Process

Authority shall constitute a Bid Evaluation Committee to evaluate the responses of the bidders. The Bid Evaluation Committee shall evaluate the responses to the RFP and all supporting documents/documentary evidence. Inability to submit requisite supporting documents/documentary evidence by bidders may lead to rejection of their bids.

The decision of the Bid Evaluation Committee in the evaluation of bids shall be final. No correspondence will be entertained outside the process of evaluation with the Committee. The Bid Evaluation Committee may ask for meetings or presentation with the Bidders to seek clarifications or confirmations on their bids.

Only those Bidders who meet the eligibility criteria specified shall qualify for evaluation under this Section 3. Bids of firms/ consortia who do not meet these criteria shall be rejected.

The Bidder's competence and capability is proposed to be established by the following parameters

- a) After the bidder qualifies in the Pre-Qualification, will be considered for Technical Evaluation and those only those bidders will be qualify for financial bid who score equal to or more than 70 marks out of 100 in Technical Evaluation as per clause 3.6.

- b) The bidders who qualify in the Pre-Qualification will be required to apprise before the RFP evaluation Committee and make a presentation (max. 20 slides) on the scheduled date and time.
- c) The presentation will be awarded marks out of 100 (hundred) marks and will prorated in overall marks mentioned clause 3.6. Technical presentation by the responsive bidder on Project Understanding, Design innovation and concept Presentation, Project Implementation Plan, Team organization for the project will be presented in the presence of Committee constituted by TSCCL and the marking for the presentation will be given by the committee members. The marks awarded by the committee members will be final.
- d) The RFP Evaluation Committee reserves the right to reject any or all bids without assigning any reason. Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP. The steps for evaluation are as follows-:

3.4.1 Stage 1: Pre-Qualification

- a. Authority shall validate “RFP Document fee & Bid Security/Earnest Money Deposit (EMD)”.
If the contents are as per requirements, Authority shall open the “Pre- Qualification Bid”. **Each of the Pre-Qualification condition mentioned in Section 3.5 is MANDATORY.** In case, the Bidder does not meet any one of the conditions, the bidder shall be disqualified.
- b. Technical and Financial bids for those bidders who don't pre-qualify will not be opened. Financial bid will not be opened for those bidders, who don't qualify the technical evaluation. Bid Security amount shall be returned for those who don't qualify the financial evaluation stage and after PBG is submitted by successful bidder.

3.4.2 Stage 2: Technical Evaluation

- a. “Technical bid” will be evaluated only for the bidders who succeed in Stage 1.
- b. Authority will review the technical bids of the short-listed bidders for responsiveness. If the technical proposal is found
 - Not to be complete in all respects; or
 - Not duly signed by the authorized signatory of the bidder on all pages; or
 - Not to be in prescribed format and interlineations in between the formats / lines in the prescribed formats; or
 - To contain alternation, conditions, deviations or omissions.

then such technical bids shall be deemed to be substantially non-responsive. and liable to be disqualified at Authority's discretion.

- c. The bidders' technical proposal in the bid document shall be evaluated as per the requirements specified in the RFP and technical evaluation framework as mentioned in Section 3.6 & 3.6.1
- d. Bidders should submit detailed – “**Approach & Methodology & Project Presentation**” [if required]. Bidders who qualify the PQ stage shall be called for presentation.
- e. Each Technical Bid will be assigned a Technical Score out of a maximum of 100 points. Only the bidders who get **Technical Score of more than or equal to 70% in Technical Evaluation** will qualify for Financial Evaluation stage.

3.4.3 Responsiveness of Technical Proposal

1. Authority's determination of the responsiveness of a Technical Proposal is to be based on the contents of the Technical Proposal itself.
2. A substantially responsive Technical Proposal is one that conforms to all the terms, conditions, and specifications of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
 - a) Affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
 - b) Limits in any substantial way, inconsistent with the Bidding Document, Authority's rights or the Bidder's obligations under the Contract; or
 - c) If rectified would unfairly affect the competitive position of other Bidders presenting substantially responsive Technical Proposals.
 - d) If a Technical Proposal is not substantially responsive to the Bidding Document, it shall be rejected by authority and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission

3.4.4 Stage 3: Financial Evaluation

The financial bids for the technically qualified bidders shall then be opened on the notified date and time and reviewed to determine whether the financial bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at Authority's discretion.

- a. **Financial bids shall be uploaded on e-procurement portal only.**
- b. Financial bids that are not as per the format provided in Section 8 (Annexure 4) shall be liable for rejection.
- c. The bid price shall include all taxes and levies and shall be in Indian Rupees.
- d. The bidder achieving the lowest cost shall be invited for negotiations for awarding the contract.

- e. In case of a tie where two or more bidders achieve the same lowest cost,
- The bidder with the higher Technical Score will be invited first for negotiations for awarding the contract.
 - The bidder whose annual turnover is more will be preferred.
 - Even if the criteria incidentally become the same, the turnover on similar works and thereafter machinery available for the work and then the clean track record will be considered for selection.

3.4.5 Correction of Arithmetical Errors

Provided that the bid is substantially responsive, the authority shall correct arithmetical errors on the following basis:

- a. Only for admeasurement contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected.
- b. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- c. If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to this clause as stated above.
- d. Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with RFP shall result in the rejection of the Bid.

3.5 Pre-Qualification Criteria

The Technical Evaluation Committee will review the PQ to determine whether the bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at Authority's discretion.

Sl. No.	Eligibility and Qualification Criteria	Compliance Requirements	Documentation
1	The Sole Bidder OR Consortium Sole Bidder <ul style="list-style-type: none"> • Entities having registration under Companies Act 	<ul style="list-style-type: none"> • Copy of Certificate of Registration with Government Organization And/or Copy of Certificate of 	

Sl. No.	Eligibility and Qualification Criteria	Compliance Requirements	Documentation
	<ul style="list-style-type: none"> • Max 3 members are allowed in a consortium • All the consortium members are equally responsible and jointly & severally liable under this RFP for successful completion of this entire Project 	<p>Incorporation/Registration under Companies Act, 1956/2013 or any suitable Act abroad</p> <ul style="list-style-type: none"> • Consortium agreement / MOU clearly stating the roles and responsibilities of each member 	PQ_1

- a. The Bidder may be a single entity (the “**Sole Bidder**”) or a group of entities (the “**Consortium**”), coming together to implement the Project. Consortiums of maximum three members are allowed for this project. However, no Bidder applying individually or as a member of a Consortium, as the case may be, can be member of another Bidder. The term “**Bidder**” used herein would apply to both a single entity and a Consortium.
- b. Bidder may be a natural person private entity, or any combination of them with a formal intent to enter into a Consortium or under an existing agreement to form a Consortium. A Consortium shall be eligible for consideration subject to the conditions set out in the below Sub Clause b.i of 3.5 Pre-Qualification Criteria.
- i. The Bidder including individual or any of its Consortium should, in the last 3 (three) years, have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial TSCCL / TMC or a judicial pronouncement or arbitration award against the Bidder including individual or any of its Consortium Member, as the case may be, nor has been expelled from any project or contract by any public entity nor have had any contract terminated by any public entity for breach by such Bidder including individual or any of its Consortium Member
- c. A Bidder shall not have a conflict of interest (the “Conflict of Interest”) that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified and liable for forfeiture of the BID Security or Performance Security as the case may be. A Bidder shall be deemed to have a Conflict of Interest affecting the Bidding Process, if:

Sl. No.	Eligibility and Qualification Criteria	Compliance Requirements	Documentation
	<p>i. the Bidder, its Consortium Member (or any constituent thereof) and any other Bidder, its Member or any Member of its Consortium thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder, or its Consortium Member thereof (or any shareholder thereof having a shareholding of more than 5% (five percent) of the paid up and subscribed share capital of such Bidder, or its Consortium Member, as the case may be), in the other Bidder, its Consortium Member is less than 5% (five percent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in section 4A of the Companies Act 1956. For the purposes of this Clause b above, indirect shareholding held through one or more intermediate persons shall be computed as follows:</p> <ul style="list-style-type: none"> • (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the “Subject Person”) shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and • (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or <p>ii. a constituent of such Bidder is also a constituent of another Bidder; or</p> <p>iii. such Bidder, or any of its Consortium Member thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder, or any of its Consortium Member thereof or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder, its Member or any of its Consortium Member thereof; or</p> <p>iv. such Bidder has the same legal representative for purposes of this Application as any other</p>		

Sl. No.	Eligibility and Qualification Criteria	Compliance Requirements	Documentation
	<p>Bidder; or</p> <p>v. such Bidder, or any of its Consortium Member thereof has a relationship with another Bidder, or any of its Consortium Member thereof, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other's' information about, or to influence the Application of either or each other; or</p> <p>vi. Such Bidder or any of its Consortium Member thereof has participated as a consultant to the TSCCL in the preparation of any documents, design or technical specifications of the Project.</p> <p>d. A Bidder shall be liable for disqualification and forfeiture of BID Security, if any legal, financial or technical adviser of the TSCCL in relation to the Project is engaged by the Bidder, its Member or any Associate thereof, as the case may be, in any manner for matters related to or incidental to such Project during the Bidding Process or subsequent to the (i) issue of the LOA or (ii) execution of the Agreement. In the event any such adviser is engaged by the selected Bidder or Contractor, as the case may be, after issue of the LOA or execution of the Agreement for matters related or incidental to the project, then notwithstanding anything to the contrary contained herein or in the LOA or the Agreement and without Prejudice to any other right or remedy or the TSCCL, including the forfeiture and appropriation of the BID Security or Performance Security, as the case may be, which the TSCCL may have there under or otherwise, the LOA or the Agreement, as the case may be, shall be liable to be terminated without the TSCCL being liable in any manner whatsoever to the Selected Bidder or Contractor for the same. For the avoidance or doubt, this disqualification shall not apply where such adviser was engaged by the Bidder, its Member or Associate in the past but its assignment expired or was terminated 6 (six) months prior to the date of issue of this RFP. Nor will this disqualification apply where such adviser is engaged after a period of 3 (three) years from the date of commercial operation of the Project.</p> <p># In case of consortium, the list of participants needs to be declared Consortium members cannot be changed during the project period.</p> <p>If any of bidders/members of one consortium becomes members of the other consortium, both the consortiums will be disqualified.</p>		

Sl. No.	Eligibility and Qualification Criteria	Compliance Requirements	Documentation
<p>Eligible Goods and Related Services:</p> <p>For purposes of this Clause, the term "goods" includes commodities, raw material, machinery, equipment, vehicles etc; and "related services" includes services such as transit insurance, installation and operation & maintenance.</p> <p>If a Bidder that does not manufacture or produce the Goods it offers to supply, he shall submit the Manufacturer's Authorization to demonstrate that he has been duly authorized by the manufacturer or producer of the Goods to supply these Goods</p>			
2	<p>The Bidder [Single Entity/ Consortium as a whole] should be having an average annual Turnover (TO) is equal to 20 Cr. in Indian Rupees during last 3 audited financial years (2015-16, 2016-17, 2017-18).</p>	<p>Certificate from the Statutory auditor / CA clearly specifying the annual turnover for the specified years</p>	PQ_2
3	<p>The bidder must have satisfactorily completed similar nature of works i.e. Construction of multistory state of art facility of total value not less than 20 Cr.</p> <p>In case of Consortium, All members together shall have satisfactorily completed similar nature Project.</p>	<p>For each eligible work, bidder(s) should provide copy of work order and any one of the following document(s):</p> <ul style="list-style-type: none"> i. completion certificate issued by the appropriate authority; or ii. any other document which shows the evidence of submission of final report or final deliverable to the appropriate authority; or iii. no-dues certificate issued by the appropriate authority; or iv. For on-going assignment(s) / project(s), Experience of having substantially completed (completion of minimum 85% of the value of work). A certificate from the appropriate authority showing the contract value, time extension and price variation if any, financial 	PQ_3

Sl. No.	Eligibility and Qualification Criteria	Compliance Requirements	Documentation
		payments made, should be mentioned on the certificate issued by the appropriate authority.	
4	The sole bidder OR the Lead bidder and each of the member of the Consortium should not be blacklisted by any Central / State Government Department or Central/State Public Sector Units (PSUs) in India as on the bid submission date	<ul style="list-style-type: none"> Undertaking by the authorized signatory of bidder (In case of Consortium to be provided by each member) as per format given in Annexure 2, section 6.4 	PQ_4
5	<p>Solvency Certificate:</p> <p>Bidder should have latest bank solvency certificate for amount of at least equivalent to financial bid value in the current financial year. Certificate should be issued after 31.03.2018 and should clearly state that Banker shall be extending necessary financial support required for execution of the subject work</p>	Latest bank solvency certificate	PQ_5

The Bidder is to submit audited statements of accounts for the last three (3) years, along with its bid. The Bidder has to submit accounts and certified balance sheet certified by a registered chartered accountant supported by copies of tax returns or the last three (3) years, along with its bid. In the event that the Authority in the Bidder's audited statement notes consistent losses or the risk of insolvency, the Bidder may be disqualified. Where necessary Authority will make enquiries with the Bidder's Bankers.

1. Bidder has repair and service facilities in India and shall provide an undertaking that successful bidder shall either develop its own facility or authorize service center at Tirupati for day to day maintenance.
2. Should assure the ready availability in India of the spare / requisite parts of the proposed equipment

Technical bids along with the compliance sheet of technical specifications and with necessary documents should be filled in all respects and each paper should be signed by the authorized representative, scanned and uploaded in e-procurement portal.

Sl. No.	Eligibility and Qualification Criteria	Compliance Requirements	Documentation
<p><u>Approach & Methodology:</u> Technical Bid shall consist of following:</p> <p>The bidder has to give comprehensive plan, Proposed solution, detailed project schedule, team structure, manpower positioning, implementation methodology, training details [if required], management of the project, etc., in technical bid and shall give an undertaking that the proposed system shall be installed, commissioned, implemented and complete in all respects adhering to the requirements of this RFP. All the annexures also should be submitted as prescribed.</p>			
<p><u>Note:</u> <u>On Failure of submission of these above mentioned documents the bidder will be disqualified</u></p>			

Notes:

- Any bid failing to meet all of the above eligibility criteria shall be disqualified and will not be considered for technical evaluation.
- No relaxation will be given to any of the qualification criteria.
- Financial year means period beginning from the 1st April to 31st March of the next year.
- The details pertaining to Turnover for the year 2015-2016 to 2017-2018 shall be certified by Chartered Accountant on his own letter head and duly attested. Turnover of financial year 2017-2018 shall be considered subject to submission of provisional / audited certificate from Chartered Accountant by the bidder.
- The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer-In-Charge / Executive Engineer / Employer.
- Even though the bidders meet the above qualifying criteria, they are subject to be disqualified / debarred / suspended / blacklisted if they have:
 - Furnished false / fabricated particulars in the forms, statements and / annexures submitted in proof of the qualification requirements and/or
 - Not turned up for entering into agreement, when called upon.
 - Made misleading or false representations in the forms, statements and attachments in proof of the qualification requirements; and/or
 - Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc., and/or
 - Participated in the previous bidding for the same work and had quoted unreasonable bid prices (Too high or too low) and could not furnish rational justification to the Employer.
 - Even while execution of the work, if found that the work as awarded to the

contractor based on false / fake certificate of experience, the contractor will be blacklisted and work will be taken over invoking clause 61 of PS to APSS.

3.6 Technical Evaluation Framework

The Bidder's technical proposal in the Technical Evaluation bid shall be evaluated as per the evaluation criteria in the following table.

Section	Evaluation Criteria	Points
A	Project experience	40
B	Operation and maintenance experience	20
C	Approach & Methodology & Project Presentation	30
D	Key Personnel	10
Technical Score		100

Notes:

- Bidder to submit work order and end client work in-progress (minimum 85% Project completion) / completion certificate as a supporting documents for each Project.
- Project citations of only up to one level of sub-contracting will be considered for evaluation.
- Authority (or a nominated party) reserves the right to check/validate the authenticity of the information provided in the Pre-qualification and Technical Evaluation criteria and the requisite support must be provided by the Bidder.

The following sections explain how the Bidders shall be evaluated on each of the evaluation criteria

3.6.1 Technical Bid Evaluation Criteria

To demonstrate its technical capacity and experience (Technical Capacity), the Bidder must have the following experience:

(a) Project experience (Points: 40)

1. Construction of multi-storey facility and allied works with minimum built-up area of 50000 Sq. Ft.

Marking Criteria		
Sl. No	No of Projects	Points
1	1 Project	5
2	2 Projects	10
3	> 2 Projects	20

2. Construction of multi-storey mixed use development/ convention centre/ Auditorim facility and allied works

Marking Criteria		
Sl. No	No of Projects	Points
1	1 Project	5
2	2 Projects	10
3	> 2 Projects	20

(b) Operation and maintenance experience (Points: 20)

1. Operate and maintenance of multi-storey facility and allied works for a minimum of 2 years in last 5 years

Marking Criteria		
Sl. No	No of Projects	Points
1	1 Project	10
2	2 or >2 Projects	20

It is clarified that:

- (i) The Bidder must demonstrate both project experience specified in Clause 3.6.1(a) above and O&M experience specified in Clause 3.6.1(b) above to be technically qualified for evaluation of the Financial Proposals.;
- (ii) The Bidder/Member may rely on the experience of its Associate(s) for demonstrating the Technical Capacity;
- (iii) in case of a Consortium, the project experience set out in Clause 3.6.1(a) must be demonstrated by one Member and the O&M experience set out in Clause 3.6.1(b) may be claimed by a different Member;
- (iv) For certificates claiming project and O&M experience that are issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the certificate is being issued. However, the certificates provided by the Bidders from countries that have signed the Hague Legislation Convention, 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Apostle certificate.

(c) Approach and Methodology & Presentation (Points 30)

Sl. No.	Subject description	Requirements	Marking
1	Project Understanding	Presentation on understanding of: i. Issues and Opportunities based on site visits; Short-term and long-term Objectives of Project	10

		ii. Functional and technical requirements of the project, Approach and methodology to be adopted by the Bidder iii.	
2	Innovation & Best Practices	Presentation on Innovative approaches, best practices, methods, techniques and standards that are generally accepted for use in design of facilities. Bidders should demonstrate in their presentation about design intent and/or design of facilities included in this RFP and present innovative methods of creating of functional facilities for all age groups.	15
3	Project Implementation Plan	The bidder shall present the overall plan to undertake the project	5

(d) Key Personnel (Points: 10)

Bidder shall provide adequate number of personnel, each responsible for a specific role within the project. Bidder shall provide clear definition of the role and responsibility of each individual personnel.

Bidder shall have a defined hierarchy and reporting structure for various teams that shall be part of the project. Bidder has to provide the list of proposed Resources for the Project. Any changes in Resource deployment will have to be approved by the Authority.

Following table indicates the minimum qualification required for Key Positions identified for this project. However, Bidder shall independently estimate the teams size required to meet the requirements as per scope of this RFP.

All proposed positions shall be Onsite throughout the entire project implementation phase.

Sl. No.	Position	Minimum Qualifications & Experience	Marking
For Art District Building			
1	Project Manager	Education: B. Tech/B.E./ Equivalent from a recognized educational institution	3
		Experience: Minimum 10 years' experience with more than 5 years of experience of handling similar projects as a project manager.	

Sl. No.	Position	Minimum Qualifications & Experience	Marking
2	Design Architect – 1 Nos	Education: B. Arch or equivalent from a recognized educational institution	2
		Experience: Minimum 7 years' experience with more than 3 years of experience of handling similar projects as an architect/design professional	
3	Project Engineer – 1 No	Education: Degree / Diploma from recognized institution Experience: Minimum 5 years' experience with degree and minimum 7 years of experience with diploma	1
For Design Studio			
4	Project In Charge	Education: Degree with suitable qualification to oversee Design Studio	2
5	Design In Charge	Education: Degree with suitable qualification to oversee Design Studio	2

Manpower plan for Implementation Phase to be provided as per format provided in 7.5.3 (I)

Apart from the above -mentioned resources, the Bidder shall also propose manpower to be deployed during the Construction and Operation & Maintenance phase of the Project as provided in the format 7.5.3 II

Any additional or support manpower shall be estimated and should be accounted for in the financial proposal by the selected bidder, so that, the project as per the scope defined and agreement are fulfilled and the project objectives are met.

4. Award of Contract

4.1 Notification of Award

Authority will notify the successful Bidder in writing by e-mail followed by courier. To be confirmed by the Bidder in writing by email followed by courier.

4.2 Signing of Contract

After the notification of award, Authority will issue Letter of Acceptance (LOA). Accordingly, a contract shall be signed between successful bidder and Authority or the agency designated by Authority. As an acceptance of the LOA, the Bidder shall sign and return back a duplicate copy of the LOA to Authority or the agency designated by the Authority. The bidder shall return the duplicate copy along with a Performance Bank Guarantee / Performance Security within 28 working days from the date of issuance of LOA.

On receipt of the Performance Bank Guarantee / Performance Security, Authority or the agency designated by Authority shall enter into a contract with the successful bidder.

4.3 Performance Bank Guarantee (PBG) / Performance Security:

Within twenty eight (28) working days from the date of issuance of LOA, the successful Bidder shall at his own expense submit unconditional and irrevocable Performance Bank Guarantee (PBG) / Performance Security to the Authority. The PBG shall be from a Nationalized Bank or a Scheduled Commercial Bank in the format prescribed in Section 9 - Annexure 5 (a), payable on demand, for the due performance and fulfillment of the contract by the bidder.

This Performance Bank Guarantee / Performance Security shall be for an amount equivalent to 5% of total contract value. PBG shall be invoked by Authority, in the event the Bidder:

- a. fails to meet the overall penalty condition as mentioned in RFP Volume II or any changes agreed between the parties,
- b. fails to perform the responsibilities and obligations as set out in the RFP to the complete satisfaction of Authority,
- c. Misrepresents facts / information submitted to Authority.

The performance bank guarantee / Performance Security shall be valid till satisfactory completion of Post Implementation Support. The performance bank guarantee / Performance Security may be discharged / returned by Authority upon being satisfied that there has been due performance of the obligations of the bidder under the contract. However, no interest shall be payable on the performance bank guarantee / Performance Security.

In the event of the Bidder being unable to perform the contract for whatever

reason(s), Authority shall have the right to invoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of Authority under the contract in the matter, the proceeds of the PBG shall be payable to Authority as compensation for any loss resulting from the bidder's failure to perform/comply its obligations under the contract.

Authority shall notify the bidder in writing of the exercise of its right to receive such compensation within 40 days, indicating the contractual obligation(s) for which the bidder is in default. Authority shall also be entitled to make recoveries from the bidder's bills, performance bank guarantee / Performance Security, or from any other amount due to him, an equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.

In case the project is delayed beyond the project schedule as mentioned in RFP Vol 2, the performance bank guarantee / Performance Security shall be accordingly extended by the Bidder till completion of scope of work as mentioned in RFP Volume II.

This Performance Bank Guarantee / Performance Security shall be valid till (60) days beyond the validity period of the contract, or beyond any period of extension under the contract, if agreed.

On satisfactory performance and completion of the order in all respects and duly certified to this effect by the Project Coordinator, Contract Completion Certificate shall be issued and the PBG would be returned to the Bidder.

4.4 Warranty & Maintenance

- a. Bidder shall also provide complete maintenance support for all the proposed integrated solution as outlined in this RFP for a period of project duration [as stated in the Fact Sheet], as per the requirements provided in this RFP and all the acceptance tests are successfully concluded to the satisfaction of the client.
- b. During the warranty period, the bidder shall warrant that the goods supplied under the contract are new, unused of the most recent version/ models and incorporate all recent improvements in design and materials unless provided otherwise in the contract. The bidder further warrants that the goods supplied under this contract shall have no defects arising from design, materials or workmanship.
- c. Client or designated representatives of the bidder shall promptly notify successful bidder in writing of any claims arising under this warranty. Upon receipt of such notice, the bidder shall within the warranty period and with all reasonable speed, repair or replace the defective systems, without costs to

client and within time specified and acceptable to client.

- d. If the successful bidder, having been notified, fails to remedy the defect(s) within the period specified in the contract, client may proceed to take such reasonable remedial action as may be necessary, at the successful bidder's risk and expense and without prejudice to any other rights, which client may have against the bidder under the contract.
- e. During the comprehensive warranty period, the successful bidder shall provide all product(s) and documentation updates, patches/ fixes, and version upgrades within 15 days of their availability and should carryout installation and make operational the same at no additional cost to client.
- f. The successful bidder hereby warrants that;
 - The implemented integrated solution / Project represents a complete, integrated solution/Project meeting all the requirements as outlined in the RFP and further amendments if any and provides the functionality and performance, as per the terms and conditions specified in the contract.
 - The proposed integrated solution/ Project shall achieve parameters delineated in the technical specification / requirement.
 - The successful bidder shall be responsible for warranty services from licensors of products included in the systems.
 - The successful bidder undertakes to ensure the maintenance of the acceptance criterion / standards in respect of the systems / project during the warranty period.

4.5 Failure to agree with the Terms & Conditions of the RFP

Failure of the successful bidder to agree with the Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event Authority may award the contract to the next best value bidder or call for new bids. In such a case, Authority shall invoke the PBG and / or forfeit the EMD.

4.6 Miscellaneous.

1. The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts in Tirupati shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.
2. The Authority, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;

a) suspend and/ or cancel the Bidding Process and/ or amend and/ or

supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;

- b) consult with any Bidder in order to receive clarification or further information;
 - c) qualify or not to qualify any Bidder and/ or to consult with any Bidder in order to receive clarification or further information;
 - d) retain any information and/ or evidence submitted to the Authority by, on behalf of, and/ or in relation to any Bidder; and/ or
 - e) Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.
3. It shall be deemed that by submitting the Bid, the Bidder agrees and releases the Authority, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection with the Bidding Process and waives, to the fullest extent permitted by applicable laws, any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.
4. Obtaining the required statutory licenses like Consent to Establish and Consent to operate approvals from the statutory authorities (if required / directed by Client).
5. Authority may, at its discretion reserves the right to extend the RFP submission date and amending for which the RFP is invited.
6. Authority reserves the right to accept / reject any or all RFP(s)/Proposals and to annul the process without assigning any reason thereto.

7. Authority reserves the right to define the requirements and issue another RFP/s / Tenders as may be deemed necessary.
8. The Authority reserves the right to verify the particulars furnished by the bidders independently and also reserves the right to reject any proposal without assigning any reason thereof in the interests of effective implementation of the project.
9. After uploading the technical/financial bid, the original DDs/BG are to be submitted by the bidder to the concerned MD, TSCCL so as to reach before opening of the pre-qualification bid. Failure to furnish DDs/BG, entail rejection of the bid and forfeiture of the EMD. Similarly if any of the certificates, documents etc. furnished by the bidder are found to be false/fabricated/bogus, the bidder will be black listed and the EMD forfeited.
10. The Authority may extend the dates for issue and receipt of RFP by issuing an amendment in which case all rights and obligations of the Managing Director, Tirupati Smart City Corporation Limited.

5. Annexure 1 – Template for Pre-Bid Queries

Bidder shall submit all pre-bid queries in excel in the following format along with the name and details of the origination submitting the queries.

SL #	RFP Volume, Section	RFP page no	Content in the RFP	Clarification sought

Note:

- a. In case of queries with regard to RFP document, please mention the section/clause as may be applicable.
- b. In case of queries with regard to functional or technical requirements, please give reference of the corresponding FR/TR
- c. **Bidders are advised to share the Pre- Bid queries in two formats, one is in excel sheet (in *.xls Format) and as well as another in signed and scanned copy of the file (in *.pdf format).**

6. Annexure – 02 - Formats for submission of Pre-Qualification Bid

6.1 Pre-Qualification Bid Covering Letter

Dated: DD/MM/YYYY

To
The Managing Director,
Tirupati Smart City Corporation Limited,
C/o Tirupati Municipal Corporation,
Tilak Road, Tirupati – 517501, Chittoor District,
Andhra Pradesh, India

Sub: **REQUEST FOR PROPOSAL FOR “Design, Build, Operation and Maintenance of Art District & Design Studio” under Implementation of the Smart City Mission in Tirupati**

Ref: RFP No. <<.....>> dated <<>>

Dear Sir,

With reference to your “**Design, Build, Operation and Maintenance of Art District & Design Studio**” under Implementation of the Smart City Mission in Tirupati”, we hereby submit our Pre-qualification bid, Technical Bid and Financial Bid for the same.

We hereby declare that:

- a. We have examined and have no reservations to the Bidding Document, including Addenda No.: (Insert the number and issuing date of each addenda);
- b. We hereby acknowledge and unconditionally accept that the Authority can at its absolute discretion apply whatever criteria it deems appropriate, not just limiting to those criteria set out in the RFP and related documents, in short listing of Agency for providing services.
- c. We offer to supply in conformity with the Bidding Document and in accordance with the delivery schedule specified in Schedule of Supply, the following Goods and Related Services:

S. No.	Description of works
1	Design, Build, Operation and Maintenance of Art District & Design Studio ” under Implementation of the Smart City Mission in Tirupati

- d. We have submitted EMD of Indian Rupees[] and Bid Processing fee of Indian

Rupees[]

- e. We hereby declare that all information and details furnished by us in the Bid are true and correct, and all documents accompanying such application are true copies of their respective originals.
- f. We agree to abide by our offer for a period of 180 days from the date of opening of pre- qualification bid prescribed by **Authority** and that we shall remain bound by a communication of acceptance within that time.
- g. We have carefully read and understood the terms and conditions of the RFP and the conditions of the contract applicable to the RFP. We do hereby undertake to provision as per these terms and conditions.
- h. In the event of acceptance of our bid, we do hereby undertake:
 - i. To supply the products and commence services as stipulated in the RFP document
 - ii. To undertake the project services for entire contract period from the date of signing of the contract as mentioned in the RFP document.
 - iii. We affirm that the prices quoted are inclusive of design, development, delivery, installation, commissioning, training, providing facility management and handholding support, and inclusive of all out of pocket expenses, taxes, levies discounts etc.
- i. We do hereby undertake, that, until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and notification of award of contract, shall constitute a binding contract between us.
- j. If our Bid is accepted, we commit to obtain a Performance Security in the amount of 05 percent of the Contract Price for the due performance of the Contract.
- k. We are not participating, as Bidders, in more than one Bid in this bidding process.
- l. We understand that the **Authority** may cancel the bidding process at any time and that **Authority** is not bound to accept any bid that it may receive without incurring any liability towards the bidder.
- m. We fully understand and agree to comply that on verification, if any of the information provided in our bid is found to be misleading the selection process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so.
- n. We understand that you are not bound to accept the lowest evaluated bid or any other

bid that you may receive.

In case of any clarifications please contact _____email at

Thanking you,

Yours sincerely,

(Signature of the Lead bidder)

Printed Name Designation

Seal

Date:

Place:

Business Address:

6.2 Company profile

A. Brief company profile (required for both bidder and consortium member)

Sl. No.	Particulars	Description or details
1.	Name of Bidder	
2.	Legal status of Bidder (Registered Contractor, company, Pvt. Ltd., LLP etc.)	
3.	Bidder's actual or intended country of registration (Indicate Country of Constitution)	
4.	Bidder's actual or intended year of incorporation (Incorporation / Registration date and number)	
5.	GST number	
6.	PAN details	
7.	Bidder's legal address (In country of Registration)	
7.		
8	Main business of the Bidder	
9	Registered office address	
10.	Primary Contact Person (Name, Designation, address, mobile number, fax, email)	
11.	Secondary Contact Person (Name, Designation, address, mobile number, fax, email)	
12	EMD details	
In case of consortium		
13.	Role in Consortium (if applicable)	Brief scope of work in the Consortium
1.	Name of the Consortium Members	
2.	Consortium Member's County of Registration	
3.	Consortium Member's year of constitution	
4.	Consortium Member's legal address in country of constitution	
5.	Consortium Member's authorized representative information along with address and contact details	

Note:

Attached are copies of original documents of article of incorporation (or equivalent documents of constitution or association), and / or registration documents of the legal entity named above.

Include are the organizational chart, a list of Board of Directors and the beneficial ownership

B. Certificate of Incorporation / Registration (required for both bidder and Consortium members)

B. Financial Turnover

The financial turnover of the company is provided as follows:

	2015 - 16	2016 - 17	2017- 18
B. Annual Turnover			

B. Copy of audited financial statements or declaration from the appointed statutory auditor/CA to be provided as proof of the financial turnover

B. Positive net worth, as on the last date of latest audited financial year.

B. Copy of self-certified statutory auditor certificate / CA to be submitted along with the bid

Fiscal Criteria of the Bidder

B. Bidder Type	Net Worth	Financial Year
B. Single Entity Bidder		
B. Consortium Member1		
B. Consortium Member2		

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Fiscal Data

Description of Fiscal Information	Amount / Value (In ₹ , - Crore)		
	2015-16	2016-17	2017-18
Statement of Fiscal Position			
Information from Balance Sheet			
Total Assets			
Total Liabilities			
Total Equity / Net Worth (NW)			
Securities (Stocks, Bonds, Mutual Funds, etc.,)			
Insurance Policies (Cash surrender value)			
Current Assets			
Current Liabilities			
Working Capital			
Information from Income Statement			
Total Revenue			
Profits Before Taxes			
Cash Flow Information			
Cash Flow from Operating Activities			

Source of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments

Serial Number	Source of Finance	In ₹ , - Crore
1		
2		
3		

Instructions:

- The Bidder/Member (in case of a Consortium) shall attach copies of the balance sheets, financial statements and Annual Reports for the last financial year preceding the Bid Due Date. The financial statements shall:
 - reflect the financial situation of the Bidder or Consortium Member;
 - be audited by a statutory auditor;
 - be complete, including all notes to the financial statements; and
 - Correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).
- Net Worth shall mean (Subscribed and Paid-up Equity + Reserves) less (Revaluation reserves + miscellaneous expenditure not written off + reserves not available for distribution to equity shareholders).

- 3 Financial Year will be the latest completed financial year, preceding the bidding. In case the Bid Due Date falls within 3 (three) months of the close of the latest financial year.
- 4 In the case of a Consortium, a copy of the Jt. Bidding Agreement shall be submitted.
- 5 The Bidder shall provide an Auditor's Certificate specifying the Net Worth of the Bidder and also specifying the methodology adopted for calculating such Net Worth.

Turnover* of the bidder's company in last three financial years

Description	2015-16	2016-17	2017-18	Remarks
Turnover (₹ in Cr.)				
Multiplying Factor	1.30	1.20	1.10	
Amount Equivalent to Current Year				
Profit after Tax (₹ in Cr.)				

* Certified copies from a registered chartered accountant shall be enclosed.

Names of three Clients from different departments to whom similar works are done in the last three financial years and to whom reference may be made by the Authority regarding the bidder's performance for timely completion of delivery, installation and after sales service support:

Description	Client1	Client 2	Client 3	Remarks
Name and Designation of Contact person				
Complete Address of the Buyer				
Telephone Number / Mobile Number / Fax				
E-mail Address				

Special Accreditations or Awards:

Other details - (If bidder wants to furnish relate to their capabilities)

Declaration:

(Signature, name and designation of the authorised signatory with seal and Date)

6.3 Declaration of Non-Blacklisting

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

Subject: Self Declaration of not been blacklisted in response to the **REQUEST FOR PROPOSAL FOR “Design, Build, Operation and Maintenance of Art District & Design Studio” under Implementation of the Smart City Mission in Tirupati**

Ref: RFP No. <<.....>> **dated** <<>>

Dear Sir,

I M/s. (Sole Applicant/Lead Member/Other Member/s), (the names and addresses of the registered office) hereby certify and confirm that we or any of our promoter/s / director/s are not barred or blacklisted by any state government or central government / department / agency /PSU in India or abroad from participating in Project/s, either individually or as member of a Consortium as on

We confirm that our company or firm,____is currently not blacklisted in any manner whatsoever by any of the State or UT and or Central Government in India on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

We further confirm that we are aware our Application for the captioned Project would be liable for rejection in case any material misrepresentation is made or discovered with regard to the requirements of this RFP at any stage of selection and / or thereafter during the Contract Period. Dated this.....Day of, 201....

Name of the Applicant

.....
Signature of the Authorised Person

.....
Name of the Authorised Person

Printed Name Designation **Seal**

Date:

Place:

Business Address:

Note:

To be executed separately by all the members in case of consortium

6.4 Declaration for Consortium Member:

(To be provided on the Company letter head)

{Place}

To,

{Date}

[]

Subject: Self Declaration of not been blacklisted in response to the **REQUEST FOR PROPOSAL FOR “<<Name of the RFP>>”**

Ref: RFP No. <<.....>> **dated** <<>>

Dear Sir,

We confirm that our company or firm, _____, is currently not blacklisted in any manner whatsoever by any of the State or UT and or Central Government in India on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

(Signature of the Consortium Member)

Printed Name Designation

Seal Date:

Place: Business Address:

6.5 No Deviation Certificate

Dated: DD/MM/YYYY

To
The Managing Director,
Tirupati Smart City Corporation Limited,
C/o Tirupati Municipal Corporation,
Tilak Road, Tirupati – 517501, Chittoor District,
Andhra Pradesh, India

This is to certify that our offer is exactly in line with your RFP enquiry (including amendments) no. _____ dated _____. This is to expressly certify that our offer contains no deviation either Technical (including but not limited to Scope of Work, Business Requirements Specification, Functional Requirements Specification, Hardware Specification and Technical Requirements Specification) or Financial in either direct or indirect form.

(Authorized Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

6.6 Total Responsibility Certificate

Dated: DD/MM/YYYY

To
The Managing Director,
Tirupati Smart City Corporation Limited,
C/o Tirupati Municipal Corporation,
Tilak Road, Tirupati - 517501, Chittoor District,
Andhra Pradesh, India

This is to certify that we undertake the total responsibility for the defect free operation of the proposals per the requirement of the RFP for the duration mentioned in all the volumes of the RFP.

(Authorized Signatory)

Signature:
Name:
Designation:
Address:

Seal:
Date:

**6.7 Self-certificate for Project execution experience and Litigation History
(In Bidding Entity's Letter Head)**

This is to certify that <Name of the Bidding entity> has been awarded with < Name of the Project > as detailed under:

Name of the Project	
Client's Name, Contact no. and Complete Address	
Contract Value for the bidder (in Indian Rupees)	
Current status of the project (Completed/Ongoing)	
Activities completed by bidding entity as on bid submission date <i>(N.B Only relevant activities as sought in the Criteria to be included)</i>	
Value of Work completed for which payment has been received from the client.	
Date of Start	
Date of Completion	
References(Name and contact details of the authorized client officials issued the project executed certifications are to be referred)	

We further confirm that we are aware our proposal for the <<Name of the RFP>> for implementation of Smart Solutions in Tirupati would be liable for rejection in case any material misrepresentation is made or discovered with regard to the requirements of this RfP at any stage of selection and/or thereafter during the term of the contract.

Dated this.....Day of, 201.....

(Authorized Signatory) Signature:

Name:

Designation:

Bidding entity's name Address:

Seal:

Date:

Details of works on hand and, yet to be completed as on the date of submission of the RFP and works for which Tenders / RFPs has been submitted are to be furnished.

A) Existing Commitments on ongoing works:

Sl.No	Name of work	Address of Agt. Concluding authority	Agt. No. & Date	Value of contract	Stipulated period of completion	Value of work done so far.	Balance Value of works to be completed	Anticipated date of completion	Updated value of balance work
1	2	3	4	5	6	7	8	9	10

Attach certificates issued by the Executive Engineer concerned and countersigned by Superintending Engineer / respective authorized representative from client indicating the balance work to be done, and likely period of completion.

**Signature of the Bidder
(Authorised Signatory)**

B) Details of works for which Tenders/ RFPs are submitted [awarded / likely to be awarded]

Sl. No.	Name of work	Address of Agt. Concluding authority	Estimated value of work	Stipulated period of completion	Date on which tender was submitted	Present stage of Tender.
1	2	3	4	5	6	7

**Signature of the Bidder
(Authorised Signatory)**

Experience

Date: DD/MM/YYYY

Bidder's Name :
 Date :
 Consortium Member's name :
 RFP No. and Title :
 Page _____ of _____ pages

Starting Year	Ending Year	Contract Identification	Role of Bidder	Status of Project
		Contract name: Brief Description of the Works performed by the Bidder: Amount of contract: Name of Employer: Address:		
		Contract name: Brief Description of the Works performed by the Bidder: Amount of contract: Name of Employer: Address:		
		(add more rows if required)		

Mention whether the project is Complete or under progress. If the project is complete than if it is under O&M then mention so with years in O&M.

If it is under progress mention % of work complete.

All above statements should be backed by corresponding experience certificate from respective Employers.

Experience will be counted for the completed works and duly enclosing completion certificates from the clients.

Specific Experience of Similar Projects

Date: DD/MM/YYYY

Bidder's Name :
 Date :
 Consortium Member's name :
 RFP No. and Title :
 Page _____ of _____ pages

SN	Contract Details	Elements Executed	Unit	Quantity executed	Value in Rs.
1	Contract name:				
	Year of completion:				
	Amount of contract:				
	Name of Employer:				
	Address: _				
	If the contract was in Consortium mention bidder responsibilities and achievement.				
2	Contract name:				
	Year of completion:				
	Amount of contract:				
	Name of Employer:				
	Address: _				
	If the contract was in Consortium mention bidder responsibilities and achievement.				

All quantities mentioned and the values indicated should be backed by respective certificates from the Employer.

C) Litigation History

Date: DD/MM/YYYY

Bidder's Name: _____

Consortium Member's Name _____

RFP No. and Title: _____

Page _____ of _____ pages

Non-Performed Contracts			
<input type="checkbox"/> Contract non-performance did not occur since 1 st January [<i>insert year</i>]			
<input type="checkbox"/> Contract(s) not performed since 1 st January [<i>insert year</i>]			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and INR equivalent)
		Contract Identification: Name of Employer: Address of Employer: Reason(s) for non-performance: [<i>indicate main reason</i>]	
Pending Litigation			
<input type="checkbox"/> No pending litigation			
<input type="checkbox"/> Pending litigation			

Pending Litigation, in accordance with section III, Evaluation and Qualification Criteria

Year of dispute	Amount in dispute (IN Rs.)	Contract Identification	Total Contract Amount (In Rs.)
		Contract Identification: Name of Employer: Address of Employer: Matter in dispute: Party who initiated the dispute: Status of dispute:	
		Contract Identification: Name of Employer: Address of Employer: Matter in dispute: Party who initiated the dispute: Status of dispute:	

Information on litigation history in which Bidder is the Petitioner.

S. No	Case No. / Year	Court where filed.	Subject Matter / Prayer in the case.	Respondents i.e., SE / CE	Present Stage.
1	2	3	4	5	6

(To be provided by the Bidder/each Member/Associate for any material non-performance or contractual non-compliance in past projects, contractual disputes and litigation/ arbitration in the last 5 years preceding the Bid Due Date)

Sl. No	Name	Forum and Counterparty With Contract Identification	Brief Description of the matter	Estimated financial liability	Current Status of Litigation	Orders passed against the Bidder/Mem ber

Bidder must not hide any information regarding litigation or blacklisting otherwise legal action may be initiated in case of wrong information submitted by the bidder.

Signature of the Bidder

7. Annexure 3 – Formats for Submission of the Technical Bid

7.1 Technical Bid Check-List

Sl. No	Checklist Item	Compliance (Yes/No)	Page No. and Section No. in the Bid
1	Technical Bid Letter		
2	Credential summary		
3	Project Citations and Self-certifications, as applicable		
4	Detailed proposal		
5	Project plan		
6	Compliance to Requirement (Technical / Functional Specifications)		
7	Manufacturers'/Producers' Authorization Form		
8	Anti-Collusion certificate		
9	Non-disclosure agreement		

Signature of the Bidder

7.2 Technical Bid Covering Letter

Dated: DD/MM/YYYY

To
The Managing Director,
Tirupati Smart City Corporation Limited,
C/o Tirupati Municipal Corporation,
Tilak Road, Tirupati – 517501, Chittoor District,
Andhra Pradesh, India

Subject: **Request for Proposal [RFP] for selection of “<<Name of the RFP>>”**

Ref: RFP No. <<.....>> **dated** <<>>

Dear Sir,

I (in case of single bidder) or We, <<name of the undersigned Bidder and consortium members>>, having read and examined in detail all the bidding documents in respect of **Request for Proposal [RFP] for selection of “<<Name of the RFP>>”** do hereby propose to provide our services as specified in the bid submitted by us.

It is hereby confirmed that I / We are entitled to act on behalf of our company / corporation / firm / organization and empowered to sign this document as well as such other documents, which may be required in this connection.

We declare that all the services shall be performed strictly in accordance with the RFP documents.

We confirm that the information contained in this response or any part thereof, including its exhibits, and other documents and instruments delivered or to be delivered to Authority, is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the department in its evaluation process. We also confirm that we shall not attract conflict of interest in principle.

We hereby declare that in case the contract is awarded to us, we shall submit the contract Performance bank guarantee / Performance Security in the form prescribed at Annexure 5 (a) of Section 9 of the RFP Volume I.

We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.

We understand that our bid is binding on us and that you are not bound to accept a Bid you receive. This bid is valid for 180 (One Hundred and Eighty) days after opening of technical bid. We shall extend the validity of the bid if required by Authority.

Thanking you,
Yours sincerely,

(Signature of the Lead Bidder)

Printed Name Designation

Seal

Date:

Place:

Business Address:

7.3 Credential Summary

Sl. No.	Project Name	Client Name	Client Type	Project Value (in Indian Rupees)	Project Components	Documentary evidence provided (Yes or No)	Project Status (Completed or Ongoing or Withheld)
1							
2							
3							
4							
5							
6							
7							

- *Client type – Indicate whether the client is Government or PSU or Private*
- *Documentary evidence provided – Indicate the documentary evidence provided with the detailed project credential like work order or purchase order or completion certificate or letter of appointment*
- *Project Status – Completed (date of project completion) or Ongoing (project start date)*

Signature of the Bidder

7.4 Bidder's Experience - Client Citations

Prime Bidder or Consortium member is requested to furnish the credentials in the following format for both Pre-qualification and Technical criterion. All credentials should be followed by relevant documentary proof.

Name of the Project & Location	
Client's Name and Complete Address	
Narrative description of project Contract Value for the bidder (in Indian Rupees)	
Date of Start	
Date of Completion	
Activities undertaken by prime bidder or consortium member	

Note: If the project is ongoing, bidder must clearly specify which of the stages/phases/milestones are completed and which are ongoing and at what stage of completion and produce a self- certificate as per the format provided in Section 6.7.

Signature of the Bidder

7.5 Project Plan

A **Detailed Project Plan** covering break-up of each phase into the key activities, along with the start and end dates must be provided as per format given below.

Activity-wise Timelines							
Sl. No.	Detailed Work Break down structure	Month wise Program					
		1	2	3	4	5	...
	Project Plan						
1	Activity 1						
1.1	Sub-Activity 1						
1.2	Sub-Activity 2						
2							
2.1							
2.2							
3							
3.1							
4							

Activity-wise Timelines

Sl. No.	Item of Activity	Month wise Program
---------	------------------	--------------------

Note: The above activity chart is just for the purpose of illustration. Bidders are requested to provide detailed activity & phase wise timelines for executing the project with details of deliverables & milestones as per their bid.

Manpower Plan

I. Till Go-Live (Implementation)

<u>Manpower distribution</u>									
S. No.	Role	Month wise time to be spent by each personnel (in days)						Total	
		Month 1	Month 2	Month 3	Month 4	O & M			
1	Project Manager								Onsite
2	Design Architect								Onsite/ Office
3	Project Engineer – 1 No								Onsite
4	<Add more rows as required>								Onsite
Total									

II. After Go-Live (Operation & Maintenance)

Manpower distribution							
S. No.	Manpower Detailed Breakup	Years					Total
		Year 1	Year 2	Year 3	Year 4	Year 5	
1							Onsite/Offsite
2							Onsite/Offsite
3							Onsite/Offsite
4							Onsite/Offsite
5							Onsite/Offsite
6							Onsite/Offsite
7							Onsite/Offsite
8							Onsite/Offsite
9	<Add more rows as required>						Onsite/Offsite
						Total	

Details of Resources proposed

Sl. No.	Name of the resource	Proposed Role	Highest Degree	Basic Qualification	Certifications	Total Experience (In Years)
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Curriculum Vitae (CV) of Team Members

1	Name:				
1.	Proposed position or role	<i>(only one candidate shall be nominated for each position)</i>			
2.	Date of Birth	Nationality			
3.	Education	Qualification	Name of School or College or University	Degree Obtained	Year of Passing
4.	Years of experience				
5.	Areas of Expertise and no. of years of experience in this area	<i>(as required for the Profile)</i>			
6.	Certifications and Trainings attended				
7.	Employment Record	Employer	Position	From	To
<p><i>[Starting with recent position and last 2 firms, list in reverse order, giving for each employment: dates of employment, name of employing organization, positions held.]</i></p>					

8.	Detailed Tasks Assigned	<i>(List all tasks to be performed under this project)</i>	
9.	Relevant Work Undertaken that Best Illustrates the experience as required for the Role	Project 1	
		Name of assignment	
		Year	
		Location	
		Employer	
		Main project features	
		Position held	
		Activities performed	
		Project 2	
		Name of assignment	
		Year	
		Location	
		Employer	
		Main project features	
		Position held	
		Activities performed	

Compliance to Requirement (Technical / Functional Specifications)

The bidder should provide compliance to the requirement specifications (both technical and functional) specified in the Annexures of the Volume 2 of this RFP. The same should be reproduced here, and compliance against each requirement line item should be marked..

7.6 Conduct and Anti-Collusion Certificate

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

I / We hereby certify and confirm that in the preparation and submission of our Bid for **Request for Proposal [RFP] for selection of “<<Name of the RFP>>”** against the RFP issued by Authority, that

I / We undertake that, in competing for the contract, I / we will strictly observe the laws against fraud and corruption in force in India namely Prevention of Corruption Act 1988.

I / We declare that our organization or our partners in the Consortium have never been blacklisted by any department / units of Government of India or State Governments or Union Territories in India for any of the reasons of committing serious misconducts or have been charged with committing criminal action(s), or dissatisfaction with the performance of our services, or violation of any terms and conditions of the Agreement. In case if such misconducts are found to have been committed by us with documentary evidences, our contract can be summarily cancelled with the forfeiture of the security and performance guarantees we have executed with the Authority.

I / We hereby certify and confirm that in the preparation and submission of our Bid, I / we have not acted in concert or in collusion with any other Bidder or other person(s) and also not done any act, deed or thing which is or could be regarded as anti-competitive.

I / We further confirm that I / We have not offered nor will offer any illegal gratification in cash or kind to any person or agency in connection with the Bid.

I / We further acknowledge that on any later date, if it was found that I / We indulged in any of the corrupt activities mentioned in Prevention of Corruption Act 1988, the Authority has the right to take necessary legal action.

Dated thisDay of, 201...

Place:

.....
(Name of the Bidder)

.....
(Signature of the Bidder / Authorised Person)

.....
(Name of the Authorised Person)

Seal

Business Address:

8. Annexure 4 – Formats for Submission of the Financial Bid

A. Preamble

1. The Price Schedule shall be prepared in compliance with the Instructions to Bidders, General and Particular Conditions of Contract.
2. A rate or price shall be entered against each item in the Priced schedule. The cost of Items against which the Bidder/ Service Provider has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Price Schedule and that component work shall be executed free of cost.
3. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the Priced Schedule, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.

Financial Bid

The Bidder has to provide the financial bid in the formats as given here. Bidders shall give the required details of all applicable taxes, duties, other levies and charges etc. in respect of direct transaction between Authority and the Bidder. **The financial bid must be uploaded on e-procurement only** and **should not** be printed or submitted with Prequalification / Technical Bid.

Bidders shall quote for the entire scope of contract on a “overall responsibility” basis such that the total bid price covers Bidder’s all obligations mentioned in or to be reasonably inferred from the bidding documents

Prices quoted by the Bidder shall remain firm during the entire contract period and not subject to variation on any account.

The bidders shall quote in their proposals a firm lump sum price as per schedules provided for the entire scope.

The prices quoted shall be lump sum and on for destination basis inclusive of all taxes and duties. For the purpose of clarity, applicable taxes as on the date of submission of bid shall be quoted.

- c) **All priced quotations should be in Indian Rupees only.** – Bidders are requested to quote the price in figures and as well as in the words in the same box / place.
- d) The bidder should quote his lowest firm prices valid for the duration and completion of the contract. No enhancement of prices for what so ever reason will be allowed once the offer is accepted. Quotation should carry the name of the manufacturers for the plant offered.

The prices quoted by the Bidder shall be fixed.

A bid submitted with an adjustable price quotation shall be treated as non-responsive and rejected.

Any conditional bid with any deviations from the terms and conditions of RFP shall be disqualified.

The prices quoted by the Bidder in the Price Proposal Submission Sheet and in the Price Schedules shall conform to the requirements specified below.

- The price of the goods quoted should be on the basis of delivery to site on for destination basis [at Tirupati] including all customs duties and taxes, Entry tax, GST, transportation, packaging, transit insurance, service tax, sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of goods quoted. The price quoted should be inclusive of all FOR Tirupati.
- The prices quoted shall be lump sum and on for destination basis inclusive of all taxes and duties. For the purpose of clarity, applicable taxes as on the date of submission of bid shall be quoted.
- **A bid submitted with an adjustable price quotation shall be treated as non-responsive and rejected.**

Note:

***Rate per Unit / Unit Price inclusive of following:**

- All priced quotations should be in Indian Rupees only.
- Unit Price at Destination or Delivery point at Tirupati, Chittoor District, Andhra Pradesh, India.
- The price for inland transportation, insurance and other local costs incidental to delivery of the goods to their final destination (i.e., at Tirupati).
- The unit prices quoted shall be with comprehensive warranty.
- The Bidder shall quote for Estimate Schedule (along with basic price, GST and other charges such as installation and onsite comprehensive warranty maintenance service charges, if any) and Comprehensive Warranty in the specified places for all the materials, equipments & machineries having Technical Specifications mentioned in this bid document.
- The price of equipments & machineries (Ex-works, Ex-factory, Ex-showroom, Ex-warehouse or off-the-shelf, as applicable), including all duties and sales and other taxes (Inclusive of GST).
- On components and raw material used in the manufacture or assembly.
- On the previously imported equipment / machineries of foreign origin quoted ex-showroom, ex-warehouse, or off-the-shelf.
- Any Indian duties, sales and other taxes which will be payable on the goods if this Contract is awarded;

- Unit price including all applicable taxes/ customs duties/levies such as taxes, Entry tax, GST, Excise duty, Works Contract Tax, Octroi, Cess, transportation, packaging, transit insurance, service tax, sales and any other taxes and duties that are applicable for such contracts in the State of Andhra Pradesh as on the date of Opening of bid shall be considered and even already paid or payable on the components and raw material used in the manufacture or assembly of goods quoted.
- The prices quoted shall be lump sum and on for destination basis inclusive of all taxes and duties. For the purpose of clarity, applicable taxes as on the date of submission of bid shall be quoted.
- The bidder should quote his firm prices valid for the duration and completion of the contract of **Design, Build, Operation and Maintenance of Art District & Design Studio” under Implementation of the Smart City Mission in Tirupati**. No enhancement of prices for what so ever reason will be allowed once the offer is accepted.

General

1. The Schedules do not generally give a full description of the equipment to be supplied and the services to be performed under each item. Bidders shall be deemed to have read the Technical Specifications and other sections of the bidding documents and reviewed the Drawings to ascertain the full scope of the requirements included in each item prior to filling in the rates and prices. The entered rates and prices shall be deemed to include for the full scope as aforesaid, including overheads and profit.
2. If bidders are unclear or uncertain as to the scope of any item, they shall seek clarification in accordance with the Instructions to Bidders in the bidding documents prior to submitting their bid.

Pricing

3. Prices shall be filled in indelible ink, and any alterations necessary due to errors, etc., shall be initialled by the Bidder.

As specified in the Conditions of Contract, prices shall be fixed and firm for the duration of the Contract.

4. Bid prices shall be quoted in the manner indicated and in the currencies specified in the Instructions to Bidders in the bidding documents.

For each item, bidders shall complete each appropriate column in the respective Schedules, giving the price breakdown as indicated in the Schedules.

Prices given in the Schedules against each item shall be for the scope covered by that item as detailed in the Technical Specifications, Drawings or elsewhere in the bidding

documents.

5. Where there are errors between the total of the amounts given under the column for the price breakdown and the amount given under the Total Price, the former shall prevail and the latter will be corrected accordingly.

Where there are discrepancies between amounts stated in figures and amounts stated in words, the amounts stated in words shall prevail.

6. Payments will be made to the Contractor in the currency or currencies indicated under each respective item.
7. Items left blank will be deemed to have been included in other items. The TOTAL for each Schedule and the TOTAL of the Grand Summary shall be deemed to be the total price for executing the Facilities and sections thereof in complete accordance with the Contract, whether or not each individual item has been priced.
8. When requested by the Employer for the purposes of making payments or part payments, valuing variations or evaluating claims, or for such other purposes as the Employer may reasonably require, the Contractor shall provide the Employer with a breakdown of any composite or lump sum items included in the Schedules.

Financial Bid

Dated: DD/MM/YYYY

To

The Managing Director,

Tirupati Smart City Corporation Limited, C/o Tirupati Municipal Corporation,
Tilak Road, Tirupati – 517501, Chittoor District, Andhra Pradesh, India

Sub: Financial Bid for “**Design, Build, Operation and Maintenance of Art District & Design Studio**” under Implementation of the Smart City Mission in Tirupati”- Reg.,

Ref: Your RFP Notification No. _____ dated _____

Dear Sir,

Having gone through this RFP document and having fully understood the Scope of the Project and the Scope of Work for the Project as set out by AUTHORITY in the RFP. I / we are pleased to inform that I / we would deploy the following resources for undertaking the entire activities involved in this RFP No._____. We also quote the amount that we would be charging from the Authority. The quote is inclusive of all applicable taxes and charges.

Sl. No.	Name of Work (1)	Rate per unit in INR excluding GST. (2)	Applicable GST & other taxes (3)
1.	Design and Construction of Art District		
2.	Operation and Maintenance cost of Art District		
	1 st Year O&M Cost (in Rs)		
	2 nd Year O&M Cost (in Rs)		
	3 rd Year O&M Cost (in Rs)		
	4 th Year O&M Cost (in Rs)		
	5 th Year O&M Cost (in Rs)		
	Total		
3.	Design Studio Components		
4.	Operation and Maintenance cost of Design Studio Components		
	1 st Year O&M Cost (in Rs)		
	2 nd Year O&M Cost (in Rs)		
	3 rd Year O&M Cost (in Rs)		
	4 th Year O&M Cost (in Rs)		

	5 th Year O&M Cost (in Rs)		
Total			
	Grand Total Cost (Design and Build + 5 years O&M Cost of Art District + Design Studio Components+ 5 years O&M Cost of Design Studio) (in Rs)		

- The price bid shall necessarily include the assumptions made by the Bidder while arriving at the quoted financial offer.
- The Bidder has to provide details of calculations made in arriving at this financial offer. The committee may examine the details provided and ask for additional information, if required.

I / we have reviewed all the terms and conditions of the RFP and would undertake to abide by all the terms and conditions contained therein. I / we hereby declare that there are and shall be no deviations from the stated terms in the RFP Document.

We the undersigned, examined the conditions of contract, specification, special conditions of contract, basic parameters of the proposed scheme and subsequent Addendums for the above mentioned works. We have examined understood and checked these documents and have ascertained that there is no ambiguity in the employer's requirement. We accordingly offer to complete the work in conformity with such documents for the lumpsum price as given here under.

We agree to take up the work of as per the Employers requirements at a lumpsum price of (in figures)
 (in words).

If this offer is accepted we will provide the specified performance security, commence the work within 15 days from the date of issue of letter of acceptance and complete the work within accordance with the above named documents within the period stipulated for completion. We guarantee that the works will then conform with the performance security included in the RFP.

We understand that you are bound to accept the lowest or any RFP you may receive.

Yours faithfully,
 For and on behalf of (*Name of Bidder*)

.....
Duly signed by the Authorised Signatory of the Bidder
 (*Name, Designation, Address and official stamp*)
 Date : DD/MM/YYYY

9. Annexure 5 (a) - Performance Bank Guarantee

Ref: _____

Date _____

Bank Guarantee No. _____

<Name>

<Designation>

<Address><Phone Nos.><Fax Nos.><Email id>

Whereas, <<name of the firm and address>> (hereinafter called "Implementing Agency") has undertaken, in pursuance of contract no. <Insert Contract No.> dated. <Date> to provide Implementation services for <<name of the assignment>> to Tirupati Smart City Corporation Limited (hereinafter called "the Authority")

And whereas it has been stipulated by in the said contract that the bidder shall furnish you with a bank guarantee by a recognized bank for the sum specified therein as security for compliance with its obligations in accordance with the contract;

And whereas we, <Name of Bank> a banking company incorporated and having its head/registered office at <Address of Registered Office> and having one of its office at <Address of Local Office> have agreed to give the supplier such a bank guarantee.

Now, therefore, we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of Indian Rupees<Insert Value> (Rupees <Insert Value in Words> only) and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of Indian Rupees<Insert Value> (Rupees <Insert Value in Words> only) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

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

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the Implementing Agency shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This Guarantee shall be valid until <<Insert

Date>>) Not withstanding anything

contained herein:

I. Our liability under this bank guarantee shall not exceed Indian Rupees<Insert Value> (Rupees <Insert Value in Words> only).

II. This bank guarantee shall be valid up to <Insert Expiry Date>)

III. It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this bank guarantee that we receive a valid written claim or demand for payment under this bank guarantee on or before <Insert Expiry Date>) failing which our liability under the guarantee will automatically cease.

Date _____

Place _____

Signature _____

Witness _____

Printed name _____

(Bank's common seal)

10. Annexure 5 (b) – Bank Guarantee for Bid Security / Earnest Money Deposit

To,

<Name>

<Designation>

<Address>

<Phone Nos.>

<Fax Nos.>

<Email id>

Whereas <<Name of the bidder>> (hereinafter called 'Implementing Agency') has submitted the bid for Submission of RFP <<RFP Number>> dated <<Date>> for <<Name of the assignment>> (hereinafter called "the Bid") to <<Authority>>.

Know all Men by these presents that we <<... >> having our office at <<Address>> (hereinafter called "the Bank") are bound unto the <<Authority>> (hereinafter called "the Authority") in the sum of Indian Rupees<<Amount in figures>> (Rupees <<Amount in words>> only) for which payment well and truly to be made to the said Authority, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this <<Date>>.

The conditions of this obligation are:

1. If the Bidder having its bid withdrawn during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its bid by the Authority during the period of validity of bid
 - (a) Withdraws his participation from the bid during the period of validity of bid document; or
 - (b) Fails or refuses to participate in the subsequent Bid process after having been short listed;

We undertake to pay to the Authority up to the above amount upon receipt of its first written demand, without the Authority having to substantiate its demand, provided that in its demand the Authority will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to <<insert date>> and including <<extra time over and above mandated in the RFP>> from the last date of submission and any demand in respect thereof should reach the Bank not later than the above date.

NOTWITHSTANDING ANYTHING CONTAINED HEREIN:

I. Our liability under this Bank Guarantee shall not exceed Indian Rupees<<Amount in figures>> (Rupees <<Amount in words>> only)

II. This Bank Guarantee shall be valid up to <<insert date>>)

III. It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this Bank Guarantee that we receive a valid written claim or demand for payment under this Bank Guarantee on or before <<insert date>>) failing which our liability under the guarantee will automatically cease.

(Authorized Signatory of the Bank)

Seal:

Date:

CHECK LIST FOR BANK GUARANTEES

Serial Number	Details of Checks	Yes / No
A	Is the BG on Non-Judicial Stamp paper of appropriate value, as per applicable Stamp Act of the place of execution	
B	Whether date, purpose of purchase of stamp paper and name of the purchaser are indicated on the back of Stamp Paper under the Signature of Stamp Vendor? [The date of purchase of Stamp Paper should be not later than the date of execution of BG and the Stamp Paper should be purchased either in the name of the executing Bank or the party on whose behalf the BG has been issued. Also the Stamp Paper should not be older than six months from the date of execution of BG	
C	Has the executing officer of BG indicated his name, designation and Power of Attorney No. / Signing Power No. on the BG?	
D	Is each page of BG duly signed / initialled by executant and whether stamp of bank is affixed thereon? Whether the last page is signed with full particulars including two witnesses under seal of Bank as required in the prescribed Performa?	
E	Does the Bank Guarantees compare verbatim with the Performa prescribed in the Bid Documents?	
F	Are the factual details such as Bid Document No. / Specification No. / LoA No. (if applicable) / Amount of BG and Validity of BG correctly mentioned in the BG	
G	Whether overwriting / cutting if any on the BG have been properly authenticated under signature & seal of executant?	

11. Annexure 6 – Non-Disclosure Agreement

WHEREAS, we the undersigned Bidder, _____, having our principal place of business or registered office at __, are desirous of bidding for RFP No. <<>> dated <<DD-MM-2018>> **Request for Proposal [RFP] for selection of “<<Name of the RFP>>”** (hereinafter called the said 'RFP') to the “Tirupati Smart City Corporation Limited”, hereinafter referred to as 'Authority'

And,

WHEREAS, the Bidder is aware and confirms that the Authority's business or operations, information, application or software, hardware, business data, architecture schematics, designs, storage media and other information or documents made available by the Authority in the RFP documents during the bidding process and thereafter, or otherwise (confidential information for short) is privileged and strictly confidential and or proprietary to the Authority,

NOW THEREFORE, in consideration of disclosure of confidential information, and in order to ensure the Authority's grant to the Bidder of specific access to Authority's confidential information, property, information systems, network, databases and other data, the Bidder agrees to all of the following conditions.

It is hereby agreed as under:

1. The confidential information to be disclosed by the Authority under this Agreement (“Confidential Information”) shall include without limitation, any and all information in written, representational, electronic, verbal or other form relating directly or indirectly to processes, methodologies, algorithms, risk matrices, thresholds, parameters, reports, deliverables, work products, specifications, architecture, project information, security or zoning strategies & policies, related computer programs, systems, trend analysis, risk plans, strategies and information communicated or obtained through meetings, documents, correspondence or inspection of tangible items, facilities or inspection at any site to which access is permitted by the Authority.
2. Confidential Information does not include information which:
 - a. the Bidder knew or had in its possession, prior to disclosure, without limitation on its confidentiality;
 - b. information in the public domain as a matter of law;
 - c. is obtained by the Bidder from a third party without any obligation of confidentiality;
 - d. the Bidder is required to disclose by order of a competent court or regulatory authority;
 - e. Is released from confidentiality with the written consent of the Authority.

The Bidder shall have the burden of proving hereinabove are applicable to the information in the possession of the Bidder.

3. The Bidder agrees to hold in trust any Confidential Information received by the Bidder, as part of the Bid process or otherwise, and the Bidder shall maintain strict confidentiality in respect of such Confidential Information, and in no event a degree of confidentiality less than the Bidder uses to protect its own confidential and proprietary information. The Bidder also agrees:
 - a. to maintain and use the Confidential Information only for the purposes of bidding for this RFP and thereafter only as expressly permitted herein;
 - b. to only make copies as specifically authorized by the prior written consent of the Authority and with the same confidential or proprietary notices as may be printed or displayed on the original;
 - c. to restrict access and disclosure of Confidential Information to their employees, agents, consortium members and representatives strictly on a "need to know" basis, to maintain confidentiality of the Confidential Information disclosed to them in accordance with this clause; and
 - d. To treat Confidential Information as confidential unless and until Authority expressly notifies the Bidder of release of its obligations in relation to the said Confidential Information.
4. Notwithstanding the foregoing, the Bidder acknowledges that the nature of activities to be performed as part of the Bid process or thereafter may require the Bidder's personnel to be present on premises of the Authority or may require the Bidder's personnel to have access to software, hardware, computer networks, databases, documents and storage media of the Authority while on or off premises of the Authority. It is understood that it would be impractical for the Authority to monitor all information made available to the Bidder's personnel under such circumstances and to provide notice to the Bidder of the confidentiality of all such information.

Therefore, the Bidder shall disclose or allow access to the Confidential Information only to those personnel of the Bidder who need to know it for the proper performance of their duties in relation to this project, and then only to the extent reasonably necessary. The Bidder will take appropriate steps to ensure that all personnel to whom access to the Confidential Information is given are aware of the Bidder's confidentiality obligation. Further, the Bidder shall procure that all personnel of the Bidder are bound by confidentiality obligation in relation to all proprietary and Confidential Information received by them which is no less onerous than the confidentiality obligation under this agreement.

5. The Bidder shall establish and maintain appropriate security measures to provide for the safe custody of the Confidential Information and to prevent unauthorized access to it.

6. The Bidder agrees that upon termination or expiry of this Agreement or at any time during its currency, at the request of the Authority, the Bidder shall promptly deliver to the Authority the Confidential Information and copies thereof in its possession or under its direct or indirect control, and shall destroy all memoranda, notes and other writings prepared by the Bidder or its Affiliates or directors, officers, employees or advisors based on the Confidential Information and promptly certify such destruction.

7. Confidential Information shall at all times remain the sole and exclusive property of the Authority. Upon completion of the Bid process and or termination of the contract or at any time during its currency, at the request of the Authority, the Bidder shall promptly deliver to the Authority the Confidential Information and copies thereof in its possession or under its direct or indirect control, and shall destroy all memoranda, notes and other writings prepared by the Bidder or its Affiliates or directors, officers, employees or advisors based on the Confidential Information within a period of sixty days from the date of receipt of notice, or destroyed, if incapable of return. The destruction shall be witnessed and so recorded, in writing, by an authorized representative of the Authority. Without prejudice to the above the Bidder shall promptly certify to the Authority, due and complete destruction and return. Nothing contained herein shall in any manner impair rights of the Authority in respect of the Confidential Information.

8. In the event that the Bidder hereto becomes legally compelled to disclose any Confidential Information, the Bidder shall give sufficient notice and render best effort assistance to the Authority to enable the Authority to prevent or minimize to the extent possible, such disclosure. Bidder shall not disclose to a third party any Confidential Information or the contents of this RFP without the prior written consent of the Authority. The obligations of this Clause shall be satisfied by handling Confidential Information with the same degree of care, which the Bidder applies to its own similar Confidential Information but in no event less than reasonable care.

For and on behalf of:

(BIDDER)

Authorized Signatory
Name:
Designation:

Office Seal:
Place:
Date :

12. Annexure 7 – Consortium Agreement

DRAFT MEMORANDUM OF UNDERSTANDING EXECUTED BY MEMBERS OF THE CONSORTIUM

[On Non-judicial stamp paper of Indian Rupees 100 duly attested by notary public]

This Memorandum of Understanding (MoU) entered into this day of [Date] [Month] 2018 at [Place] among_(hereinafter referred to as "_") and having office at [Address], India, as Party of the First Part and_____(hereinafter referred as "_") and having office at [Address], as Party of the Second Part and _____ (hereinafter referred as "_") and having office at [Address], as Party of the Third Part.

The parties are individually referred to as Party and collectively as Parties.

WHEREAS Tirupati Smart City Corporation Limited has issued a Request for Proposal dated [Date] (RFP) from the Applicants interested in **Request for Proposal [RFP] for selection of “<<Name of the RFP>>”** for Authority:

AND WHEREAS the Parties have had discussions for formation of a Consortium for bidding for the said Project and have reached an understanding on the following points with respect to the Parties' rights and obligations towards each other and their working relationship.

AS MUTUAL UNDERSTANDING OF THE PARTIES, IT IS HEREBY AGREED AND DECLARED AS FOLLOWS:

- i. The purpose of this Agreement is to define the principles of collaboration among the Parties to: Submit a response jointly to Bid for the **Request for Proposal [RFP] for selection of “<<Name of the RFP>>”** as a Consortium.
 - a. Sign Contract in case of award.
 - b. Provide and perform the supplies and services which would be ordered by the Authority pursuant to the Contract.

This Agreement shall not be construed as establishing or giving effect to any legal entity such as, but not limited to, a company, a partnership, etc. It shall relate solely towards the Authority for **Request for Proposal [RFP] for selection of “<<Name of the RFP>>”**

- ii. for and related execution works to be performed pursuant to the Contract and shall not extend to any other activities
- iii. The Parties shall be jointly and severally responsible and bound towards the Authority for the performance of the works in accordance with the terms and conditions of the BID document, and Contract.

- iv. ----- (Name of Party) shall act as Lead Partner of the Consortium. As such, it shall act as the coordinator of the Party's combined activities and shall carry out the following functions:
 - a. To ensure the technical, financial and administrative co-ordination of the work package
 - b. To lead the contract negotiations of the work package with the Authority.
 - c. The Lead partner is authorized to receive instructions and incur liabilities for and on behalf of all Parties.
 - d. In case of an award, act as channel of communication between the Authority and the Parties to execute the Contract

- v. That the Parties shall carry out all responsibilities as Developer in terms of the Project Agreement.

- vi. That the broad roles and the responsibilities of each Party at each stage of the Bidding shall be as below:
 - Party A: _____
 - Party B: _____
 - Party C: _____

- vii. That the Parties affirm that they shall implement the Project in good faith and shall take all necessary steps to see the Project through expeditiously.

- viii. That this MoU shall be governed in accordance with the laws of India and courts in Andhra Pradesh shall have exclusive jurisdiction to adjudicate disputes arising from the terms herein.

In witness whereof the Parties affirm that the information provided is accurate and true and have caused this MoU duly executed on the date and year above mentioned.

(Party of the first part) (Party of the second part) (Party of the third part)

Witness:

- i. _____
- ii. _____

13 Annexure 8 - Format for Power of Attorney to Authorize Signatory

POWER OF ATTORNEY

[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney.]

We, M/s.__(name of the firm or company with address of the registered office) hereby constitute, appoint and authorize Mr. or Ms.__(Name and residential address) who is presently employed with us and holding the position of____, as our Attorney to do in our name and our behalf all such acts, deeds or things necessary in incidental to submission of our Bid of the Project_ (name of the Project), including signing and submission of the Bid and all other documents related to the bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other documents, participating in the meetings, responding to queries, submission of information / responses which the Tirupati Smart City Corporation Limited may require us to submit and the aforesaid Attorney is further authorized for making representations to the Tirupati Smart City Corporation Limited, Tirupati or any other Government Agency or any person, in connection with the works until culmination of the process of bidding till the Project Agreement is entered into with Tirupati Smart City Corporation Limited and thereafter till the expiry of the Project Agreement.

We hereby agree to ratify all acts, deeds and things lawfully done by our said Attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid Attorney shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under this RFP.

Signed by the within named..... (Insert the name of the executant company) through the hand of Mr. duly authorized by the Board to issue such Power of Attorney

Dated this day of

Accepted

.....
Signature of Attorney
(Name, designation and address of the Attorney)

Attested

.....
Signature of Executant
(Name in Block Letters, designation and address of the Executant)

.....
Signature and Stamp of Notary of the place of execution

Common Seal of has been affixed in my / our presence pursuant to Board of Director's Resolution dated.....

WITNESS

Witness 1: Witness 2:

Name Name

Designation Designation

Notes:

- a. *To be executed by all the members individually.*
- b. *The Mode of execution of the power of attorney should be in accordance with the procedure, if any laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal of the executant affixed in accordance with the required procedure Further, the person whose signatures are to be prescribed on the Power of Attorney shall be duly authorized by the executant(s) in the regard.*
- c. *The person authorized under this Power of Attorney, in the case of the bidding Company / Lead Member being a public company or a private company which is a subsidiary of a public company, in terms of the Companies Act 1956, with a paid up share capital of more than Rupees of Five Crores, should be the Managing Director / whole time director / manager appointed under section 269 of the Companies Act, 1956. In all cases the person authorized should be a director duly authorized by a board of resolution duly passed by the company.*
- d. *Also, wherever required, the executant(s) should submit for verification the extract of the chartered documents and documents such as a Board Resolution / Power of Attorney, in favour of the person executing the power of Attorney for delegation of power hereunder on behalf of the executant(s).*
- e. *For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued.*

14 Annexure 9 – Format for Power of Attorney for Lead bidder of Consortium

[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney]

Whereas _____ has invited RFP response for _____ (Name of the Project)

Whereas, the Members of the Consortium comprising of M/s.____, M/s.____, M/s.____ and M/s.____ (the respective names and addresses of the registered offices to be given) are interested in bidding for the Project and implementing the same in accordance with the terms and conditions contained in the RFP Documents.

Whereas, it is necessary for the members of the Consortium to designate one of them as the lead member with all necessary power and authority to do, for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium’s RFP response for the Project.

NOW THIS POWER OF ATTORNEY WITNESSETH THAT

We, M/s.____ and M/s.____ and M/s.____ hereby designate M/s. ____ being one of the members of the Consortium, as the lead member of the Consortium, to do on behalf of the Consortium, all or any of the acts, deeds or things necessary or incidental to the Consortium’s RFP response for the Project, including submission of the RFP response, participating in meetings, responding to queries, submission of information or documents and generally to represent the Consortium in all its dealings with Client or any other Government Agency or any person, in connection with the Project until culmination of the process of bidding till the Project Agreement is entered into with Client and thereafter till the expiry of the Project Agreement.

We hereby agree to ratify all acts, deeds and things lawfully done by our said Attorney pursuant to this power of attorney and that all acts, deeds and things done by our aforesaid Attorney shall and shall always be deemed to have been done by us or Consortium.

Dated this the _____ day of _____ 2018

(Signature)

_____ (Name in Block Letter of Executant) *[Seal of Company]*

Witness 1

Witness 2

Notes:

To be executed by all the members individually, in case of a Consortium.

The Mode of execution of the power of attorney should be in accordance with the procedure, if any laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure. All the terms used herein but not defined shall have the meaning ascribed to such terms under this RFP.

Signed by the within named..... (Insert the name of the executant company) through the hand of Mr. duly authorized by the Board to issue such Power of Attorney

Dated this day of

Accepted

.....
Signature of Attorney
(Name, designation and address of the Attorney)

Attested

.....
Signature of Executant
(Name in Block Letters, designation and address of the Executant)

.....
Signature and Stamp of Notary of the place of execution

Common Seal of has been affixed in my / our presence pursuant to Board of Director's Resolution dated.....

WITNESS

Witness 1: Witness 2:

Name Name

Designation Designation

Notes:

- a. *To be executed by all the members individually.*
- b. *The Mode of execution of the power of attorney should be in accordance with the procedure, if any laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal of the executant affixed in accordance with the required procedure Further, the person whose signatures are to be prescribed on the Power of Attorney shall be duly authorized by the executant(s) in the regard.*
- c. *The person authorized under this Power of Attorney, in the case of the bidding Company / Lead Member being a public company or a private company which is a subsidiary of a public company, in terms of the Companies Act 1956, with a paid up share capital of more than Rupees of Five Crores, should be the Managing Director / whole time director / manager appointed under section 269 of the Companies Act, 1956. In all cases the person authorized should be a director duly authorized by a board of resolution duly passed by the company.*
- d. *Also, wherever required, the executant(s) should submit for verification the extract of the chartered documents and documents such as a Board Resolution / Power of Attorney, in favour of the person executing the power of Attorney for delegation of power hereunder on behalf of the executant(s).*
- e. *For a Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued.*

15 Annexure 10 – Manufactures / Producers Authorization Form

Dated: DD/MM/YYYY

To
The Managing Director,
Tirupati Smart City Corporation Limited,
C/o Tirupati Municipal Corporation,
Tilak Road, Tirupati – 517501, Chittoor District,
Andhra Pradesh, India

Subject : Manufacturer’s Authorization Form

Ref.: RFP No.<<----->>, Dated: <<--/--/-->>

Dear Sir,

We (Insert complete name of manufacturer) who are established and reputable manufacturers of _____[List of Goods] having factories or product development centers at the locations_____or as per list attached, do hereby authorize. _____[Name and Address of the Bidder] to submit a bid in relation to the Invitation for Bids indicated above, the purpose of which is to provide the following Goods, manufactured by us (insert name of goods) and to negotiate and conclude the contract with you against RFP No._____, dated: _____ for the above goods manufactured or developed by us.

We hereby extend our full guarantee and warranty for the goods supplied by the bidder and or maintenance or support services for the products against this invitation for bid by _____[Name of the Bidder] as per requirements and for the duration of contract as specified in this RFP.

We have repair and service facilities in India and we shall either develop our own facility or authorize a service center at Tirupati for day to day maintenance of equipments.

Products or technology quoted are neither end-of-sale nor end-of-life as on the date of installation and commissioning and are not end-of-support till the successful completion of O&M period of the project.

We have not have been blacklisted by any state / Central Government Department or Central/State PSU’s.

We have not filed for bankruptcy and should be profitable for at least last 2 consecutive financial years.

Thanking you,
Yours faithfully,

.....
Name (complete name of person signing the security)
In the capacity of (legal capacity of the person signing the security)
Signed (signature)

.....
Duly authorized to sign the Authorization for and on behalf of
(complete name of manufacturer)
Date (Insert date of signing)

For and on behalf of: _____ [Name of the OEM]

.....
Authorised Signatory
Name:
Designation:

Place:
Date:

Note:

- (a) This letter of authorization should be on the letterhead of the manufacturer and should be signed by a person with the proper authority to sign the document that is binding on the manufacturer.
- (b) Please attach resolution of Board of Directors/Power of Attorney for the authorized signatory

SCHEDULE OF PLACES OF TEST AND INSPECTION

The BIDDER shall indicate the item of equipment of Supply, name of the MANUFACTURER or SUB-CONTRACTOR and place of test and inspection as shown below:

Item of Equipment	MANUFACTURER OR SUB-CONTRACTOR	Place of Test and Inspection
-------------------	-----------------------------------	---------------------------------

SIGNATURE	:
DESIGNATION	:
COMPANY	:
COMPANY SEAL	:
DATE	:

16 PROFORMA OF GUARANTEE FOR EQUIPMENT PERFORMANCE

The Bidder hereby guarantees the requirements of this specification. If any of the requirements of the guarantees given are not fulfilled, the Authority has the right to reject the equipment, and if capacity, performance and efficiency obtained during acceptance tests falls short of that guaranteed by the bidder, the bidder hereby affirms that such deficiency will be made good by rectifying / replacing the defective parts. All the replaced parts shall be removed from the site. While the facility for making good the deficiency will be normally given once, the purchaser is entitled to reject the equipment in case of repeated failure to meet the guarantee as per the specification.

Seal of the Company :

Name of the Firm :

Signature of the Bidder :

Designation :

Date :

Seal of the Bidder

Signature, Designation and address of the Bidder.

17 SCHEDULE OF DEVIATIONS FROM THE SPECIFICATION

Bidder shall carefully state below all points which are not in accordance with the enclosed specification

Sl. No	Chapter	Section	Deviation
--------	---------	---------	-----------

The Bidder hereby certifies that the above mentioned are the only deviations from the specification No.

Seal of the Bidder

Signature, Designation and address of the Bidder.

18 List of proposed Sub-Contractors (if applicable)

Sl. No.	System / Sub-System/ Item Activity	Proposed Sub-Contract [Full Name & Address]
1.		
2.		
3.		
4.		
5.		

19 Annexure 11 - Undertaking from Sub-Contractor

[on the letterhead of the subcontractor firm]

Letter No.: _____

Date: _____

To

Managing Director,
Tirupati Smart City Corporation Limited (TSCCL),
Tirupati Municipal Corporation, 13-29-M9-1-00, Tilak Road, East Tirupati,
Chittoor District, Andhra Pradesh. Pin Code : 517501

Request for Proposal [RFP] for selection of “<<Name of the RFP>>”

Sub : Consent of association with _____ as sub-contractor for the referred RFP.

Dear Sir,

1. I, the undersigned, confirm my agreement to associate with M/s. (hereinafter referred to as “lead bidder”) as the “Sub-Contractor” to submit the proposal and work for the above-captioned project.
2. I authorize the lead bidder to include my company’s experience and expertise in the above referenced project proposal and/or forward my profile to the Authority for the proposal and represent me on all contractual aspects of this proposal.
3. I confirm my interest and availability to work on the projects awarded, should the lead bidder be successful in the RFP.
4. I confirm that to the best of my belief and knowledge, I have not been blacklisted by any government / Semi-government body or donor agency.

Yours sincerely,

.....
Authorized Signatory of the subcontractor.

Volume 2 (a): Scope of Work

1.0 PROJECT DETAILS

1.1. PROJECT DURATION:

1.2. Background

With the India Smart Cities Challenge, the Government of India has taken the first step towards realizing its vision of building 100 smart cities across the nation. As part of the India Smart Cities Challenge under Ministry of Urban Development, Government of India, Tirupati is one of the cities that was selected in Round 2 and was ranked 4th amongst a nation-wide competition between 67 cities.

Under Indian Smart Cities Mission, the projects focus is on retrofitting a selected area within the city known as Area-Based Development (ABD). Additionally projects at PAN City level has also been taken up. The projects focus is multi-sectorial. The emphasis is on creating livable cities, Holistic development of the selected area such that it catalyzes the development of other areas and sets an example for other cities.

Tirupati is now working on an implementation plan to convert the Smart City Proposal (SCP) ideas into reality, beginning with retrofitting of the ABD that will catalyze future scalability to entire city and projects at PAN City. Tirupati Smart City ABD area is known as "Tirupati Town Center (TTC)

Tirupati is known as the spiritual center of Andhra Pradesh with about daily 75,000 pilgrims visit Tirumala for Darshan of Lord Venkateshwara., besides other historical temples, and is referred to as the "Spiritual Capital of Andhra Pradesh". It was named the "Best Heritage City" for the year 2012-13 by Ministry of Tourism. Tirupati has strong cultural heritage and is a melting pot of various festivals, is considered the Medical Hub of Andhra Pradesh and is home to numerous hospitals.

Tirupati city is located in Chittoor district in the state of Andhra Pradesh. The Municipal Corporation Tirupati (MCT) spread is around 27.44Sq Km and includes 50 Wards. According to 2011 census, the City's population is around 3,74,260. TTC (ABD) area is around 3.01 sq. Km with a population of around 1, 12,000. The TTC area covers around 11% of MCT area and includes 30% of City's population.

The Smart City Plan for Tirupati revolves around the vision of creating - "**A 21st century pilgrimage city that promotes Arts, Innovation & Sustainable Growth**".

Municipal Corporation Tirupati

Tirupati Municipal Corporation is the 1st largest ULB in the Chittoor district. It is located 550 Km from Capital city and 71 Km from District Headquarters. It was established as 3rd grade Municipality in the year 01/04/1886 and upgraded as Municipal Corporation with w.e.f. 02/03/2007.

It is spread over an area of 27.44 Sq.Kms. With a population of 3,74,260 (2011 census). MCT is also the headquarters of Tirupati (urban) mandal, and of the Tirupati revenue division. It is the 9th most populous city in Andhra Pradesh and seventh most urban agglomerated city in the state, with a population of 459,985.

Tirupati Smart City Corporation Limited (TSCCL)

A Special Purpose Vehicle (SPV) was incorporated with the name “Tirupati Smart City Corporation Limited” (TSCCL) on 28th November 2016, to implement the projects proposed under the SCP.

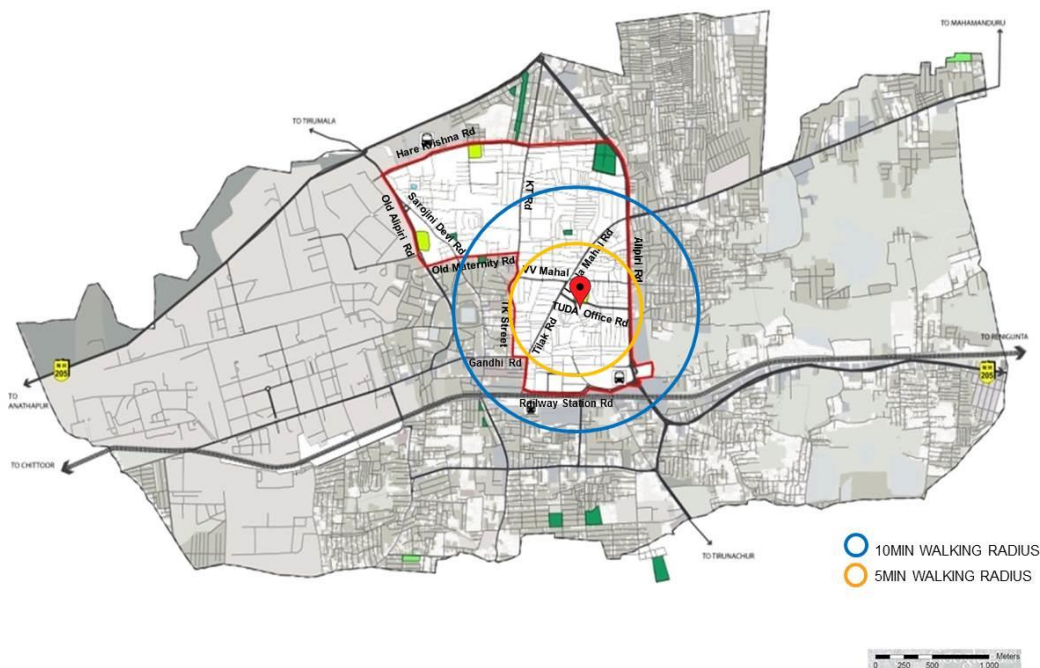
The Project

Aligning with the Smart City Vision, Tirupati will focus on Integration of local arts and crafts with the city’s urban fabric by celebrating cultural, spiritual & social values. Additionally, this project is envisioned to provide a platform for celebrating arts and crafts; demonstrating arts and craft and function as a centre of excellence by having a skill development centre that allows technology to enhance design and production capabilities of local craftsman. Inculcating technology based learning amongst school going students is another objective of this project.

The Employer has taken up different projects for implementation under smart cities. Building a state of the art, Art District with a Design Studio and learning/teaching facilities is one such project taken up for implementation.

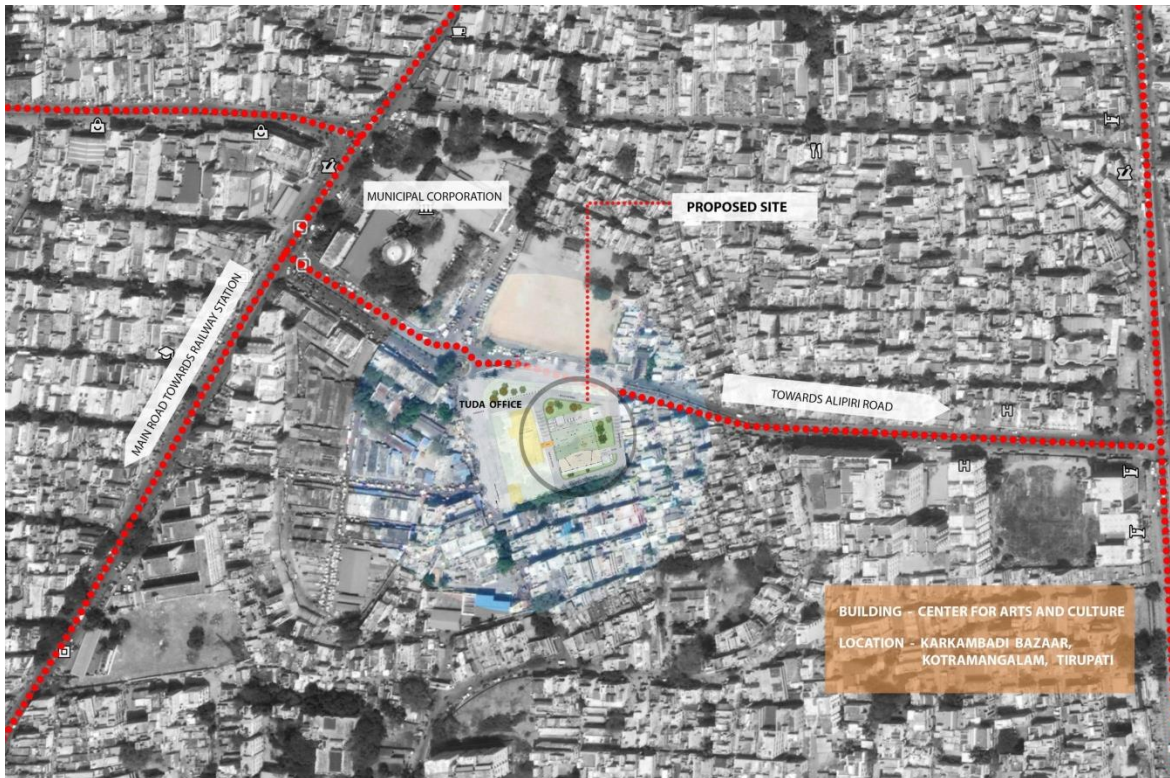
The focus of this RFP is building a Art District facility and design studio, along with teaching/learning environments for local craftsman & school going students. The location map of this facility is located below:

ARTS District & Design Studio



1.3. EXISTING CONDITIONS ASSESSMENT – ART DISTRICT & DESIGN STUDIO

The piece of land behind TUDA office is mainly used for gatherings or ancillary uses. It has access roads abutting on two sides.



2.0 DESIGN INTENT

The project has 2 main Components:

- A. Creating a state of the art facility, “the Art District” to engage the artists/craftsman, provide event space and to engage design studio and ancillary uses.
- B. Creating a Design Studio for Handicrafts

COMPONENT A

ART DISTRICT INTENT

- Create an 21ST Century Art District building that allows a platform for exchanges from artisans and non-artisans
- Create a facility that offers a variety of experience provided through different programmatic components – catering to a diverse audience
- Provide a facility that is centrally located with mix of built-form and open spaces to make the complex a buzzing hub of activity
- Provide space for exhibition spaces provide flexibility in terms of floor plate uses

COMPONENT B

DESIGN STUDIO INTENT

- **Create an 21ST Century Design Studio for Handicrafts**
 - Establish the state of the art most advanced design studio for handicrafts in the city of Tirupati to cater to local, regional and national crafts
- **Allow Rapid Manufacturing of New Designs**
 - The design studio shall build a production capacity that manufactures new designs rapidly.
- **One-stop handicraft solution provider**
 - Design Studio shall act as a one-stop shop that provides technology consulting, skill training; downstream work for craftsman and mobilization to the handicraft clusters of Chittoor.
- **Skill upgradation**
 - Upgrade the skill of local artisans in various fields of handicraft manufacturing process to a degree of self-reliance.
- **3D printing to enhance education in schools**
 - Inculcate 3D printing knowledge and skill sets in Tirupati schools to empower MCT students with necessary skills to compete in global economy.

3.0 OBJECTIVES & EXPECTED OUTCOMES

ARST DISTRICT OBJECTIVES:

- The ART District Building shall meet or exceed the concept design developed by the employer. The proposed ART DISTRICT building in Tirupati consists of one basement + Ground floor and three upper floors and terrace.
- The Art District includes the following Facilities:
 - Basement floor: Building cores, parking and service handling spaces.
 - Terrace floor: HVAC chillers platform, OHT and Solar system.
 - External: Underground sump, SUMP, Composite pits, seating lawns and other services.
 - Common: staircase and lobbies, toilets and service spaces.

Indicative Drawings:



Basement level Plan

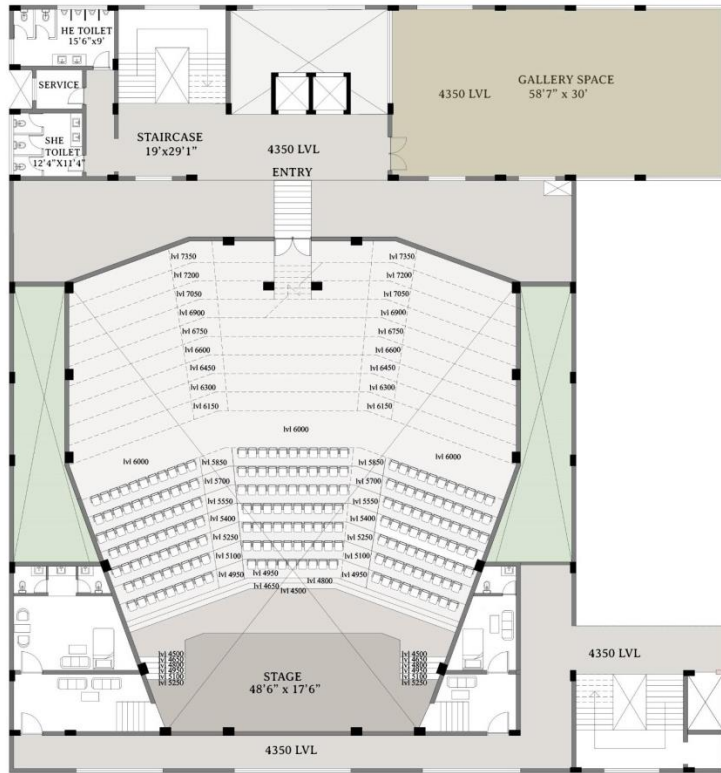


Ground Floor Plan



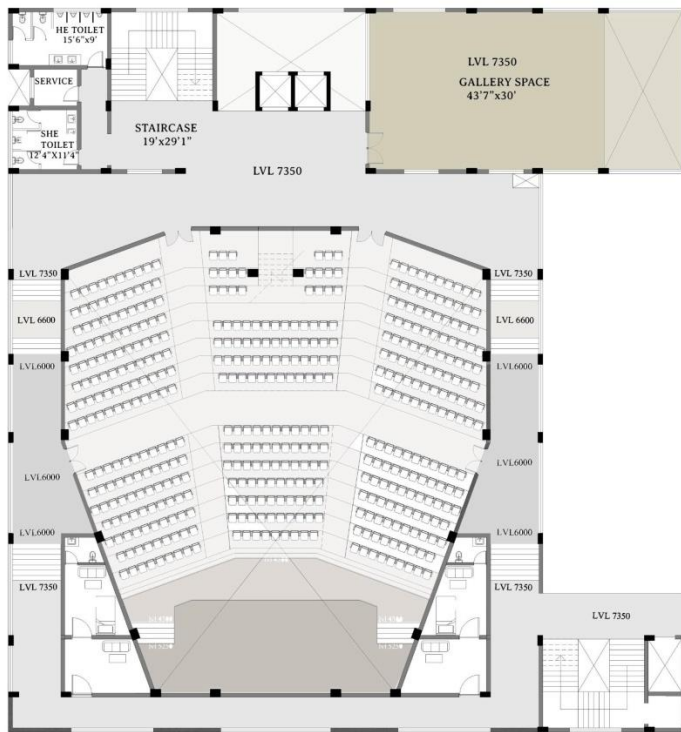
BASEMENT BUILT-UP AREA - 12950 SFT
CAR PARKING - 13 BAYS
TWO WHEELER - 70 BAYS

Parking Plan (Basement level)



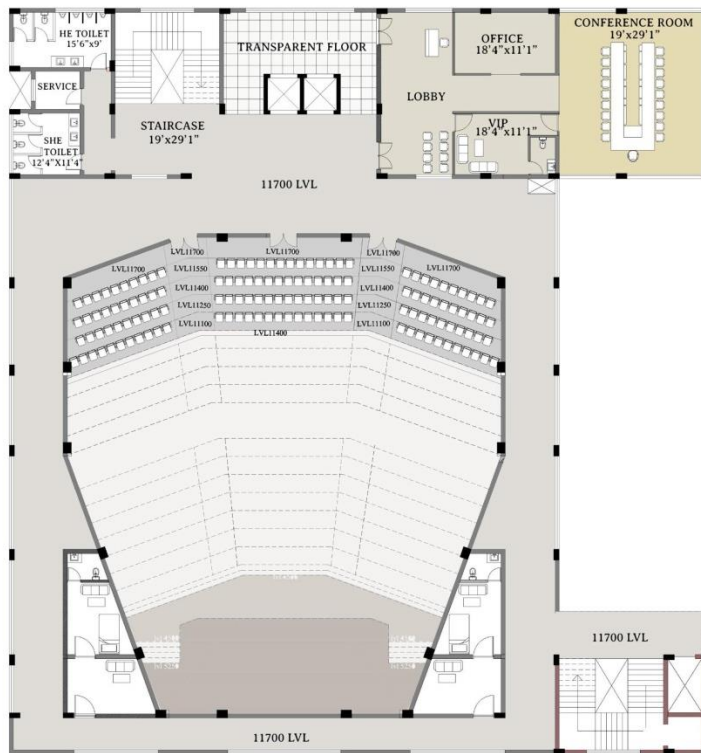
FIRST FLOOR BUILT-UP AREA - 15155 SFT
 AUDITORIUM SEATING CAPACITY - 600

First Floor Plan



SECONDFLOOR BUILT-UP AREA - 8826 SFT

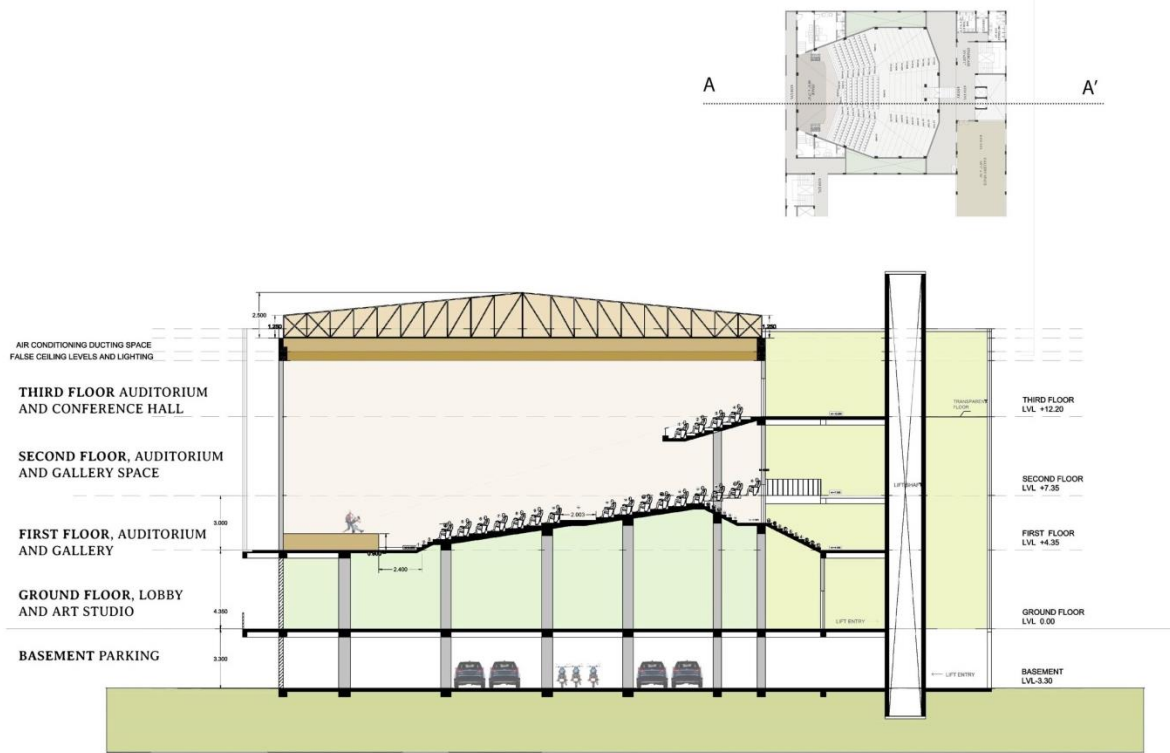
Second Floor Plan



THIRD FLOOR BUILT-UP AREA - 10700 SFT

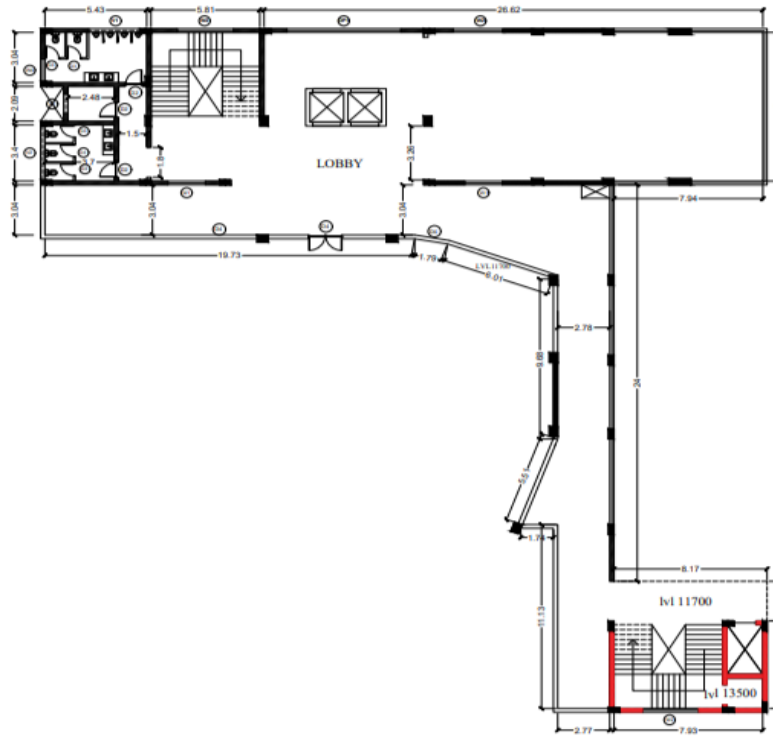
Floor Plan

Third



AUDITORIUM SEATING CAPACITY - 600

Typical Section



Terrace Plan

ART DISTRICT DEVELOPMENT PROGRAM (Indicative):

ART DISTRICT SPACE PROGRAM					
S.NO	FLOOR	SPACES	QUANTITY	AREA IN SQM	TOTAL IN SQM
1	BASEMENT	PARKING	1	897.2	897.2
		LOBBY	1	89.7	89.7
		STAIRS	2	29.41	58.82
		STORE	1	45.3	45.3
		LIFTS	2	3.93	7.86
		LIFT AND CORRIDOR AT SOUTH EAST	1	9.24	9.24
				CARPET AREA	1108.12
				BUILTUP AREA	1202.5
2	GROUND FLOOR	LOBBY	1	175	175
		DESIGN STUDIO	1	450	450
		SPILL OVER SPACE	1	470	470
		CORRIDORS	1	28.9	28.9
		STAIRS	2	29.41	58.82
		LIFTS	2	3.93	7.86
		HE TOILET	1	16.5	16.5
		SHE TOILET	1	12.6	12.6
		SERVICE	1	5.17	5.17
		LIFT AND CORRIDOR AT SOUTH EAST	1	9.24	9.24
				CARPET AREA	1234.09
				BUILTUP AREA	1268
3	FIRST FLOOR	AUDITORIUM SEATING	1	548	548
		LOBBY	1	175.2	175.2
		GALLERIES	1	160.8	160.8
		GREEN ROOM 1	1	53.2	53.2
		GREEN ROOM 2	1	28.9	28.9
		CORRIDORS	1	107.3	107.3
		STAIRS	2	29.41	58.82
		LIFTS	2	3.93	7.86
		HE TOILET	1	16.5	16.5
		SHE TOILET	1	12.6	12.6
		SERVICE	1	5.17	5.17
		LIFT AND CORRIDOR AT SOUTH EAST	1	9.24	9.24
				CARPET AREA	1183.59
				BUILTUP AREA	1275.17
4	SECOND FLOOR	LOBBY	1	175.2	175.2
		GALLERIES	1	120.9	120.9
		GREEN ROOMS	2	28.68	57.36

		STAIRS	2	29.41	58.82
		LIFTS	2	3.93	7.86
		HE TOILET	1	16.5	16.5
		SHE TOILET	1	12.6	12.6
		SERVICE	1	5.17	5.17
		LIFT AND CORRIDOR AT SOUTH EAST	1	9.24	9.24
		CORRIDORS	1	226.8	226.8
				CARPET AREA	690.45
				BUILTUP AREA	780.2
5	THIRD FLOOR	AUDITORIUM SEATING	1	135.8	135.8
		GREEN ROOMS	2	28.68	57.36
		RECEPTION	1	47.9	47.9
		OFFICE	1	18.9	18.9
		ANTI ROOM	1	18.5	18.5
		CONFERENCE ROOM	1	71.4	71.4
		TRANSPARENT FLOOR	1	38.5	38.5
		STAIRS	2	29.41	58.82
		LIFTS	2	3.93	7.86
		CORRIDORS	1	226.6	226.6
		HE TOILET	1	16.5	16.5
		SHE TOILET	1	12.6	12.6
		SERVICE	1	5.17	5.17
		LIFT AND CORRIDOR AT SOUTH EAST	1	9.24	9.24
				BUILTUP AREA	994.3
6	TERRACE FLOOR	STAIRS	2	29.41	58.82
		LIFTS	2	3.93	7.86
		SERVICE LIFT	1	5.17	5.17
		LIFT AND CORRIDOR AT SOUTH EAST	1	9.24	9.24
		AREA FOR BUIDING SERVICES	1	511.3	511.3
				CARPET AREA	557.2
				BUILTUP AREA	592.39
				TOTAL BUILTUP AREA	6112.56

DESIGN STUDIO OBJECTIVES:

The design studio shall target following handicrafts including but not limited to:

- **Kalamkari**
- **Metalware**
- **Terracotta**
- **Wood Carving**
- **Introducing Stone Casting**

The design studio shall offer common solutions for all Crafts:

- Converting ideas to digital models using 3D Modelling tools
- Converting the digital models to physical master patterns using special purpose machines to reduce time taken for design and production

The design studio shall provide skill development and capacity building of all involved

DESIGN STUDIO EXPECTED OUTCOMES

- The design studio shall target and benefit 3 major sectors in the district of Chittoor:
 - **Craftsmen/Artisans**
 - **Self Help Groups**
 - **Education system in MCT Schools**

Craftsmen & Self Help Groups:

- Through advanced manufacturing technologies, the design studio shall provide infrastructure (hardware/software/skilled resources etc) for rapidly converting digital designs into physical models. The studio shall also provide training and skills development for converting physical models into moulds/ blocks. The design studio shall:
 - Seamlessly integrate new technologies with the traditional methods used by craftsmen,
 - Expose craftsmen to better and faster techniques of manufacturing
 - Facilitate creation of new designs at a short time frame
 - Decrease production lead times from weeks to hours,
 - Increase design variety and production volumes to enhance quality of final output.

The design studio shall create a resource rich ecosystem of learning, sharing and disseminating information for eliminating the problems affecting traditional craft forms. It shall support the artisans of Chittoor District with skill training and manufacturing process upgradation activities.

Design Studio as a Centre of Excellence

The design studio shall also act as a Centre of Excellence by having a skill centre with a model unit for each handicraft. The purpose of Design Studio is to equip local craftsman, train them, inculcate knowledge about newer technologies etc.

MCT Schools

A special unit in the Centre of Excellence shall target MCT schools in Tirupati. At this unit, 3D printing course modules for high school students in various subjects shall be designed and introduced. School students shall gain exposure to 3D printing technology as they learn about the different forms, usage & functionality and real world applications of 3D printing.

Soil Investigation Report

Soil Investigation of the proposed site is given in Appendix IV

4.0 SCOPE OF WORKS

The scope of work is listed separately for:

- **COMPONENT A**
- **COMPONENT B**

COMPONENT A: Creating a state of the art facility, “the Art District” to engage the artists/craftsman, provide event space and to engage design studio and ancillary uses.

Broad scope of work to achieve the above mentioned intent and objective is divided into 2 phases:

1. Design & Pre-Construction Phase
2. Construction Phase

1. DESIGN & PRE-CONSTRUCTION PHASE

- Contractors are requested to visit the site prior to filing/submission and undertake self-assessment of all the necessary works as per the specification and plans including all attributes/matters related for completion of this project.
- The Contractor is to seek clarification prior to the submission date (where necessary), to have clarity of all the activities required to be carried out for a successful and timely completion of this project and the works which shall be carried out by the successful contractor.
- The works under this Contract comprises, the detail design and building of Art District and all related works (architecture, MEP, Structure, external development works etc).
- The bidder shall refer the Development Program included in the RFP for the detail design of the Art District Building
- Other works may include installation or restoration of existing water, drainage and electrical power utilities.

- Statutory and other charges for getting various required approvals as required shall be in the scope of the Successful bidder.
- The contractor shall furnish all labour, material, tools and equipment necessary to complete the works as indicated or inferred in the supporting drawing package. Any item not specifically shown in the drawings or specified, but normally required to conform to the required outcome or such intent, should be considered part of the work unless identified by the contractor prior to commencement of works. The contractor shall include and price for such item in the BOQ accordingly.
- The works shall be completed within the scheduled time unless otherwise approved by the Client or its representatives and shall be certified by the Employer upon Practical Completion.
- The landscape planting shall be provided and in a healthy and vigorous growing condition.
- The contractor shall submit for approval within 7 days of the issue of Letter of Award, his proposed Work Programme based on the criteria of the overall schedule of works, showing the intended sequences, stages and order of proceeding with the works together with the period of time he has estimated for each and every stage of the progress including the resources and plant required.
- The successful bidder shall have to prepare and submit Concept Design drawings/presentation and 'Good for Construction Drawings' before execution and 'As Built Drawings' after execution depicting the exact construction carried out on site, in soft and hard copy format. Statutory and other charges for getting various required approvals as required shall be in scope of Successful bidder.
- The successful bidder shall undertake confirmatory survey for accuracy and completeness of data prior to commencing the site works. The drawings provided with this document are also available in Autocad (ACAD) and Bidders can collect the same, (if required) from the Employer, the Employer take no responsibility for accuracy where ACAD files are used for scaling and area calculations by the Contractor. It is in scope of successful Bidder to undertake all relevant Site surveys, obtaining all required approvals from the relevant regulatory authorities, Carry out Design and Drawings (wherever required) for the components of the work as per Employers requirement and submit the same to client for review and approval, Prepare and submit maintenance manual to client for approval at least 4 weeks before start of post construction maintenance period.

Key tasks/deliverables by the Contractor include:

- Carrying of Field/Site Survey: The Contractor shall conduct site survey of the sites identified where the design is to be implemented; and prepare the survey reports highlighting the site feasibility, any site specific requirements / dependencies for successful implementation, prior to the procurement of materials or commencement of site works.

- The contractor should submit a detailed timeline for scope of work to be carried out including details of the man power deployment for the projects prior to commencing the works for approval by the Employer.
- The Employer or his representatives will supervise and monitor the progress of the design and construction phase and Contractor shall provide necessary coordination.
- Preparation and Submission of Complete Bill of Materials (BoM) along with detailed technical specifications, manufacturer's name along with supplier's details and delivery schedule at the sites.
- Procurement programme indicating purchasing and dispatch of materials as per the implementation timelines. Shall also provide the supporting evidence for all the items delivered to the site and take possession of said items.
- The Contractor shall prepare Detail Design Drawings, and presentation, GFC for the all works in accordance with the approved concept design approved by Employer:
- Preparation and submission of periodical progress report for all the stages on a weekly basis.

The Contractor must be aware of general and specific site conditions, topography and any existing landscape prior to commencement of any landscape works on site.

Note: If work item is not detailed under Indian Standards, appointed contractor should refer to relevant international standard (BS or equivalent). This should be approved by Employer prior to commencing any works on site;

2. CONSTRUCTION PHASE:

This phase starts from the date of Employer approval of GFC drawings. The on-site execution of the project comprises the full scope of work, including preliminaries, final and entire installation and completion of building works, interiors, hardscape works and soft landscape works to the relevant applicable Indian Standards. This standard applies to all elements as described in the project scope and project components section and associated services (leveling, drainage etc.) based on the project intent developed by the Employer and including handing over of the same in full accordance with the Employer's requirements.

Key tasks include:

- Material/Product samples:
 - All materials/samples to be submitted to the Employer or his Representatives at least 14 days for comments and approval prior to commencement of works and prior to use,
- Sample panels:
 - Mock-ups - All sample panel/mock-up to be presented to the Employer or his Representatives for comments and approval prior to commencement of works;
 - Type and number of sample panels as specified in relevant sections of this document. Approved panels may be incorporated in the work.
- Operations & Maintenance Manual:

- This should include schedule and instructions for all activities to be undertaken for operations and maintenance of established works.
- As-built drawings:
 - The Contractor shall prepare As-Built drawings and certify on these drawings that the drawings reflect the actual works installed. Copies to be provided to the Client or his Representatives prior to the expiration of the O&M Period. Final payment may be withheld to compliance is acknowledged by the Client or his Representatives.
 - Three sets of these drawings (A1 hardcopy, printed to scale and softcopy – AutoCAD and PDF on a CD) shall be submitted to the Employer post approval and record.
 - The Contractor shall ensure that this submission of As-Built drawings will not delay subsequent inspections and tests by the relevant authorities; otherwise he shall be fully responsible for any consequence due to his delay.
 - No separate payment will be made for the preparation of As-Built Drawings; Cost of preparation of As Built Drawing is deemed to be included in all other priced bill items.

COMPONENT B: Creating a Design Studio for Handicrafts

The scope of work is divided into 4 stages:

- i. Design Studio set-up
- ii. Developing craft specific solutions
- iii. Creating a Centre of Excellence
- iv. Operation and Maintenance

(i) Design Studio Setup

- The bidder shall procure, install and operate all necessary hardware/software necessary to deliver the project Objective and Expected outcomes, as well as fulfill the KPIs defined in the RFP.
- The bidder shall propose the required number of hardware/software required for this project (including but not limited to handicraft machinery, 3D printers/scanners, computers with 3D modelling, software required to run these machinery etc).
- The bidder shall provide details about each hardware & software proposed for this project in their bid
- The bidder shall be provided an interim facility/space to run and operate the design studio upto the time when “ART DISTRICT” Building is fully implemented. During this interim stage, it’s the bidders responsibility to operationalize the interim design studio facility with necessary furniture/hardware/software etc.
- During this stage, the bidder shall develop “**Prototyping Unit**”

- They bidder shall be responsible for converting the digital designs to actual physical models and post processing the prototypes to make them ready for mold production.
- The bidder shall be responsible for creating an eco-system that includes but not limited to – tapping into local talent, train them and enable them to operate the design studio in the long-run

(ii) Developing Craft Specific Solutions

The bidder shall target the following handicrafts and activities, including but not limited to

KALAMKARI

- Rapid digitization of hand drawn sketches; Rapid & low cost manufacturing of blocks for immediate consumption; Simple post processing for making blocks ready for end use; Reducing cost of design customization etc

METAL WARE

- Making reusable and durable molds out of master patterns; Post processing of cast metal items; Introduction of safety practices for handling molten metal etc.

TERRACOTA

- Making hard and absorbent molds for clay impressions; Introducing advanced machinery for clay processing; Post processing and painting of fired goods etc..

WOOD CARVING

- Using automated machinery to aid creation of new design prototypes: enabling craftsmen to create a variety of new designs in wood etc..

STONE CASTING

- Introducing this craft form; providing necessary skill development/training etc.

(iii) Centre of Excellence

a) Skill Training for Craftsmen & Self Help Groups

The Centre of Excellence at the Design Studio shall provide a platform for training artisans and self-help groups all across the state.

- Artisans/non artisans in vicinity of the design studio shall get trained in person at the studio.
- Using this state of the art facility, virtual training content shall be generated which can be used on site for training artisans/non-artisans at remote locations without the need for master trainers to be present everywhere.

b) MCT Schools

A special unit shall be setup that shall collaborate with MCT schools in Tirupati. These units primarily focus shall be on designing 3D printing course modules for school students. Through the

studio, students shall gain exposure in 3D printing technology, its application etc.

KEY PERFORMANCE INDICATORS (KPI)

The bidder shall meet or exceed the KPIs defined for this project.

- A. Training & skill development of at least 500 people (including but not limited to artisans, craftsmen and non-artisans) in a span of 5 (five) years from Chittoor District in different craft forms.
- B. MCT Schools School students shall gain exposure to 3D printing technology. They shall learn about the different forms, usage, functionality and real world applications. After completion of design studio setup, at least one session per school per quarter shall be conducted for introducing the technology.

5.0 OPERATION & MAINTENANCE (O&M):

- After the successful completion of the project, the contractor shall operate and maintain the project for 5 (Five) years including 02 (two) years Defect Liability Period. This includes carrying out necessary repairs of equipment, which meet original specifications and standards; replacement of any components required for smooth running of the project and its components, etc. during O&M period, the replacement of the items should be of the same specifications as in the original contract documents. Efficiency of all the systems as considered for design should be maintained throughout the O&M period.
- Operation & Maintenance of project for 5 (five) years in this contract from the date of issue of Completion Certificate after completion of the Works and successful completion and operation of all facilities
- Compliance of all safety procedures during execution and during the period of O&M of the plant

General scope during O & M is listed below:

Ensure daily maintenance of the premises with housekeeping and specialized team to maintain Arts District Building and Design studio facility, equipment, machines and molds etc.

6.0 PROJECT DURATION:

Stage	Scope of work	Duration
1	DESIGN STUDIO - Stage (i) to Stage (iii)	6 (Six months)
2	ART DISTRCT BUILDING - Design and build of new Art District Building	9 (Nine months)
3	Operation & Maintenance (after completion of Component of Works years including 02 (Two) years Defects Liability Period after completion of construction and commissioning of the Project)	05 (Five) Years

Volume 2 (b) TECHNICAL SPECIFICATIONS

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Schedule “A” - Site of the Project

(See Clause 2.1 and 8.1)

1. The Site

- a. Site of the Art District is as described in Annexure-I of this Schedule-A.
- b. The dates of handing over the Site to the Contractor are specified in Annexure-II of this Schedule-A.
- c. An inventory of the Site including trees, building and any other immovable property on, or attached to, the Site shall be prepared jointly by the Employer Representative and the Contractor, and such inventory shall form part of the Agreement. Annexure-III
- d. The status of the Environment clearances is given in Annexure-IV.

Annexure I- Site

(Schedule A)

1. Site

The proposed Art District Building Complex is one of the project module identified under Area based development (ABD) projects within the Tirupati Smart City Project. This building will house Tirupati's state-of-the-art design studio.

The proposed building is situated at the existing TUDA (Tirupati Urban Development Authority) Office complex. It would facilitate tapping into the existing as well as proposed infrastructure like power, water, storm water drain, along with road. Its location is very strategic, in terms of visibility, future availability of infrastructure and connectivity, being near the city Centre.

Index Maps and Location Maps of the project are given at Appendix A-1.

a. Seismicity

The Tirupati Municipal Area falls under the Zone III of the Seismic zoning map of India – IS: 1893-2002.

2. Existing Features and Utilities / Services

The site is currently holding TUDA office, Meeting hall and other TUDA Functions and has exiting utilities like electrical and water supply lines. Contractor has to ascertain and the level of utilities and shifting during construction activities. Except the main building, other structures need to be demolished prior to construction.

Annexure II – Land Details

(Schedule-A)

1. **Existing Land Ownership**
The existing land use within the TUDA Building comprises Government ownership land.
2. **Land Use (as per draft Landuse plan – 2035)**
The proposed land use of site as per draft Development Plan is Public and Semi Public.
3. **Handing over site to the Contractor**

Details of handing over of Site to Contractor are given in table below:

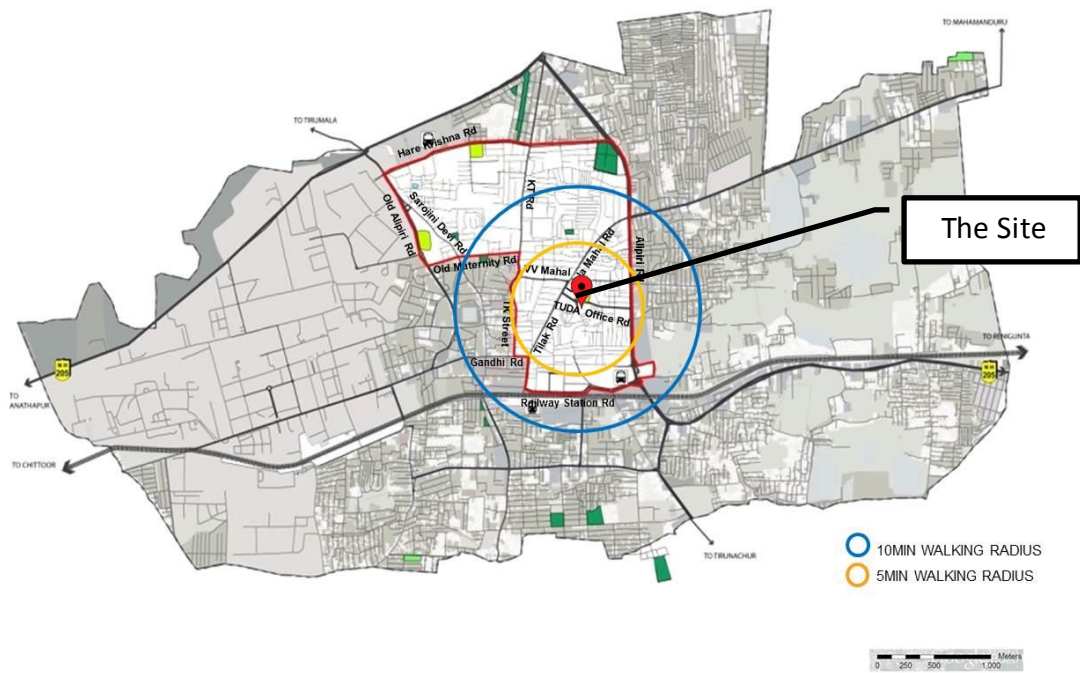
S. No.	Site Details
1	The size of the plot available for the construction is 52mx75m. That is 10,125 SQ.M. The site abuts 15m wide Gangamma Temple road on western side, 18m wide Municipal Road on north western and North Eastern side. The site for Art District Building will be handed over within 30 days of signing of the Agreement.

Annexure III – Draft Town Planning Scheme and Development Plan

(Schedule-A)

1. Art District (TUDA) superimposed over Draft Development Plan (land use plan) is shown below;

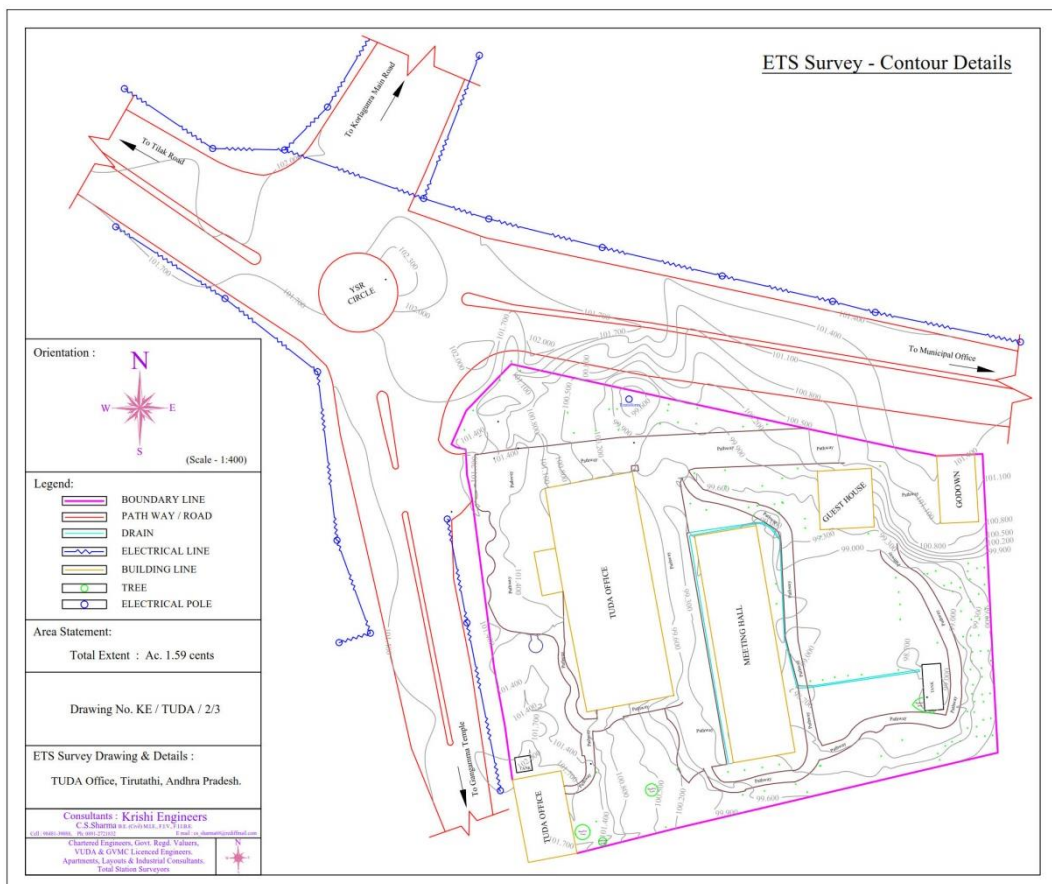
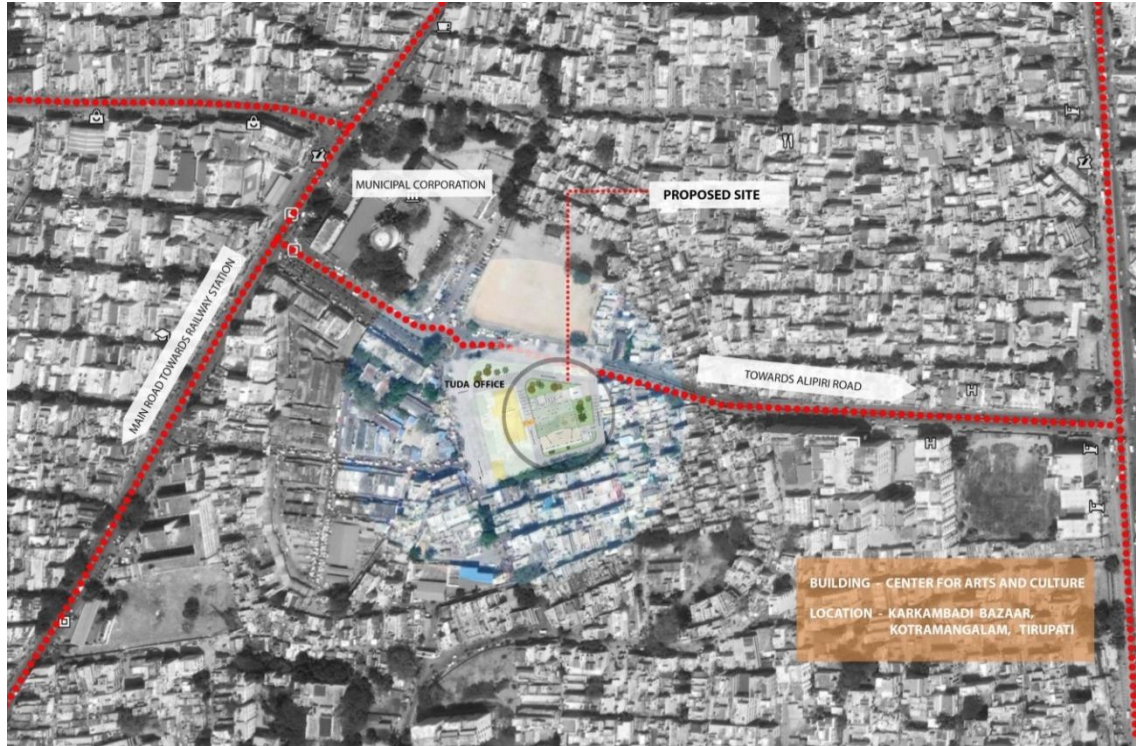
ARTS District & Design Studio



Annexure IV – Site Topography

(Schedule-A)

- The site is topographically flat with gentle slope from north to south. There are existing trees, natural drain channels or electric LT/HT lines on the site.



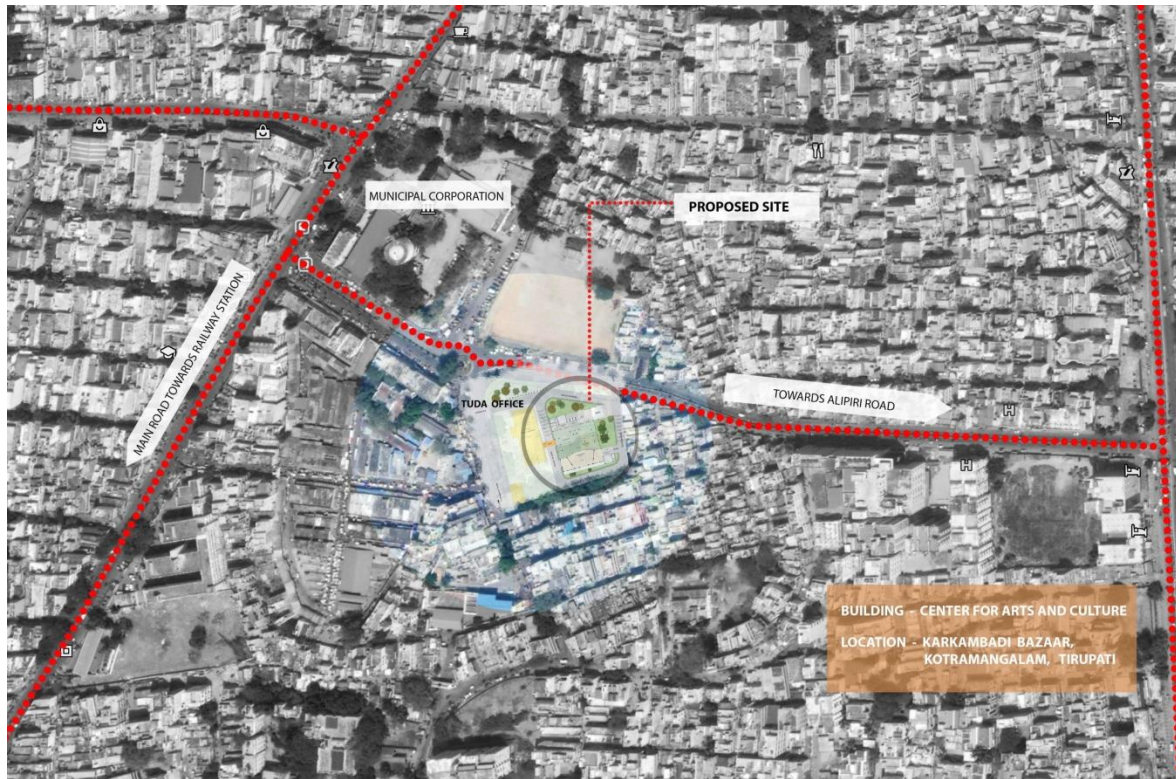
Annexure V – Environmental Clearances

(Schedule-A)

1. The Environment clearance is not required.

Appendix A1 – Index Maps and Location Maps

(Schedule-A)



Schedule B - Scope of Works

1. Development of the Project

Development of the Art District shall include design and construction of the following as described in this Schedule-B and in Schedule-C.

General

Contractor shall be responsible for making the facility fit for the intended purpose while performing all of its obligations covered under the Contract Document in its entirety. The work shall be done in accordance to the drawings approved by the statutory authorities.

Scope includes Site / Campus Planning, Demolition of existing structures except TUDA main office, boundary wall, developing required specifications, preparing Good for Construction (GFC), coordinated drawings and construct entire campus in accordance with the same. The scope shall also include preparation of as-built drawings before handing over the work to the Employer, maintaining the Quality assurance & Quality control (QA&QC) including control, corrective actions, reporting and arranging for regular inspections by all concerned.

Contractor has to obtain GRIHA 3 Star rating. The buildings are to be designed as per NBCC, GO and GRIHA Guidelines.

As deemed necessary by the Employer/Employer's Engineer/PMC, Contractor shall execute necessary mock-ups of all items/activities related to the Work performed required under this Contract as indicated below and the cost for the same shall be deemed to be included in the Contract price.

The Contractors are advised to visit the site before submitting the Proposal for the works.

The Scope includes all temporary works required for the completion of works, testing and commissioning and handover till Defect liability Period.

The Scope includes all consumables required for the completion of works, testing and commissioning and handover till Defect liability Period.

- **Appendix B I:** Details of Population
- **Appendix B II:** Details of Built-up area
- **Appendix B III:** Scope of Architectural and Landscape Works
- **Appendix B IV:** Scope of Civil and Structural Works
- **Appendix B V:** Scope of Electrical Works
- **Appendix B VI:** Scope of HVAC Works
- **Appendix B VII:** Scope of Fire Fighting Works
- **Appendix B VIII:** Scope of Plumbing Works
- **Appendix B IX:** Details of Fire Detection Alarm System, Smart Card based access and CCTV surveillance
- **Appendix B X:** Details for GRIHA rating
- **Appendix B XI:** Scope of Road Works
- **Appendix B XII:** Scope of Storm Water Drainage network
- **Appendix B XIII:** Scope of Sewage Treatment Plant (STP)
- **Appendix B XIV:** Scope of Solid Waste Management Works
- **Appendix B XV:** Scope of IBMS / BAS Works

2. Specifications and Standards

The Art District shall be designed and constructed in conformity with the Specifications and Standards given in Schedule-D. Wherever the requisite specification for any material, workmanship, execution, testing, etc are not specified in this document, the contractor shall refer to up to date NBC / IS code specifications.

Appendix B I – Deleted

Appendix B II – Built-up Area Details

(Schedule-B)

Built-up area details are as specified in Volume 2(a). However any provisions which are suitably required to meet the intent and project objectives are to be designed and added to the indication built up area statement provided in Volume 2 (a)

Appendix B III – Architecture and Landscaping Works

(Schedule-B)

1. Scope

The scope includes design, detailing, procurement, supply, construction, furnishing, testing and execution for "Art District" and ancillary structures.

2. Look and Feel of the Project

The Contractor shall study, specifications, material finishes indicated in the contract document and understand all parameters of the design including the architectural intent of the design. All Finishes as per the Table No 3, below.

ART'S DISTRICT TIRUPATI			
BASEMENT (SEMI BASEMENT AS PER THE SITE CONDITION)			
Basement - Entrance lobby, two circulation cores, Parking and service room.			
S.NO	SPACE	SPACE DESCRIPTION	INTERIOR COMPONENTS
1	LOBBY WITH PRIRMARY CORE	Entrance Foyer with open well staircase/grand staircase and two elevators.	Lobby area wall cladding, service room fire, hvac, fire etc. panelling and any other architectural elements as per the design.
2	SECONDARY CORE	Open well staircase, service lift and service room.	Service rooms provision to be provided as per the requirements, exit staircase with opening into the outdoor for tackling emergency situations.
3	PARKING	collonoid space for two wheeler and four wheeler parkings	Parking spaces for office staff, 2 wheeler, 4 wheeler and floor marking, flooring as per the parking standards and directional mapping as per the design to be provided
GROUND FLOOR			
Ground floor - Entrance Foyer, two circulation cores, Art's studio, spill over space.			

S.NO	SPACE	DESCRIPTION	INTERIOR COMPONENTS
4	LOBBY WITH PRIRMARY CORE	Main entrance Foyer with open well staircase and two elevators	visitos waiting furniture, reception table and wall cladding, wall panelling options and any other architectural elements as per the design.
5	SECONDARY CORE AND LOBBY	Open well staircase, service elevator and service room.	service rooms provison to be provided as per the requirements, exit staircase with opening into the outdoor for tackling emergency situations.
6	ART STUDIO	studio space with cabins and provisions for machinery.	spaces for machinery, office cabin and glass opening into the spill over space.
7	TOILET	common toilets	Modular cubicle toilets with louvers and exhaust fans for light and ventillation
8	CORRIDOR	Circulation between cores	Flooring patterns to demarcate the office spaces for easy identification or another smart solution for as per the design
FIRST FLOOR			
First floor - Entrance Foyer, corridors,two circulation cores, auditorium (inclined slab) and gallery space.			
S.NO	SPACE	DESCRIPTION	INTERIOR COMPONENTS
10	LOBBY WITH PRIRMARY CORE	Main entrance Foyer with open well staircase and two elevators	visitos waiting furniture, reception table and wall cladding, wall panelling options and any other architectural elements as per the design.
11	SECONDARY CORE AND LOBBY	Open well staircase, service elevator and service room.	service rooms provison to be provided as per the requirements, exit staircase with opening into the outdoor for tackling emergency situations.
12	AUDITORIUM	Multiple level space for theater viewing an stage for performance.	Multiple levels 150mm raise platforms for viewer seating and raised stage for the performance, acousical flooring, acousic ceiling, acoustic wall panelling, cushioned seating, sound and lighting as per the auditorium standards specified by the concerned authority.

13	GREEN ROOMS	Space for auditorium services.	Spaces for resting, with furniture and rest rooms for the guests and should have an alternate opening to the auditorium's stage.
14	GALLERY	Exhibition space and office space.	Display area for the arts and gallery space personnel's cabin furniture.
15	TOILET	COMMON TOILETS	Modular cubicle toilets with louvers and exhaust fans for light and ventilation
SECOND FLOOR			
Second floor - Entrance Foyer, corridors,two circulation cores, auditorium (inclined slab), gallery space and guest rooms.			
S.NO	SPACE	DESCRIPTION	INTERIOR COMPONENTS
16	LOBBY WITH PRIRMARY CORE	Main entrance Foyer with open well staircase and two elevators	visitos waiting furniture, reception table and wall cladding, wall panelling options and any other architectural elements as per the design.
17	SECONDARY CORE AND LOBBY	Open well staircase, service elevator and service room.	service rooms provision to be provided as per the requirements, exit staircase with opening into the outdoor for tackling emergency situations.
18	AUDITORIUM	Multiple level space for theater viewing an stage for performance.	Multiple levels 150mm raise platforms for viewer seating and raised stage for the performance, acousical flooring, acousic ceiling, acoustic wall panelling, cushioned seating, sound and lighting as per the auditorium standards specified by the concerned authority.
19	GUEST ROOMS	Guest rooms	Space with provision for Furniture and rest rooms.
20	GALLERY	Exhibition space and office space.	Display area for the arts and gallery space personnel's cabin furniture and Glass façade to ease the visual connection between indoor and outdoor.
21	TOILET	COMMON TOILETS	Modular cubicle toilets with louvers and exhaust fans for light and ventilation
THIRD FLOOR			
Third floor - Entrance Foyer, corridors,two circulation cores, Auditorium gallery seating and guest rooms.			

S.NO	SPACE	DESCRIPTION	INTERIOR COMPONENTS
22	LOBBY WITH PRIMARY CORE	Main entrance Foyer with open well staircase and two elevators	visitors waiting furniture, reception table and wall cladding, wall panelling options and any other architectural elements as per the design.
23	SECONDARY CORE AND LOBBY	Open well staircase, service elevator and service room.	service rooms provision to be provided as per the requirements, exit staircase with opening into the outdoor for tackling emergency situations.
24	AUDITORIUM GALLERY SPACE	Multiple level Seating space for gallery viewing.	Multiple levels 150mm raise platforms for Gallery viewer seating, acousical flooring, acousic ceiling, acoustic wall panelling, cushioned seating, sound and lighting as per the auditorium standards specified by the concerned authority. (ROOF OF THE AUDITORIUM IS TRUSSED ROOM WITH METAL SHEET TOPPING)
25	TOILET	COMMON TOILETS	Modular cubicle toilets with louvers and exhaust fans for light and ventillation
26	CONFERENCE ROOM LOBBY	Waiting lobby and reception space	Provision for visitor seating and reception rtable and access to the glass floor above the main central foyer.
27	CONFERENCE ROOM WAITING AND OFFICE	Anti room for Officers and office space for respective staff	Anti room with rest room provision and office space with wor stations for the staff as per the requirement.
28	CONFERENCE ROOM	conference room of 23 seating cap.	Conference room table, chairs with capacity as per the space dimension, proviosion for sound system and projector, wooden flooring or equivalent as per the design
29	CORRIDOR	Circulation between cores	Flooring patterns to demarcate the office spaces for easy identification or another smart solution for as per the design

3. Approvals of Design / Drawings

The contractor shall seek approvals from MD, TSCCL and PMC for every design stage. The contractor should not start any construction activities without prior approval on designs by MD, TSCCL.

4. Construction Documents / Documents

The Contractor shall provide multiple options of the design of necessary element of the Work for the Employer's Engineer to review along with Employer / PMC.

5. Documents at Site

The Contractor shall maintain in a conspicuous place on the site a copy of development permission and a copy of approved drawings and specifications.

6. Landscape Works

a. Scope

The Landscape scope includes design, detailing, procure, supply, construction, installation, furnishing, equipping, testing, commissioning and execution of landscaping works [softscape], irrigation and fountains for entire "TUDA" building complex including mockup for Landscaping items in accordance with the Drawings in Appendix B XVI,

- Site grading as per the requirements
- Good garden earth & manure
- Trees, shrubs, ground covers, lawns
- Drip irrigation system for trees and shrubs.
- Sprinkler system for lawns
- Tree Plantation
- The Contractor will supply and install barricades for safeguarding landscape development area and works. He may also install the barricades in the landscape development area according to his own understanding if he feels that any part of the landscape area is bound to be damaged for any reason, Contractor shall follow pre construction and during construction soil erosion control measures as per the NBC.

Appendix B IV – Civil and Structural Works

(Schedule-B)

1. Scope

The Contractor shall carry out, and be responsible for the design of the Works, of Arts District building complex that includes ancillary structures, compound wall, fencing, security cabins, pavements, hardscape, drains, etc. The Scope of Work includes but is not limited to the following in relation to the design, construction, and operation of the Works:

- Prepare Design Basis Report based on the design intent and submit for approval.
- Carryout out Structural Design based on approved Civil Structural Design Criteria.
- Submit Structural stability certificate for all structures and components from government authority at his own cost.
- Proof checking by accredited agencies at bidders cost before submitting for the approval of the Employer.
- Setting out the works: Site Topographic Survey and Geotechnical Investigations as deemed necessary by the Contractor. Site Clearing, Site Grading, and Excavation including excavation for sump pits / lift pits.
- Piling, foundation & substructure works.
- Implement Anti termite treatment / Water proofing / Insulation works.
- Superstructure RCC works.
- Masonry.
- Plastering.
- Structural Steel work.
- Ancillary PCC / RCC works including equipment foundations / pedestals, etc.

Appendix B V – Electrical Works

(Schedule-B)

1. Scope

The scope of work shall cover the design, engineering, manufacture, assembly, testing at manufacturer's works/ test labs, supply, delivery, properly packed for transport to site, unloading, storing at site of all equipment, erection and commissioning, test at site, performance guarantee test run, training of Employer's personnel and handing over of the complete electrical system along with mandatory spares as per the terms & conditions. The scope of work shall comprise of, but not limited to the following:

- Power Supply system from nearest CSS to RMU.
- Power requirement for the development.
- High Side and Low Side equipment requirements such as Transformers and Switchgear.
- Non-segregated phase Busduct and sandwich Busduct with all associated accessories.
- Main Power Control Centers (PCC), Sub-Power Control Centers (Sub-PCC) and Motor Control Centers (MCC).
- Power Distribution boards.
- Automatic Power Factor Correction Panel with capacitors.
- Metering system.
- All HT/LT Power, control cables.
- Cable carrier system with necessary cabling accessories such as cable glands, lugs, termination and jointing kits etc.
- Fire proof sealing system comprising of fire stops and fire breaks.
- Lighting system including Fittings and fixtures.
- Common area lighting, Office space lighting and outdoor Lighting system comprising of lighting distribution boards, lighting transformers, light fittings, lighting poles, Power socket, associate lighting switches/sockets, associated cable, conduit and wiring.
- 100% DG Backup System with Diesel Storage Capacity.
- DG synchronizing panel.
- 110V DC systems complete with one battery set, 2 x 100% BC (Float cum boost chargers), DCDB.
- Vertical Transportation system with a waiting time of 35-40 sec and Passenger Lifts with a minimum speed of 1.75 m/s
- Electrical SCADA system.
- Earthing system comprising of Earthing Electrodes, Earthing strips/ conductors and associated accessories.
- Lightning Protection system as per early streamer emission method.
- Solar PV system for Arts District building.
- Miscellaneous items such as Local control push buttons, Welding Receptacles
- Safety Equipment's such as rubber mats, sign boards
- All related civil works required for completion, commissioning but not limited to trenches, foundations etc.
- Maintenance requirements as per Schedule E.

2. System Design Requirements

The following design criteria shall be considered by the Contractor for the equipment and services supplied under this contract:

- Safety to personnel and equipment during the operation and maintenance.
- Reliability of service.
- Minimum fire risk.
- Ease of maintenance and convenience of operation.
- Automatic protection of all electrical equipment through selective relaying system.

- Electrical supply to equipment within the design operation limits.
- Adequate provision for future extension and modifications.
- Fail safe features.
- Suitability for applicable environmental factors.
- Maximum interchangeability of equipment.
- The design and equipment shall ensure satisfactory operation under variations of voltage $\pm 10\%$, frequency (+) 5% to (-) 5%, combined voltage and frequency 10% for A.C., -15% to +10% for DC as may be met under operating conditions, including those due to starting loads and short circuit and other fault conditions.
- The contractor shall calculate the total power requirements for the development by summing up the power requirement for each floor in according to the design requirements.
- The power allocation of 138 VA/sqm (13VA/sft for) load shall be provided for the office areas including the common utilities such as plumbing, HVAC, firefighting, elevators, etc. This shall cater for the lighting, power and other systems installed.
- The contractor shall submit load calculation with the tender for the development taking into account the acceptable diversity factors and providing a margin of (10%) contingencies for the total power for the peak hour loads. The internal electrical power shall be tapped from the riser / electrical room located on each floor.
- System grounding.
- 11 kV: Unearthed system.
- 415 V: Solidly earthed.
- Fault level (For all equipment).
- 11kV: 31.5 kA for 1 Sec.
- 415V: 50 kA for 1 Sec.
- 230V: 12kA for 1 Sec.
- 110V DC: 10kA for 1Sec.

3. Specific requirements for Electrical Equipment's

The following are the additional design requirements shall be considered.

HT and RMU Panel

- RMU panel shall be metal clad, self-standing dust proof construction, outdoor cubicle type fitted with incoming load break isolators and outgoing feeders as vacuum circuit breakers with aluminium bus bar, fully draw out type. Degree of protection of RMU panel shall be IP65 or better.
- Required margin of (20%) shall be considered while sizing the bus bars and breakers for switchgear.
- The relays in the 11kV RMU and 11kV HT panel shall be numerical type with IEC 61850 compatibility.

Dry Type Transformer

- Two no's of 11/0.433kV, adequately sized dry type, two winding, 50 Hz, natural air cooled with ON LOAD tap changer. The tap changer will be provided with +5% to -15% taps in steps of +1.25% on HV side.
- The transformer shall be 2 x 100% configuration i.e. it shall be sized such a way that if one transformer fails other transformer capable to cater full load.
- Transformer shall be designed such that the maximum efficiency shall be at 50% of its loading.
- 11/0.433 kV, Transformer LT side shall be suitable for terminating the 415V non-segregated phase Busduct and HT side shall be suitable for cable terminations.

Busduct and Rising Main

- Non-segregated phase Busduct shall be TPN, Bus bar material shall be of high conductivity electrolytic Aluminium conductor. Bus duct shall have degree of protection better than or equal to IP-54.
- 415V rising main bus bar shall be of sandwich construction and made up of high conductivity electrolytic aluminium conductor, non-ventilated design and the degree of enclosure protection shall be IP 52.
- Each Rising Main shall be equipped with an end feed unit / MCCB panel, at both ends.

Main LT Panel and Sub-Distribution panels

- Main LT panel shall be located at Ground floor
- Main LT panels shall be metal clad, self-standing dust proof construction, fully draw out type and IP 54.
- For feeders rated more than 400A, ACB with Numerical protection/built in microprocessor release, discrete multi-function meters or metering as part of ACB shall be provided. For all other rating feeders Microprocessor based MCCB shall be used. All ACB feeders shall be compatible for remote control, metering and monitoring.
- Incomer and busbar shall be rated for full load current of the total load connected plus a margin of 20%, rounded off to the next standard rating. All outgoing feeder modules from each PCC shall be rated for the full load current plus 10% margin, rounded off to the next standard rating. All PCC shall be provided with 20% spare feeders.
- Incoming feeders shall be provided with ACB breaker with Numerical protection relay compatible with IEC 61850.
- For remote metering in SCADA for current, line voltage, bus voltage, kW, KWH either separate transducers or soft data shall be taken through communication of Numerical relays/MFM's looped and interfaced to SCADA. Architecture shall be submitted for approval.

Control Philosophy

- A highly reliable, microprocessor-based Electrical SCADA system complying with International automation standard IEC – 61850 shall be provided for the Arts District building Electrical system Control, metering and monitoring. All HT and LT switchgear shall be controlled from SCADA.
- Each switchgear whose incomer, buscoupler and outgoing breaker feeder are controlled from SCADA shall be provided with two IEC-61850 compliant managed ethernet switches. The IEC-61850 compliant numerical relays shall in turn be connected to both these switches either to form a ring or radially connected, so that loss of one connection does not result in loss of communication with any device. These switches shall be provided with fibre optic (FO) ports for interconnection with other switchgear switches, which form part of the IEC-61850 LAN network. Further interconnection to the SCADA shall be through redundant server.

APFC Panel

- Automatic Power Factor Correction (APFC) capacitor panels with capacitor bank of adequate kVAR rating to maintain the power factor of 0.98 lag at main LT panels.
- All Poly Propylene (APP) type Capacitor banks shall be housed in APFC Panel cabinet.

Motors

- Motors shall be energy efficient (IE2) squirrel cage induction type, TEFC, IP-55 enclosure (including terminal boxes and bearing housing) with Class-F insulation (and temperature rise limited to Class B).
- Lockable Stop Push Button (press to stop and key to release) shall be provided near to the each equipment. The enclosure shall be engineering plastic (scratch resistant), weather proof, corrosion resistant, dust and vermin-proof, suitable for mounting on wall or structures. The enclosure shall have degree of protection not less than IP55.

DC System

- The DC system shall be designed to cater the loads for control, protection and indication of 11kV switchgear, 415V breaker controlled feeder, control panel, DG AMF panel, RTCC panel shall be designed for 110V DC battery with 2 hours back-up time.
- 110V, 2 x 100%, float cum boost charger with a common 100% tubular lead acid / or better battery shall be provided which shall be located at ground floor level.

DG Set

- Emergency DG set shall be designed for complete 100% Building load redundancy. The Prime rated DG set shall be an Indoor type open construction mounted on base frame through anti vibration mounts. The cooling system for DG set is radiator type. The DG room shall be acoustically insulated along with panels to limit the noise in line with the norms as set by pollution control board.

Vertical Transportation (Elevators)

- Building shall be provided with passenger elevators.
- Building shall be provided with passenger elevators of 18 passenger capacity, 1.75mps speed, MRL type and center opening door with automatic.
- SS doors & enclosures of elevators shall be fire rated for not less than 2 hours.

Solar PV System

- As per GRIHA requirement in order to achieve credit points under Energy & Atmosphere is the requirement of power from renewable source.
- Grid interactive solar PV system is proposed to cater this requirement. The system shall be with grid connected.
- Solar module shall be multi crystalline type, employing lamination technology using established polymer (EVA) and Tedlar / Polyester laminate.

Power, Control Cables and Cable carriers system

- The cables shall be 11000V un-earthed grade, single / multicore, stranded aluminium, XLPE insulated with PVC inner sheath, armoured and overall sheathed with specially formulated Fire Retardant Low Smoke (FRLS) PVC. Single core cables shall have aluminium wire / formed wire armour, whereas multicore cables shall have galvanised steel strip armour.
- LT power cables shall be 1100V grade, single / multicore, stranded aluminium conductor, XLPE insulated, with PVC inner sheath, armoured and outer sheath made of specially formulated FRLS PVC compound.
- The overall voltage drop shall be limited to 5% and the voltage dip shall be limited to 15%.
- The LT control cables shall be 1100V grade, multicore, 2.5 sq.mm cross section, stranded copper conductor having 7 strands, PVC insulated, inner PVC sheathed, galvanised steel wire/formed wire armoured and outer sheath made of FRLS PVC compound conforming to the performance requirements outlined above shall be used . The cables shall conform to IS:1554 (Part-I) - 1988 / IEC-502 (1983) in all other respects.
- Cable carrier system shall be designed for 70% loading.
- Power cables and control cables shall run in different shafts. Separate riser and trays shall be provided for the LV system.
- All cabling/wiring works shall be concealed wiring except for risers and in other areas where public or tenants do not have access or approved areas by the Employer.

Lighting system

- LED Light fittings should be installed with effective reflectors. Mercury light fittings should not be used, instead Metal halide fittings shall be used.
- The luminaries shall be selected to suit architectural, functional and aesthetic requirements.

UPS system

- UPS are provided for critical system loads, servers and work stations, BMS, FACP (Fire Alarm Control Panel) & FARP (Fire Alarm Repeater panel), CCTV and Emergency lighting etc. with 3hrs battery back-up.
- The UPS will be 3ph to 3 ph, 50 Hz, Modular type, On-line, Redundant UPS power supply and with static bypass. The UPS output will be connected to the UPS DB for further distributions.
- During normal operation, the AC Supply will be fed to UPS Distribution boards through UPS and a small trickle charging current will be feeding to tubular lead acid battery for charging. Once the AC supply fails, for a momentary time till the DG picks up the battery will feed the UPS distribution loads through UPS.

Appendix B VI – HVAC Works

(Schedule-B)

1. Scope

The scope of works shall cover the design, engineering, Supply, Installation, Testing and commissioning of the complete Air-Conditioning (water / Air cooled chillers) and Ventilation (ACV) System of Arts District

building. The scope includes all the related things like procurement, manufacture, testing at manufacturers' works, packaging, transportation, shipping, unloading at port, transportation to site, unloading, storage, insurance, transportation from stores to erection site etc.

2. System Design Requirements

- Inside design temperature for all areas except server room should be: 24 +/- 1 °C.
- Inside design temperature for server rooms should be: 22 +/- 1 °C.
- Refer architectural specifications for occupancy details.
- N + 1 redundancy shall be provided for chillers, pumps, cooling towers etc.
- Double skin AHU shall be provided at all floor levels and treated fresh air units at terrace of each building.
- Air-conditioning will be designed and provided for all areas of Arts District buildings including main entrance lobbies, lift lobbies, IBMS, UPS & battery rooms, public grievances, stationery, counters, etc.
- Air conditioning shall also be provided to services plant room where deemed necessary by the Contractor's designers to maintain the equipment's in optimum working condition.
- The air conditioning system shall preferably comprise central chilled water plant consisting of chillers, ideally suited for the nature of this project, pumps providing chilled water to air handling units, fan coil units complete with control panels, pipe works, valves, fittings, ductworks, grilles, dampers, etc. with necessary insulation / acoustic works.
- Cooling load requirements shall be based on heat load calculation to be submitted with the tender. The numbers of chillers and pumps shall be configured for duty and minimum one number on standby operation.
- Mechanical ventilation shall be provided to escape stairs, toilets, kitchens, services and equipment areas and any other areas to comply with the authorities' requirements. All M & E plant rooms shall be adequately ventilated to ensure maximum room temperature to be maintained not more than 30 °C.
- Sufficient space shall be provided for maintenance and repair works in the plant room. Mechanical Ventilation System should be provided in plant room to ensure proper operating condition is achieved. All pumps, chillers and cooling towers should be provided with proper drain pipe system to the nearest floor traps. Proper cat ladders and safety guard rails should be provided for cooling towers. Floor should be waterproofed. Reliable auto-condenser tube cleaning system should be installed. Balancing valves & isolating valves (butterfly / gate / ball) flow valves should be installed in the chilled water and condenser water system. Appropriate vibration and acoustics measures should be implemented. Mono rails for future maintenance of the equipment's in the plant room are required.
- Vibration isolators for all ACV equipment.
- Complete framework required for mounting grills/louvers in masonry works is deemed to be included in ACV Contractor scope.
- Painting of equipment, piping and supports of the ACV system as per National Building Code (NBC) or standards of the employer.
- Automatic controls and instruments including control cabling.
- Motor Control Centre and Cables.
- Wiring and earthing from MCC panels to various refrigeration, air conditioning and mechanical ventilation equipment, control wiring and interlocking.
- All the ACV system shall be provided with the connectivity to Building Management System (BMS) with a potential free contact. The Contractor shall provide the minimum interface & connectivity of the ACV system to the BMS
- Provide larger size sleeve for crossing of pipe, conduits & cables through fire rated wall/partition. The sleeve shall be sealed with fibreglass and fire sealant.
- Fire/smoke dampers shall be installed to maintain integrity of fire compartmentation. The vendor shall submit installation details and obtain approval prior to execution at site.
- Balancing, testing and commissioning of the entire Air-Conditioning and mechanical ventilation system.

3. Associated Works

- The complete electrical work related to air conditioning services, shall be carried out by Contractor.

- The scope includes the associated civil works like providing RCC/PCC foundations, pedestals for equipment like water chilling machines, AHUs, pumps & fans etc., and necessary plumbing works like providing floor and condensate drains in the equipment rooms.
- All associated Electrical Works are also in the scope of Contractor. These shall be installed in accordance with approved shop drawings of, and under direct supervision.
- All associated Plumbing Works are also in the scope of Contractor. Detailed specifications are mentioned in the electrical section. These shall be installed in accordance with approved shop drawings of, and under direct supervision.
 - Providing soft makeup water (Commercial hardness 0 ppm and pH 6.5 to 8.0) at cooling tower, and at chilled water expansion tank.
 - Providing sump pumps and necessary piping for drainage of air conditioning plant room and other machine rooms located below ground level.
 - Providing floor drains in cooling tower area and in air handling unit rooms.
 - Disposal of condensate drain from fan coil units / ceiling suspended units beyond the condensate drain riser.

Appendix B VII – Fire Fighting

(Schedule-B)

1. Scope

The Scope of works shall cover the design, engineering, Supply, Installation, Testing and commissioning of the complete Fire Fighting system including Fire alarm system of Arts District building. The scope includes all the related things like procurement, manufacture, testing at manufacturers' works, packaging, transportation, shipping, unloading at port, transportation to site, unloading, storage, insurance, transportation from stores to erection site etc.

2. System Design Requirements

- Main design components include Wet risers and the hydrant System including all pumps and pipe networks.
- Pumps shall be of three types, namely 2850 lpm & 88 m head electric, 2850 lpm & 88 m head diesel driven, and 180 lpm & 88 m head jockey pumps.
- All Accessories, but not limited to field instruments like pressure gauge & pressure switch and control cabling including junction box, erection hardware, etc., to MCC & diesel engine control panel should be included.
- Electrical panels, Cabling & earthing from MCC panels to various firefighting system, control wiring & interlocking.
- Instrumentation and Control equipment shall be complete with primary elements, initiating contacts for alarms, instrument impulse lines, fittings, power and control cables with suitable glands and terminations and instrument installation hardware.
- 4mm thick wrapping & coating for underground piping with proper testing.
- Sprinkler System for the complete development (within the scope of this contract).
- Contractor shall carryout the hydraulic calculation using validated software.
- Fire extinguisher including mounting fixtures, anchor bolts, clamps, structures, etc. for all buildings in all the areas.
- Photo luminescent signage.
- Fire alarm system
- Firewater Storage at underground of utility building and Terrace level of each building.
- Yard hydrant system around Art District building.
- Two nos. Internal hydrant system in each level.

3. Associated Works

- The complete electrical work related to Firefighting including, but not limited to installation of pumps, shall be carried out by Contractor.
- All associated Plumbing Works are also in the scope of Contractor.
- The Scope includes the associated works like Structural works for pipe supports for above ground pipes, wall supports, hose cabinet supports, etc., Civil works like wall opening, chipping of foundation, grouting of foundations, sand filling and compacting for underground pipes, etc.
- Painting of equipment, piping, supports etc. with 2 coats of primer & 2 coats of synthetic enamel as per IS: 5 shade 536 (Fire Red).
- Supply of One set of special erection and maintenance tools and tackles.
- Start up and Essential spares.
- Recommended spares for 5 years operation.
- Anchor fasteners required for pipe supports of all the systems which are engineered by vendor and all anchor bolts, nuts, washers and inserts to be embedded in concrete for the equipment and piping.
- Shop inspection (in Vendor's works & at project site after installation along with all required calibrated measuring instruments).

Appendix B VIII – Plumbing

(Schedule-B)

1. Scope

The Scope of works shall cover the design, engineering, Supply, Installation, Testing and Commissioning of the complete Plumbing system including Internal and External Water Supply, Internal and External drainage including Sewerage, Storm water drainage, Rain water harvesting system of Arts District building. The scope includes all the related things like procurement, manufacture, testing at manufacturers' works, packaging, transportation, shipping, unloading at port, transportation to site, unloading, storage, insurance, transportation from stores to erection site etc.

2. System Design Requirements

- For Utility area at Ground floor additional features to include:
 - All the transfer pumps, connection between underground tanks and transfer pumps, related piping, valves and accessories etc.
 - Auto level sensors with required controls like solenoid valve for each tanks (both underground tanks and overhead tanks) for automatic operation of transfer pumps.
 - Transfer pumps (1w + 1s) for each potable water & non-potable water system Water supply pipes in Utility building
 - Separate piping from utility building to each overhead tank through trench with required supports.
- Complete distribution of potable and non-potable water distribution for proposed building.
- There are three piping outlet to be taken from each potable and non-potable OHT. Water supply for top three levels (3rd, 4th & 5th) shall be supplied through booster pumps with pressure sensors. Individual piping connections shall be taken for next levels (Ground, 1st & 2nd) respectively to maintain the uniform pressure.
- Works to include for air vents, PRV, water meters, valves, pressure gauges, water hammer arrestors, Nalni traps, Floor gratings, Gully trap, grease trap, man holes, inspection chambers, required piping connections etc.
- Required capacity booster pumps with pressure sensor system with required controls and instruments at terrace level for each drinking water system and flushing water system with standby for each building.
- Cabling & earthing from MCC panels to various plumbing/ sanitary system, control wiring & interlocking.
- Field instruments like pressure gauge & pressure switch and control cabling including junction box, erection hardware, etc., to MCC
- Instrumentation and Control equipment included in the package unit shall be complete with primary elements, initiating contacts for alarms, instrument impulse lines, fittings, power and control cables with suitable glands and terminations and instrument installation hardware.
- Supply & Installation of following complete Sanitary Fixtures and Fittings as per the model and make mentioned in the tender specifications.
 - Modular toilet cubical of 25mm thick waterproof boards with stainless steel hardware.
 - Provision for Wall hung EWC, counter top wash basins, press and close faucets, exhaust inbuilt windows.
 - Urinal with sensor system (Model: C05075 New Magnum & Jaguar Concealed urinal flush sensor 51087).
 - Pantry sink.
 - Shower assembly.
 - taps.
 - ABS Rinsing spray.

- Janitor sink.
- Hand drier, tower ring, soap dispenser, toilet paper holder, twin coat hook etc.
- Following Jaguar make sanitary fixtures shall be considered:
 - Florentine Bib angular FLR 5037NGE.
 - Florentine Bib straight FLR 5047NGE.
 - Florentine Pillar straight FLR 5011NGE.
 - Allied Health Faucet ALD 573GA.
 - Florentine Angular FLR 5053N.
 - Florentine Sink extended FLR 5347NGE.
 - Florentine Stok straight FLR 5083N.

3. Associated Works

- The complete electrical work related to Plumbing works including, but not limited to cabling and earthing of various fixtures and control wiring shall be carried out by Contractor.
- The Scope includes the associated works like Structural works for pipe supports for above ground pipes, wall supports, hose cabinet supports, etc., Civil works like wall opening, chipping of foundation, grouting of foundations, sand filling and compacting for underground pipes, etc.,
- Painting of equipment, piping, supports etc. with 2 coats of primer & 2 coats of synthetic enamel as per relevant IS codes.
- Start up and Essential spares.
- Recommended spares for 5 years operation
- Anchor fasteners required for pipe supports of all the systems which are engineered by vendor and all anchor bolts, nuts, washers and inserts to be embedded in concrete for the equipment and piping.
- Supply of One set of special erection and maintenance tools and tackles.
- Cutting holes, chases & like through all types of walls /floors and finishing for all services crossings, including sealing, frame works, fire proofing, providing sleeve, cover plates, making good structure and finishes to an approved standard.

Appendix B IX – Fire Detection Alarm System, Smart Card Based Access and CCTV Surveillance

(Schedule-B)

1. Scope

The scope includes design, detailing, procurement, supply, installation, equipping, testing, commissioning and execution of ICT Solution consisting of Fire Detection & Alarm System and Public Address system, Smart Card based Access Control System, CCTV Video Surveillance System, Network Management System, Visitor Management System, BMS for common areas of Arts District Building in accordance with the RFP requirements.

2. System Design Requirements

For Fire Detection system and Public Address System

- The system shall comprise of heat and smoke detectors, manual call points, hooters and Public Address System.
- The system shall comprise of microprocessor based addressable fire detection system.
 - Integrated smoke and heat detectors.
 - Manual call points.
 - Hooter sounders with flashers.
 - Ceiling mounted speakers for PA system.

Smart Card based Access Control System

- The features in the design should include:
 - Contact less card based solution.
 - Visitors pass with company detail.
 - Manually / Remotely operated Boom barriers for vehicle movement.
 - Electrically operated door lock.
 - The location of access control locations should include all critical locations like the services areas, locations where visitors are not allowed, roof, lift machine areas.
 - RFID cum biometric readers for doors.
 - Electromagnetic door locks (600 lbs, Smart Cards (Mifare Desfire, 4KB) with dual side printing with colour in front & B&W on back. Plastic Card Holder with Lanyard).

CCTV Video Surveillance System

- The main objective is to monitor and record the activities, movement of people and vehicles through entry points inside the building, to monitor perimeter.
- Cameras to be positioned at all areas to enable a total secured building.
- Video Cameras should be - IP Mini Dome Color IR, 2 MP, Varifocal lens

Network Management System

- The features in the design should include:
 - 12 Port Managed Network Edge / Access Switch, 10/100 Mbps with POE.
 - 8 Port Managed Network Edge / Access Switch, 10/100 Mbps.
 - 24 Port Managed Network Aggregation Switch, 10/100 Mbps.
 - Network Management Server / Workstation with software.
 - Network Rack (42U).
 - PVC Conduit pipe + installation.
 - AT6 Cable + installation.

Visitor Management System

- The features in the design should include:
 - Work stations.
 - Smart Cards (Mifare Plus, 1KB) with dual side printing with B&W in front & B&W on back. Plastic Card Holder with Lanyard to be supplied.
 - Laser Printers (A4 Size printing).
 - Smart Card Printer (Dual side thermal-dye sublimation Card Printer with dual side lamination).

3. Associated Works

- All associated electrical / civil work related to above works including, but not limited to cabling, earthing and structural works for support / fixing of various fixtures, wall openings, grouting, foundations, sand filling and control wiring shall be carried out by Contractor.
- The Contractor will carry-out any interfacing / Integration of the systems as required between the systems and also with the BMS (Lift, AHU, Lighting, DG Set Panels)
- Required UPS Power only will be made available by the Employer. The power cabling & Ethernet / Optical Fiber cabling, Ethernet Switches and other network hardware shall be provided by the Contractor.

Appendix B X – FIRE FIGHTING SYSTEM

(Schedule-B)

1. Scope

The scope of work includes complete design and engineering for the water tanks, pumps, fire hydrant system, hose reel system, sprinkler system, manually operated fire alarm and automatic detection system, two ways talk back system, first aid fire extinguishers and signages as per codes and standards listed below.

2. Design Requirements

Fire protection system shall be designed and install as per the following codes and standards

- NBC, 2016: National building code, part IV
- IS 2189:1999: Installation & maintenance of fire detection and alarm System
- 2002: Design and installation of fixed automatic sprinkler fire extinguishing system
- IS 13039:1991: Yard hydrant system
- IS 3844:1989: Internal hydrant system
- IS 1239 / IS 3589: Specification for MS Pipes
- IS 5290:1993: Specifications for hydrant landing valves
- IS 15683:2006: ABC powder type extinguishers
- IS 9457:1980: Safety colours and safety signs
- IS 12349:1988: Fire protection – safety sign and Local fire authority requirements

Appendix B XI – GRIHA

(Schedule-B)

1. **Scope**

The objective of the Contractor is to help the Employer meet all sustainability goals set for the project. The Contractor shall also help the Employer secure GRIHA-3 star rating for this project.

2. **Design Requirements**

- The Contractor shall facilitate complete green-building certification process for the project.
- The Contractor shall assess all available building data to understand and maintain current design goals and strategies for detail design and construction. All available building information shall be made available to the Contractor for the same. In case the information is not available, the Contractor shall make suitable assumptions and cross check with the Employer.
- The project shall be registered with GRIHA for Green building certification and is aspiring for 5 star rating under GRIHA. To achieve 5 star certification the project has to follow certain best engineering practices and select materials that are compliant with the GRIHA rating system. Hence the following roles and responsibilities have been identified for the Contractors to ensure that the project achieves this target.
- In addition, the Contractor will appoint a suitable Contractor/consultant for the documentation and submission of documents to GRIHA for approval.

3. **Associated Works**

- The appointed consultant shall be responsible for the certification of the building as GRIHA 5 star certification of building.
- All associated works like collection of Information, assessment and documentation of information, final submission and weekly reporting to the Employer on the progress is included.

Appendix B XII – Road Works

(Schedule-B)

1. Scope

The scope of proposed road works includes development of internal roads/driveways, pathways and parking areas within TUDA building site. The Contractor shall carry out, and be responsible for, the design and execution of the roads works, including any site surveys, subsoil investigations, materials procurement and testing, and all other things necessary for proper planning, design and construction.

2. Design Requirements

- Contractor shall undertake the Site Topographic Survey and Geotechnical Investigations as deemed necessary.
- Contractor shall give proposed finished road levels (FRLs) / finished ground levels (FGLs) in due relation with accessibility to various buildings or developed areas and proper drainage of overall site including Site Grading.
- Contractor shall do Structural Design of all retaining structures, culverts, etc. based on approved Civil Structural Design Criteria.
- For all structural designs and drawings the Contractor must get the proof check done by accredited agencies at his own cost before submitting for the approval of the Employer.
- Contractor shall prepare and submit General Arrangement (GA) Drawings, Construction Drawings, Site Layouts, etc., necessary for execution.
- Contractor shall coordinate with other design / implementing agencies related to building works, site infrastructure utility works, i.e. water, sewerage, electricity, telecommunication lines, etc. for road design and proper execution. All proposed underground utilities shall be executed first before road finishing works to avoid any reworks.
- The construction works shall include but not limited to Soil stabilization or other measures to be implemented to improve soil subgrade strength as per design intent.

Appendix B XIII – Storm Water Drainage Network

(Schedule-B)

1. Scope

- The Scope of Work for proposed storm water drainage system under this contract includes but is not limited to the following in relation to the design, supply, construction, testing and commissioning of storm water drainage system of the Works.
- Storm water collection and disposal system.
- Excavation, dewatering, ramming, refilling, and disposal of surplus excavated soil for pipe / box trench.
- Construction of all type inspection chambers.
- Supply, laying jointing, testing and commissioning of RCC NP-3 pipe/ precast RCC rectangular drains with all section sizes as indicated in the layout plan of storm water drainage system.
- Hydraulic Testing and commissioning of the entire work.

Appendix B XIII – Sewage Treatment Plant (Package STP)

(Schedule-B)

1. Scope

Development of the Art District shall include design and construction of the following as described in this Schedule-B and in Schedule-C.

This bid is for the design, engineering, manufacture, supply, installation, testing and commissioning and operation of package STP system excluding the Civil Work execution in line with the details given in this document.

Contractor to design the actual capacity based on the population in Appendix B1 and as required for the project.

The scope of work includes all mechanical and bought-out equipment, piping, electrical and instrumentation work. The turnkey supplier shall provide all the drawings and details as required for the Consultant to carry out civil design and for a separate civil Contractor engaged by the Client at site to carry out the civil work for the STP. Turnkey supplier has to consider visits to site at key stages for guiding the civil Contractor, if required, to ascertain that work is carried out as per the drawing requirements.

2. Design Requirements

The Sewage Treatment Plant (STP) will be designed based on the various details mentioned in i.e. Basis of design. The sewage treatment plant will be suitable for semi-automatic operation, wherein starting/tripping/ of all the pumps will be controlled by level sensors provided in the tank. Pumps will start once water level reaches desired high level and will stop once water level in the tank lowers down to desired low level. Filter backwash operations will be semi-automatic. All other operations including chemical dosing and sludge draw off will be suitable for semiautomatic operation. Various details of sewage treatment plant will be as mentioned below.

Appendix B XIV – Solid Waste Management

(Schedule-B)

1. Scope

The scope of works is to ensure that the entire solid waste generated in the Arts District building is treated and managed. It includes collection and segregation of waste at source using colour coded bins under hygienic conditions and then treating it using organic waste composter including disposal of recyclable and inert.

2. Collection and Segregation of Solid Waste

- 100% collection of solid waste from all facilities.
- Segregation of waste at source.
- Separate wet and dry waste collection system.
- Collection at pre-informed time (two times a day) from all waste generation source.
- Provision of three colour coded bins (wet, dry and recyclables) for waste collection from common areas.

3. Treatment of Biodegradable waste using Organic Waste Composter

- Design, construction, supplying, erection, testing and commissioning of Organic Waste Composter (OWC).
- The capacity of the OWC is approx. 250 kg capacity. However Bidder to design the actual capacity as required for the project.
- Demolishing the existing structures, if any, on the site.
- Supply, erection testing & commissioning of the mechanical and Electrical & Instrumentation equipment
- Providing walkways and platforms of minimum 1.2 m width as access.

4. Disposal of Recyclables and Inert

- The recyclables like paper, plastic and metal to be stored in the utility area for a maximum duration of 15 days and then be sold to authorised vendors for handling recyclables.
- The inert to be stored in utility waste handling area and will be sent to the nearest authorised municipal solid waste landfill site.
- Any hazardous waste generated from the complex like used DG oil; old batteries etc. to be handed over to SPCB authorized hazardous waste handling vendors.

5. System Requirements

Design, construction, supply, erection, testing and commissioning of approx. 250 Kg capacity. Composter with walkway and platform 1.2 m wide.

6. Associated Works

- Preparation of process, electrical and mechanical component design.
- Integration with other civil, mechanical, and electrical, integration with proposed architectural, construction of the main structure.
- Associated civil, electrical and other services works.
- Demolishing the existing structures, if any, on the site.
- Construction of civil engineering works for the platform.
- Supply of all spares required during performance run and during 36 months of O & M period.
- The recyclables like paper, plastic and metal to be stored in the utility area for a maximum duration of 15 days and then be sold to authorised vendors for handling recyclables.
- The inert to be stored in utility waste handling area and will be sent to the nearest authorised municipal solid waste landfill site.
- Any hazardous waste generated from the complex like used DG oil; old batteries etc. to be handed over to SPCB authorized hazardous waste handling vendors.

- The compost from the treatment of organic waste should be used for landscaping in the TUDA Complex.

Appendix B XV – Integrated Building Management System (IBMS)/ Building Automation System (BAS)

(Schedule-B)

1. Introduction

An Integrated Building Management System (IBMS) or a more recent terminology Building Automation System (BAS) is a computer-based control system installed in buildings that controls and monitors the building's mechanical and electrical equipment such as Plumbing, Heating, Ventilation, Lighting, Power System, Lifts/ Elevators, Fire Alarm & Detection Systems, including the security systems like; Public Address System, Access Control, CCTV Surveillance & Intrusion systems.

2. Scope

The System provider shall furnish and install a fully integrated Building Management System (BMS), incorporating distributed control techniques and standard open communication networks. The system shall be implemented as an integrated, open solution, which enables Service Center connectivity through standard Building Operating System (BOS) interface.

The integrated systems shall include controls and monitoring of the whole building (BMS and Security) and common areas wherever applicable.

Integrated Building Management System shall include the control and monitoring of the following subsystems:

- Building automation (cooling/heating control, ventilation control, pumps, etc.).
- Lighting control of common areas.
- Access control system for common areas.
- CCTV Video monitoring system for common areas.
- Fire Detection & Alarm system for common areas.
- Elevator Control.
- Pump Control.
- Back-up power / UPS Control.
- Water consumption metering.
- Electricity consumption metering.
- Cooling energy consumption metering.

3. System Requirements

The IBMS shall consist of software and hardware; the software program configured in a hierarchical manner that integrates the various subsystems.

System integration shall enable significantly lower energy consumption, real-time control and monitoring, and dynamic graphics according to needs. System integration shall create better environmental air quality, radically improved energy performance and increased water efficiency, according to requirements of GRIHA and other Green Building standard and initiatives.

System integration shall also allow for efficient system maintenance and full-scale service provisioning with radically lower cost and better quality services. Easy access to building systems shall ensure that everything is in perfect condition and functions in the optimal way at all times. Should anything disturbing happen, immediate response shall be available. Integration shall facilitate undisturbed conditions in the building and sustainable development through minimized energy consumption, first-class security and significantly lower life cycle costs.

4. System Architecture / Specifications

The system shall be implemented as an integrated, open solution, which enables Service Center connectivity through standard Building Operating System (BOS) interface.

The System Architecture shall consist of four levels:

- Service Level.
- Management Level.
- Control Level.
- Field Level.

The system shall be completely modular in structure and freely expandable at any stage. Each level of the system shall operate independently of the next level up as specified in the system architecture. For example, Control Level shall operate independently without support from Management Level. The system shall be fully consistent with the latest industry standards.

To enable efficient functional system integration and to provide maximum flexibility and to respond to changes in the building use, the system offered shall support the use of LonWorks, Modbus, M-bus, Ethernet TCP/IP and Internet communication technologies.

- a. **Service Level** shall allow the systems to be connected without additional software to one or several Service Center(s), for providing centralized remote monitoring, alarm and fault detection of connected building management and security systems.
- b. **Management Level** shall provide a uniform view to all systems through the open Building Operating System (BOS) platform. All the systems - controls of cooling, ventilation and lighting, consumption measurements, access controls, fire alarms and CCTV systems - shall be integrated with the BOS using device drivers.
- c. **Control Level** shall consist of a distributed network of smart controllers, which communicate to each other subsystems using compatible interfaces. Connectivity towards Management Level shall utilize standard TCP/IP protocol.
- d. **Field Level** shall consist of sensors and devices with industry standard interfaces. Systems shall be accessed through the Building Operating System (BOS). System must have two main user interface types – professional user interface and occupant user interface.
- e. **Professional User Interface:**
The system shall enable a client-based User Interface for professional usage and for central monitoring of systems (Service Center usage). The professional User Interface shall allow for at least the following:
 - Alarm monitoring and alarm handling by multiple operators.
 - Intruder alarms.
 - Fire alarms.
 - Alarms from electrical and mechanical systems.
 - System maintenance alarms.
 - Video monitoring.
 - Remote diagnostics, energy optimization and trending.
 - Set-point adjustment.
 - Control optimization.
 - Peak load management.
 - Trending.
 - Remote diagnostics of system/devices.
 - Preventive maintenance.
 - Consumption reports for energy management and billing.
 - Logs and reporting.
 - User profile and role management.
 - Access rights management.

The professional User Interface shall be implemented as a client application, which includes an automatically adapting tree structure of the building, building's parts, individual spaces, different systems and parts of systems. The tree structure can be used for navigation through

the system.

All subsystems connected to Building Operating System can be accessed through the same graphical User Interface. The client software can be installed to unlimited number of remote computers or laptops. The client software shall allow for remote Internet usage of several sites using the same client.

The professional User Interface shall show system views, floor plan views, trend view, alarm view and event log view per building and system layer. Any alarm shall be shown in red color in both graphical views and tree structure. Each alarm message shall include shortcut to relevant graphical system and floor plan view.

f. Occupant User Interface

The browser-based occupant User Interface shall be generated automatically using the structure of the building defined in the Building Information Model. The browser-based User Interface shall utilise latest web technologies, such as AJAX. The user interfaces shall provide easy access to frequently needed functionality, such as lighting controls, temperature set point modifications, alarms, and configuration of scenes and modes of the space. The same user interface functionality shall be usable through any device with a browser.

The browser-based occupant User Interface shall allow for at least the following actions:

- Changing the mode of the space.
- Modifying the mode settings of the controlled devices.
- Changing the set-points.
- Modifying the control settings (e.g. dimming level).
- Manual controls.
- Door controls.
- Camera views.
- Alarm list browsing.

Appendix B XVI – Interior Works

1. Introduction

The Arts District building complex is as stated indicative in Scope at Volume 2 (a).

1.1 Doors:

Hollow metal sheet door as per IS 1038 frame made out of 1.2 mm thick GI sheet with 100x57 box section, fitted with a shutter made out of 2 no's of 0.8 mm thick GI sheet of 46mm box section filled with Kraft paper honeycomb as infill epoxy powder coating. Or any other equivalent door system approved by the concerned government authorities.

1.2 Windows:

Un-Plasticized Poly Vinyl Chloride (UPVC) openable doors with openable shutters duly manufactured using UPVC reinforced profiles of 60 mm x 55 mm x 2.0 mm for outer frames, 70 mm x 60 mm x 2.25 mm for mullion sections as per the need and 102 mm x 60 mm x 2.0 mm for openable shutter frame capable of mounting single glazing system structurally reinforced with hot dip galvanized up to 50 microns of minimum thickness of 1.2 mm prefabricated & welded through fusion welding the window sash shall be fitted with 5 mm thick clear float glass of reputed make duly fixed with TPV Gaskets/ EPDM weathering seal resistant and accessories for openable door - hinges of stainless steel grade 304- 3 Nos., per shutter handle with Mazak alloy casting 1 No. per shutter, locking system suitably concealed 1 No., with raiser wedges for smooth operation and the system is to be installed at the site using anchor fasteners, silicon rubber sealant, easy glazing/ deglazing at site etc or equivalent.

Aluminum anodized casement windows - Aluminum Casement windows/doors in approved colour powder coated/wood finished/anodized with minimum 60/70/15 microns thickness respectively made out of Hindalco Extruded profiles, Special accessories & hardware, complete as per design, details and specification as given in the drawing, Sealing of joints with weather silicone sealant, all of approved make & complete as directed. Outer frame section no.7789 (49.4X41mm), Intermediate mullion section no 7812 (71.4 x 40.50 mm), Internal/External Shutter section 7811 (73X50 mm) with clip suitable for glass panel thickness up to 21mm. All corner joints are mitre cut joints assembled using die cast /extruded aluminum corner joints fixed with external buttons, alignment corner joints for rapid and secure joint assembly, no screwing of corner joints are allowed. All mullion and transom joints are with spring loaded die cast Cross connector, Handle. Locking & Hinges, single point or multi point according to the weight of the shutter with glass to be provided. Make hindalco or equivalent.

1.3 Flooring:

For public circulation spaces vitrified non-skid full body tiles of premium quality, internal spaces with polished full body vitrified tiles of premium quality, Granite leather finish for staircase, wall cladding with marble/granite for reception and lift lobbies, engineered waterproof wooden flooring for meeting halls and chamber and false flooring for conduits running in Art District Building. (approved and selected by concerned government authorities).

High Pressure Laminate:

The superior GLE technology weather proof laminates. The sheet Cladding Comprises of 6mm thick flat panel to backup frame work comprising of 75mm x 25mm x 1.5mm, 50mm x 25mm x 1.5 mm powder coated to a required shade aluminum 'BOX' Pipe enclosed to the walls using bolts. All panels will be fixed with Colour Rivets to aluminum backup frame. The system will be open joint system and there will be 6mm to 8mm open spacing between each Panels.

1.4 Glazing:

Curtain wall systems are non-structural cladding systems for the external walls of buildings. They are generally associated with large, buildings. Curtains separate the interior from the exterior, but only support their own weight and the loads imposed on them (such as wind loads, seismic loads, and so on) which they transfer back to the primary structure of the building. This is in contrast to many forms of traditional construction in which the external walls are a fundamental part of the primary structure of the building.

Typically curtain wall systems comprise a lightweight aluminum frame onto which glazed or opaque infill panels can be fixed. These infill panels are often described as 'glazing' whether or not they are made of glass.

A glass mullion system is a type of glazing system that can be used to construct vertical glass curtain, canopies, skylights, and so on, allowing large areas of glazing to be created whilst maintaining a high level of transparency. It is formed by sheets of tempered glass held in position by clamps and joined to the glazing by a structural silicone sealant or by metal patch plates. The glass mullions are typically suspended from the head structure above and can span distances of more than 20 m or more, transferring wind, snow and self-weight loading back to the primary structure.

1.5 Ceiling

Horizontal level 600 mm x 600 mm 15/16 mm thick Arm strong false ceiling system manufactured by M/s Arm strong world Industries using hot dipped Galvanized Steel section exposed surface with pre-coated capping, main Tee of size 24 x 32 mm at every 1200 mm c/c maximum and rotary stitched cross tee of size 24 x 27 mm at every 600 mm c/c and sub-cross tee of size 24 mm x 25 mm at 1200 mm c/c and wall angle of size 19 x 19 mm fixed to periphery of the wall and the above grid is suspended at every 1200 mm c/c in both directions using 2.0 mm thick pre-straightened GI Wire laying fine fissured butt edge ceiling tiles of 15 mm thick mineral fibre Board manufactured by M/s Arm Strong World Industries Ltd., having RH 99% and for finished of size 600 x 600 mm or any other equivalent approved and selected by concerned government authorities

1.6 Toilets

Modular toilet cubical of 25mm thick waterproof boards with stainless steel hardware. Provision for Wall hung EWC, counter top wash basins, press and close faucets, exhaust inbuilt windows.

Plumbing fixture -

- **EWC** wall hung of approved standard make with p or s trap with dual flush with all internal parts of make jaquar or equivalent.
- **Counter top wash basin/counter sunk wash basin** to be fixed on granite counter with under storage of jaquar or equivalent make.
- **Plumbing piping fixtures** all fixtures of standard material of government approved make to be used as per the SSR AP specification.
- **Faucets, traps, pillar taps, and sanitary fixtures** standard approved make as per SSR AP.

2. Furniture (Executive Tables, Work Stations, Meeting Tables, Side Tables, Cots)

Manufacture of executive tables, work stations, meeting tables, side table, cots Using 18/36mm thickness plywood of BWP 710 (Wingor) or Equivalent make as per the design of the furniture, finished with 1 mm thick colour laminates Externally and Internally finish using Greenlam or equivalent make laminates. Using all S.S Hardware. (shades and hardware approved By Commissioner) Edge band make: Rehau, Hardware make : Hettich, Ebco OR Equivalent make furniture approved by concerned authorities.

2.1 CHAIRS

Revolving chair Manufacture of chair made of mesh & Fabrics material, seat with plastic inner board and outer shell, black plastic frame, gas lift height adjusts made by MDI, Chromed steel base, Twin wheel 65mm

nylon caters, Height adjustment, forward & back ward & pivot for PU pads Armrest, Height adjustment, angle lock for back slide mechanism mechanism, Forward, backward & Height adjustment and chair hierarchy to be maintained as per the existing HR pattern. For visitors ss mesh sledge-based chairs with to be provided Make: Featherlight or Equivalent make approved by concerned authorities.

2.2 PARTITIONS

Wooden partitions made out of made of seccolor pre painted steel (base steel as per IS 513 of 0.58 mm thick 'D' quality, galvanized as per IS 277 with Zinc of 120 GSM). Primer coated with epoxy primer of 5-7 microns thick, finish painted with a polyester paint of 12-16 microns thick alkyd backer. Section for outer frame should be 46x52mm, section for shutter should be 46x46mm, section for mullion should be 46x70mm, section for beading should be 18x25mm and section for middle and bottom rail (Lock Rail and Kick Rail) of size should be 23x130mm. The partition should be sandwiched on both sides paneled with 9mm pre-laminated particle board/ laminated ply wood with writing board and pin board of height with respect to the design with 5mm thick plain glass With Ethyl Propylene Diamine Monomer (EPDM) Gaskets or any equivalent partitions for work stations approved by the concerned government authorities.

Glass partition systems

Modular partition system of aluminum stainless steel Ral colours with panel options of aluminum, wood veneer, vinyl. The system accommodates tempered, laminated, low iron and LCD glazing, and may also be of a straight, angled or curved configuration. LCD, pivot, sliding and hinged doors may be installed. Wood and glass doors (single glazed and double glazed) are all compatible within the free-standing system. The fittings may be of an aluminum finish, standard RAL colour (Jet Black, Silver, Grey or White) or a custom RAL colour.

Double glazed frameless partition System provides the transparency of glass yet the acoustic rating of a solid wall and with integral operable blind privacy option. With an STC wall rating of 44 and a door rating of up to 41, the system is ideal for interior offices, conference rooms, meeting rooms and atriums. Optional Fire resistance rated assemblies provide up to a rating of 60 minutes. The 1"x4" aluminum track accommodates tempered, laminated, low iron and Lunar Smart Glass glazing and may be of standard or custom RAL colour. The track may also be of a straight or curved configuration. Pivot, sliding and hinged doors may be installed. Wood, steel, aluminum and glass doors (single glazed and double glazed) are all compatible within the double-glazed system.

Free Standing Partition System offers the utmost versatility in creating and customizing rooms. The system stands independently in combination with stainless steel components and toughened glass panels. The need for head fixing is not required in most applications, single point wall and floor fixings are all that are needed. The system accommodates tempered, laminated, low-iron and LCD glazing, and may also be of a straight, angled or curved configuration. LCD, pivot, sliding and hinged doors may be installed. Wood and glass doors (single glazed and double glazed) are all compatible within the free-standing system. The fittings may be of a brushed finish, standard RAL colour or a custom RAL colour.

Mullion High Wall System offers a flexible and modular separation of spaces with a contemporary look. Its design allows for the movement/reconfiguration/relocation the connection elements without making holes in the main support structure. Glass, poly-carbonate and wood are all compatible with the support components. All perimeters are fastened to solid walls.

2.3 WIRE CUT CLAY BRICKS

Wire cut clay bricks for façade treatment. Clay burnt smooth finished bricks has high cooling effect cutting of the major incoming heat to the internal spaces.

Schedule C - Project Facilities

The Contractor shall construct the Project Facilities in accordance with the provisions of this Schedule C. Such Project Facilities shall include:

1. Architectural

a) Arts District building

- Provision for allied facilities like traffic control hut, integral firefighting, lighting, wind sock to be integrated in the design..
- Finish floor to finish floor height is minimum 4.5mt height and should approved by Engineer in charge before finalising designs. Stilt floor height of minimum 3.6 mtr to be provided, if applicable.
- Facelift for compound wall around the proposed building integrating with the building architecture and provision for Screens to be provided for advertisement space and real time data projection.
- All services and utility equipment's at Terrace to be concealed in a proper space creating terrace gardening or any equivalent solution as per the design Facade Systems

b) Utility Corridor

- All services routed through an underground trench as a part of utility corridor, from utility building to each building.

2. Landscaping facilities

- OAT for 100-135 people informal seating of approx size (15.4mt x 9.25mt) with visible materials, exposed concrete, artificial glass, locally available stones as architectural features, stair riser low level indicators, optional perimeter led lights for night view and aerial viewing, should have provisions for service cabling any other equivalent options as per design.

Public covered seating space connecting the pedestrian pathways, with locally available stone as primary material for construction or any other equivalent as per the description.

Cafeteria (coffee shop) with outdoor seating and integrating with gazebos and lawns or any other equivalent as per the design.

Lawns and earth mounds with lighting ballads, strip lighting and lamp posts along the pathways.

Sculptures showcasing the Tirupati as context.

Hard scape including sit outs finished with sandstone under the trees, in the lawn, paving and flooring as per tender drawings.

3. Civil and Structural

- Earthquake preventive measures: Earthquake cannot be prevented. However, earthquake can be sustained by designing earthquake resistant structures using Indian Standards.

Disaster (flooding) resistant building design:

- Elevating as much of the building as possible above the design flood level.
- Designing the building foundation and any portions subject to flooding to withstand design flood conditions and loads.
- Using flood damage resistant materials for any portions of the building below the design flood level.
- Local inhabitants have adopted strategy to overcome problem of flooding, by a raised plinth.

4. Ancillary facilities

Ancillary facilities shall be provided in accordance with the provisions as per Schedule B& D and shall include:

- External signages like building name, entrance gate, including its illumination and Internal signages like entry, exit, toilets, office etc.

5. Electrical Power Supply

The building will be provided with permanent electrical supply, DG & UPS backup power facilities in accordance with the provisions as per Schedule B & D.

Electrical facilities shall include

- 2 x 1250 / 1500kVA, prime rated, 415V, 50Hz, DG sets with associated accessories.
- Normal and emergency light fixtures.
- Building facade lighting, gate illumination, bollards etc.

6. HVAC

The building will be provided with air conditioning, mechanical ventilation and exhaust facilities in accordance with the provisions as per Schedule B & D.

HVAC facilities shall include:

1. Air cooled chillers shall be provided as standby in terrace of building.
2. Copper piping with insulation for DX condensing units & VRV system.
3. Variable Frequency Drive (VFD) for Secondary & condenser water pumps, cooling towers and AHUs.
4. Pot strainer, air separator, automatic closed type expansion tank etc.
5. Ventilation system for complete toilets, electrical rooms of Arts District building.
6. Chilled water piping with insulation.

7. Firefighting facilities

The building will be provided with Firefighting facilities including wet risers, sprinklers, fire hydrants and portable fire extinguishers in accordance with the provisions as per Schedule D & I and requirements of the statutory authorities.

Firefighting facilities shall include:

- Underground (UG) and Terrace level water tanks for firefighting system
- Fire pumps, external and internal hydrant pumps, sprinkler pumps, jockey pumps - electric & diesel engine driven
- Piping connection between UG tanks to the suction header, pump connections, further distribution with required valves, accessories etc.
- Required electrical MCC cum instrument control panels with controls like pressure switch etc. to make the system to work automatically.
- Fire extinguishers, internal hydrants and yard hydrants.
- Piping connection between OHT to the wet riser with required valves, accessories etc.
- Internal hydrants with hose reel box, fire hoses, nozzle etc. at each level.
- Piping, valves, accessories required for the complete system.

8. Plumbing and Sanitary facilities

The building will be provided with sanitation facilities including fully functional and equipped washrooms and potable water supply in accordance with the provisions as per Schedule B & D.

Sanitary facilities shall include:

- Underground (UG) water tanks for each potable, non-potable and firefighting system in basement of utility building.
- Individual transfer pumps (working & standby) for each system (potable and non-potable) in utility building.
- Booster pumping systems with sensor are proposed for top 3 levels of each building.
- Complete sewage, waste and rain water piping.
- Complete water supply (both potable & non-potable) distribution from OHT to each level.
- Piping connection between UG tanks to the suction header, pump connections etc.
- Sanitary fixtures and fittings.
- Piping, valves, accessories required for the complete system.
- Rain water collection from roof top to reflection pool

9. GRIHA related facilities

Appropriate drawings and details to be submitted along with photographs. Following facilities are to be provided on site during / post construction.

- Dedicated covered storage for HVAC material and equipment. Storage area should be clean and dry.
- Soil erosion and sedimentation control measures.
- Waste collection and segregation area in Utility Building.

Refer to GIRHA Scope of works for detailed requirements.

10. Road and Pavement facilities

Road and Pavement facilities shall be provided in accordance with the provisions as per Schedule B & D and shall include:

- Pedestrian Facilities like waste collection bins at every 50 m.
- Street Lighting: Street lighting within Right of Way as per road plans. This work comprises of poles & fixtures, lighting cables, optical fiber cables, controllers etc. 50% solar powered and 50% LED used alternately for internal driveways and parking.

S. No.	Element	Proposed Illumination Level (Lux)
1	Cycle track and Parking area	20 lux
2	Roads	30 lux

Schedule D - Specifications and Standards

All designs, materials, works and construction operations shall conform to the Standards and Specifications given below.

Where the Contractor intends to use an alternative to these Standards/Guidelines for delivering an equal or better product, he shall be permitted to use such alternative subject to the following conditions:

He shall demonstrate that the proposed alternatives conforms to any of the following international Standards, Codes of Practice, Specifications, Guidelines, etc.

In case the Consultant intends to use any alternative material/technology/method, whether patented or otherwise, that is not specifically covered in the Indian or International Standards as listed above, but the use of which has been permitted on similar projects (similar in category of buildings) as the Building Projects, he would be permitted, its use on certification by the owners of such similar projects regarding the continued successful performance of such materials, technologies, methods, procedures or processes for at-least 5 years of the service life of the project. Such a certification shall be supported with details of critical performance parameters.

Such other reference standards published by the following that may be considered:

DIN	Deutsche Industries Norman (German Standards)
AFNOR	Association Francaise de Normalisation (French Standard Institute)
BSI	British Standard Institute
ASTM	American Society for Testing and Materials
ANSI	American National Standards Institute

The above is the list of codes included for guidance and compliance with applicable portions only and the omission of any from the list does not relieve the contractor from compliance therewith.

Latest version of the Codes, Standards, Specifications, etc., notified/published at least 60 days before the last date of bid submission shall be considered applicable.

Where the Standards and Specifications for a work are not given, Good Industry Practice shall be adopted to the satisfaction of the Employer's Engineer.

1. STRUCTURE WORKS

Standards and Specifications of following project components are given in this section;

- Structure design works should follow the latest applicable IS codes and the updates thereof.

The Structure works design shall comply with the all the specified minimum requirements of the Authorities Structures analysis , design and detailing works shall be done by the latest software's.

- The Structural design shall be vetted by a Accredited Structural Engineer approved by the Employer This approved design shall form the basis of Construction.

1.1 The relevant Indian Standard Codes, as given below, shall be followed for structural design:

Table 1: Code for structural works

Code	Description
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IS-875 (Part 1) – 1987	Code of Practice for Design Loads (other than earthquake) for buildings and structures – Unit weights of buildings materials and stored material.
IS-875 (Part 2) – 1987	Code of Practice for Design Loads (other than earthquake) for buildings and structures – Imposed loads.
IS-875 (Part 3) – 1987	Code of Practice for Design Loads (other than earthquake) for buildings and structures – Wind loads.
IS-875 (Part 4) – 1987	Code of Practice for Design Loads (other than earthquake) for buildings and structures – Snow loads.
IS-875 (Part 5) – 1987	Code of Practice for Design Loads (other than earthquake) for buildings and structures – Special loads and load combinations.
IS: 456 – 2000	Code of Practice for Plain and Reinforced Concrete.
IS: 1786 - 1985	Specification for High Strength Deformed Bars and Wires for Concrete Reinforcement
IS: 432 (Part 2) - 1982	Specification for Mild Steel and Medium Tensile Steel Bars and Hard Drawn Steel Wire for Concrete Reinforcement – Hard Drawn Steel Wire.
IS: 1343 – 1980	Code of Practice for Prestressed Concrete
IS: 13920 - 1993	Ductile detailing of reinforced concrete structures subjected to seismic forces - Code of practice
IS: 14268 - 1995	Uncoated Stress Relieved low relaxation seven-ply strand for Pre stressed Concrete – Specification
IS: 2062 – 1999	Steel for General Structural Purposes. Specification.
IS: 1161 – 1998	Specification for Steel tubes for Structural Purposes.
IS: 800 – 1984	Code of Practice for General Construction in Steel.
IS: 1893 – 2002	Criteria for Earthquake resistant design of structures.
IS: 2210 – 1998	Criteria for Design of Reinforced Concrete structures and Folded plates.
IS : 269 – 1989	Specification for Ordinary, rapid hardening and low heat Portland cement.
IS : 455 - 1989	Specification for Portland blast furnace slag cement.
IS : 1489 -1991	Specification for Portland pozzolana cement
IS : 383 - 1970	Specification for coarse and fine aggregates from natural sources for concrete.
IS : 516 -1959	Method of test for strength of concrete.
IS : 432 -1982	Specification for mild steel and medium tensile steel bars and hard drawn steel wire for concrete reinforcement.
IS : 4990 -1993	Specification for plywood for concrete shuttering works
IS : 2645 -1975	Specification for integral cement water proofing compounds.

- Deviations – The Followings deviations from the Table above to be applicable.
- Table 2 indicates the Loads to be considered for the design of the Structure.

TABLE No – 2

Loading Area	Load Intensity (KN/m ²)
Inaccessible Roof	0.75
Accessible Roof	1.50
For Sloping Roof with slope greater than 10 degrees (if applicable)	0.75 kN/m ² less 0.02 kN/m ² for every degree increase in slope over 10 degrees, subject to a minimum of 0.40 kN/m ²
Terrace Roof Slab (with landscape)	3.00
Terrace Roof Slab (without landscape)	3.00
Office Floor Slab (BPO / IT - typical)	4.00
Balconies, Corridors, passages, lobbies and staircases including fire escapes – as per the floor serviced (excluding stores)	4.00
Storage Area	5.00
Pantry	3.00
Kitchen	3.00
Cafeteria	4.00
Toilets	2.00
Electrical room (H T/ LT Panel room)	5.00
AHU / HUB	5.00
Mechanical room	5.00
UPS rooms/Transformer/Battery room	10.00
Data Center/Server	12.50
Training	5.00
Library	5.00
Lobby	5.00
Activity Center/Meditation/Yoga	5.00
Gymnasium	7.00
Administration room	5.00
Auditorium (without fixed seating)	5.00
Pump house	5.00

Loading Area	Load Intensity (KN/m ²)
Control Panel	10.00
Compactor storage areas	10.00
Chiller room	18.00
DG room	20.00
Parking/ Ramp	5.00
Landscape/ Lawn	5.00

The surcharge loading for retaining walls shall be minimum of 10.0 kN/m².

2. ARCHITECTURE & FINIHING WORKS

- The Codes, Standards and Technical Specifications applicable for the design and construction of project components are:
- The following list is included for guidance only and the omission from the list does not relieve the contractor from compliance there with:

Table 3: Codes for Architectural and Finishes

Code	Description
IS 1200	Mode of measurement.
IS 269	Ordinary portland cement.
IS 3812, 1981	Flyash for use as pozzolana and admixtures,
IS 2386	Method of test for aggregate for concrete.
IS 516	Method of test for strength of concrete
	Coarse and fine aggregate from natural sources for concrete.
IS 1077, 1970	Method of test for Bricks.
IS 456	Code of practice for plain and reinforced concrete.
IS 1597	Code of practice for construction of stone masonry.
IS 1597 PART 1	Code of practice for construction of rubble stone masonry.
IS 1130	Marble (blocks, slabs and tiles)
IS 287	Recommendation for maximum permissible moisture contents of Timber used for different purposes.
IS 1141	Code of practice for seasoning of timber.
IS 6313 PART 2	Anti-termite measures in buildings, pre-constructional chemical treatment measures.
IS 2571	Code of practice for laying in situ cement concrete flooring
IS : 226	Structural Steel (Standard Quality)
IS : 451	Technical Supply Conditions for Wood Screws
IS : 800	Code of Practice for Use of Structural Steel in General Building Construction
IS : 806	Code of Practice for Use of Steel Tubes in General Building Construction
IS : 813	Scheme of Symbols for Welding
IS : 814	Covered Electrodes for Metal Arc Welding of (part I & II) Structural Steel
IS : 816	Code of Practice for Use of Metal Arc Welding for General Construction in Mild Steel
IS : 822	Code of Practice for Inspection of Welds
IS : 961	Structural Steel (High Tensile)

Code	Description
IS 73	Paving bitumen.
IS 702	Industrial Bitumen
IS 1322	Bitumen felts for waterproofing and damp proofing.
IS 1609	Code of practice for laying damp proof treatment using bitumen felts.
IS 13711 & 13712	Ceramic tiles
IS 13630 Part 1 to 13	Testing for Ceramic tiles
IS 104	Specification for ready mixed painted, brushing, zinc chrome, priming.
IS 137	Ready mixed paint, brushing, matt or eggshell flat, finishing, interior to Ind standard colour as required.
IS 5410	Cement paint, colour as required.
IS 6241	Method of test for determination of stripping value of road aggregate.
IS 2720	Density test of aggregate.

3. ELECTRICAL WORKS

Standards and Specifications for the Design and Construction of Electrical works are given in this section;

3.1 BACKGROUND

The contractor shall comply with all the minimum requirements of the Design and Construction of Electrical works as per the Latest Standards, Statutory requirements, National Building codes and all other relevant regulations

3.2 CODES AND STANDARDS

The system, design, materials, equipment, installation, testing and commissioning shall, in addition to all other applicable codes and standards, comply with the latest requirements of the following standards, codes, principles and specifications issued by Indian standards or IEC codes :-

Table 4: Codes for Electrical Works

Codes	Description
IS 335	Insulating oil
IS 2026	Power transformers (part I - V)
IS 10028	Code of practice for selection, installation and maintenance of transformers
IS 2099	Bushing for alternating voltages above 1000 V
IS 4257	Porcelain bushings for transformers
IS 3639	Power transformer fittings and accessories
IS 2705	Current transformers
IS 8468	On load tap changer
IS 8478	Application guide for tap changers
IS 6600	Guide of loading of oil immersed transformer
IEC 2544	Creepage distance for insulators & bushing congenial
IEC 76	Power transformers
IEC 214	On load tap changers
IEC 616	Terminal and tapping markings for power transformers
IEC 551	Determination of transformer and reactor sound levels.
IEC 137	Bushings for alternative voltage above 1000V.
IEC 354	Loading guide for oil immersed transformer
IS: 3043	Code of practice for earthing.
IEEE: 32	Neutral Grounding Devices, standard requirements, Terminology & procedure.
IS 1271	Classification of Insulating Materials.
IS 2099	Bushing for alternating voltages above 1000 V
IS 2705	Current transformers

Codes	Description
IS 3202	Code of practice for climate proofing
IS 3639	Power transformer fittings and accessories
IS 4257	Porcelain bushings for transformers
IS 11171	Dry type Transformer
IS 8478	Application guide for tap changers
IS10028	Code of practice for selection, installation and maintenance of Transformers
IS 1248 & 3107	Direct acting Electrical indicating instruments
IS 2099	Bushings for alternating voltages above 1000V
IS 2516	AC Circuit Breakers
IS 2705	Current Transformers
IS 3156	Voltage Transformers.
IS 3427	Metal enclosed switchgear and control gear for voltages Above 1000V but not exceeding 11000 V
IS 6875	Control switches for voltages up to and Including 1000V AC and 1200 V DC
IEC 56	HV alternating current circuit breakers.
IEC 137	Bushings for alternating voltages above 1000V
IEC 298	AC metal enclosed switchgear and control gear for rated voltages above 1kV and up to and including 72.5 kV.
IS 2147	Degree of protection for enclosure
IS 3842	Specification for electrical relays for AC system
IS 2208	Specification for HRC cartridge fuse links up to 650 Volts.
IS 5082	Wrought Al. And aluminum alloys, bars, rods, tube and Sections for electrical purposes.
IEC 694	Common clauses for high voltage switchgear and control gear standards.s
IS 1248 & 3107	Direct acting Electrical indicating instruments
IS 2959	AC contactors up to 1000V
IS 13947	AC Circuit Breakers
IS 2705	Current Transformers
IS 3156 & 4146	Potential Transformers.
IS 4047	Specification for air break switches and combination fuse switch units for voltage not exceeding 1000V.
IS 6875	Control switches for voltages upto and including 1000V AC and 1200V DC.
IS 1822	Motor duty Switches

Codes	Description
IS 12021	Specification for control transformer.
IS 8623	Factory built assembly of switchgear & control gear for voltage not exceeding 1000V
IS 13947 (Part I)	Degree of protection for enclosure
IS 3842	Specification for electrical relays for AC system
IS 2208 & 9224	Specification for HRC fuses.
IS 5082	Wrought Al. and aluminum alloys, bars, rods, tube and sections for electrical purposes.
IS 4237	General requirement for switchgear & control gear for voltage not exceeding 1000V.
IS 3231	Electrical relays for power system protection
IS 375	Marking and arrangement for switchgear bus bars, main connection and control aux. wiring.
IS 5578	Guide for marking of insulated conductors.
IS 3618	Pre-treatment of MS sheets for phosphatising.
IS: 4722	Specification for rotating machinery
BS: 649	Performance and testing of diesel engines for general purposes.
IS 4729	Measurement and evaluation of vibration of rotating electrical machines.
IS 1950 (1962)	Code of Practice for Sound insulation of Non Industrial Buildings.
IS 8084-1976	Interconnecting bus bars for AC voltages above 1kV
IS 8623 (part-2)	Factory built assemblies-particular requirements of bus bar trunking systems.
IEC 439 (part-2)	Particular requirements of bus bar trunking systems
IS 13925	Shunt capacitors for power system
IS 3231	Electrical relays for power system Protection
IS 2705	Current Transformers
IS 1248	Direct acting electrical indicating instruments
IS 2147	Degree of protection
IS 5578	Marking & arrangement of switchgear, bus bars, main connection and auxiliary wiring
IS: 1554 (PART-I)-	PVC insulated (heavy duty) electric cables working voltage up to and including 1100V
IS: 7098 (PART-II)	Cross-linked polyethylene insulated PVC sheathed cables for working voltages from 3.3 kV up to and including 33 kV
IS: 8130	Conductors for insulated electric cables and flexible cords.
IS: 5831	PVC insulation and sheath of electric cables.
IS:3975	Mild steel wires, strips and tapes for armoring of cables.

Codes	Description
IS:2633	Methods of testing weight, thickness and uniformity Of coating on hot dipped galvanized articles.
IS: 209	Specification of zinc.
IS: 3961(PART-II)	Recommended current ratings for PVC insulated And PVC sheathed heavy duty cables.
IS: 10418	Wooden drums for electric cables.
IEC: 540 & 540A	Test methods for insulation and sheaths of electric cables and cords.
IS: 10462 (PART I)	Fictitious calculation method for determination of dimensions of protective coverings of electrometric and thermoplastic insulated cables.
IS: 10810 (PART 58)	Oxygen Index test
IEC 146	Semiconductor Converters
IEC 1131-2	Programmable Controllers
IEC Publication 947, 1988	
IEC Publication 439, 1985	
IS 13947, 1993	Specifications of Low Voltage Switchgear & Control Gear
IS 8623, 1993	Specifications of Low Voltage Switchgear & Control Gear assemblies.
Indian Electricity Act, 1910	
Indian Electricity Rules, 1956	
National Electrical Code 1985	
EN50081-1	EMI Emissions standard
EN50082-1	EMI Immunity standard
Electrical safety	EC730-1and CE directives effective from 1 January 1996.
IEC 146-4	Method of specifying the performance and test requirements
IEC 146-5	Switches for UPS
IEC 439	Low Voltage switch gear and control gear assemblies
IEC 801	Electromagnetic compatibility for industrial process Measurement
IEC 950	Safety of IT equipments including electrical business equipments
1000-2-2	Electromagnetic compatibility – Compatible levels for low frequency conducted disturbances and signaling in public low voltage power supply systems
1000-4	Electromagnetic compatibility – Testing & measurement techniques
IS 3043	Code of practice's for earthing in Electrical installation.
IEEE 1100	Recommended practice for powering and grounding of sensitive Electronic equipment.

4. HVAC WORKS

Design Parameters

- Water cooled chillers:

Chilled water entering temperature at chiller-	54 Deg F (12.22 Deg C)
Chilled water leaving temperature at chiller-	44 Deg F (6.67 Deg C)
Fouling factor for chiller in FPS unit -	0.0005
Condenser water entering temperature at chiller-	88.6 Deg F (31.45 Deg C)
Condenser water leaving temperature at chiller -	98.6 Deg F (37 Deg C)
Fouling factor for chiller in FPS unit -	0.001
Refrigerant (HCFC free) -	HFC134a
Max. IKW/TR at design conditions (100% load)-	0.64
Min. COP at ARI conditions (100% load)-	6.0
Min. IPLV -	6.5

Air cooled chillers:

Chilled water entering temperature at chiller-	54 Deg F (12.22 Deg C)
Chilled water leaving temperature at chiller-	44 Deg F (6.67 Deg C)
Fouling factor for chiller in FPS unit -	0.0005
Refrigerant (HCFC free) -	HFC134a
Max. IKW/TR at design conditions (100% load)-	1.3
Min. COP at ARI conditions (100% load)-	3.1
Min. IPLV -	3.45

Air Handling Units (AHU):

Maximum face velocity across pre-filters-	500 fpm
Maximum face velocity across MERV-13-	500 fpm
Maximum face velocity across cooling coils-	500 fpm
Maximum fan outlet velocity -	1800 fpm
Maximum fan speed	
Impeller dia above 450mm -	900 rpm
Impeller dia 450mm and below -	1500 rpm

Air Distribution System:

- Maximum flow velocity in AC ducts - 1500 fpm
- Maximum flow velocity in ventilation ducts - 1500 to 2200 fpm
- Maximum friction in AC & ventilation ducts - 0.1 inches per 100 feet

Piping shall be sized for the following design parameters:

- Maximum velocity
 - 1.2 m/Sec (4 fps) for piping 50 mm & under
 - 2.5 m/Sec (8.2 fps) for piping over 50 MM dia
- Maximum friction
 - 15 k Pa per 30 M Run (5 ft per 100 ft Run)

CODES AND STANDARDS

The system, design, materials, equipment and installation shall comply with all other applicable codes & standards and issued by:-

Table 5: Codes for HVAC Works:

Codes	Description
	National Building Code 2005
	Energy Conservation Building Code 2008
ASHRAE 90.1-2009	ANSI/ ASHRAE/ IESNA standard 90.1-2009: Energy standard for buildings except low rise residential buildings.
	AMCA : Air Movement and Control Association
	ARI - American Refrigeration Institute
AHRI 410-2001 with Addenda 1, 2 and 3	Forced-Circulation Air-Cooling and Air-Heating Coils
ANSI/AHRI 430-2009	Central Station Air Handling Units
ANSI/AHRI 440-2008	Performance Rating of Room Fan-Coils
AHRI 550	Standard for centrifugal or rotary screw water chilling packages.
AHRI 575	Standard for method of measuring machinery sound within equipment room.
ASME: Section VIII Div.1	Code for Unfired Pressure Vessels Section VIII (Design; construction, testing and certification of pressure vessels) with 'U' stamping
ANSI B31.5	Code for Refrigeration piping
ASME B31.1	Code for Process piping
	Cooling Technology Institute, CTI
ATC-105-00	Acceptance Test Code for Water-cooling Towers (CTI Std-103 Code Tower Standard Specifications).
ATC-201-96	Standard for Certification of Water Cooling Tower Performance (CTI Code Tower Standard Specifications).

Codes	Description
ISO 2858, 5199	Specifications for pumps
ASHRAE 52.1-1992	Air Filters
ASHRAE 62-1-2007	Indoor Air Quality
	Duct Fabrication as per SMACNA
IS : 277 – 1977	GI Sheets
IS : 737	Aluminum Sheets
IS : 325	Three-phase induction motors
IS : 659	Safety code for air conditioning,
IS : 660	Safety code for mechanical refrigeration
IS : 4671	Expanded polystyrene for thermal insulation purposes
IS : 4894	Centrifugal Fans
IS : 1239 & IS 3589	Pipe & Pipe Fitting
	Fire Damper UL555, CBRI approved
IS : 659 – 1964 (Reaffirmed 1991)	Air conditioning (Safety Code)
IS : 660 – 1963 (Reaffirmed 1991)	Mechanical Refrigeration (Safety Code)
BS : EN:779 – 1993	Filters
ASHRAE Hand Books	<p>American Society of Heating Refrigeration & Airconditioning Application 2007.</p> <p>Fundamentals 2005.</p> <p>Refrigeration 2006.</p> <p>Systems & Equipment 2008.</p> <p>ASHRAE Indoor air quality Standard 62.1-2007.</p> <p>ASHRAE 90.1-2007</p> <p>ASHRAE 55-2004</p> <p>ASHRAE 52.1 and 52.2</p>
IEC	Relevant Sections.

5. FIRE FIGHTING WORKS REQUIREMENTS

- The design shall comply with rules of the local fire service department / authorities.

The Fire Protection System design shall be based on the following codes & Standards:

Table 6: Codes for Fire Fighting Requirements

Codes/ Specifications	Description
National Building Code 2005	Part 4, Fire & Life Safety
Tariff Advisory Committee (TAC)-12th Edition-1998	Fire Protection Manual
Tariff Advisory Committee (TAC)-1998 Edition	Rules for automatic Sprinkler Installations
Tariff Advisory Committee (TAC)	Rules for Water Spray System
IS:3844-1989 (1995)	Fire Protection Manual
IS:13039:1991	Fire Protection Manual
IS 15105: 2002	Design and Installation of Fixed Automatic Sprinkler Fire Extinguishing System-Code of Practice
IS 12459: 1988	Code of Practice For Fire Safety In Cable Runs
IS 12469: 1988	Fire Fighting Pumps
IS 5120: 1977	Technical requirement for Rotodynamic Special Purpose Pumps
IS 325: 1996	Three-Phase Induction Motor
IS 3042: 2003	Specification For Single Faced Sluice Gates
IS 2190: 2010	Selection, Installation and Maintenance of First-Aid Fire Extinguishers-Code of Practice
IS 15683:2006	Potable Fire Extinguishers - Performance and Construction Specification
IS 5: 1994	Coloures for Ready Mixed Paints and Enamles (Fourth Revision)
IS 1239 (part-I): 1990	Mild Steel Tubes, Tubulars and Other Wrought Steel Fittings: Part-I Mild Steel Tubes (Fifth Revision)
IS 1239: (Part-II): 1992	Mild Steel Tubes, Tubulars and Other Wrought Steel Fittings: Part-II Mild Steel Tubulars and Other Wrought Steel Pipe Fittings (Fourth Revision)
IS 3589: 2001	Steel Pipes for Water and Sewage (168.3 to 2540 mm Outside Diameter) – Specification (Third Revision)
IS 6392: 1999	Specification for Steel Pipe Flanges (Seventh Reprint)
IS 12835: Part I: 1989	Code of practice for design and installation of fixed fire extinguishing system Part 1 Low expansion foam

IS:10221:1982	Code of Practice for Coating & Wrapping of underground Mild Steel Pipe Lines
IS: 5290:1983	Specification for Valve Landing (Second Revision)
IS:8442:1977	Specification for stand post type water monitor for fire fighting
IS:636:1988	Non-percolating flexible fire fighting delivery hose
IS:8423:1977	Specification for Controlled percolating hose for fire fighting
IS:4927:1968	Specification for unlined flax canvas hose for fire fighting (Amendment Nos. 1 & 2)
IS:903:1984	Specification for Fire Hose Delivery Couplings, Branch Pipe, Nozzles and Nozzle Spanner (Third Revision)
IS:906:1988	Specification for branch with revolving head for fire fighting purposes
IS 907: 1984	Specification for suction strainers, cylindrical type for fire fighting purposes(second revision)
IS:2871:1983	Specification for branch pipe, universal for fire fighting purposes (First revision)
IS: 884:1985	Specification for First Aid Hose Reel for fire fighting (First Revision) (Amendment No.1)
IS:940:1989	Specification for Portable Fire Extinguisher (Gas Pressure)
IS:2171:1985	Specification of Portable Fire Extinguisher, Dry Powder (Cartridge Type) (third Revision)
IS:2878:1986	Portable & Trolley Mounted CO2 type fire extinguisher (Third Revision)
IS:4947:1985	Specification for Gas Cartridges for use in fire Extinguishers-CO2 type (Second Revision) (Amendment Nos. 1 and 3)
IS:944:1979	Functional requirements for 1800 L/min. Trailer pump for Fire brigade use.(Second Revision) (Amendment No. 1)
IS:946:1977	Functional requirements for Engines for Motor Fire Engines (First Revision)
IS:947:1985	Functional requirements for towing tender for trailer fire pump for Fire brigade use (First Revision)
IS:10001, IS:10002	Diesel Engine-General Purpose
IS:13095: 1991	Butterfly valves
IS: 14846	Sluice Valves for Water Works 50-1200mm
IS: 9890	Ball Valves for General Purposes
IS 3624: 1987	Pressure and Vacuum Gauge (Second Revision)
IS 2097: 1983	Specification for foam making branch pipe (first revision)
IS: 5312	Specification for Swing Check Valve
ASME B 36.10	Welded and Seamless Wrought Steel Pipe
BS:5150	C.I. Gate Valves/ Rising Stem types PN 16
BS:5153	C.I. Reflux Valves/Check Valves (Swing Type) PN16

BS:1414	Steel Wedge Gate Valves
BS:1868	Steel Check Valves
NFPA 1	NFPA Fire Prevention Code
NFPA 10	Standard for Portable Fire Extinguishers 1998 Edition
NFPA-11	Standard for installation of Low expansion Foam system
NFPA-13	Standard for installation of Sprinkler System
NFPA-15	Standard for Water Spray fixed system for the fire protection system
NFPA-20	Standard for the Installation of Stationary Pumps for Fire Protection
NFPA-2001	Standard on clean agent fire extinguishing system
NFPA-25	Standard for the Inspection, Testing, and Maintenance of. Water-Based Fire Protection Systems
NFA-16	Standard for installation of Foam water sprinkler system or Foam water spray system
NEMA	National Electricity Manufacturers Association
IEEE	Institute of Electrical and Electronic Engineers
ISA	Instrumentation, Systems and Automation society
ANSI	American National Standards Institute
DIN	Deutsche Industries Norman
IEC	International Electrochemical Commission
VDE	Verin Deutschar Eisechnhuttenleutte
ISI	Indian Standard Institute
BS 5839	Code of practice for installation of fire alarm system
IS 2189	Code of practice for installation of automatic fire alarm system
IS:817/2008	Welded joints
UL / FM	Underwriters Laboratory / Factory Manual

6. PLUMBING WORKS SYSTEM

6.1 WATER SUPPLY SYSTEM

CODES AND STANDARDS

Unless specifically mentioned otherwise, all the applicable codes and standards published by the Bureau of Indian Standards and their subsequent revision shall govern in respect of design, workmanship, quality and properties of materials and method of testing.

The material supplied shall comply with the latest applicable Indian and / or British Standards. Other National Standards are acceptable, if they are established to be equal or superior.

Following codes and standards are made part of this specification:

Table 7: Codes for Plumbing Works

IS 10446 – 1983	Glossary of terms relating to water supply and sanitation.
IS 7558-1974	Code of practice for domestic hot water piping installations
IS 2692-1989	Specification for Ferrules For Water Services.
IS 1239	Mild steel tubular and other wrought steel pipes and fittings (Part-I)
IS 1239	Mild steel tubular and other wrought steel pipes and fittings (Part-II)
IS 779 -1978	Specifications for Water Meters - Domestic Type
IS 2104 – 1981	Specification for water meter boxes (Domestic type).
IS 2401–1973	Code of practice for selection, installation, and maintenance of domestic water meters.
IS 7413-1981	Insulation Material
IS 2065 –1983	Code of practice for Water Supply In Buildings (Second Revision)
IS 778- 1984	Specifications for copper alloy Gate, Globe And Check Valves for water supply purposes.
IS 1703 – 1977	Specification for ball valves (horizontal plunger type) including floats for water supply purposes.
IS 3004 – 1979	Specification for plug for water supply purposes.
IS 3950 – 1979	Specifications for surface boxes for sluice valves.
IS 9338 – 1984	Specification for cast iron screw-down stop valves and stop and check valves for water works.
IS 4346 – 1982	Specification for washers for use with fittings for water services.
IS 5219 – Part 1	Specification for cast copper alloy traps – Part1 1982
IS 5312 – part 1	Specification for swing check type reflux (Non-return) 1969 valve for water works purposes part 1 single door pattern
IS 13049 – 1919	Diaphragm type (plastic body) float operated valve for cold water services – specification.
IS 13114 – 1991	Forged brass gate, globe and check valves for water works purposes – specification.
IS 14399 – part 1	Hot press moulded thermosetting glass fibre reinforced & Part 1 – 1996

	polyester (GRP) resin sectional water storage tanks.
IS 310 –1965	Code of Practice for Water Supply
SP –35	Handbook of water supply and drainage (with special emphasis on plumbing)
IS 1172-1983	Code of Basic Requirement For Water Supply, Drainage & Sanitation (Third Revision)
IS 12183	Code of practice for Plumbing In Multi- Storey buildings Part I) – 1987 (Part 1 water supply)
IS 1200 - 1992	Method of Measurement Of Building And Civil Engg. Works.(Part 1 earthwork)
IS 2379 –1963	Specification of colour code for the identification of pipes.
SP 7 – 1983	National building code of India (Part IX – Plumbing services)
IS 2401 – 1973	Code of practice for selection, Installation and maintenance of domestic water meters.
IS 780-1984	Specification for Sluice valves for water works purposes (50 to 300mm size) (Sixth Revision)
	The Contractor shall comply with the water requirement, water supply lines and sewer lines as per the following manuals and Standards.
CPHEEO	Manual on water supply and treatment
CPHEEO	Manual on sewerage and sewage treatment

- All the requirements must be in accordance with the statutory / authorities requirements.

6.2 SANITARY AND SEWERAGE SYSTEMS

CODES AND STANDARDS

Unless specifically mentioned otherwise, all the applicable codes and standards published by the Bureau of Indian Standards and their subsequent revision shall govern in respect of design, workmanship, quality and properties of materials and method of testing.

Following [Table 8] are the standards and codes are made part of these specifications.

Table 8: Codes for Sanitary and Sewerage System

Codes	Description
IS 10446 – 1983	Glossary of terms relating to water supply and sanitation.
IS 11208 –1985	Guidelines for registration of Plumbers
IS 5382 – 1985	Specification for rubber sealing rings for gas mains, water mains and sewers.
SP – 35	Handbooks of water supply and drainage (with special emphasis on plumbing)
IS 1172-1983	Code of Basic Requirement For Water Supply, Drainage & Sanitation (Third Revision)
IS 1200 - 1992	Method of Measurement Of Building and Civil Engg. Works.(Part 1 earthwork)
IS 2379 –1963	Specification of colour code for the identification of pipes.

Codes	Description
SP 7 – 1983	National building code of India (Part IX – Plumbing services)
IS 1742 – 1983	Code Of Practice For Building Drainage (Second Revision)
IS 301 – 1971	Code of practice for Building Drainage
IS12251- 1987	Code Of Practice For Drainage In Basement
BS 5572 -1978 (Amendment No.2)	Sanitary pipe Works
BS 4660- 1973 (Amendment No.1)	PVC Underground Drain Pipes & Fittings.
IS 5329 – 1983	Code of practice for sanitary pipe work above ground for buildings First Revision)
IS 2527 – 1984	Code of practice for fixing rain water gutters and down take pipes for roof drainage. (First Revision) I
IS 5961 – 1970	Specification for cast iron gratings for drainage purposes.
IS 2527 – 1984	Code of practice for fixing rain water gutters and down take pipes for roof drainage. (First Revision)
CPHEEO	Manual on sewerage and sewage treatment
IS 1626 (Part 1)	Specification for asbestos cement building pipes and pipe –1980 fittings, gutter and gutter fittings, and roof fittings

7. FIRE DETECTION ALARM SYSTEM

Following codes and standards are made part of this specification:

Table 9: Codes for Fire Detection Alarm System

Codes	Description
BIS 15908 -	Selection, Installation and Maintenance of Control and Indicating Equipments for Fire Detection and Alarm System--Code of Practice (2011)
IS:2189:1988	- Code of practice for selection, installation and maintenance of Automatic Fire Detection and alarm system (second revision)

8. BUILDING MANAGEMENT SYSTEM and SECURITY SERVICES REQUIREMENT

This details below explains briefly the Building Management, and Security Systems that are suggested for the project. Basic essential components of these systems are Design Parameters and Explanation on the areas of implementation of each system.

BUILDING MANAGEMENT SYSTEM

The BMS will perform the following general functions:

- Building Management & Control.
- Serve as operator Man – Machine interface.
- Managing and monitoring conditions (e.g. Temperature).
- Control monitoring.
- Notification of system faults and alarm controls.
- Data Collection & Historisation.
- Alarm Event & Management.
- Trending.
- Reports & MIS Generation.
- Maintenance & Complaint Management.
- Network Integration.

The BMS system consists mainly of the following components.

- Centralized control equipment in the main control room (BMS room) with graphic display for managing alarms, time programs and set values for technical systems and monitoring of individual air conditioning control.
- Substation and field controllers & sensors.

BMS facilitates the following utilities / areas:

- ACMV - Chiller's sequential start-up, loading, unloading, sequential shutdown and monitoring of important parameters for Chiller, AHU, Fans and Pumps.
- FCUs – time scheduled start-up / shutdown and control of AHUs / FCUs to maintain comfort levels in the occupied areas at minimum energy levels. Control of chilled water supply through actuators.
- Supply / Exhaust fans of smoke free lobbies - control and status monitoring.
- Switchboards - monitoring of important parameters and status for HV and LV Main Switchgear.
- Lighting Controls - control of common area lighting distribution boards.
- Elevators - Monitoring of important parameters and status.
- DG set- Monitoring of important parameter and status.
- Fire protection system.
- Monitoring of control panel, pumps and water tanks.
- Domestic and potable water system - control of pumps and monitoring of tanks and pumps.

- The system shall comprise controllers located near the equipment they monitor / control. Signals from this equipment shall be connected to the controllers. The controllers shall be connected to each other over a bus and terminated at the Man Machine Interface (MMI). The MMI shall include PCs and printers and serves as the operator's interface to the system.
- Common BMS and FCC room for the whole campus with future expansion to be planned

The PC software shall feature a graphical user interface (GUI) for simplicity and ease of use. The software features shall include alarm presentation, report generation, trending of parameters, historical storage, maintenance schedule generation based on equipment run hours, programming of sequence schedules, implementation of duty cycling, etc.

9. GRIHA RATING SYSTEM

Following are the standards and codes are part of these specifications / guidelines:

Table 10

Codes / Specifications	Descriptions
GIRHA V 2015	3 star rating
ASHRAE 90.1.2007	Energy Standard for Buildings

10. ROAD WORKS

10.1 Roads and Parking Areas:

Standards and Specifications for Roads and Parking Areas are given in this section;

10.2 The Codes, Standards and Technical Specifications applicable for the design and construction are as given under;

Table 11

- i. Indian Roads Congress (IRC) Specifications, Standards, Design Codes
- ii. IRC Special Publications
- iii. Ministry of Surface Transport Publications (Now Ministry of Shipping, Road Transport & Highways) – Part A
- iv. Policy circular/Advisory letters issued to all states/UTs on the matter pertaining to urban transport April 2008 – October 2014

Latest version of the Codes, Standards, Specifications, etc., notified/published at least 60 days before the last date of bid submission shall be considered applicable.

10.3 Standards and Specifications for Construction

The Contractor shall comply with the Standards and Specifications for Construction of Roads and Parking Areas as given below.

All materials, works and construction operations shall conform to the Specifications for Road and Bridge Works (Fifth Revision, April 2013), issued by the Ministry of Road Transport & Highways (MoRT&H). Where the Standards and Specifications for a work are not given, Good Industry Practice shall be adopted to the satisfaction of the Employer's Engineer.

10.4 List of Standards : List of Standards is given in Table: 12

Table 12

Code/Document No.	Description
1. IRC: 3-1983	Dimensions and weights of Road Design Vehicles
2. IRC: 32-1969	Standard for vertical and horizontal clearances of Overhead electric power and telecommunication lines as related to roads
3. IRC: 35-1997	Code of Practice for Road Markings (with Paints) (First Revision)
4. IRC: 37 -2012	Tentative Guidelines for the Design of Flexible Pavements
5. IRC: 38-1988	Guidelines for the design of curves for Highways & Design tables (First Revision)
6. IRC: 56-2011	Recommended Practices for Treatment of Embankment and Roadside Slopes for Erosion Control (First Revision)
7. IRC: 67-2012	Code of Practice for Road Signs (Third Revision)
8. IRC: 69-1977	Space Standards for Roads in Urban Areas
9. IRC: 86-1983	Geometric Design Standards for Urban Roads in Plains
10. IRC: 93-1985	Guidelines on Design and Installation of Road Traffic Signals
11. IRC: 98-2011	Guidelines on Accommodation of Underground Utility Services

Code/Document No.	Description
	Along and Across Roads in Urban Areas (Second Revision)
12. IRC: 99-1988	Tentative Guidelines on the Provision of Speed Breakers for Control of Vehicular Speeds on Minor Roads
13. IRC: 103-2012	Guidelines for Pedestrian Facilities
14. IRC: SP: 23-1983	Vertical Curves for Highways
15. IRC: SP: 31-1992	New Traffic Signs
16. IRC: SP: 41-1994	Guidelines on Design of At-Grade Intersections in Rural & Urban Areas
17. IRC: SP: 44-1996	Highway Safety Code
18. IRC: SP: 50-2013	Guidelines on Urban Drainage
19. IRC: SP: 62-2004	Guidelines for the Design and Construction of Cement Concrete Pavement for Rural Roads
20. IRC: SP: 63-2004	Guidelines for the Use of Interlocking Concrete Block Pavement

11. SEWAGE TREATMENT PLANT

DESIGN BASIS FOR STP

Plant capacity

Package Sewage Treatment Plant (PSTP)

A PSTP will be planned, which will cater the sewage generated from Arts District Building.

Characteristics of Raw Water

Understanding of the nature of physical, chemical and biological characteristics of sewage is essential in planning, design and operation of treatment and disposal facilities and in the engineering management of environmental quality. The influent characteristics expected for domestic sewage is given Table.

Table 13: Influent Characteristics (Reference CPHEEO Manual for Sewerage and sewage treatment system)

SI. No.	Parameter	Values
1	pH	6.5 - 8.5
2	BOD5 @ 20°C, mg/L	250 – 300
3	COD	400 – 500
4	To	300 - 400
5	Oil and grease, mg/L	10 - 20
6	Total kjeldahl Nitrogen (as N), mg/L	40 - 50
7	Total Phosphorus, mg/L	5 - 7
8	Faecal Coliforms MPN/100 ml	10 ⁶ to 10 ⁸

Characteristics of Treated Sewage

It is proposed that the sewage which is generated is to be treated to such standards that it can be used for gardening, toilet flushing and washing of internal roads & paved areas.

From the point of view of better environment it is contemplated that the entire sewage will be treated to 5 mg/l (BOD and TSS) standards. The EPA standards for reuse of municipal sewage are given in Table 14.

Table 14: EPA Standard of Treated Sewage

Type of Reuse	All types of landscape irrigation, vehicle washing, toilet flushing, use in fire protection systems and commercial air conditioners and other uses with similar access or exposure to the water
Treatment	Secondary, Filtration, Disinfection
pH	6.5-8.5
BOD (mg/L)	≤ 5
Turbidity (NTU)	≤ 2

Faecal Coli/100mL	No detectable Faecal Coli
Residual Chlorine (mg/L)	1

- The reclaimed water should not contain measurable levels of viable pathogens.
- Reclaimed water should be clear and odourless.
- Higher chlorine residual and/ or a longer contact time may be necessary to assure that viruses and parasites are inactivated or destroyed.
- Chlorine residual of 0.3-0.5 mg/l or greater in the distribution system is recommended to reduce odours, slime, and bacterial re-growth.

Treated water from tertiary treatment of STP is proposed to be stored in a separate treated water tank near STP. This treated/ recycled water is proposed to be supplied for landscape & irrigation.

The reuse of the treated wastewater for the project area will be for gardening, toilet flushing, road washing, etc. Hence, expected standard will be as given in Table 15.

Table15: Treated Sewage Standards

Maximum limits/Type of Water usage	Unit	Minimum Values
Colour	-	Acceptable
BOD	mg/lit	< 5
COD	mg/lit	< 50
Residual Chlorine	mg/lit	<1
Faecal Coliform	mg/lit	No detectable Faecal Coli
Turbidity	NTU	<5*
pH		6.5-8.5
TSS	mg/lit	< 5

Residual chlorine for flushing water need not be >1 mg/l

* From Practical Consideration

12. SOLID WASTE MANAGEMENT SYSTEM

The following standards and codes and statutory requirements to be followed for design and implementation of the Solid Waste Management:

Table 16

Codes / Manuals	Description
CPHEEO	Manual on Municipal Solid Waste Management, Ministry of Urban Development, Government of India, 2000.
Guidelines by Supreme Court of India, 1999.	Solid waste management in class-I cities in India
[20/7/1998], S.O.630 (E), 1998.	Bio-medical waste (management and handling) rules
S.O. 2400(E), 1999.	Recycled plastic (manufacture and usage) rules
[25.9.2000], S.O. 908(E), 2000 and the amendment 2013.	Municipal waste (Management and Handling Rules),
	Batteries (Management and handling) Rules, 2001.
1999, S. O.705 (E), 2003.	Amendment to the Recycled Plastic Manufacturing and Usage Rules,
[17.9.2003], S.O.1069 (E), 2003.	Bio-Medical Waste (Management and Handling) (Amendment) Rules,
	Hazardous waste management and handling rule, 1989.
S.O.2265 (E), 2008	Hazardous Wastes (Management, Handling and Trans boundary Movements) Rules,.
S.O. 2400(E), 2009.	Plastics (Manufacture, Usage and Waste Management) Rules, [17.09.2009],
	E waste (Management and handling) Rules, 2011.

OTHER WORKS

13. PLANTATION OF TREES AND HEDGES.

13.1 Scope

The work shall consist of:

- a) Planting of tree saplings in median or other designated locations.
- b) Planting of hedges within median area.

13.2 Materials

13.2.1 Dump Manure

Dump manure shall be of well decayed (at least six months) organic or vegetable matter, obtained in the dry state from the municipal dump or other similar sources approved by the Employer's Engineer. The manure shall be free from earth, stone, brickbats or other extraneous matter.

13.2.2 Farmyard Manure

Farmyard Manure shall be well decayed (should be at least 6 months covered in dump), free from grits and any other unwanted materials.

13.2.3 Good Earth

The soil shall be agricultural soil of sandy-loam texture, free from kankar, murrum, shingle, stone, brickbats, building rubbish and any other foreign matter. The earth shall be free from clods or lumps of sizes bigger than 75mm in any direction. It shall have pH value ranging between 6.0 to 8.5.

13.2.4 Oil Cake (Neem/Castor/Groundnut)

The cake shall be free from bush, dust, grit and any other foreign matter.

13.2.5 Sapling of Trees

The sapling of trees shall be of medium height, leafy type and draught resistant variety native to the area and be of good quality of minimum of 2m height or caliper dia of 25mm as directed by the Employer's Engineer.

13.2.6 Sapling of Hedges

The saplings shall be of draught resistant variety normally grown for hedges in the area, approved by the Employer's Engineer.

13.3 Construction Operations

13.3.1 Tree Planting and Refilling Earth after Mixing with Oil Cake, Manure and Watering

Holes of circular shape of 90cm dia and 100cm in depth in ordinary soil shall be excavated and the excavated soil, broken to clods of sizes not exceeding 75mm in any direction, shall be stacked outside the hole. Stones, brickbats, unsuitable earth and other rubbish, all roots, and weeds etc. other undesirable growth met with during excavation shall be separated out and unserviceable material removed from the site as directed. Useful material, if any, shall be stacked properly and separately. Good earth in quantities required to replace such discarded stuff shall be brought and stacked at site by the Contractor, depth not more than 50cm from ground level. The pit shall be treated for termite by raking the soil up to 50mm and treated with 5% Aldrin or Chloradang dust in soil.

The tree hole shall be manured with powdered Neem/Caster oil cake along with farm yard manure/dump manure screened through 16mm sieve and these shall be uniformly mixed with the excavated top soil after the manure has been broken down to powder (size of particles not to exceed 6mm in any direction) in equal proportion. A 2m high sapling of trees shall be placed at the centre of the hole and then the mixture shall be filled into the hole upto the level of adjoining ground and then profusely watered to enable the soil to subside. The refilled soil shall then be dressed evenly with its surface about 50 to 75mm below the adjoining ground level or as directed by the Employer's Engineer.

The planting shall be completed soon after completion of the median.

13.3.2 Circular Mild Steel Tree Guard with Bars

The tree guard shall be 90cm in diameter.

The tree guards shall be formed of (i) 3 Nos. 25 x 25 x 3mm angle iron verticals 1.95m long excluding splayed outward at lower end up to an extent of 5 cms, (ii) 3 Nos. 25 x 5mm MS flat rings fixed as per design (iii) 15 Nos. 1.55m long 6m dia bars. Each ring shall be in two parts in the ratio of 1:2 and their ends shall be turned in radially for a length of 4cm at which they are bolted together with 8mm dia. and 30mm long MS bolts and nuts.

The vertical iron shall be welded to rings along the circumference with electric plant 15 Nos. bars shall be welded to rings at equal spacing along the circumferences of ring. The lower end of the angle iron verticals shall be splayed outwards up to an extent of 5cm. The lower end of the flat of lower ring shall be at the height of 1.95m. The middle ring shall be in the centre of top and lower ring. The bars shall be welded to the rings as directed by the Employer's Engineer. The entire tree guard shall be given two coats of paint of approved brand and of required shade over a priming coat of ready mixed primer of approved brand. The design of the tree guard shall be approved by the Employer's Engineer.

13.3.3 Planting of Hedges

The hedges saplings shall be planted in two rows, one each along each edge of the median. Bed for the saplings shall be prepared with necessary manuring, and the live saplings shall be planted in lines parallel to the median edge to the directions of the Employer's Engineer. Spacing between saplings in a row shall be such that a thick hedge can be grown, and this shall generally be not farther away than 300mm.

The planting shall be completed soon after completion of the medians.

13.3.4 Grassing of Median Area

The included area of the median between the hedges shall be seeded and mulched to develop grass cover in accordance with Clause 308.

13.4 Maintenance

The saplings of trees and hedges planted shall be watered and maintained by the Contractor till issue of final taking over certificate. Maintenance shall also include watering, weeding out of undesirable plants and replacement of dead plant, manuring and trimming of the hedges.

Schedule E - Maintenance Requirements

1. Maintenance Requirements

1.1 The Contractor shall, at all times maintain the Project Components (Arts District building) in accordance with the provisions of this Agreement, Applicable Laws and Applicable Permits.

1.2 The Contractor shall repair or rectify any Defect or deficiency set forth in Paragraph 2 of this Schedule-E within the time limit specified therein and any failure in this behalf shall constitute non-fulfilment of the Maintenance obligations by the Contractor. .

1.3 All materials and works for operations and maintenance of roads and pavements shall conform to the Specifications for Road and Bridge Works (Fifth Revision, April 2013), issued by the Ministry of Road Transport & Highways (MoRT&H) and the relevant IRC publications.

1.4 All materials and works for operations and maintenance of Potable water supply rising mains and distribution networks, Elevated Service Reservoirs (ESR), Recycled water supply rising mains and distribution networks including valves, flow meters etc. shall conform to CPHEEO Manual on Operation and Maintenance of water supply systems, 2005, MoUD, GOI.

1.5 Where the Standards and Specifications for any of the above work are not given, Good Industry Practice shall be adopted to the satisfaction of the Employer's Engineer.

2. Repair/Rectification of Defects and Deficiencies

The obligations of the Contractor in respect of Maintenance Requirements shall include repair and rectification of the Defects and deficiencies specified in Appendix E-I of this Schedule-E within the time limit set forth therein.

3. Other Defects and Deficiencies

In respect of any Defect or deficiency not specified in Appendix E-I of this Schedule-E, the Employer's Engineer may, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Standards and Specifications, and any deviation or deterioration beyond the permissible limit shall be repaired or rectified by the Contractor within the time limit specified by the Employer's Engineer.

4. Extension of Time Limit

Notwithstanding anything to the contrary specified in this Schedule-E, if the nature and extent of any Defect or deficiency justifies more time for its repair or rectification than the time specified in Schedule M, the Contractor shall be entitled to additional time in conformity with Good Industry Practice. Such additional time shall be determined by the Employer's Engineer and conveyed to the Contractor and the Employer with reasons thereof.

5. Emergency Repairs/Restoration

Notwithstanding anything to the contrary contained in this Schedule-E, if any Defect, deficiency or deterioration in the Project Components (Administrative and Business Centre) poses a hazard to safety or risk of damage to property, the Contractor shall promptly take all reasonable measures for eliminating or minimizing such danger.

6. Daily Inspection by the Contractor

The Contractor shall, through its engineer, undertake a daily visual inspection of the Project Components (Administrative and Business Centre) and maintain a record thereof in a register to be kept in such form and manner as the Employer's Engineer may specify. Such record shall be kept in safe custody of the Contractor and shall be open to inspection by the Employer and the Employer's Engineer at any time during office hours.

7. Repairs On Account Of Natural Calamities

All damages occurring to the Project Components (Administrative and Business Centre) on account of a Force Majeure Event or default or neglect of the Employer shall be undertaken by the Employer at its own cost. The Employer may instruct the Contractor to undertake the repairs at the rates agreed between the Parties.

Appendix E I – Repair / Rectification of Defects and Deficiencies

(Schedule-E)

The Contractor shall repair and rectify the Defects and deficiencies specified in this Appendix E-I of Schedule-E.

1. Architectural, Civil maintenance

- 1.1 Any break down of door / window / hatch accessories should be replaced / rectified within 24 hours.
- 1.2 Any breakage of flooring, false ceiling, peeling of paint should be rectified in 48 hours.
- 1.3 Any damage to External stone cladding, flooring, paving, hardscape, façade etc. shall be rectified within 48 hours.
- 1.4 Any crack / peeling of Plaster shall be repaired within 48 hrs
- 1.5 Any water leak in building shall be stopped with 2 hrs and suitable rectification process undertaken.
- 1.6 Housekeeping services for common utility areas for Arts District building and connecting street / corridor.

2. Landscape

- 2.1 Any non-surviving/ unhealthy saplings should be replaced within 48 hours.
- 2.2 Trees uprooted / damaged should be removed within 8 hours and replaced in one week time.
- 2.3 Blockages/ leakages / damages in Irrigation System, Water Features Including Filtration System should be made good in 24 hours.
- 2.4 Any Hardscape / signage damage shall be repaired within 24 hrs.

3. Electrical

- 3.1 Any Electrical equipment / Apparatus/ cables, etc. shall be restored within two hours in case of minor faults and within eight hours in case of major faults.
- 3.2 Faulty lighting fixtures should be rectified within six hours.
- 3.3 Essential spares to be available for immediate repairs.

4. HVAC, Fire Fighting and Plumbing

- 4.1 Chillers - Minor repair shall be rectified within 24 hrs. and major repair (compressor failure) shall be rectified within 5 days.
- 4.2 Pumps - Minor repair shall be rectified within 4 hrs. and major repair (motor/bearing failure) shall be rectified within 8 hours.
- 4.3 Cooling towers - Minor repair shall be rectified within 4 hrs. and major repair (motor/bearing failure) shall be rectified within 8 hours.
- 4.4 AHU - Minor repair shall be rectified within 4 hrs. and major repair (motor/bearing failure) shall be rectified within 8 hours.
- 4.5 DX units / VRV units - Minor repair shall be rectified within 4 hrs. and major repair (motor failure) shall be rectified within 24 hours.
- 4.6 Fans - Minor repair shall be rectified within 4 hrs. and major repair (motor/bearing failure) shall be rectified within 8 hours.
- 4.7 Piping/valve/ traps/ fittings / Taps leakages - Shall be rectified/replaced within 2 hrs.
- 4.8 Instruments like gauges/sensors - Shall be rectified / replaced within 2 hrs.
- 4.9 Any damage to sanitary ceramic fixtures or CP fittings shall be replaced or rectified within 24 hours.
- 4.10 Essential spares to be available for immediate repair.

5. Fire detection, alarm system, access control and surveillance

- 5.1 Any damage breakage of any apparatus, equipment, sensors and system in general should not remain nonfunctional for more than two hour.
- 5.2 Essential spares to be available for immediate repair.

6. Roads and Parking Areas

Nature of Defect or Deficiency		Time Limit For Repair/Rectification
(a)	Carriageway and Paved Areas	
(i)	Breach or blockade	Temporary restoration of traffic within 24 hours; permanent restoration within 15 (fifteen) days
(ii)	Roughness value exceeding 2000 mm in a stretch of 1 km (as measured by a calibrated bump integrator)	120 (one hundred and twenty) days
(iii)	Pot holes	24 hours
(iv)	Any cracks in road surface	15 (fifteen) days
(v)	Any depressions, rutting exceeding 10 mm in road surface	30 (thirty) days
(vi)	Bleeding/skidding	7 (seven) days
(vii)	Any other defect/distress on the road	15 (fifteen) days
(viii)	Damage to pavement edges	15 (fifteen) days
(ix)	Removal of debris, dead animals	6 hours
(b)	Earthen Shoulders, Side Slopes, Drains and Culverts	
(i)	Variation by more than 1 % in the prescribed slope of camber/cross fall (shall not be less than the camber on the main carriageway)	7 (seven) days
(ii)	Edge drop at shoulders exceeding 40 mm	7 (seven) days
(iii)	Variation by more than 15% in the prescribed side (embankment) slopes	30 (thirty) days
(iv)	Rain cuts/gullies in slope	7 (seven) days
(v)	Damage to or silting of culverts and side drains	7 (seven) days
(vi)	De-silting of drains	24 hours
(vii)	Railing, parapets, crash barriers	7 (seven) days (Restore immediately if causing safety hazard)
(c)	Road Side Furniture Including Road Sign and Pavement Marking	
(i)	Damage to shape or position, poor visibility or loss of retro-reflectivity	48 hours
(ii)	Painting of km stone, railing, parapets, crash barriers	As and when required/Once every year
(iii)	Damaged/missing road signs requiring replacement	7 (seven) days
(iv)	Damage to road mark ups	7 (seven) days
(d)	Road Lighting	
(i)	Any major failure of the system	24 hours
(ii)	Faults and minor failures	8 hours
(e)	Trees and Plantation	
(i)	Obstruction in a minimum head-room of 5 m above carriageway or obstruction in visibility of road signs	24 hours

	Nature of Defect or Deficiency	Time Limit For Repair/Rectification
(ii)	Removal of fallen trees from carriageway	4 hours
(iii)	Deterioration in health of trees and bushes	Timely watering and treatment
(iv)	Trees and bushes requiring replacement	30 (thirty) days
(v)	Removal of vegetation affecting sight line and road structures	15 (fifteen) days
(f)	Other Project Facilities and Approach Roads	
(i)	Damage in approach roads and pedestrian facilities	15 (fifteen) days
(ii)	Damaged vehicles or debris on the road	4 (four) hours

7. Sewage Treatment Plant (STP)

7.1 Details for maintenance to be carried out:

7.1.1 The plant should not remain nonfunctional for more than two hours in a month.

7.1.2 Any leakage in pipelines shall be restored within 2 hrs.

8. Solid Waste Management (SWM)

8.1 The bins should not be allowed to overflow at any point of time and should be emptied irrespective of pre-determined frequency of lifting the bins.

8.2 OWC maintenance should be backed by proper plan so that the organic waste does not get accumulated for more than six hours.

Schedule F - Applicable Permits

1. Applicable Permits

- The Contractor shall obtain, as required under the Applicable Laws, the following Applicable Permits:
- Permission of the State Government for extraction of boulders from quarry;
- Permission of Pollution Control Board for installation of crushers;
- License for use of explosives;
- Permission of the State Government for drawing water from river/reservoir;
- License from inspector of factories or other competent Authority for setting up batching plant;
- Clearance of Pollution Control Board for setting up batching plant;
- Clearance of Village Panchayats and Pollution Control Board for setting up asphalt plant;
- Permission of Village Panchayats and State Government for borrow earth; and
- Any other permits, clearances or approvals required under Applicable Laws.
- Any other permits, clearances or approvals required under Applicable Laws.

1.1 Applicable permits, as required, relating to environmental protection and conservation shall have been procured by the EMPLOYER in accordance with the provisions of this Agreement.

2. Architecture

- Commencement Certificate, Intermediate Certificates, Occupancy Certificate and Completion Certificate from local municipal body or designated authority for the buildings.
- Town Planning Department remarks for applicable norms / zones / uses.

3. Civil & Structures

- Water Connection from Public Health Engineering Department (State).
- Provision and permit for connection to proposed municipal sewage collection system at directed location from local municipal body.
- Project Clearance from General Inspectorate for Emergency Situations.
- Project Clearance from the Solid Waste Management Authority.

4. Electrical

- Incoming Power Supply (Main and temporary): State electricity board or power supply authority.
- Substation & Elevators & Solar PV system: CEIG (chief electrical inspector to government) / local statutory authority / PWD
- License to Operate the Elevators from Ministry of Labour or relevant authority.

5. Fire Fighting

- Preliminary approval from Chief Fire Officer prior to construction and final approval on completion of project.

6. FDA Access Control & Security

- Fire Detection & Alarm System - Compliance with IS:2189:1988, BIS: 15908 standards and certification from the Regional Fire Officer / Chief Fire Officer.

7. Roads

- PWD / Municipal clearance for connecting to the existing road.

8. STP

- State Pollution Control Board approval for STP.

- If any hazardous waste is generated from the facility like used DG oil, used batteries etc., the same should be handed over to only SPCB approved agencies for handling hazardous waste.

9. Solid Waste Management

- Permit from the Municipal Corporation for disposal of inert in the land fill site.

Schedule G - Deleted

Schedule H - Deleted

Schedule I - Drawings

1. Drawings

In compliance of the obligations of this Agreement, the Contractor shall furnish in AutoCad dwg. format to the Employer's Engineer, free of cost, all Drawings listed in Appendix I-I of this Schedule-I.

2. Additional Drawings

If the Employer's Engineer determines that for discharging its duties and functions under this Agreement, it requires any drawings other than those listed in Appendix I-I, it may by notice require the Contractor to prepare and furnish such drawings forthwith. Upon receiving a requisition to this effect, the Contractor shall promptly prepare and furnish such drawings to the Employer's Engineer, as if such drawings formed part of Appendix I-I of this Schedule-I.

Appendix II – List of Drawings

(Schedule-I)

List of drawings is given in table below;

List of drawings

S. No.	Description	
1	Site Layout	
	i	Plot Plan
	ii	Location Plan
	iii	Site Plan with Coordinates, Ground Floor details, Fire Engine Access Provision
	iv	Details for sync up with existing roads, infrastructure
2	Landscape Drawings	
	i.	Site Layout with Landscape Plan
	ii.	Site Layout with Planting Plan
	iii.	Site Layout with External Lighting
	iv	Site Layout with Hardscape Plan, Finishes and Details
3	BUILDINGS (INCLUDING SECURITY CABINS)	
	Architectural Drawings	
	i	Floor Plans
	ii	Centre Line Plans
	iii	Walling Layout Plans
	iv	Working Drawing Plans
	v	Life safety Plans
	vi	Roof Plans
	vii	Reflected Ceiling Plans
	viii	Floor Area calculation plans
	ix	Flooring Plans for all Floors
	x	Elevations
	xi	Sections
	xii	Wall Sections
	xiii	Staircase Details
	xiv	Railing Details
	xv	Door Window Details
	xvi	Schedule of finishes

S. No.	Description	
	xvi	Stone cladding and finishes samples and swatches
	xvii	Lift Shaft and other shaft Details
	xix	Toilet Layout & Details
	xx	Sanitary Fixtures Schedule
4	Coordination Drawings	
	i	Indexing Plans for each Room & Utility
	ii	Floor wise combined layout for each utility
	iii	Coordination layout for each vertical shaft
5	STRUCTURAL DRAWINGS	
	i	Pile and Pile cap Layout and Details
	ii	Reinforcement details - Pile and Pile cap
	iii	Structural Plans, Sections, GA details of all Floors
	iv	Reinforcement details of all floors
	v	Layout and reinforcement details of staircase
	vii	Grade slab and Plinth beam details
	ix	All floor beams and lintel beams- reinforcement details
	x	Columns-reinforcement details
	xi	Structural GA details
	xii	Reinforcement details
	xiii	Layout and reinforcement details of OH tank
	xiv	Typical details of cut out, constructions joint, junctions details etc.
		Miscellaneous
6	External Utility (water supply, sewerage, storm water, electrical & mechanical service structures, etc.)	
	i	External Utility Structural- Plans, sections
	ii	External Utility Structures reinforcement details
7	HVAC Drawings	
	i	All buildings air distribution system layout - all floors
	ii	All buildings chilled water & equipment layout - all floors
	iii	Cooling Load calculations
	iv	P & ID for chilled water and condenser water system
	v	Chiller plant room layout
	vi	Utility building HVAC layout - all floors
	viii	Technical data sheets for all equipment / items

S. No.	Description	
8	Electrical Drawings	
	i	Single One Line Diagram (SLD)
	ii	All Buildings Electrical Room GA & Sectional Drawings
	iii	All Buildings Cable Carrier System Layout & Sectional Details for all Floor Plans
	iv	All Buildings Lighting & Small Power Layout for All Floor Plans
	v	All Buildings Earthing & Lighting Protection Layout
	vi	Overall Earthing and Lighting Layout
	vii	Solar PV System drawings
	viii	Electrical Equipment GA, Cable Tray Layouts
	DOCUMENTS:	
	viii	Load List
	ix	Power and Control Cable schedule and interconnection schedule
	x	Design calculations of all system and equipment
	xi	Control scheme and data sheets
	xii	All Data-sheets with "By Bidder" details
9	Plumbing & Drainage Drawings	
	i	All buildings potable water, flush water, recycled water, drainage & rain water system network and layout - all floors
	ii	Pump room layout
	iii	Technical data sheets for all equipment / items
10	Fire Protection System	
	i	All buildings firefighting system including fire hose, fire extinguishers, sprinklers layout - all floors
	ii	Fire Pump room layout
	iii	P & ID for firefighting system layout
	iv	Hydraulic calculation for firefighting system - all floors
	v	Technical data sheets for all equipment / items
11	Fire Detection & Alarm & Access Control	
	i	All Buildings Detailed System Description with Block Diagram / Logical Flow Diagram (Hardware & software)
	ii	System Configuration / Design Diagrams (System Architecture Electrical Connectivity, Communication network)
	iii	Mapping of the device locations with the Floor Layouts (AutoCAD Drawings)
	iv	All buildings, fire Detection and Alarm Network and Layout
	Site Infrastructure (Civil, Water Supply, Sewerage, Storm Water, Electrical & Mechanical Service structures, STP, Roads etc.)	
12	Civil and Structural	

S. No.	Description	
	i	Bore Hole locations for Proposed Arts District Building Complex
	ii	Site Contour Plan
	iii	Site Grading Plan and section
	iv	External Utility Structural- Plans, sections
	v	External Utility Structural reinforcement details
	vi	Structural GA details of fire water tank and Pump house
	vii	Reinforcement details of fire water tank and Pump house
13	External Utilities	
	i	External Services Network (water supply, sewerage, storm water, electrical, HVAC, recycled water, Data etc.)
	ii	External utilities coordinated site layout
	iii	Overall Road & Landscape Lighting Layout
	iv	External chilled water piping layout
	v	External Fire hydrant layout
	vi	External piping layout
14	Roads	
	i	Traffic Circulation Plan
	ii	Site Layout Plan with Surface Finishes on Driveways, Footpath and Parking Areas
	iii	Site Layout Plan with Finished Road Levels and Gradient Details
	iv	Traffic Circulation Plan
	v	Parking Plan & Details
	vi	Typical Cross Section Details of Internal Driveways, Footpath and Parking Areas with Pavement Layers
	vii	Rain Water harvesting, S.T.P. Etc.
	viii	Typical Details of Kerb Stones, Kerb Channels, Manhole Chambers, Manhole Covers Typical Details of Earth Retaining Structures, Embankment Slope, Cut Slope
	ix	Typical Details of Box, Pipe Culverts, Storm Water Drain Structures
	x	Typical Details of Utilities at Road Crossings
	xi	Typical Cross Sectional Details of Roads of xxx m Right of Way with Pavement Layers
	xii	Layout Plan and Longitudinal Profile of Road From CH: xxx to Ch: xxx
	xiii	Working Cross Sections of Road From CH: xxx to CH: xxx at Regular Intervals
	xiv	Typical Details of Street Furniture
15	Ancillary Structures	
16	Architectural	
	i	Plans
	ii	Sections

S. No.	Description	
	iii	Elevations
	iv	Details, Finishes
17	Structural Drawings	
	i	Structural Plans, sections for sub and super structure
	ii	Reinforcement Details
18	Services (Electrical, Plumbing and Drainage, Storm Water Drainage)	
	i	Ancillary Structures Services Plans, sections, elevations details
	ii	Ancillary Structures Focus lighting, bollards, signage, cabling and fixture details
	iii	Ancillary Structures Water Supply and Drainage Details

Schedule J - Project Completion Schedule

1. Project Completion Schedule

During Construction period, the Contractor shall comply with the requirements set forth in this Schedule-J for each of the Project Milestones and the Scheduled Completion Date. Within 15 (fifteen) days of the date of each Project Milestone, the Contractor shall notify the Employer of such compliance along with necessary particulars thereof.

2. Schedule Completion Date

- 2.1 The Scheduled Construction Completion Date shall occur on the 270th day from the Appointed Date. However the design studio shall complete by 180th day.
- 2.2 On or before the Scheduled Completion Date, the Contractor shall have completed construction in accordance with this Agreement.

3. Extension of time

- 3.1 Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Project Completion Schedule shall be deemed to have been amended accordingly.

Schedule K - Tests on Completion

1. Schedule for Tests

- 1.1 The Contractor shall, no later than 30 (thirty) days prior to the likely completion of construction, notify the Employer's Engineer and the Employer of its intent to subject the project components to Tests, and no later than 10 (ten) days prior to the actual date of Tests, furnish to the Employer's Engineer and the Employer detailed inventory and particulars of all works and equipment forming part of Works.
- 1.2 The Contractor shall notify the Employer's Engineer of its readiness to subject the project components to Tests at any time after 10 (ten) days from the date of such notice, and upon receipt of such notice, the Employer's Engineer shall, in consultation with the Contractor, determine the date and time for each Test and notify the same to the Employer who may designate its representative to witness the Tests. The Employer's Engineer shall thereupon conduct the Tests itself or cause any of the Tests to be conducted in accordance with Article 12 and this Schedule-K.

2. Tests

- 2.1 **Architectural & Interior Finishes:** Visual and physical check for all Architectural and Interior finishes, including but not limited to flooring, painting, glazing, GRC cladding, Murals, false ceiling, door hardware, cladding & dado, polishes, etc. Operations of doors, windows, louvers shall also be checked.
- 2.2 **Landscape / softscape works:** Visual and physical check for softscape works, plants & saplings, lawns, shrubs, irrigation system including sprinklers & drip irrigation, fountains, water circulation and filtration system, etc., including performance verification.
- 2.3 **Civil and Hardscape works:** Visual check of construction to determine that all civil, structural and hardscape works conform to the provisions of this Agreement. Physical test if required by the client.
- 2.4 **Entry Gates:** Visual and physical check for Automated Entry gate operations including performance verification for sensors, remote and manual controls, etc.
- 2.5 **Electrical:** Visual and physical and commissioning test for HT and LT panels, Dry type transformers, UPS, DG set, DC System, busducts, rising mains, distribution boards, power & control cables, SCADA system, elevators, solar PV panels, lighting DB's, switches & sockets, safety features, luminaires / lighting fixtures, street lighting and pole, power supply, grounding, communication between luminaire to control panel and central control system, etc. including performance verification.
- 2.6 **HVAC:** Visual and physical and commissioning test for HVAC cooling system, dampers, VAV's, sensors, Ventilation system, drives, control gauges, instrumentations, flow meters, automation, vibration & acoustic insulation, etc including performance verification.

At an appropriate time in consultation with Client / Consultant / Project In Charge the contractor shall demonstrate performance (noise level, power consumption, actual capacity at design conditions etc.) at rated capacity over a period of 6 working days on continuous operating hours. If the tests specified above show that the performance of Air-conditioning & Ventilation system has failed to achieve all the guaranteed parameters or some of them, the contractor shall rectify the defects and carry out modifications if necessary to meet the guaranteed figures and the guarantee tests shall be repeated at no extra cost.

- 2.7 Fire Protection System:** Visual and physical and commissioning test for complete firefighting system equipment's, internal & external hydrants, sprinklers, electric & diesel engine pumps, portable fire extinguishers, etc., including performance verification.
- 2.8 Plumbing & Drainage:** Visual and physical and commissioning test for Plumbing & drainage system including water pressure, faucets & valves, sanitary fittings, flush tanks, urinals, faucet & urinal sensors, leakages, etc. including performance verification.
- 2.9 FDA & Public Address:** Visual and physical test for Fire Alarm sensors / detectors, alarms / hooters, Public address system, BMS, etc., including performance verification.
- 2.10 CCTV, Access Control & Surveillance:** Visual and physical test for Security systems including access control card readers and cards, CCTV cameras, monitors, recording and retrieval system, Visitor management system, operating software & hardware, etc., including performance verification.
- 2.11 Road (Riding quality test):** Riding quality of each lane of the carriageway shall be checked with the help of a calibrated bump integrator and the maximum permissible roughness for purposes of this Test shall be 1800 (Eighteen Hundred) mm for each kilometer.
- 2.12 Storm Water:** Visual and physical test for Rain water drainage system, storm water drains, manholes & manhole covers, rain water harvesting system, etc., including performance verification.
- 2.13 STP:** Visual and physical test for Sewage treatment plant, untreated and treated wastewater quality & quantity for polluting parameters, electrical & mechanical equipment's etc., including performance verification. It should be run successfully for one complete cycle before handing over.
- 2.14 Other tests:** The Employer's Engineer may require the Contractor to carry out or cause to be carried additional tests, in accordance with Good Industry Practice, for determining the compliance of the project components with Standards and Specifications.
- 3. Audits**
- 3.1 Environment Health and Safety Requirements:** The Employer's Engineer shall carry out a check to determine conformity of the project components with the environmental requirements set forth in Applicable Laws and Applicable Permits.
- 3.2 Safety Audit:** The Employer's Engineer shall carry out, or cause to be carried out, a safety audit to determine conformity of the project components with the safety requirements and Good Industry Practice.

Schedule L - Provisional Certificate and Completion Certificate

Provisional Certificate

(See Clause 12.2)

1. I, (Name of the EMPLOYER's Engineer), acting as EMPLOYER's Engineer, under and in accordance with the Agreement dated (the "Agreement"), for "Design and Construction of Art District in Tirupati" in the State of Andhra Pradesh through Engineering, Procurement & Construction (EPC) Basis Contract through (Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been undertaken to determine compliance of the Project with the provisions of the Agreement.

2. Construction Works that are incomplete on account of Time Extension have been specified in the Punch List appended hereto, and the Contractor has agreed and accepted that it shall complete all such works in the time and manner set forth in the Agreement. In addition, certain minor works are incomplete and these are not likely to cause material inconvenience to the users of the Project or other their safety. The contractor has agreed and accepted that as a condition of this Provisional Certificate, it shall complete such minor works within 30 (thirty) days hereof. These minor works have also been specified in the aforesaid punch list.

3. In view of the foregoing, I am satisfied that that Project can be safely and reliably placed in service of the users thereof, and in terms of the Agreement, the Project is hereby provisionally declared fit for entry into operation on this theday of20

ACCEPTED, SIGNED, SEALED AND DELIVERED

SIGNED, SEALED AND DELIVERED

For and on behalf of
CONTRACTOR by

For and on behalf of

EMPLOYER's Engineer by:

(Signature)

(Signature)

COMPLETION CERTIFICATE

1. I, (Name of the EMPLOYER's Engineer), acting as EMPLOYER's Engineer, under and in accordance with the Agreement dated (the "Agreement"), for "Design and Construction of Design and Construction of Art District in Tirupati" in the State of Andhra Pradesh under through Engineering, Procurement & Construction (EPC) Basis through (Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement, and I am satisfied that the Project can be safely and reliably placed in service of the Users thereof..
2. It is certified that, in terms of the aforesaid Agreement, all works forming part of Project Works have been completed, and the Project Works is hereby declared fit for entry into operation on this theday of20

SIGNED, SEALED AND DELIVERED

For and on behalf of

EMPLOYER's Engineer by:

(Signature)

(Name)

(Designation)

(Address)

Schedule M - Payment Reduction for Non-Compliance

1. Payment reduction for non-compliance with the Maintenance Requirements
 - 1.1 Monthly lump sum payments for maintenance shall be reduced in the case of non-compliance with the Maintenance Requirements set forth in Schedule-E.
 - 1.2 Any deduction made on account of non-compliance with the maintenance Requirements shall not be paid even after compliance subsequently. The deduction shall continue to be made every month until compliance is done.
 - 1.3 The Employer's Engineer shall calculate the amount of payment reduction on the basis of weightage in percentage assigned to non-conforming items as given in Paragraph 2.
2. Percentage reductions in lump sum payments
 - 2.1 The following percentages shall govern the payment reduction:

Table 1:

Percentage reductions for Architectural and Civil works

Sr. No.	Item/Defect/Deficiency	Percentage
1	(a) + (b) + (c) (of the applicable monthly maintenance amount)	20%
(a)	Openings and glazing works (door, window, hatches, skylight, glazing coloured and otherwise etc.)	3%
(i)	Breakage or damage of openable shutters their finishes and accessories like handles, door closers, locks, vinyl, floor springs etc.	2%
(ii)	Repairs of fixed glazing, polycarbonate skylight, louvers, sealants, etc.	1%
(b)	Flooring, false ceiling, painting	7%
(i)	Defect, breakage, chip off, loosening of flooring	3%
(ii)	Any breakage or damage of false ceiling and peeling or chip off of painting.	4%
(c)	External stone cladding, flooring, ramps, paving, hardscape, facade	10%
(i)	Damage to facade, external stone cladding and flooring	5%
(ii)	Any breakage, damage to hardscape, ramps, paving	5%

Table 2:
Percentage reductions for Landscape works

Sr. No.	Item/Defect/Deficiency	Percentage
1	(a) + (b) (of the applicable monthly maintenance amount)	10%
(a)	Plants, trees and saplings	3%
(i)	Removal and replacement of non-surviving, unhealthy saplings	1%
(ii)	Removal of uprooted or damaged trees, climbers, dried plants	1%
(iii)	Pruning, cutting and maintenance of lawns, shrubs and softscape	1%
(b)	Irrigation System	7%
(i)	Any blockage or leakage or damage to Drip Irrigation System	2%
(ii)	Any blockage or leakage or damage to Water Sprinkler System	3%
(iii)	Any blockage or leakage or damage to Water Features	2%

Table 3:
Percentage reductions for Electrical works

Sr. No.	Item/Defect/Deficiency	Percentage
1	(a) + (b) (of the applicable monthly maintenance amount)	20%
(a)	Electrical Equipment like DG Sets, UPS, Apparatus, Cables	5%
(i)	Faulty, damaged or non-working equipment, apparatus or cable	5%
(b)	Fixtures	5%
(i)	Faulty, damaged or non-working fixtures	5%
(c)	Elevators	5%
(i)	Non-functioning of elevators or its accessories	5%
(d)	Street Lights	5%
(i)	Repair or replacement of fittings, accessories	5%

Table 4:
Percentage reductions for HVAC and Firefighting, Plumbing and Drainage

Sr. No.	Item/Defect/Deficiency	Percentage
1	(a) + (b) (of the applicable monthly maintenance amount)	23%
(a)	HVAC (Chillers, Pumps, Cooling towers, AHUs, DX units, VRV units, Fans)	7%

Sr. No.	Item/Defect/Deficiency	Percentage
(i)	Failure of any of the above systems.	3%
(ii)	Leakages / breakages or damage of piping, traps, valves, sensors, gauges	2%
(iii)	Non maintenance of design temperature	2%
(b)	Water Supply Network (Potable water, Recycled water)	4.5%
(i)	Rising and distribution network repairs,	2.5%
(ii)	valve and flow meters repairs and calibrations, refilling of trenches	2%
(c)	Sewage collection network	4.5%
(i)	De-silting, overflows in surrounding areas	2%
(ii)	Man holes damages.	2.5%
(d)	Low side HVAC, firefighting, plumbing and drainage	7%
(i)	Damage or leakage of Piping, traps, fittings, Gauges, sensors	2%
(ii)	Damage to Sprinklers, firefighting equipment's	2%
(iii)	Breakage or leakage of Sanitary Ceramic and CP fixtures	3%

Table 5:

Percentage reductions for Fire Detection, Alarm system, Access Control, Surveillance

Sr. No.	Item/Defect/Deficiency	Percentage
1	(a) + (b) (of the applicable monthly maintenance amount)	7%
(a)	Apparatus, equipment, sensors, cameras	7%
(i)	Non-functioning of any of above	7%

Table 6:

Percentage reductions for Roads and Storm Water Drain works

Sr. No.	Item	Percentage
1	(a) + (b) + (c) (of the applicable monthly maintenance amount)	15%
(a)	Road works (Carriageway/Pavement, Road, Embankment, Parking, Cuttings, Shoulders etc.)	6%
(i)	Potholes, cracks, other surface defects	3%
(ii)	Repairs of Edges, Rutting	0.5%
(iii)	Edge drop, inadequate cross fall, undulations, settlement, potholes, ponding, obstructions	1%
(iv)	Deficient slopes, rain cuts, disturbed pitching, vegetation growth, pruning of trees	0.5%

Sr. No.	Item	Percentage
(v)	Damage, coming off of tiles in parking, lack of soil in grass pavers etc	1%
(b)	Other Road works (Road Furniture, Miscellaneous Items)	6%
(i)	Cleaning, painting, replacement of road signs, delineators, road markings, 200 m/km/5th km stones	1%
(ii)	Removal of dead animals, broken down/accidental vehicles, fallen trees, road blockades or malfunctioning of mobile crane	1%
(iii)	Maintenance of Multi-purpose corridors, drainage and protective works	3%
(iv)	Defects in Other Project Facilities	1%
(c)	Storm Water Drain works (of the applicable monthly maintenance amount)	3%
(i)	De-silting, Manhole cleaning, overflows in surrounding areas	1.5%
(ii)	De-silting at outfall, outfall maintenance & hygiene conditions	1.5%

Table 7:

Percentage reductions for STP and SWM

Sr. No.	Item	Percentage
1	STP and SWM	5%
(i)	Not meeting the effluent parameters	2%
(ii)	Replacement of damaged bins	1%
(iii)	Default on bin lifting frequency	2%

2.2 The amount to be deducted from monthly lump-sum payment for non-compliance of particular item mentioned in Table-1 to 7 shall be calculated on a pro-rata basis for each of the above items as under:

$$R = P/100 * M * L1/L$$

Where

P= Percentage of particular item/non-compliance /Defect /deficiency for deduction. For example in Architecture and Civil works, if a broken flooring/tile is not repaired/replaced within 48 hours, the percentage of non-compliance item P is 3%.

M= Monthly lump-sum payment for maintenance in accordance with the Contract Agreement.

A1= Non-complying area (sqm) of the particular Item.

A= Total area (sqm) of the particular Item.

R= Reduction (the amount to be deducted for noncompliance for a particular item /Defect /deficiency).

The total amount of reduction shall be arrived at by summation of reductions for such items/Defects/deficiency or noncompliance.

For any Defect in a part of 10 sqm, the non-conforming area shall be taken as minimum 10 sqm.

Schedule N - Selection of Employer's Engineer

(See Clause 18.1.1)

1. Selection of EMPLOYER's Engineer

- 1.1 The provisions of the Model Request for Proposal for Selection of Technical Consultants, issued by the Ministry of Finance in May 2009, or any substitute thereof shall apply for selection of an experienced firm to discharge the functions and duties of an EMPLOYER's Engineer.
- 1.2 In the event of termination of the Technical Consultants appointed in accordance with the provisions of Paragraph 1.1, the EMPLOYER shall appoint another firm of Technical Consultants forthwith and may engage a government-owned entity in accordance with the provisions of Paragraph 3 of this Schedule-N.

2. Terms of Reference

The Terms of Reference for the EMPLOYER's Engineer (the "TOR") shall substantially conform with Annex 1 to this Schedule N.

3. Appointment of Government entity as EMPLOYER's Engineer

Notwithstanding anything to the contrary contained in this Schedule, the EMPLOYER may in its discretion appoint a government-owned entity as the EMPLOYER's Engineer; provided that such entity shall be a body corporate having as one of its primary functions the provision of consulting, advisory and supervisory services for engineering projects; provided further that a government-owned entity which is owned or controlled by the EMPLOYER shall not be eligible for appointment as EMPLOYER's Engineer.

Annexure I – Terms of Reference for Employer’s Engineer

(Schedule - N)

Terms of Reference for Employer’s Engineer

1. Scope

- 1.1 These Terms of Reference (the “TOR”) for the EMPLOYER’s Engineer are being specified pursuant to the EPC Agreement dated (the “Agreement”), which has been entered into between theName of EMPLOYER (the “EMPLOYER”) and (the “Contractor”) for “Design and Construction of Design and Construction of Art District in Tirupati” (EPC) Basis, and a copy of which is annexed hereto and marked as Annex-A to form part of this TOR.
- 1.2 The TOR shall apply to design, construction and maintenance of the Project Roads and Services

2. Definitions and interpretation

- 2.1 The words and expressions beginning with or in capital letters and not defined herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement.
- 2.2 References to Articles, Clauses and Schedules in this TOR shall, except where the context otherwise requires, be deemed to be references to the Articles, Clauses and Schedules of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this TOR.
- 2.3 The rules of interpretation of the Agreement shall apply, mutatis mutandis, to this TOR.

3. General

- 3.1 The EMPLOYER’s Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice.
- 3.2 The EMPLOYER’s Engineer shall perform the duties and exercise the authority in accordance with the provisions of this Agreement, but subject to obtaining prior written approval of the EMPLOYER/PMNC before determining:
 - a. any Time extension;
 - b. any additional cost to be paid by the EMPLOYER to the Contractor;
 - c. the Termination Payment; or
 - d. any other matter which is not specified in (a), (b) or (c) above and which creates an obligation or liability on either Party for a sum exceeding Rs.5,000,000 (Rs. fifty lakh).
- 3.3 The EMPLOYER’s Engineer shall submit regular periodic reports, at least once every month, to the EMPLOYER/PMNC in respect of its duties and functions under this Agreement. Such reports shall be submitted by the EMPLOYER’s Engineer within 10 (ten) days of the beginning of every month.
- 3.4 The EMPLOYER’s Engineer shall inform the Contractor of any delegation of its duties and responsibilities to its suitably qualified and experienced personnel provided, however, that it shall not delegate the authority to refer any matter for the EMPLOYER’s prior approval in accordance with the provisions of Clause 18.2.

- 3.5** The EMPLOYER's Engineer shall aid and advise the EMPLOYER on any proposal for Change of Scope under Article 13.
- 3.6** In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the EMPLOYER's Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature.

4. Construction Period

- 4.1** During the Construction Period, the EMPLOYER's Engineer shall review the Reports, Designs and Drawings furnished by the Contractor along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys, and the recommendations of the Safety Consultant in accordance with the provisions of Clause 10.1.6. The EMPLOYER's Engineer shall complete such review and send its observations to the EMPLOYER/ PMNC and the Contractor within 15 (fifteen) days of receipt of such Reports, Designs and Drawings; provided, however that in case of a Structure, the aforesaid period of 15 (fifteen) days may be extended up to 30 (thirty) days. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards.
- 4.2** The EMPLOYER's Engineer shall review any revised Reports, Designs and Drawings sent to it by the Contractor and furnish its comments within 10 (ten) days of receiving such Reports, Designs and Drawings.
- 4.3** The EMPLOYER's Engineer shall review the (a) Quality Assurance Plan (b) Health, Safety and Environmental Management Plan submitted by the Contractor and shall convey its comments to the Contractor within a period of 21 (twenty-one) days stating the modifications, if any, required thereto. The Employer's Engineer shall ensure the Contractor's Project Management requirements, BIM and CAD requirements regularly on a monthly basis to the Employer/ PMNC.
- 4.4** The EMPLOYER's Engineer shall complete the review of the methodology proposed to be adopted by the Contractor for executing the Works, and convey its comments to the Contractor within a period of 10 (ten) days from the date of receipt of the proposed methodology from the Contractor.
- 4.5 Deleted.**
- 4.6** The EMPLOYER's Engineer shall review the monthly progress report furnished by the Contractor and send its comments thereon to the EMPLOYER/ PMNC and the Contractor within 7 (seven) days of receipt of such report.
- 4.7** The EMPLOYER's Engineer shall inspect the Construction Works and the Project Roads and shall submit a monthly Inspection Report bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies. In particular, the EMPLOYER's Engineer shall include in its Inspection Report, the compliance of the recommendations made by the Safety Consultant.
- 4.8** The EMPLOYER's Engineer shall conduct the pre-construction review of manufacturer's test reports and standard samples of manufactured Materials, and such other Materials as the EMPLOYER's Engineer may require.

- 4.9** For determining that the Works conform to Specifications and Standards, the EMPLOYER's Engineer shall require the Contractor to carry out, or cause to be carried out, tests at such time and frequency and in such manner as specified in the Agreement and in accordance with Good Industry Practice for quality assurance. For purposes of this Paragraph 4.9, the tests specified in the relevant Codes or any modification/substitution thereof and standards for shall be deemed to be tests conforming to Good Industry Practice for quality assurance.
- 4.10** The EMPLOYER's Engineer shall test check at least 20 (twenty) percent of the quantity or number of tests prescribed for each category or type of test for quality control by the Contractor.
- 4.11** The timing of tests referred to in Paragraph 4.9, and the criteria for acceptance/ rejection of their results shall be determined by the EMPLOYER's Engineer in accordance with the Quality Control Manuals and/or the relevant Codes and Standards... The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Contractor for its own quality assurance in accordance with Good Industry Practice.
- 4.12** In the event that results of any tests conducted under Clause 11.10 establish any Defects or deficiencies in the Works, the EMPLOYER's Engineer shall require the Contractor to carry out remedial measures.
- 4.13** The EMPLOYER's Engineer may instruct the Contractor to execute any work which is urgently required for the safety of the Project Works, whether because of an accident, unforeseeable event or otherwise; provided that incase of any work required on account of a Force Majeure Event, the provisions of Clause 21.6 shall apply.
- 4.14** In the event that the Contractor fails to achieve any of the Project Milestones, the EMPLOYER's Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the EMPLOYER's Engineer shall determine that completion of the Project Works is not feasible within the time specified in the Agreement, it shall require the Contractor to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which the Project Completion Date shall be achieved. Upon receipt of a report from the Contractor, the EMPLOYER's Engineer shall review the same and send its comments to the EMPLOYER/ PMNC and the Contractor forthwith.
- 4.15** The EMPLOYER's Engineer shall obtain from the Contractor two copies of all the Contractor's quality control records and documents before the Completion Certificate is issued pursuant to Clause 12.4.
- 4.16** EMPLOYER's Engineer may recommend to the EMPLOYER/ PMNC suspension of the whole or part of the Works if the work threatens the safety of the Users and pedestrians. After the Contractor has carried out remedial measure, the EMPLOYER's Engineer shall inspect such remedial measures forthwith and make a report to the EMPLOYER recommending whether or not the suspension hereunder may be revoked.
- 4.17** In the event that the Contractor carries out any remedial measures to secure the safety of suspended works and Users, and requires the EMPLOYER's Engineer to inspect such works, the EMPLOYER's Engineer shall inspect the suspended works within 3 (three) days of receiving such notice, and make a report to the EMPLOYER/ PMNC forthwith, recommending whether or not such suspension may be revoked by the EMPLOYER.
- 4.18** The EMPLOYER's Engineer shall carry out, or cause to be carried out, all the Tests specified in Schedule-K and issue a Completion Certificate or Provisional Certificate, as the case may be. For carrying out its functions under this Paragraph 4.18 and all matters incidental thereto, the EMPLOYER's Engineer shall act under and in accordance with the provisions of Article 12 and Schedule-K.

5. Maintenance Period

- 5.1** The EMPLOYER's Engineer shall aid and advise the Contractor in the preparation of its monthly Maintenance Programme and for this purpose carry out a joint monthly inspection with the Contractor.
- 5.2** The EMPLOYER's Engineer shall undertake regular inspections, at least once every month, to evaluate compliance with the Maintenance Requirements and submit a Maintenance Inspection Report to the EMPLOYER/ PMNC and the Contractor.
- 5.3** The EMPLOYER's Engineer shall specify the tests, if any, that the Contractor shall carry out, or cause to be carried out, for the purpose of determining that the Project Works is in conformity with the Maintenance Requirements. It shall monitor and review the results of such tests and the remedial measures, if any, taken by the Contractor in this behalf.
- 5.4** In respect of any defect or deficiency referred to in Paragraph 3 of Schedule-E, the EMPLOYER's Engineer shall, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards and shall also specify the time limit for repair or rectification of any deviation or deterioration beyond the permissible limit.
- 5.5** The EMPLOYER's Engineer shall examine the request of the Contractor for closure of any lane(s)/utilities lines of the Project Roads and/or Services for undertaking maintenance/repair thereof, and shall grant permission with such modifications, as it may deem necessary, within 5 (five) days of receiving a request from the Contractor. Upon expiry of the permitted period of closure, the EMPLOYER's Engineer shall monitor the reopening of such lane(s), and in case of delay, determine the Damages payable by the Contractor to the EMPLOYER under Clause 14.5.

6. Determination of costs and time

- 6.1** The EMPLOYER's Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Agreement.
- 6.2** The EMPLOYER's Engineer shall determine the period of Time Extension that is required to be determined by it under the Agreement.
- 6.3** The EMPLOYER's Engineer shall consult each Party in every case of determination in accordance with the provisions of Clause 18.5.

7. Payments

- 7.1** The EMPLOYER's Engineer shall withhold payments for the affected works for which the Contractor fails to revise and resubmit the Drawings to the EMPLOYER's Engineer in accordance with the provisions of Clause 10.2.4 (d).
- 7.2** EMPLOYER's Engineer shall -
 - a) within 10 (ten) days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 19.4, determine the amount due to the Contractor and recommend the release of 90 (ninety) percent of the amount so determined as part payment, pending issue of the Interim Payment Certificate; and
 - b) within 15 (fifteen) days of the receipt of the Stage Payment Statement referred to in Clause 19.4, deliver to the EMPLOYER/ PMC and the Contractor an Interim Payment Certificate certifying the amount due and payable to the Contractor, after adjustments in accordance with the provisions of Clause 19.10.

7.3 The EMPLOYER's Engineer shall, within 15 (fifteen) days of receipt of the Monthly Maintenance Statement from the Contractor pursuant to Clause 19.6, verify the Contractor's monthly statement and certify the amount to be paid to the Contractor in accordance with the provisions of the Agreement.

7.4 The EMPLOYER's Engineer shall certify final payment within 30 (thirty) days of the receipt of the final payment statement of Maintenance in accordance with the provisions of Clause 19.16.

8. Other duties and functions

The EMPLOYER's Engineer shall perform all other duties and functions as specified in the Agreement.

9. Miscellaneous

9.1 A copy of all communications, comments, instructions, Drawings or Documents sent by the EMPLOYER's Engineer to the Contractor pursuant to this TOR, and a copy of all the test results with comments of the EMPLOYER's Engineer thereon, shall be furnished by the EMPLOYER's Engineer to the EMPLOYER/PMC forthwith.

9.2 The EMPLOYER's Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.

9.3 Within 60 (sixty) days of the Project Completion Date, the EMPLOYER's Engineer shall obtain a complete set of as-built Drawings, in 2 (two) hard copies and in micro film form or in such other medium as may be acceptable to the EMPLOYER, reflecting the Project as actually designed, engineered and constructed, including an as-built survey illustrating the layout of the Project Works and setback lines, if any, of the buildings and structures forming part of Project Facilities; and shall hand them over to the EMPLOYER against receipt thereof.

9.4 The EMPLOYER's Engineer, if called upon by the EMPLOYER/PMC or the Contractor or both, shall mediate and assist the Parties in arriving at an amicable settlement of any Dispute between the Parties.

9.5 The EMPLOYER's Engineer shall inform the EMPLOYER/PMC and the Contractor of any event of Contractor's Default within one week of its occurrence.

9.6 The Employer's Engineer, if called upon by the Employer/ PMC, shall attend the meetings on Project reviews, discussions to be held at Employer/ PMC office with required reports and presentations.

Schedule O - Deleted

Schedule P - Insurance

(See Clause 20.1)

1. Insurance during Construction Period

1.1 The Contractor shall effect and maintain at its own cost, from the Appointed Date till the date of issue of the last Completion Certificate, the following insurances for any loss or damage occurring on account of Non Political Event of Force Majeure, malicious act, accidental damage, explosion, fire and terrorism:

- insurance of Works, Plant and Materials and an additional sum of [15 (fifteen)] per cent of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature; and
- Insurance for the Contractor's equipment and Documents brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.

1.2 The insurance under paragraph 1.1 (a) and (b) above shall cover the EMPLOYER and the Contractor against all loss or damage from whatsoever cause arising under paragraph 1.1 other than risks which are not insurable at commercial terms.

2. Insurance for Contractor's Defects Liability

The Contractor shall effect and maintain insurance cover for the works from the date of issue of the Completion Certificate until the end of the Defects Liability Period for any loss or damage for which the Contractor is liable and arises from a cause occurring prior to the issue of Completion Certificate. The Contractor shall also maintain other insurances for maximum sums as may be required under the Applicable Laws and in accordance with Good Industry Practice.

3. Insurance against injury to persons and damage to property

3.1 The Contractor shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Paragraph 1 and 2 of this Schedule or to any person (except persons insured under Clause 20.9), which may arise out of the Contractor's performance of this agreement and occurring before the issue of the Performance Certificate. This insurance shall be for a limit per occurrence of not less than the amount stated below with no limit on the number of occurrences.

The insurance cover shall be not less than: Rs. 20 Lakhs.

3.2 The insurance shall be extended to cover liability for all loss and damage to the EMPLOYER's property arising out of the Contractor's performance of this Agreement excluding:

- the EMPLOYER's right to have the construction works executed on, over, under, in or through any land, and to occupy this land for the Works; and

Damage which is and unavoidable result of the Contractor's obligations to execute the Works.

4. Insurance to be in joint names

The insurance under paragraphs 1 to 3 above shall be in the joint names of the Contractor and the EMPLOYER.

Schedule Q – Deleted

Schedule R - Guideline for Health, Safety and Environment Plan

(See Clause 3.1.7 (l))

The Contractor shall prepare and submit a project specific Health, Safety and Environment plan based on the Manual for Construction Procedures within 30 days of the Appointed Date

Schedule S - Project Management Requirements

The Contractor shall perform all the Project Management activities necessary for proper planning, management and control of the work. Below are the project management requirements which Contractors needs to comply at different stage of the projects:

1. Participate in the project kick-off workshop with project stakeholders designated by Employer/ PMC. The kick-off workshop shall accomplish the following objectives:
 - Common understanding of the project goals and objectives
 - Define respective roles and responsibilities and
 - Agree on the methods of communication and reporting throughout the project duration.
2. Participate in monthly project status review meetings and present the project progress update in the meeting. The frequency of project status review meetings may change based on actual requirements.
3. Schedule: The Contractor shall submit a Level 3 schedule that cover's the full scope of Contractor's work within 30 calendar days of date of appointment. This will be reviewed within 15 calendar days by Employer/PMC. The Contractor shall incorporate the comments and resubmit the schedule no later than 15 calendar days after receiving the comments from Employer/ PMC. Upon approval the level 3 schedule will become the baseline schedule for all the future monitoring and tracking.

The Contractor should keep to the following guidelines

- i. Develop and incorporate a detailed Work Breakdown Structure (WBS) for all project schedules that are submitted.
- ii. All schedules shall be created, maintained and submitted to Employer /PMC in the latest version of MS Project or equivalent in an electronic format.
- iii. All schedules shall follow the Critical Path Method (CPM) of scheduling and shall have meaningful and realistic logical ties and relationships between activities.
- iv. The use of negative lags is not permitted in the baseline and all other versions of the schedule.
- v. The schedule must contain all the long lead procurement items identified.
- vi. Shall exercise reasonableness while assigning constraints in schedule and milestones
- vii. Upon approval, the copy of the Baseline schedule will become the first Current Schedule.
- viii. The Current schedule shall be actively updated and maintained by the Contractor every month.
- ix. The updated MS Project or equivalent schedule file should be submitted every month along with Monthly progress report in electronic format. A pdf copy of the updated schedule with all activities also needs to be submitted
- x. A schedule narrative document shall accompany the updated electronic schedule describing the work performed in the reporting period.
- xi. The contractor should also submit a level 4 schedule within 60 calendar days from approval of baseline level 3 schedules.
- xii. In the level 4 schedule activity durations should be reasonable (typically no more than 15 days duration except for project management tasks, procurement activities for long lead items or any other activity that obviously needs to be of longer duration).

4. Cash Flow: Prepare project cash flow at the start of the project. Prepare monthly statements to show the actual versus plan spending; update the cost periodically
5. Lessons Learned Database: The Contractor shall develop and actively maintain a “lessons learned” database on a monthly basis (to be included in the monthly project report) and submit it to Employer/ PMC at the end of the project during closeout.
6. Risk Register: Maintain an active risk register addressing the risks and mitigation measures (could be in excel format) that lists the project risks related to their Scope of Work.
7. Inter-Project Links: Identify potential inter-project links, inter-dependencies or conflicts/interference to work or work areas and narrate them in the monthly progress report.
8. Monthly Progress Report: Prepare and submit a monthly progress report (standard format and template will be provided by Employer /PMC at a later date). Items 3 to 7 mentioned above shall be the minimum information that will need to be included in the monthly progress report.
9. For better collaboration, Contractor shall use the Programme and Document Management system that will be provided by Employer/PMC at a later date and pay for the cost of procuring licenses to use the system.
10. Monthly payments are subject to timely submission of monthly progress report and the monthly updated electronic schedule file in the required and acceptable format.

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**Volume 3: Conditions of Contract and Contract
Forms**

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General Conditions of Contract

A. General

1.Definitions	<p>1.1 Boldface type is used to identify defined terms.</p> <ul style="list-style-type: none">(a) The Accepted Contract Amount means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.(b) The Activity Schedule is a schedule of the activities comprising the Supplying, Erection, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.(c) The Adjudicator is the person appointed jointly by the Employer and the Implementing Agency to resolve disputes in the first instance, as provided for in GCC23.(d) GoI means Government of India(e) Activity schedule means the Detailed Project Plan covering break-up of each phase into the key activities, along with the start and end dates forming part of the Bid.(f) Compensation Events are those defined in GCC Clause 42 hereunder.(g) The Completion Date is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 53.1.(h) The Contract is the Contract between the Employer and the Implementing Agency to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.(i) The Implementing Agency is the party whose Bid to carry out the Works has been accepted by the Employer.(j) The Implementing Agency's Bid is the completed bidding document submitted by the Implementing Agency to the Employer.(k) The Contract Price is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
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	<p>(l) Days are calendar days; months are calendar months.</p> <p>(m) A Defect is any part of the Works not completed in accordance with the Contract.</p> <p>(n) The Defects Liability Certificate is the certificate issued by Project Manager upon correction of defects by the Implementing Agency.</p> <p>(o) The Defects Liability Period is the period named in the PCC pursuant to Sub-Clause 34.1 and calculated from the Completion Date.</p> <p>(p) Drawings means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract, include calculations and other information provided or approved by the Project Manager for the execution of the Contract.</p> <p>(q) The Employer is the party who employs the Implementing Agency to carry out the Works, as specified in the PCC.</p> <p>(r) Equipment is the Implementing Agency's machinery and vehicles brought temporarily to the Site to construct the Works.</p> <p>(s) "In writing" or "written" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;</p> <p>(t) The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.</p> <p>(u) The Intended Completion Date is the date on which it is intended that the Implementing Agency shall complete the Works. The Intended Completion Date is specified in the PCC. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.</p> <p>(v) Materials are all supplies, including consumables, used by the Implementing Agency for incorporation in the Works.</p> <p>(w) Plant is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.</p> <p>(x) The Project Manager is the person named in the PCC (or any other competent person appointed by the</p>
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	<p>Employer and notified to the Implementing Agency, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.</p> <p>(y) PCC means Particular Conditions of Contract.</p> <p>(z) The Site is the area defined as such in the PCC.</p> <p>(aa) Site Investigation Reports are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.</p> <p>(bb) Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.</p> <p>(cc) The Start Date is given in the PCC. It is the latest date when the Implementing Agency shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.</p> <p>(dd) A Sub-Implementing Agency is a person or corporate body who has a Contract with the Implementing Agency to carry out a part of the work in the Contract, which includes work on the Site.</p> <p>(ee) Temporary Works are works designed, constructed, installed, and removed by the Implementing Agency that are needed for construction or installation of the Works.</p> <p>(ff) A Variation is an instruction given by the Project Manager which varies the Works.</p> <p>(gg) The Works are what the Contract requires the Implementing Agency to construct, install, and turn over to the Employer, as defined in the PCC.</p>
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<p>2. Interpretation</p>	<p>If the context so requires it, singular means plural and vice versa</p> <p>21 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.</p> <p>22 If sectional completion is specified in the PCC, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).</p> <p>23 Entire Agreement: The Contract constitutes the entire agreement between Authority and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of parties with respect thereto made prior to the date of Contract.</p> <p>24 Amendment: No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.</p> <p>25 Severability : If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract</p> <p>26 The documents forming the Contract shall be interpreted in the following order of priority:</p> <ul style="list-style-type: none"> (a) Agreement, (b) Letter of Acceptance, (c) Implementing Agency's Bid, (d) Particular Conditions of Contract, (e) General Conditions of Contract, including Appendix, (f) Specifications, (g) Drawings, (h) Activity schedule, (i) Any other document listed in the PCC as forming part of the Contract.
<p>3. Language and Law</p>	<p>3.1 The language of the Contract and the law governing the Contract are stated in the PCC</p>
<p>4. Project Manager's Decisions</p>	<p>4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Implementing Agency in the role representing the Employer.</p>

5.Delegation	5.1 Otherwise specified in the PCC , the Project Manager may delegate any of his duties and responsibilities to other people except to the Adjudicator, after notifying the Implementing Agency, and may revoke any delegation after notifying the Implementing Agency.
6. Communica-tions	6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.
7.Subcontracting	7.1 The Implementing Agency may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Implementing Agency's obligations.
8.Other Implementi ng Agency	8.1 The Implementing Agency shall cooperate and share the Site with other Implementing Agency, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Implementing Agency, as referred to in the PCC . The Implementing Agency shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Implementing Agency, and shall notify the Implementing Agency of any such modification.
9. Personnel and Equipment	<p>91 The Implementing Agency shall employ the key personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.</p> <p>92 If the Project Manager asks the Implementing Agency to remove a person who is a member of the Implementing Agency's staff or work force, stating the reasons, the Implementing Agency shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.</p> <p>93 If the Employer, Project Manager or Implementing Agency determines, that any employee of the Implementing Agency be determined to have engaged in or obstructive practice during the execution of the Works, then that employee shall be removed in accordance with Clause 9.2 above.</p>
10. Employer's and Implementing Agency's Risks	10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Implementing Agency carries the risks which this Contract states are Implementing Agency's risks.

<p>11. Employer's Risks</p>	<p>11.1 From the Start Date until the Defects Liability Certificate has been issued and then during the Operation & Maintenance Period, the following are Employer's risks:</p> <ul style="list-style-type: none"> (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to <ul style="list-style-type: none"> (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or (ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Implementing Agency. (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed. <p>11.2 From the Completion Date until the Defects Liability Certificate has been issued and then during the Operation & Maintenance Period, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to</p> <ul style="list-style-type: none"> (a) a Defect which existed on the Completion Date, (b) an event occurring before the Completion Date, which was not itself an Employer's risk, or (c) the activities of the Implementing Agency on the Site after the Completion Date.
<p>12. Implementing Agency's Risks</p>	<p>12.1 From the Starting Date until the Defects Liability Certificate has been issued and then during the Operation & Maintenance Period, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Implementing Agency's risks.</p>
<p>13. Insurance</p>	<p>13.1 The Implementing Agency shall provide, in the joint names of the Employer and the Implementing Agency, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the PCC for the following events which are due to the Implementing Agency's risks:</p> <ul style="list-style-type: none"> (a) loss of or damage to Equipment (if any); (b) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and (c) Personal injury or death. <p>13.2 Policies and certificates for insurance shall be delivered by the</p>

	<p>Implementing Agency to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.</p> <p>133 If the Implementing Agency does not provide any of the policies and certificates required, the Employer may effect the insurance which the Implementing Agency should have provided and recover the premiums the Employer has paid from payments otherwise due to the Implementing Agency or, if no payment is due, the payment of the premiums shall be a debt due.</p> <p>134 Alterations to the terms of insurance shall not be made without the approval of the Project Manager.</p> <p>135 Both parties shall comply with any conditions of the insurance policies.</p>
14. Site Data	14.1 The Implementing Agency shall be deemed to have examined any Site Data referred to in the PCC, supplemented by any information available to the Implementing Agency.
15. Implementing Agency to Construct the Works	15.1 The Implementing Agency shall construct and install the Works in accordance with the Specifications.
16. The Works to Be Completed by the Intended Completion Date	16.1 The Implementing Agency may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Implementing Agency, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.
17. Approval by the Project Manager	<p>17.1 The Implementing Agency shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.</p> <p>17.2 The Implementing Agency shall be responsible for design of Temporary Works.</p> <p>17.3 The Project Manager's approval shall not alter the Implementing Agency's responsibility for design of the Temporary Works.</p> <p>17.4 The Implementing Agency shall obtain approval of third parties to the design of the Temporary Works, where required.</p> <p>17.5 All Drawings prepared by the Implementing Agency for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.</p>
18. Safety	18.1 The Implementing Agency shall be responsible for the safety of all activities.
19. Discoveries	19.1 Anything of historical or other interest or of significant value Unexpectedly discovered on the Site shall be the property of the Employer. The Implementing Agency shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.
20. Possession of the Site	20.1 The Employer shall give possession of all parts of the Site to the Implementing Agency. If possession of a part is not given by the date stated in the PCC, the Employer shall be deemed to have

	delayed the start of the relevant activities, and this shall be a Compensation Event.
21. Access to the Site	21.1 The Implementing Agency shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
22. Instructions, Inspections and Audits	<p>221 The Implementing Agency shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.</p> <p>222 The Implementing Agency shall keep, and shall make all reasonable efforts to cause its Sub Implementing Agencies and sub consultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.</p> <p>223 The Implementing Agency shall permit and shall cause its Sub Implementing Agencies and sub consultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or the accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Implementing Agency's and its Sub Implementing Agencies' and sub consultants' attention is drawn to Sub-Clause 25.1 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under Sub-Clause 22.2 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).</p> <p>224 As per PCC.</p>
23. Appointment of the Adjudicator	<p>23.1 The Adjudicator shall be appointed jointly by the Employer and the Implementing Agency, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, if the Adjudicator not appointed, the same may be appointed by the Employer within 14 days of receipt of such request from the Implementing Agency.</p> <p>23.2 Should the Adjudicator resign or die, or should the Employer and the Implementing Agency agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator shall be jointly appointed by the Employer and the Implementing Agency. In case of disagreement between the Employer and the Implementing Agency, within 30 days, the Adjudicator shall be designated by the Appointing Authority designated in the PCC at the request of either party, within 14 days of receipt of such request.</p>
24. Settlement of Disputes	<p>24.1 – Amicable Settlement</p> <p>a) The Parties shall seek to resolve any dispute amicably by mutual consultation</p> <p>b) If either Party objects to any action or inaction of the other Party, the objecting Party may file a written Notice of Dispute to the other Party providing in detail the basis of the dispute. The Party</p>

	<p>receiving the Notice of Dispute will consider it and respond in writing within fourteen (14) days after receipt. If that Party fails to respond within fourteen (14) days, or the dispute cannot be amicably settled within fourteen (14) days following the response of that Party, Clause GCC 24.2 shall apply.</p> <p>24.2 – Dispute Resolution Any dispute between the Parties arising under or related to this Contract that cannot be settled amicably may be referred to by either Party to the adjudication/arbitration in accordance with the provisions specified in the PCC</p>
25. Corrupt and Fraudulent Practices	<p>25.1 The Employer requires compliance with Prevention of Corruption Act 1988 (INDIA) and its subsequent amendments on Preventing and Combating Corruption</p> <p>25.2 The Employer requires the Implementing Agency to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.</p>

B. Time Control

26. Program	<p>26.1 Within the time stated in the PCC, after the date of the Letter of Acceptance, the Implementing Agency shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.</p> <p>26.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.</p> <p>26.3 The Implementing Agency shall submit to the Project Manager for approval an updated Program at intervals no longer than the period stated in the PCC. If the Implementing Agency does not submit an updated Program within this period, the Project Manager may withhold the amount stated in the PCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Implementing Agency shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.</p> <p>26.4 The Project Manager's approval of the Program shall not alter the Implementing Agency's obligations. The Implementing Agency may revise the Program and submit it to the Project Manager again at any time. A revised Program may show the effect of Variations and Compensation Events.</p>
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<p>27. Extension of the Intended Completion Date</p>	<p>27.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Implementing Agency taking steps to accelerate the remaining work, which would cause the Implementing Agency to incur additional cost.</p> <p>27.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Implementing Agency asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Implementing Agency has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.</p> <p>27.3 If at any time during performance of the Contract, the Supplier or its Subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services, the Supplier shall promptly notify authority in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, authority shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment.</p> <p>27.4 Except in case of Force Majeure, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages, unless an extension of time is agreed upon.</p>
<p>28. Acceleration</p>	<p>28.1 When the Employer wants the Implementing Agency to finish before the Intended Completion Date. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Implementing Agency.</p>
<p>29. Delays Ordered by the Project Manager</p>	<p>29.1 The Project Manager may instruct the Implementing Agency to delay the start or progress of any activity within the Works.</p>
<p>30. Management Meetings</p>	<p>30.1 Either the Project Manager or the Implementing Agency may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.</p> <p>30.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.</p>

<p>31. Early Warning</p>	<p>31.1 The Implementing Agency shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase and/or decrease in the Contract Price, or delay the execution of the Works. The Project Manager may require the Implementing Agency to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Implementing Agency as soon as reasonably possible.</p> <p>31.2 The Implementing Agency shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.</p>
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C. Quality Control

<p>32. Identifying Defects</p>	<p>32.1 The Project Manager shall check the Implementing Agency's work and notify the Implementing Agency of any Defects that are found. Such checking shall not affect the Implementing Agency's responsibilities. The Project Manager may instruct the Implementing Agency to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.</p> <p>32.2 Penalty of 0.5% of the contract value per day from the due date for rectifying the defects identified by the Project manager.</p> <p>32.3 Contract Quality Assurance as discussed in PCC.</p>
<p>33. Tests</p>	<p>33.1 If the Project Manager instructs the Implementing Agency to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Implementing Agency shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.</p>
<p>34. Correction of Defects</p>	<p>34.1 The Project Manager shall give notice to the Implementing Agency of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the PCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.</p> <p>34.2 Every time notice of a Defect is given, the Implementing Agency shall correct the notified Defect within the length of time specified by the Project Manager's notice.</p>
<p>35. Uncorrected Defects</p>	<p>35.1 If the Implementing Agency has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Implementing Agency shall pay this amount.</p>

D. Cost Control

36. Contract Price	36.1 The Implementing Agency shall provide updated Activity Schedules within 14 days of being instructed to by the Project Manager. The Activity Schedule shall contain the priced activities for the Works to be performed by the Implementing Agency. The Activity Schedule is used to monitor and control the performance of activities on which basis the Implementing Agency will be paid. If payment for materials (if any) on site shall be made separately, the Implementing Agency shall show delivery of Materials (if any) to the Site separately on the Activity Schedule.
37. Changes in the Contract Price	<p>37.1 The Activity Schedule shall be amended by the Implementing Agency to accommodate changes of Program or method of working made at the Implementing Agency's own discretion. Prices in the Payment Schedule shall not be altered when the Implementing Agency makes such changes to the Activity Schedule.</p> <p>37.2 If requested by the Project Manager, the Implementing Agency shall provide the Project Manager with a detailed cost breakdown of any rate.</p>
38. Variations	<p>38.1 All Variations shall be included in updated Programs and Activity Schedules produced by the Implementing Agency.</p> <p>38.2 The Implementing Agency shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.</p> <p>38.3 If the Implementing Agency's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Implementing Agency's costs.</p> <p>38.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.</p> <p>38.5 The Implementing Agency shall not be entitled to additional payment for costs that could have been avoided by giving early warning.</p>
39. Cash Flow Forecasts	39.1 When the Program and activity schedule is updated, the Implementing Agency shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.
40. Payment Certificates	<p>40.1 The Implementing Agency shall submit to the Project Manager payment statements of the estimated value of the work executed less the cumulative amount certified previously.</p> <p>40.2 The Project Manager shall check the Implementing Agency's payment statement and certify the amount to be paid to the Implementing Agency.</p>

	<p>40.3 The value of work executed shall be determined by the Project Manager.</p> <p>40.4 The value of work executed shall comprise the value of completed activities in the Activity Schedule</p> <p>40.5 The value of work executed shall include the valuation of Variations and Compensation Events.</p> <p>40.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.</p>
41. Payments	<p>41.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Implementing Agency the amounts certified by the Project Manager within 28 days of the date of each certificate.</p> <p>41.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Implementing Agency shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.</p> <p>41.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.</p> <p>41.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.</p> <p>41.5 The certified payments shall be made as specified in the PCC.</p>
42. Compensation Events	<p>42.1 The following shall be Compensation Events:</p> <ul style="list-style-type: none"> (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1. (b) The Employer modifies the Schedule of Other Implementing Agency's in a way that affects the work of the Implementing Agency under the Contract. (c) The Project Manager orders a delay or does not issue Drawings/approved drawings (as the case may be), Specifications, or instructions required for execution of the Works on time. (d) The Project Manager instructs the Implementing Agency to uncover or to carry out additional tests upon work, which is then found to have no Defects. (e) The Project Manager unreasonably does not approve a subcontract to be let.

	<p>(f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.</p> <p>(g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.</p> <p>(h) Other Implementing Agencies, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Implementing Agency.</p> <p>(i) The advance payment is delayed, if any.</p> <p>(j) The effects on the Implementing Agency of any of the Employer's Risks.</p> <p>(k) The Project Manager unreasonably delays issuing a Certificate of Completion.</p>
	<p>42 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.</p> <p>43 As soon as information demonstrating the effect of each Compensation Event upon the Implementing Agency's forecast cost has been provided by the Implementing Agency, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Implementing Agency's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Implementing Agency shall react competently and promptly to the event.</p> <p>44 The Implementing Agency shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Implementing Agency's not having given early warning or not having cooperated with the Project Manager.</p>
<p>43. Tax</p>	<p>43.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Implementing Agency, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 44 and GCC Clause 69.</p>

44. Currencies	44.1 Where payments are made in currencies other than the currency of the Employer's country specified in the PCC, the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Implementing Agency's Bid.
45. Price Adjustment	<p>45.1 Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in the PCC. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type specified below applies to each Contract currency:</p> $P_c = A_c + B_c I_{m,c} / I_{o,c}$ <p>where: P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency "c." A_c and B_c are coefficients specified in the PCC, representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c;" and $I_{m,c}$ is the index prevailing at the end of the month being invoiced and $I_{o,c}$ is the index prevailing 28 days before Bid opening for inputs payable; both in the specific currency "c."</p> <p>45.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.</p>
46. Retention	<p>46.1 The Employer shall retain from each payment due to the Implementing Agency the proportion stated in the PCC until Completion of the whole of the Works.</p> <p>46.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 51.1, half the total amount retained shall be repaid to the Implementing Agency and has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Implementing Agency before the end of this period have been corrected. The Implementing Agency may substitute retention money with an "on demand" Bank guarantee.</p>
47. Liquidated Damages	<p>Failure to Perform the Contractual Obligations</p> <p>I. In the event of total default / failure of the Implementing Agency in execution of the services, the Employer reserves the right to get the work executed by any other agency/ firm at the risk and cost of the defaulting implementing Agency. Decision of employer is final & binding on the implementing agency firm.</p> <p>II In this case liquidated damages @ 1% of the fee cost of balance work per week of delay subject to maximum of 10% shall be levied by the authority.</p>

48. Bonus	48.1 The Implementing Agency shall be paid a Bonus calculated at the rate per calendar day stated in the PCC for each day (less any days for which the Implementing Agency is paid for acceleration) that the Completion is earlier than the Intended Completion Date.
49. Advance Payment	<p>49.1 The Employer shall make advance payment to the Implementing Agency of the amounts stated in the PCC by the date stated in the PCC, against provision by the Implementing Agency of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Implementing Agency. Interest shall not be charged on the advance payment.</p> <p>The contractors for works exceeding Rs.1.00 Crore of estimated cost are permitted to avail the facility of mobilization advance not exceeding 10% of the value of the contract (5% for labour mobilization and 5% for machinery and equipment) in installments against an unconditional and irrevocable bank guarantee in terms of G.O Ms. No. 94 dt.1.7.2003 and G.O. Ms. No.50I&CADdt.2.3.2009.</p>
	<p>49.2 The Implementing Agency is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Implementing Agency shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.</p> <p>The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Implementing Agency, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.</p>
50. Securities	50.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount specified in the GCC 100.4 and PCC, by a bank acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until the completion including defect liability period.
51. Dayworks	<p>51.1 If applicable, the Dayworks rates in the Implementing Agency's Bid shall be used only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.</p> <p>51.2 All work to be paid for as Dayworks shall be recorded by the Implementing Agency on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.</p> <p>51.3 The Implementing Agency shall be paid for Dayworks subject to</p>

	obtaining signed Dayworks forms.
52. Cost of Repairs	52.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Implementing Agency at the Implementing Agency's cost if the loss or damage arises from the Implementing Agency's acts or omissions.

E. Finishing the Contract

53. Completion	53.1 The Implementing Agency shall request the Project Manager to issue a Certificate of Completion of the Works including all other associated works, proceeding further for Operation & Maintenance; the Project Manager shall do so upon deciding that the whole of the Works is completed.
54. Taking Over	54.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.
55. Final Account	55.1 The Implementing Agency shall supply the Project Manager with a detailed account of the total amount that the Implementing Agency considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Implementing Agency within 56 days of receiving the Implementing Agency's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Implementing Agency and issue a payment certificate.
56. Operating and Maintenance Manuals	<p>561 If "as built" Drawings and/or operating and maintenance manuals are required, the Implementing Agency shall supply them by the dates stated in the PCC.</p> <p>562 If the Implementing Agency does not supply the Drawings and/or manuals by the dates stated in the PCC pursuant to GCC Sub- Clause 56.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount stated in the PCC from payments due to the Implementing Agency.</p>
57. Termination	<p>57.1 The Employer or the Implementing Agency may terminate the Contract if the other party causes a fundamental breach of the Contract.</p> <p>57.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:</p> <p>(a) the Implementing Agency stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;</p>

- (b) the Project Manager instructs the Implementing Agency to delay the progress of the Works, and the instruction is not withdrawn within 28 days;
- (c) the Employer or the Implementing Agency is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (d) a payment certified by the Project Manager is not paid by the Employer to the Implementing Agency within 84 days of the date of the Project Manager's certificate;
- (e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Implementing Agency fails to correct it within a reasonable period of time determined by the Project Manager;
- (f) the Implementing Agency does not maintain a Security, which is required;
- (g) the Implementing Agency has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the PCC; or
- (h) if the Implementing Agency, in the judgment of the Employer, has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Employer may, after giving fourteen (14) days written notice to the Implementing Agency, terminate the Contract and expel him from the Site.

57.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 56.2 above, the Project Manager shall decide whether the breach is fundamental or not.

57.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

57.5 If the Contract is terminated, the Implementing Agency shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

57.6 Termination for Default

- (a) Authority, without prejudice to any other remedy for breach of Contract, by Notice of default sent to the Supplier, may terminate the Contract in whole or in part:
 - If the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within

	<p>any extension thereof granted by authority.</p> <ul style="list-style-type: none"> • If the Supplier fails to perform any other obligation under the Contract. <p>(b) In the event authority terminates the Contract in whole or in part, authority may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to authority for any additional costs for such similar Goods or Related Services.</p> <p>(c) If the Supplier, in the judgment of authority has engaged in corrupt or fraudulent practices, in competing for or in executing the Contract.</p> <p>57.7 Termination for Insolvency</p> <p>Authority may at any time terminate the Contract by giving Notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to Authority.</p> <p>57.8 Termination for Convenience</p> <p>Authority, by Notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The Notice of termination shall specify that termination be for Authority's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.</p>
<p>58. Payment upon Termination</p>	<p>58.1 If the Contract is terminated because of a fundamental breach of Contract by the Implementing Agency, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as specified in the PCC. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Implementing Agency, the difference shall be a debt payable to the Employer.</p> <p>58.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Implementing Agency's personnel employed solely on the Works, and the Implementing Agency's costs of protecting and securing the</p>

	Works, and less advance payments received up to the date of the certificate.
59. Property	59.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Implementing Agency's default.
60. Release from Performance	60.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Implementing Agency, the Project Manager shall certify that the Contract has been frustrated. The Implementing Agency shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.
61. Suspension of Bank Loan or Credit	<p>61.1 In the event that the Government of India (GoI) and/or State Government (Government of Andhra Pradesh) suspends the Loan or Credit to the Employer, from which part of the payments to the Implementing Agency are being made:</p> <ul style="list-style-type: none"> (a) The Employer is obligated to notify the Implementing Agency of such suspension within 7 days of having received the Government of India (GoI) and/or State Government (Government of Andhra Pradesh) suspension notice. (b) If the Implementing Agency has not received sums due it within the 28 days for payment provided for in Sub-Clause 40.1, the Implementing Agency may immediately issue a 14-day termination notice.
62. Force Majeure	<ul style="list-style-type: none"> (a) The Implementing Agency shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure. (b) For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Implementing Agency that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Implementing Agency. Such events may include, but not be limited to, acts of the Authority in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes. (c) If a Force Majeure situation arises, the Implementing Agency shall promptly notify the Authority in writing of such condition and the cause thereof. Unless otherwise directed by the Authority in writing, the Implementing Agency shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. (d) As per PCC.

<p>63. Governing Law and jurisdiction</p>	<p>(a) This Agreement shall be governed by the laws of India. The courts in Andhra Pradesh shall have jurisdiction over all matter arising out of or relating to this Agreement.</p> <p>(b) The Jurisdiction limits will be the Tirupati</p>
<p>64. Possession of Goods</p>	<p>(a) Goods have to be delivered to the site only after prior the approval form the Engineer-In-Charge.</p> <p>(b) Such Goods once delivered to Site will not be allowed to taken back except the construction equipments and the construction equipments should be permitted after the successful completion of the Project and as well as the Operation and Maintenance period.</p> <p>(c) In pursuant to GCC64.B, Goods will be allowed to taken back only after the written permission from the Engineer-In-Charge.</p>
<p>65. Warranty</p>	<p>(a) The Implementing Agency warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.</p> <p>(b) The Implementing Agency further warrants that the Goods shall be free from defects arising from any act or omission of the Implementing Agency or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.</p> <p>(c) Unless otherwise specified in the PCC, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the PCC</p> <p>(d) The Authority shall give notice to the Implementing Agency stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Authority shall afford all reasonable opportunity for the Implementing Agency to inspect such defects.</p> <p>(e) Upon receipt of such notice, the Implementing Agency shall, within the period specified in the PCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Authority.</p> <p>(f) If having been notified, the Implementing Agency fails to remedy the defect within the period specified in the PCC, the Authority may proceed to take within a reasonable period such remedial action as may be necessary, at the Implementing Agency's risk and expense and without prejudice to any other rights which the Authority may have against the Implementing Agency under the Contract.</p>

66. Exit Management Plan

An Exit Management plan shall be furnished by IMPLEMENTING AGENCY in writing to the Client within 90

days from the date of signing the Contract, which shall deal with at least the following aspects of exit management in relation to the Contract as a whole and in relation to the Project Implementation, and Service Level monitoring.

- (i) A detailed program of the transfer process that could be used in conjunction with a Replacement Service Provider including details of the means to be used to ensure continuing provision of the Services throughout the transfer process or until the cessation of the services and of the management structure to be used during the transfer;
- (ii) Plans for provision of contingent support to Project and Replacement Service Provider for a reasonable period after transfer.
- (iii) Exit Management plan in case of normal termination of Contract Period.
- (iv) Exit Management plan in case of any eventuality due to which Project is terminated before the Contract period.
- (v) Exit Management plan in case of termination of IMPLEMENTING AGENCY.

A.

Under Contract Completion

Exit Management plan shall adhere to the following:

(i) Three (3) months of the support to Replacement Service Provider post termination of the Contract.

(ii) Complete handover of the Planning documents, bill of materials, functional requirements specification, technical specifications of all equipment, change requests if any, sources codes / Quality manuals, wherever applicable, reports, documents and other relevant items to the Replacement Service Provider/Client.

(iii) The IMPLEMENTING AGENCY shall be responsible for transferring all the knowledge regarding the Systems, technically and operationally to enable the new agency / Client to carry out the requisite functions.

(iv) All latest operations & technical manuals, configuration files, software, licenses, quality manuals, warranties, guarantee, as-built drawings etc. shall be handed over to Client at least 3 months before contract completion.

(v) Client shall release the performance security to the IMPLEMENTING AGENCY only after satisfactory Exit Management is achieved as part of the project and IMPLEMENTING AGENCY is obligated to perform all required additional functions to facilitate the same for a smooth transfer of the duties.

(vi) Certificate of Acceptance from authorized representative of Replacement Service Provider issued to IMPLEMENTING AGENCY on successful completion of handover and knowledge transfer.

In the event of termination or expiry of the Contract, Project Implementation, or Service Level monitoring, both Bidder and Client shall comply with the Exit Management Plan.

During the exit management period, IMPLEMENTING AGENCY

A. Other Terms and conditions of the contract.	
67. Scope of Supply	<p>1) The Goods and Related Services to be supplied shall be as per Schedule of Supply mentioned in the bid document.</p> <p>2) Unless otherwise stipulated in the Contract, the Scope of Supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Delivery and Completion of the Goods and Related Services as if such items were expressly mentioned in the Contract.</p>
68. Delivery	The Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion at Tirupati.
69. Supplier's Responsibility	The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Delivery and Completion Schedule.
70. Notices	All notices or other communications to be given or made under this agreement shall be in writing, shall either be delivered personally or sent by courier or registered post with an additional copy to be sent by facsimile or e-mail. The address for service of each party, its facsimile number and e-mail address are set out under its name on the signing pages hereto. A notice shall be effective upon actual receipt thereof, save that where it is received after 5:30 (Five Thirty) P.M. on any day, or on a day that is a public holiday, the notice shall be deemed to be received on the first working day following the date of actual receipt. Without prejudice to the foregoing, a party giving or making a notice or communication by facsimile or e-mail shall promptly deliver a copy thereof personally, or send it by courier or registered post to the addressee of such notice of communication. It is hereby agreed and acknowledged that any party may by notice change the address to which such notices and communications to it are to be delivered or mailed. Such changes shall be effective when all the parties have notice of it.
71. Information provided by the Authority	All drawings, Data and documentation that are given to the Implementing Agency by the Authority for the execution of the order are the property of the Authority and shall be returned when demanded. Except for the purpose of executing the order of the Authority, Implementing Agency shall ensure that the above documents are not used for any other purpose. The Implementing Agency shall further ensure that the information given by the Authority is not disclosed to any person, firm, body, corporate and / or authority and every effort shall be made to keep the above information confidential. All such information shall remain the absolute property of the Authority.
72. Implementing Agency's Responsibilities	The Implementing Agency shall supply all the Goods and Related Services included in the Scope of Supply and the Delivery and Completion Schedule.

The Implementing Agency shall be responsible for the adequacy, stability and safety of all services being provided.

The Implementing Agency shall comply with all applicable safety regulations and take care for the safety of all persons entitled to be on as the operation and maintenance.

The Implementing Agency shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Authority shall be entitled to audit any aspect of the system.

The Implementing Agency shall be deemed to:

- a) have satisfied himself as to the correctness and sufficiency of the Accepted Contract Amount, and
- b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters.

Unless otherwise stated in the Contract, the Accepted Contract Amount covers all the Implementing Agency's obligations under the Contract and all things necessary for the proper discharge of the contract agreement.

The Implementing Agency shall be wholly and solely responsible for full compliance with the provisions under all labour laws and /or regulations such as Payment of Wages Act 1948, Employees Liability Act 1938, Workmen's Compensation Act 1923, Employees State Insurance Act 1948, Employees Provident Fund Act 1952, Industrial Disputes Act 1947, the Maternity Benefit Act 1961, the Contract Labour (Regulation and Abolition) Act 1970 and the Factories Act 1948 or any modifications thereof or any other law relating thereto and rules there under introduced from time to time.

The Implementing Agency shall assume liability and shall indemnify the Authority from every expense, liability or payment by reason of the application of any labour law, act, rules or regulations existing or to be introduced at a future date during the term of the Contract.

In general, in respect of all labour directly or indirectly employed in the Work for the performance of Implementing Agency's part of the Contract, the Implementing Agency shall comply with all the rules framed by the Government authorities concerned from

	<p>time to time for protection of the health and welfare of the workers.</p> <p>The Implementing Agency shall not employ any children/ child labour below the age of 18 years.</p> <p>The Implementing Agency shall include in the Contract Price all expenses necessary to meet his obligations for making contributions toward employee benefits funds such as Employee Provident fund (EPF), Employee State Insurance Scheme (ESI) benefits, old age pension and/or any other benefits/compensation legally payable in compliance with all the statutory regulations and requirements. All records in this connection shall be properly maintained by the Implementing Agency and produced for scrutiny by the concerned authorities and the Authority</p>
<p>73. Taxes and Duties</p>	<p>a) For goods manufactured outside the Authority's Country, the Implementing Agency shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Authority's Country.</p> <p>b) For goods Manufactured within the Authority's Country, the Implementing Agency shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Authority.</p> <p>c) If any tax exemptions, reductions, allowances or privileges may be available to the Implementing Agency in the Authority's Country, the Authority shall use its best efforts to enable the Implementing Agency to benefit from any such tax savings to the maximum allowable extent.</p>
<p>74. Copyright</p>	<p>The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Delivery and Completion Schedule.</p> <p>The copyright in all drawings, documents, and other materials containing data and information furnished to the Authority by the Implementing Agency herein shall remain vested in the Implementing Agency, or, if they are furnished to the Authority directly or through the Implementing Agency by any third party, including Implementing Agencies of materials, the copyright in such materials shall remain vested in such third party</p>
<p>75. Confidential Information</p>	<p>The Authority and the Implementing Agency shall keep confidential and shall not, without the written consent of the</p>

	<p>other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Implementing Agency may furnish to its Subcontractor such documents, data, and other information it receives from the Authority to the extent required for the Subcontractor to perform its work under the Contract, in which event the Implementing Agency shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Implementing Agency under GCC Clause 71.</p> <p>The Authority shall not use such documents, data, and other information received from the Implementing Agency for any purposes unrelated to the contract. Similarly, the Implementing Agency shall not use such documents, data, and other information received from the Authority for any purpose other than the performance of the Contract.</p> <p>The obligation of a party under GCC Sub-Clauses 71 (a) and 71 (b) above, however, shall not apply to information that:</p> <ol style="list-style-type: none"> a. now or hereafter enters the public domain through no fault of that party; b. can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or c. Otherwise, lawfully becomes available to that party from a third party that has no obligation of confidentiality. d. The above provisions of GCC Clause 71 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof. e. The provisions of GCC Clause 71 shall survive completion or termination, for whatever reason, of the Contract
<p>76. Specifications and Standards</p>	<p>Technical Specifications and Drawings</p> <ol style="list-style-type: none"> a. The Supplier shall ensure that the Goods and Related Services comply with the technical specifications and other provisions of the Contract. The Goods and Related Services supplied under this Contract shall conform to the standards mentioned Schedule of Supply and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate

	<p>b. Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Authority and shall be treated in accordance with GCC Clause 11.1.32</p>
<p>77. Packing and Documents</p>	<p>a) The Implementing Agency shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.</p> <p>b) The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, and in any other instructions ordered by the Authority</p>
<p>78. Transportation and Incidental Services</p>	<p>The Implementing Agency responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.</p> <p>Transportation of the goods shall be in accordance with the Schedule of Supply.</p> <p>The Implementing Agency may be required to provide any or all of the following services, including additional services:</p> <ol style="list-style-type: none"> a. performance or supervision of on-site assembly and/or start-up of the supplied Goods; b. furnishing of tools required for assembly and/or maintenance of the supplied Goods; c. furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods; d. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Implementing Agency of any warranty obligations under this Contract; and e. training of the Authority's personnel, at the Implementing Agency's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied

	<p>Goods.</p> <p>f. Prices charged by the Implementing Agency for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Implementing Agency for similar services</p>
<p>79. Patent Indemnity</p>	<p>The Implementing Agency shall, subject to the Authority's compliance with GCC Sub-Clause 75, indemnify and hold harmless the Authority and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Authority may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:</p> <p>a. the installation of the Goods by the Implementing Agency or the use of the Goods in the country where the Site is located; and</p> <p>b. Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Implementing Agency, pursuant to the contract.</p> <p>If any proceedings are brought or any claim is made against the Authority arising out of the matters referred to in GCC Sub-Clause 75, the Authority shall promptly give the Implementing Agency a notice thereof and the Implementing Agency may at its own expense and in the Authority's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claims.</p> <p>If the Implementing Agency fails to notify the Authority within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Authority shall be free to conduct the same on its own behalf.</p> <p>The Authority shall, at the Implementing Agency's request,</p>

	<p>afford all available assistance to the Implementing Agency in conducting such proceedings or claim, and shall be reimbursed by the Implementing Agency for all reasonable expenses incurred in so doing.</p> <p>The Authority shall indemnify and hold harmless the Implementing Agency and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Implementing Agency may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Authority.</p>
<p>80. Limitation of Liability</p>	<p>Except in cases of criminal / gross negligence or willful misconduct:</p> <p>a. the Implementing Agency shall not be liable to the Authority, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Implementing Agency to pay liquidated damages to the Authority and</p> <p>b. the aggregate liability of the Implementing Agency to the Authority, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Implementing Agency to indemnify the Authority with respect to patent infringement</p>
<p>81. Change in Laws and Regulations</p>	<p>Unless otherwise specified in the Contract, if after the bid submission date, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be</p>

	<p>correspondingly increased or decreased, to the extent that the Implementing Agency has thereby been affected in the performance of any of its obligations under the contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC's Contract Price Clause.</p>
<p>82. Change order and Contract Amendments</p>	<p>The Authority may at any time order the Implementing Agency through notice, to make changes within the general scope of the Contract in any one or more of the following:</p> <ul style="list-style-type: none"> a. Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Authority; b. the method of shipment or packing; c. the place of delivery; and d. the Related Services to be provided by the Implementing Agency. <p>If any such change causes an increase or decrease in the cost of, or the time required for, the Implementing Agency's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Implementing Agency for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Implementing Agency's receipt of the Authority's change order.</p> <p>Prices to be charged by the Implementing Agency for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Implementing Agency for similar services.</p> <p>Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.</p>
<p>83. Assignment</p>	<p>Neither the Authority nor the Implementing Agency shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.</p>
<p>84. Export Restriction</p>	<p>Notwithstanding any obligation under the Contract to complete all export formalities, any export restrictions attributable to the</p>

	<p>Authority, to the country of the Authority, or to the use of the products/goods, systems or services to be supplied, which arise from trade regulations from a country supplying those products/goods, systems or services, and which substantially impede the Implementing Agency from meeting its obligations under the Contract, shall release the Implementing Agency from the obligation to provide deliveries or services, always provided, however, that the Implementing Agency can demonstrate to the satisfaction of the Authority and of the Bank that it has completed all formalities in a timely manner, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract. Termination of the Contract on this basis shall be for the Authority's convenience pursuant to Termination Clause.</p>
<p>85. Time is of the Essence</p>	<p>Time shall be of the essence in respect of any date or period specified in this contract or any notice, demand or other communication served under or pursuant to any provision of this contract and in particular in respect of the completion of the activities by implementing agency by the specified completion date.</p>
<p>86. Ownership and Retention of Documents</p>	<p>The authority shall own the documents, prepared by implementing agency arising out of or in connection with the contract.</p> <p>Forthwith upon expiry or earlier termination of this contract and at any other time on demand by the client, Implementing Agency shall deliver to the authority all documents provided by or organizing from the authority and all documents produced by or for implementing agency in the course of performing the services, unless otherwise directed in writing by the authority at no additional cost. Implementing Agency shall not, without the prior written consent of the client store, copy distribute or retain any such documents.</p>
<p>87. Records of Contract Document</p>	<p>Implementing Agency shall at all-time make and keep sufficient copies of the process manuals, operating procedures, specifications, Contract Documents and any other documentation for them to fulfil their duties of the contract.</p> <p>Implementing Agency shall keep on the site at least three copies of each and every specification and contract document. In excess of their own requirement and those copies shall be available at all times for use by the authority and by any other person authorized by the authority.</p>

<p>88. Security and Safety</p>	<p>Implementing Agency shall comply with the directions issued from time to time by the authority and the standards related to the security and safety, in so far as it applies to the provision of the services.</p> <p>Implementing Agency shall upon reasonable request by the authority or its nominee(s) participate in regular meetings when safety and matters are reviewed.</p>
<p>89. Addition / Alteration / Modifications</p>	<p>The Authority reserves the right to make additions/alterations/modifications to the quantity of items in the contract. The Implementing Agency shall supply such quantities also at the same rate as originally agreed to + 20% of the quantity ordered and incorporated in the contract. The variation shall, however, be limited Waiver.</p> <p>Any waiver by the authority of any breach of the conditions of the Contract shall not constitute any right for subsequent waiver of any other terms and conditions.</p>
<p>90. Rating & Name Plate</p>	<p>Equipment should be provided with name plate giving full details of manufacture, capacity and other details as specified in the relevant IS or other specification stipulated. The purchase order No and date and year of Supply and the words “(TSCCL)” must be etched on the name plate.</p> <p>RATING PLATE: Each main and auxiliary item of plant shall have permanently attached to it a rating plate in a conspicuous position. This shall be of a non-corrodible material preferably chromium plated steel to stand the prevalent atmospheric conditions as indicated. The inscription shall be engraved in black on the plate. The size of the rating plate shall depend Upon space availability and inscriptions shall be approved by the client. The plates shall be reasonably sized for clarity and clear inscription. The plates shall be attached to the body of the equipment by screws.</p> <p>NAME PLATE: Each item of plant shall be provided with a name plate or label designating the service of the particular equipment. The shape and size of the plate and inscriptions shall be approved by the client. Such name plates shall be of non-corrodible material preferably chromium plated steel having</p>

	engraved black lettering or otherwise as specified. In case of indoor equipment, the plate shall be of transparent plastic material with black lettering engraved on the back. The name plates shall be screwed to the body of the equipment.
91. Interchange ability	All similar materials and removable parts of similar equipment shall be interchangeable with each other. A specific confirmation of this should be furnished along with the invoices for the Supplies
92. Material and Workmanship	Implementing Agency shall fully warrant that the stores, equipment and component Supplied shall be new and first quality, according to the specifications and shall be free from defects (even concealed faults, deficiency in design, materials and workmanship).
93. Spare Parts, Oil and Lubricants	Wherever applicable, the Implementing Agency shall furnish to the Authority, item-wise price list of spares required for regular operation and maintenance of the ordered equipment. The Implementing Agency shall also furnish necessary instructions and drawings to identify the spare part numbers and their location as well as an interchange ability chart
94. Implementing Agency's Liability	Implementing Agency accepts full responsibility and indemnifies the Authority and shall hold the Authority harmless from all acts of omission and commission on the part of the Implementing Agency, his agents, his subcontractors and employees in execution of the contract. The Implementing Agency also agrees to defend and undertakes to indemnify the Authority and also hold it harmless from any and all claims for injury to or death of any and all persons including but not limited to employees and for damage to the property arising out of or in connection with the performance of the work under the contract. The Implementing Agency's liability and indemnity under the Contract shall be limited to execution and maintenance except in case of Force Majeure
95. Access to Implementing Agency's Premises	The Authority and /or its authorized representative shall be provided Access to Implementing Agency's and / or his sub-contractor's premises, at any time during the pendency of the contract, for expediting the Supplies, inspection, checking etc.
96. Packing and Marking	All materials/equipment shall be securely packed to the requirement of transportation by Rail/Road/Sea transport. All exposed Services/connections/ protrusions shall be properly protected. All Unexposed parts shall be packed with due care and the packages should bear the words "Handle with Care". The

packing requirements of Rail/ Road transport shall be complied with so as to obtain clear Railway/Lorry Receipt i.e. without any qualifying remarks.

All packages and unpacked materials shall be marked with the name of the Consignor, Consignee, Purchase Order/Contract No., gross and net weight, sign of handling, if any, with indelible paint in English at least at two places. In tagged with such bundles.

All Equipment case of bundles, metallic plates marked with the above details shall be/material shall be protected for ocean shipment, in land transport, carriage at the Site and outdoor storage during transit and at the Site, strictly according to the instructions given in this specification.

The contractor shall be responsible for any damage to the equipment during transit due to improper and inadequate packing. Only packages constructed out of sound material and of dimensions proportional to the size and weight of contents shall be used. Bundled materials shall be strapped rigidly with steel band over the protective covering. Fragile materials shall be securely braced with the containers or otherwise amply fastened and packed to prevent hitting or rattling. Soft non-hygroscopic packing materials shall be placed between the hard packing materials and the fragile equipment. Articles which do not completely fill the selected container must be cushioned, braced, fastened or blocked to prevent damage to the article itself or destruction of the container. Inner bracing or blocking must be such that the content's weight is distributed over interior surfaces rather than concentrate on one or two critical points. Loose material, e.g. bolts, nuts etc., shall be packed in gunny bags and sealed in polythene bags with proper tagging.

Components containing glass shall be carefully covered with shock absorbing protective material such as expanded polystyrene ('ThermoCole').

All openings in the equipment shall be tightly covered, plugged or capped to prevent foreign material from entering.

In the case of large and bulky equipment, the contractor shall be responsible for ascertaining transport limitations and Supply the

equipment in the minimum number of components or subassemblies, within the framework of transport limitations.

Wherever necessary, proper arrangements for attaching slings for lifting shall be provided.

The contents of the packages shall be sealed in thick polythene sheet and all the inside walls of the packages shall be lined with waterproof paper to protect the equipment from damage due to dust and moisture.

All equipment shall be protected for the entire period of dispatch, storage and erection against corrosion, incidental damage due to vermin, sunlight, rain, high temperature, humid atmosphere, rough handling in transit and storage in the open including possible delays in transit. Material and equipment shipped across the sea shall be packed to withstand without damage, the effects of salt spray. All machined and plated parts shall be protected with anti-rust grease. At such points, wrapping impregnated with anti-rust composition or vapour phase inhibitors shall be used. These shall have sufficient strength to resist chafing and indentation due to the movement which is likely to occur in transit. The protective wrappings and impregnation shall last for a minimum period of three months.

Silica-gel or approved equivalent moisture absorbing material in small cotton bags shall be placed and tied at various points on the equipment, wherever necessary. Adequate provision of skids or pallets shall be made to keep the packages above the collecting drainage. Crates, event collection and other large containers should have drain holes in the bottom top of water within the packing. This is especially important where the cargo itself is subject to condensation (cargo sweat).

All cases shall be provided with suitable cut outs, closed by bolted wooden planks to facilitate inspection by customs authorities. Waterproof transparent papers shall be provided at the cut-out locations to prevent water ingress into the casing through the cut-out. Each crate or package shall contain a packing list in a waterproof envelope. Copies of the packing list, in triplicate, shall be forwarded to the Prior to dispatch. All

items of material shall be clearly marked for Authority easy identification against the packing list. All spare parts shall be packed and treated for long storage conditions at site. Any material found short inside the packing cases shall be supplied by the contractor at no extra cost to the client. All packing cover and packing material shall become the property of the client. The Contractor is responsible for safe delivery of the material and no compensation for any losses in transit or handling shall be compensated.

Marking:

All packages shall be clearly, legibly and durably marked with uniform block letters (preferably with waterproof paint) on at least three sides with:

- a) Destination address as communicated.
- b) Contract No.:
- c) Dimensions.
- d) Net and gross weights.
- e) Sign showing 'side Up'.
- f) Sign showing 'fragile' marks in case of delicate Equipment.
- g) Sign showing slinging and sling position.
- h) Any handling and unpacking instructions, if considered necessary.
- i) Identification mark relating them to the appropriate shipping documents.
- j) In case of spare parts, each spare part shall be clearly marked and labelled on the outside of its packing with its description and catalogue/part number.

Erection Marks:

All equipment comprising multipart assemblies, e.g. steel frame works, piping etc., shall be marked with identifying numbers and/or letters corresponding to those of the approved drawings or material lists. These erection marks shall be clearly readable. The contents of the package shall be punched on non-corrosive metal plate and nailed to the package on a prominently visible place. If the number of items in the package is too many, a typed list in transparent waterproof bag shall be kept inside a galvanized steel sheet pocket nailed on to the outside of package in prominently visible location.

97. Storage of

The types of storage are broadly classified as

**Mechanical
and Electrical
Equipments
at Site**

- i) Special storage - Air conditioned,
- ii) Closed storage,
- iii) Semi-closed storage and
- iv) Open storage.

The equipment covered under this Specification shall be stored in the type of storage as recommended by the manufacturer.

STORAGE:

Authority shall make available the place at site for storing the material, if available on chargeable basis. The contractor shall arrange construction of storage sheds, etc. for proper storage of materials and to minimize wasteful handling during retrieval of items required for erection. The outdoor storage areas as well as semi-closed stores shall be provided with adequate drainage facilities to prevent water logging.

The stores sheds shall be built in conformity with fire safety requirements and with adequate lighting and fire extinguishers. No smoking signs shall be placed at strategic locations. Safety precautions shall be strictly enforced.

Adequate lighting facility shall be provided by the contractor in storage areas and storage sheds and security personnel positioned to ensure enforcement of security measures to prevent theft and loss of materials.

The contractor shall carry out regular inventory of materials received, issued and erected and notify the client of any loss when noticed. The contractor shall provide adequate number of competent stores personnel including store-keepers, clerical staff, inspection engineers, watchmen and security staff to efficiently store and maintain the equipment/material entrusted to him.

Any equipment left in the open under such conditions shall be, if required, covered with tarpaulin.

MAINTENANCE DURING STORAGE:

The Contractor is responsible for maintenance of the equipment stored at site as per standard practices for storage and as

	per manufacturer's recommendations of each of the equipment.
98. Progress Reports and Photographs / Videos	<p>During various stages of the manufacture in the pursuance of the contract, the contractor shall at his own cost submit progress reports as may be reasonably required by the Client with such materials, such as charts, networks, photographs/Videos, test certificates etc., Such progress reports, shall be in the form and size as per industry standards and shall be submitted at least in four copies. During coordination meetings or review meetings, presentation shall be made by power point presentation with photographs for important mile stones.</p> <p>Progress Reports:</p> <p>Daily/weekly and Monthly progress reports shall be prepared by the Contractor and submitted to the client in three copies. The first report shall cover the period Up to the end of the first calendar month following the Commencement Date.</p> <p>Reporting shall continue until the Contractor has completed all work, which is shown to be satisfactory outstanding at the completion date stated in the Taking-Over Certificate for the Works. Each report shall include:</p> <ol style="list-style-type: none"> a) Charts and detailed descriptions of progress, including each stage of surveys, Investigation, design, Contractor's Documents, procurement, manufacture, delivery to Site, construction, commissioning and trial operation; b) Digital photographs/videos showing the status of progress on the Site; c) For the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of: Commencement of manufacture, Contractor's inspections, tests, and Dispatch and arrival at the Site; d) The details of Contractor's Personnel and Equipment; e) Copies of quality assurance documents, test results and certificates of Material; f) List of Variations, notices given g) Safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and h) Comparisons of actual and planned progress, with details of any events or circumstances which may jeopardize the completion in accordance with the Contract, and the measures being (or to be) adopted to minimize or overcome delays.
99. Documentation	The contractor's store keeping function will include maintaining various records. These records shall include but not limited to

	<p>Supplier-wise record of equipment/material received, stored and issued for erection as well as stock position.</p> <p>Record of inspection and repairs carried out, protective measures and lubrication equipment in storage as well as erected until the same is taken over by the owner.</p>
<p>100. Dispatch of Materials</p>	<p>The Implementing Agency is responsible for the safe delivery of the goods in good condition at the project site of the pant. Destination stores. The Implementing Agency should acquaint himself of the conditions for handling and transport of the goods to destination and shall include and provide for security and protective packing of the goods so as to avoid damage in transit. Packing of the materials / equipment shall be strictly as per the provision of the contract or standards or as required. All formalities related to allotment of wagons, loading permission from railways shall be completed by the Implementing Agency. The Implementing Agency shall communicate immediately the dispatch details to the consignee as specified in the contract. The original dispatch documents shall be forwarded immediately either directly or through bank, failing which the Implementing Agency shall be responsible for any delay in payment and consequential payments of demurrages and wharf ages to the transporter.</p>
<p>101. Demurrage / Wharf age</p>	<p>Implementing Agency shall also be responsible for all payments due to late receipt of RR/LR and other documents.</p>
<p>102. Conditions:</p> <p><u>Prices:</u></p> <ol style="list-style-type: none"> i. Price(s) shall be firm and not subject to escalation on any account, till the contract is executed in full and its subsequent amendments accepted by the Implementing Agency even though the completion/execution of order may take longer time than delivery period incorporated and accepted in contract. ii. The bidder shall quote their prices for Supply, Erection & Commissioning portion separately as per schedule of prices indicated in the schedules. iii. The prices quoted shall be lump sum and on for Destination basis inclusive of all taxes and duties. The prices shall be FIRM throughout and until Survey, Design, Supply, Delivery, Erection, Testing and commissioning of the equipment/system including Operation and Maintenance as specified in the Volume -2 of this RFP document. iv. All applicable taxes/duties/levies such as GST, Excise duty, Works Contract Tax, Octroi, Cess, Entry Tax etc., and any other taxes and duties that are applicable for 	

such contracts in the State of Andhra Pradesh as on the date of Opening of bid shall be considered.

Taxes, Levies and Duties:

GST, Excise Duty and other payable shall be shown separately in the invoice.

Variations in Statutory Levies:

All Taxes and Duties paid by the bidder shall be reimbursed as per the prevailing taxation laws. In cases where delivery schedule is not adhered to by the Implementing Agency and there is upward variation/revision after the agreed delivery date, the bidder/Implementing Agency shall bear the impact of such increased levies and if there is downward variation/revision, the Authority shall be given advantage to that extent.

All royalties for patent or charges for the use or infringement thereof that may be involved in the construction or use of any equipment shall be included in the bid price. The bidder /Implementing Agency shall protect the Authority against any and all claims arising on account of the use thereof. The Authority agrees to furnish the Implementing Agency any appropriate information or assistance.

Delivery Period:

The bidder has to submit a detailed Bar/PERT Chart conforming to the delivery schedules for material and completion of erection, testing and commissioning of the plant stipulated in the bid documents.

Timely Completion:

The projects are proposed by (TSCCL) under smart City Development are time bound. and thus, the completion period is essence of the contract and the successful bidder shall take all necessary measures to execute the project in the least possible period preferably before scheduled completion period.

Removal of Rejected Goods and Replacement:

a) If Upon delivery, the material/ equipment is found not in Conformity with the specifications stipulated in the contract, whether inspected and approved earlier or otherwise, those shall be unacceptable to the Authority or its authorized representative. A notification to this effect shall be issued to the Implementing Agency, normally within 10 days from the date of receipt of materials at stores/ project site.

- b) Implementing Agency shall arrange suitable replacement Supplies and remove the rejected goods within 10 days from the date of notification failing which, the goods shall be dispatched to vendor by road transport on freight to pay basis at Implementing Agency risk and cost.
- c) External damages or shortages that are prima-facie the results of rough handling in transit or due to defective packing shall be intimated within a fortnight of the receipt of the materials. In case of internal defects, damage or shortages or any internal parts, which cannot ordinarily be detected on a superficial visual examination, though due to bad handling in transit or defective packing should be intimated within 3 months from the date of receipt of these articles. In either case the damaged or defective material should be replaced by the Implementing Agency free of cost to the Authority.
- d) If no steps are taken within 30 days of receipt of intimation of defects or such other reasonable time as the Authority may deem proper to afford, the Authority may without prejudice to its other rights and remedies arrange for repairs/rectification of the defective materials or replace the same and recover the expenditure incurred from the deposits such as EMD, Performance Security/guarantees or other monies available with the Authority or by resorting to legal action.

ERECTION CONDITIONS OF CONTRACT:

CONDITIONS:

The following shall Supplement the conditions already contained in the other parts of these specifications and documents and shall govern the scope of contract related to the erection, testing and commissioning. Scope of services: - The scope of the work and duties and responsibilities of the Implementing Agency shall broadly include the following:

1. Re-checking and re-verification of plant and equipment and materials Supplied by the Implementing Agency and their sub-vendors
2. Erection including disassembly, pre-assembly etc. and performing trial and pre-commissioning tests, adjustment, calibration, etc, of the plant and equipment.
3. Initial operation of the plant and equipment till successful completion of trial operations.
4. Carrying out the performance and guarantee tests in terms of General technical conditions.
5. Repairs, modifications and alterations, etc., of the plant and equipment, whenever necessary.
6. Training personnel of the Client in erection, testing and operation and maintenance of the plant and equipment at site.
7. Rendering clarification and guidance, on technical problems and drawings/ documents relating to the plant and equipment.

8. Preparation of detailed programmes/schedules for erection, testing and commissioning activities of the plant and equipment including material and manpower planning.
9. Any other related services though not specifically mentioned herein before but necessary for proper execution of the work, as stipulated.
10. The bidder shall indicate the requirement for adequate storage space at site on the basis of availability.

WORK AND SERVICES

The Implementing Agency shall undertake to perform the complete job as per scope above. Such parts as may have not been specifically included but otherwise form part of the job are deemed to be included unless otherwise specifically excluded.

The Implementing Agency shall arrange for the services of fully qualified and competent supervising Engineer/Engineers and necessary number of personnel as the Implementing Agency deems it absolutely necessary with the requisite specialized skills for the erection, testing and commissioning of equipment.

All tools required for installation shall be arranged by the Implementing Agency. Inspection and testing of the complete installation and putting in regular service and shall bear the overall responsibility of the satisfactory installation, testing and commissioning of the equipment. The Implementing Agency shall make his own arrangements for Boarding & Lodging of his personnel. The following facilities and services are also covered in the scope of Tenderer. Unloading and loading of equipment and accessories, transportation to the site and storage. Providing of necessary labour force required for the execution of the job. Providing of necessary transport facilities for the staff to be deputed by the contactor for installation work.

ERECTION LABOUR AND TOOLS:

- I. The Implementing Agency shall furnish the list of special erection tools. Special tools which in the opinion of the Implementing Agency would be required for erection work during maintenance should be indicated in schedule for special tools and plants.
- II. The Implementing Agency may select to bring with him certain personal tools required for erection which will remain his property at all times. Use of such personal tools for erection work shall not entitle the Implementing Agency to any additional payment. Any assistance required by the Implementing Agency in securing entry and exit permits for such tools shall be rendered by the Authority.
- III. Checking for necessary positions, levels and dimension of foundation shall be done by the Implementing Agency.

- IV. **Cleaning and Servicing:** The Implementing Agency shall ensure that inside of all tubes, pipes, valves fittings and actuators shall be free from dirt and loose scales by thoroughly blowing and /or flushing of service before being erected by them.

FIELD ENGINEERING CLARIFICATIONS:

The Implementing Agency shall provide all necessary field engineering clarifications to the client that they may require for the purposes of their works. The Implementing Agency shall also provide all engineering clarifications and details to the client for the overall engineering / start-Up of the plant and equipment Supplied by them.

IMPLEMENTATION AND FIELD QUALITY PLANS:

It will be the responsibility of the Implementing Agency to ensure that the erection of the equipment is carried out according to the quality plans and standard manufacturing practices / instructions as given by the manufacturer without any deviations in performing the erection in accordance with such quality plans, etc. The Implementing Agency shall further identify specific hold points beyond which work will not proceed without Client's consent so as to further ensure that he performs the above quality functions effectively.

PRE-COMMISSIONING TRIALS AND INITIAL OPERATIONS:

1. On completion of all works, all the measurements shall be jointly taken by the Implementing Agency and client and a protocol signed. The tests and trial operations shall be conducted only after signing of the protocol.
2. The pre-commissioning trials and initial operations of the equipment Supplied by the Implementing Agency shall be the responsibility of the Implementing Agency. The Implementing Agency shall provide, in addition, any special instruments/calibrating devices, etc., if required for the successful performance of these trials.

COMMISSIONING REPORT:

The client and Implementing Agency shall properly maintain in the agreed formats their respective records of all observations and measurements taken in respect of all tests and operations. Joint protocol shall be signed on completion of each and every test / check till the trial operation. During trial operations, all readings shall be jointly maintained and signed. On successful completion of trial operations, a report shall be jointly prepared and signed indicating results of all the tests / checks and trial operation readings.

RELEASE OF CLAIMS:

After completion of work and prior to final payment, Implementing Agency shall furnish a release of claims against the Authority arising out of the contract other

than the claims specifically identified, evaluated and accepted.

TAKING OVER:

Upon successful completion of erection, testing and commissioning in respect of all equipment's under the scope of the specification, (Engineer-in-Charge) shall issue to the Implementing Agency, a taking over certificate as a proof of final acceptance of the equipment. Such certificate shall not unreasonably be held Up on account of minor omission or defects, which does not affect the commercial operation or do not constitute any serious risk to the equipment. The Implementing Agency shall undertake to make good such omissions and defects at the earliest possible time. The estimated amount as decided by the (Engineer-in-Charge) for making good such omissions or defects or deficiency in observed performance over the assessed or guaranteed performance shall be deducted from the invoice of the Implementing Agency and the amount deducted shall be paid as soon as the omissions or defects are rectified or made good the financial loss, etc. to the satisfaction of (TSCCL). The taking over certificate however shall not relieve the Implementing Agency of his obligation which otherwise survive by the terms and conditions of the contract after issuance of such certificate.

REGULATION OF LOCAL AUTHORITIES AND STATUS:

The Implementing Agency shall, to the extent relevant and applicable, comply with all the rules and regulations of local authorities/governments, during the performance of his field activities. He shall also comply with the minimum wage Act: 1948 and any modifications thereof and the payment of wages Act (both of the Government of India) and the rules made there under, in respect of employees or workmen employed or engaged by him. The Implementing Agency shall also Supply the equipment in conformity with the electricity laws, rules, etc. and obtain all permissions and approvals from the competent authorities such as CEIG, etc. before charging the equipment for testing and commissioning.

CONSTRUCTION MANAGEMENT:

1. The field activities of different Implementing Agency working at site, will be co-ordinated by the (Engineer-in-Charge) and his decision shall be final in resolving any disputes or conflicts between the Implementing Agency another Contractors and regarding scheduling and co-ordination of work. For any disputes, the decision of Authority shall be final and binding on both the parties.
2. The Engineer-in-Charge or his representative shall hold meetings of all the Implementing Agency working at site, at a time and a place to be designated. The Implementing Agency shall attend such meetings and take notes of discussions during the meeting and the decisions of (Engineer-in-Charge) and shall strictly adhere to these decisions in performing his services. In addition to the above weekly meetings, (Engineer-in-Charge) may call for other meetings either with

individual Implementing Agency or with selected number of Implementing Agency and in all such cases the Implementing Agency, if called shall attend such meetings.

HOWEVER, any delay in timely completion of the work under the contract on account of any such decision of the Engineer-in-Charge causing such delay or suspension of work for any period of time shall not be attributable to the Implementing Agency.

IMPLEMENTING AGENCY'S ASSISTANCE IN WORK PLAN FOR FIELD OPERATION:

1. Erection network submitted by the Implementing Agency and discussed with the client and finalized with necessary modifications to form a part of Contract documents will be the essence for planning erection activities. Accordingly, the Implementing Agency will prepare work plan in line with erection network for erection activities to be performed.
2. First preparation of such erection plan will cover erection activities to be Performed for two months' period. Every subsequent plan prepared in the last week of every month, will contain Updated report for reflecting progress achieved Up to 20th day of the month (hereinafter "reporting month") a firm programme for the first ensuing month and tentative programme for the second ensuing month. The firm erection programme for the first ensuing month will reflect the progress of the reporting month erectable equipment and material available at site, resources at the immediate disposal of the Implementing Agency and the inputs to be provided by the Client. The firm work plan shall be broken down by the Implementing Agency in week-wise erection plan. The tentative work plan must set target for complete work based on progress achieved in the reporting month, progress likely to be achieved through firm plan of first ensuing month and identify constraints.
 - I. The erection work plan will be reviewed periodically for effective implementation of work plan.
 - II. The Implementing Agency shall also intimate the programme of the visit of his personnel to site and departure from site. (Engineer -in-Charge) will have the right to review the list of such personnel and ask for increase in the strength or reschedule the visits of such personnel, if in the opinion of (Engineer -in-Charge), the list of personnel furnished by the Implementing Agency is not sufficient for effective performance of the Contract.
 - III. The Implementing Agency shall have the complete responsibility for the safety of all persons employed by him, and all the properties under his custody during the Contract. This requirement with respect to the persons employed by the Implementing Agency shall be limited to work site only and with respect to the equipment and properties shall apply continuously till the completion of the contract and shall not be limited to normal working hours.

ACCESS TO SITE:

1. The Contract, so far as it is executed on the client premises, shall be carried out till such time as the client may approve.
2. During the execution of the work, no person's other than the Implementing Agency, or his duly appointed representative, sub-contractors and workmen shall be allowed to do work on the site, except by the special permission in writing. But access to the works at all times shall be accorded to the (Authority) representatives and other authorized officials.

IMPLEMENTING AGENCY'S SITE OFFICE ESTABLISHMENT:

The Implementing Agency shall establish a site office at the site and keep posted a client authorized representative for the purpose of Contact. Any written order or instructions of (Engineer-in-Charge or his representative) shall be handed over to the Implementing Agency's representative under receipt duly taken from the said representative and such communication shall be treated as a communication to the Implementing Agency's legal address.

CO-OPERATION WITH OTHER IMPLEMENTING AGENCYS:

1. The Implementing Agency shall co-operate with all other Contractors and staff of the Client, who may be performing other services on behalf of the Client and the workmen who may be employed by the Client and doing work in the vicinity of the Contractor's work site.
2. Client shall be informed promptly by the Implementing Agency of any defects in the work that could affect the performance of the equipment. The Implementing Agency and the client shall determine the corrective measures, if any, required to rectify this situation after inspection of the works.

QUALIFICATION OF IMPLEMENTING AGENCY'S PERSONNEL:

1. The Implementing Agency's personnel will be adequately qualified, trained and experienced so as to carry out the duties most efficiently and effectively as expected of them. The Implementing Agency's personnel shall have adequate experience of working on similar type of the equipment and similar job.
2. Not with standing above if any of the personnel is not found to be performing his services in a manner as expected of him, under the contract, the Implementing Agency on advice from (Engineer-in-Charge), shall replace such person(s) at his cost with those acceptable to (Engineer-in-Charge), by mutual agreement.

DISCIPLINE OF WORKMEN:

The Implementing Agency shall adhere to the disciplinary procedure set by

(Engineer-in-Charge) in respect of his employees and workmen, if any, at site. The (Engineer-in-Charge) shall be at liberty to object to the presence of any representative or employee of the Implementing Agency at the site, if in the opinion of (Engineer-in-Charge), such employee has committed misconduct, or is incompetent or negligent or otherwise undesirable, and then the Implementing Agency, after mutual agreement, shall replace such a person objected to.

MANPOWER REPORT:

The Implementing Agency shall furnish, on the first day of every month, manpower report of the previous month detailing the number of persons scheduled to have been deployed and actually deployed for timely and successful commissioning of the equipment.

CLEANLINESS:

The offices and the residential areas of the Implementing Agency's employees within the premises of the client or those allotted by the client, shall be kept neat and clean to the entire satisfaction of the client.

FIELD OFFICE RECORD:

The Implementing Agency shall maintain at his office, Up-to-date copies of all drawings, specifications and other contract documents and any other Supplementary data, complete with all the latest revisions thereto. The Implementing Agency shall also maintain, in addition, the continuous record of all changes to the above Contract documents, drawings, specifications, Supplementary data etc., effected at the field and on completion of his total assignment under the Contract shall incorporate all such changes on the drawings and other engineering data to indicate "as installed" conditions of the equipment furnished under the Contract. Such drawings and engineering data shall be submitted to (Engineer-in-Charge) in requisite number of copies as per terms of the Contract.

EPF& INSURANCE:

If an existing EPF account code is not in place, then the bidder should obtain independent EPF account code in his name, from the competent authority. Documentary evidence for the same should be produced at the time of entering into agreement or before commencement of works, as demanded by (Engineer-in-Charge).

The insurance of all Implementing Agency" personnel against any accident during erection, testing and commissioning etc., shall be arranged by the Implementing Agency at his cost. The Implementing Agency shall also indemnify the Authority against all liabilities arising out of any accidents, loss and/ or any other reasons.

The personal insurance for the Implementing Agency's personnel deputed to site shall also be arranged by the Implementing Agency at his cost.

I. COMPREHENSIVE AUTOMOBILE INSURANCE:

This insurance shall be in such a form as to protect the Implementing Agency against all claims for injuries, disability, disease and death to member of public including the Authority's men and damage to the property of others arising from the use by the Implementing Agency's personnel of motor vehicles during on or off the site operations, irrespective of the ownership of such vehicles.

II. WORKMEN'S COMPENSATION INSURANCE:

This insurance shall protect the Implementing Agency against all claims applicable under the Workmen's Compensation Act, 1948 (Government of India). This policy shall also cover the Implementing Agency against claims for injury, disability, disease or death of his or his sub-contractor's employees which for any reason are not covered under the Workmen's Compensation Act, 1948. The responsibility and liability of this insurance be as provided in the statues and the liability shall not be less than the liability provided in the statutes.

III. COMPREHENSIVE GENERAL LIABILITY INSURANCE:

This insurance shall protect the Implementing Agency against all claims arising from injuries, disabilities, disease or death of members of public or damage to property of others, due to any act or omission on the part of the Implementing Agency, his agents, his employees, his representatives and sub-contractors or from riots, strikes and civil commotion.

The hazards to be covered will pertain to all the works and areas where the Implementing Agency, his Sub-Contractors, his agents and his employees have to perform work pursuant to the Contract. The above are only illustrative lists of insurance covers normally required and it will be the responsibility of the Implementing Agency to maintain all necessary insurance coverage to the extent both in time and amount to take care of all his liabilities either direct or indirect in pursuance of the Contract.

SERVICE AND FACILITIES TO BE PROVIDED BY THE AUTHORITY:

Necessary area required for construction of Implementing Agency's office and quarters for Implementing Agency's supervisors/workmen shall be arranged by themselves by the Implementing Agency near project site. It is the responsibility of the Implementing Agency to establish the office and to provide necessary residential accommodation to his employees at his own cost. Power Supply for construction purpose shall be arranged by themselves by the Implementing Agency. Implementing Agency shall arrange distribution of power as required for

construction works. The distribution shall be with proper protection with MCCB's/MCB's etc. as per Indian standards. Implementing Agency has to make his own arrangement for water for construction activities and maintenance of plant or providing water to the employees and their residential quarters.

WORKING HOURS:

The personnel shall work normally 8 hours per day in one shift during the hours in between 6.00AM to 8.00PM including one-hour rest and six days working per week. The works can be allowed to be carried out during night, Sundays or authorized holidays in order to meet the schedule targets keeping in view;

1. The provisions of labour laws are adhered to,
2. Adequate lighting, Supervision and safety measures are established,
3. Authority's approves the construction program given by the Implementing Agency and agree for working during Sundays or authorized holidays.

REGULATIONS OF LOCAL AUTHORITIES:

The Implementing Agency shall, throughout the continuance of the contract and in respect of all matters arising in the performance thereof obtain consents, way leaves, approvals and permissions required in connection with the regulations and by-laws of the local or other authority which shall be applicable to the works.

All work shall be executed in accordance with the Indian Electricity Rules, 1956 and any statutory modifications thereof, and any local regulation and laws, wherever applicable, unless otherwise agreed to in writing by the Engineer.

All works shall be carried out by and under the supervision of qualified personnel having required skills and certifications. The necessary approvals for installation and operating the equipment such as CEIG approval, etc. shall be obtained by the Implementing Agency. The Authority shall provide necessary assistance in furnishing the required details.

100.10.24. LIABILITY FOR ACCIDENTS AND DAMAGE:

The bidder shall be responsible for all loss, damage or depreciation to the plant until the plant is taken over or extended period as agreed. The bidder shall, during the progress of the work, properly cover up and protect the plant from injury by exposure to the weather, and shall take every reasonable, proper, timely, and useful precaution against accident or injury to the same from any cause and shall remain answerable and liable for all accidents or injuries thereto which until the same or be deemed to be taken over, may arise or be occasioned by the acts or omissions of the bidder or his workmen or sub-bidder, and all losses and damages

arising from such accidents or injuries as aforesaid shall be made good in the most complete and substantial manner by and at the sole cost of the bidder to the reasonable satisfaction of the Authority.

Until the plant shall be or be deemed to be taken over as aforesaid the bidder shall also be liable for and shall be deemed to have indemnified the Authority in respect of all damage or injury to any person or property of the Authority or of other occasioned by the negligence of the bidder or his workmen or sub-bidders or by defective design, work or material, but not otherwise provided that the bidder shall not be liable under the contracts for any loss of profit or loss of contracts or any claims made against the Authority not already provided for in the contract, nor for any damage or injury caused by or arising from the acts of the Authority or of others, or (save as to damage by fire, acts of God or any event of force majeure as hereinafter provided) due to circumstances over which the bidder has no control, nor shall his total liability for loss, damage or injury exceed the total value of the contract.

The bidders shall be deemed to have indemnified and saved harmless the Authority against mal actions, suits, claims, costs or expenses arising, in connection with injuries suffered prior to the date when the plant shall have been taken over and during maintenance period by persons employed by the bidder or his sub-bidders on the works whether under the General law or under the Workmen's Compensation Act, 1923, or any other statute in force at the date of the contract dealing with the question of the liability of employers for injuries suffered by employees and to have taken steps properly to insure against any claims hereunder.

On the occurrence of an accident which results in the death of any of the workmen employed by the bidder or which is so serious as to be likely to result in the death of any such workmen, the bidder shall within 24 hours of the happening of such accident, intimate in writing to the (Engineer-in-Charge), the fact of such accident. The bidder shall indemnify (authority) against all loss or damage sustained by the Authority resulting directly or indirectly from his failure to give intimation in the manner aforesaid including the penalties or fines if any payable by the Authority as a consequence of its failure to give notice under the Workmen Compensation Act or otherwise, to conform to the provision of the said Act in regard to such accident.

In the event of any claim made, or action brought against the Authority involving the bidder and arising out of the matter referred to and in respect of which bidder is liable under this clause, the bidder shall immediately notify, and he shall, with the assistance, if he so required, of the Authority, but at the sole expense of the

bidder conduct all negotiations for the settlement of the same or of any litigation that may arise there from. In such case the Authority shall, at the expense of the bidder, afford all available assistance for any such purpose.

In the event of an accident in respect of which compensation may become payable under workmen's Compensation Act VIII of 1923, whether by the bidder or by the (AUTHORITY) as principal, it shall be lawful for (AUTHORITY) to retain out of moneys due and payable to the bidder such sums of money as may be in the opinion of the said Engineer be sufficient to meet such liability. The decision of (Engineer-in-Charge) shall be final in regard to all matters arising under this clause.

FENCING AND LIGHTING:

Except as herein after provided the bidder shall, unless otherwise specified, be responsible for the proper fencing, guarding, lighting, and watching of all works comprised in the contract and for the proper provision of temporary roadway, footways, guards, and fences as far as the same may be rendered necessary by reason of the work for the accommodation and protection of foot passengers or other traffic and of the owners and occupiers of adjacent property and of the public. Fencing & lighting provided in and around control rooms.

MATERIALS BROUGHT ON TO THE SITE:

All materials, and equipment brought to and delivered Upon the site for the purpose of the work shall, from the time of their being so brought, vest and be the property of the Authority but may be used for the purpose of the work but for that purpose only and shall not on any account be removed or taken away by the bidder or any other person without the express permission in writing of the Engineer but the bidder shall nevertheless be solely liable and responsible for any loss or destruction thereof or damage there to unless resulting from causes beyond the bidder's control not being causes insurance against destruction or damage.

BIDDER REPRESENTATIVE AND WORKMEN:

Complete Erection, Testing and Commissioning is included in scope of works. The bidder shall employ at least one competent representative, whose name or names shall have previously been communicated in writing to the Authority by the bidder, to supervise the erection of the plant and carrying out the works. The said representatives, or if more than one shall be employed then one of such representatives, shall be present at the site during working hours and any written

orders or instructions to the said representative of the bidder, shall be deemed to have been given to the bidder. The Authority shall be at liberty to object to any representative or person employed by the bidder in the execution or otherwise about the works who shall misconduct himself or be incompetent or negligent, and the bidder shall remove the person so objected to Upon receipt of notice in writing from the Authority requiring him (the bidder) so to do, and provide in his place a competent representative at the bidder's expense.

ENGINEER'S SUPERVISION:

All the works shall be carried out under the direction and to the reasonable satisfaction of the Engineer-in-Charge. The bidder shall be responsible for the correctness of the positions, levels, and dimensions of the works according to the drawings notwithstanding that he may have been assisted by the Engineer in setting out the same.

REPLACEMENT OF DEFECTIVE WORK OR MATERIALS:

If during the progress of work the Engineer-in-Charge decides and notifies in writing to the bidder that the bidder has executed any unsound or imperfect work, or has Supplied any plant or materials inferior quality or quantity to these specified, the bidder on receiving details of such defects or deficiency shall, at his own expense, within seven days of his receiving the notice, or within such time as may reasonably necessary for making it good, proceed to alter, reconstruct, or remove such work or Supply fresh materials Up to the standard of the specification, and in case the bidder fails to do so, the Authority may on giving the bidder seven days' notice in writing of his intention so to do proceed to remove the works, the materials complained of, and at the cost of the bidder, perform all such work or Supply all such materials, provided that nothing in this clause shall be deemed to deprive the Authority of or affect any rights under the contract which he may otherwise have in respect of such defects or deficiencies.

TESTS ON COMPLETION:

Whenever possible all tests shall be carried out before shipment should, however, it be necessary for the final tests as to performance and guarantees to be held over until the plant is erected at site they shall be carried out in the presence of the bidder's representative within one month of the completion of erection or the taking over by the Authority whichever is earlier.

TESTS AT SITE:

In all cases where the contract provides for tests at site, the bidder except where otherwise specified, shall provide, free of charge, such labour, materials, fuel, stores, apparatus and instruments as may be required from time to time, and as may reasonably be demanded, efficiently to carry out such tests of the plant, material, or workmanship in accordance with the contract.

In the case of contracts requiring electricity for carrying out tests on site at the time of commissioning, such electricity shall be Supplied free of costs to the bidder.

POWER TO VARY OR OMIT WORK:

No alterations, amendments, omissions, additions, suspensions, or variations of the work (herein after referred to as "Variations") under the contract as shown by the contract drawings or the specification shall be made by the bidder except as directed in writing by the Authority, but the Authority shall have full power, subject to the provision herein after contained, from time to time during the execution of the contract by notice in writing to instruct the bidder to make such variation without prejudice to the contract, and the bidder shall carry out such variations, and be bound by the same conditions, as far as applicable, though the said variations not occurred in the specification and the bidder will compensate in this situation if applicable.

If any suggested variations, would, in the opinion of the bidder, if carried out, prevent him fulfilling any of his obligations or guarantees under the contract, he shall notify the Authority there of in writing, and the Authority shall decide forthwith whether or not the same shall be carried out, and if the Authority confirms his instructions, the bidder's obligations and guarantees shall be modified to such an extent as may be justified. The difference of cost, if any, occasioned by any such variations shall be added to or deducted from the contract price as the case may require. The amount of such difference, if any, shall be ascertained and determined in accordance with the rates specified in the schedules of prices, so far as the same may be applicable, and where the rates are not specified in the said schedules, they shall be settled by the Authority and bidder jointly. But the Authority shall not become liable, for the payment of any charge in respect of any such variations, unless the instructions for the performance of the same shall have been given in writing by the Authority.

In the event of the Authority requiring any variations, such reasonable and proper

notice shall be given to the bidder as will enable him to make his arrangements accordingly, and in cases where goods or materials are already prepared, or any designs, drawing, or patterns made or work done that require to be altered, a reasonable sum in respect there of shall be allowed by the Authority. Provided that no such variation shall, except with the consent in writing of the bidder, be such as will involve an increase or decrease of the total price payable under the contract by more than 10 (Ten) percent thereof.

In any case in which the bidder has received instructions, from the Authority as to carrying out the work, which either then or later will, in the opinion of bidder, involve a claim for additional payment, the bidder shall, as soon as reasonably possible after the receipt of the instructions, aforesaid, advise the Authority to that effect.

NEGLIGENCE:

If the bidder neglects to execute the work with due diligence and expedition or shall refuse or neglect to comply with any reasonable orders given to him in writing by the Engineer-in-charge connection with the work, or shall contravene the provisions of the contract, the Authority may give seven days' notice, in writing, to the bidder, to make good the failure, neglect, or contravention complained of and should the bidder fail to comply with the notice within a reasonable time from the date of service thereof in the case of failure, neglect or contravention capable of being made good within that time or, otherwise within such time as may be reasonably necessary for making good, and in such case, the Authority shall be at liberty to employ other workmen, and forthwith perform such work as the bidder may have neglected to do or if the Authority shall think fit, it shall be lawful for him to take the work wholly, or in part, out of the bidder's hands and re-contract at a reasonable price with any other person or persons, or provide any other materials, tools, tackle or labour for the purpose of completing the work or any part thereof and in that event the Authority shall, without being responsible to the bidder for fair wear and tear of the same to have the free use of all the materials, tools, construction plant or other things which may be on the site, for use at any time in connection with the work, to the exclusion of any right of bidder over the same, and the Authority shall be entitled to retain and apply any balance which may be otherwise due on the contract by him to the bidder or such part thereof as may be necessary to the payment of cost of executing such work as aforesaid.

If the cost of executing the work as aforesaid shall exceed the balance due to the bidder and the bidder fail to make good the deficit, the said materials, tackle, construction plant or other things, the property of the bidder may be sold by the

Authority, and the proceeds applied towards the payment of such difference and the cost of an incidental to such sale. Any outstanding balance existing after crediting the proceeds of such sale shall be paid by the bidder on the certificate of the Engineer, but when all expenses, costs and charges incurred in the completion of the work are paid by the bidder, all such materials, tools, tackles, construction plant or other things remaining unsold shall be removed by the bidder.

DEATH, BANKRUPTCY, ETC:

If the bidder die or commit any act of Bankruptcy, or being a Department commence to be wound Up except for reconstruction purposes or carry on its business under a receiver, the executor successors, or other representative in law of the estate of the bidder or any such receiver, liquidator, or any person in whom the contract may become vested, shall forthwith give notice thereof in writing to the Authority and shall for one month, during which he shall take all reasonable steps to prevent as stoppage of the works, have the option of carrying out the contract subject to his or their providing such guarantee as may be required by the Authority but not exceeding the value of the work for the time being remaining unexecuted. In the event of stoppage of the work the period of the option under this clause shall be 14(fourteen) days only. Provided that, should above option not be exercised, the contract may be determined by the Authority by notice in writing to the bidder. And the same power and provisions so reserved to the Authority in the last proceeding clause on taking of the work out of the bidder's hands shall immediately become operative.

AFTER SALES SERVICE:

The Implementing Agency shall agree to provide after-sales service and spare parts, at prevailing rates for a period of not less than Ten years or specified in the bid documents. The Implementing Agency shall state in the bid the name and address of his representative or that of the manufacturer in India who is qualified to render such services and from whom spare parts can be obtained in respect to each item of equipment in bid. In the event, such a representative has not been established; Implementing Agency shall guarantee that arrangements for such service and spare parts will be made simultaneously with the delivery of the equipment. The after-sales service shall provide directly or through arrangements with an established operating service organization having shop facilities and qualified mechanics to service equipment similar to that in the contract. The Authority reserves the right to visit and inspect the named service representative to determine compliance with this requirement of the contract. The Authority reserves the right to request the Implementing Agency to depute one service engineer to check the equipment at site and advice on servicing, maintenance and

adjustment of the equipment for a period of one week free of charge during the Guarantee period. The Implementing Agency shall Supply necessary repair, service and spare parts at any time during the life of the machine at a price not in excess of prevailing rates charged to others for similar work. The Implementing Agency shall submit shop drawings along with detailed technical specifications of such spare parts liable for frequent wear and tear to enable the Authority to get such spare parts manufactured indigenously.

Bidder shall guarantee that before going out of production the spare parts, he will give adequate notice to the Authority so that the latter will have adequate time to order for future requirement of spares. Seller shall further guarantee that if he goes out of production of spare parts, then he will make available the blue prints, drawings of the spare parts and specification of material at no cost to the Authority if and when required.

TRAINING OF PERSONNEL:

The Implementing Agency shall under take to train Engineers of the Authority free of cost in installation, operation and maintenance of Plant and associated auxiliary equipment at the works of the Implementing Agency or at installations using similar equipment. The period and nature of training for the individual personnel shall be agreed Upon mutually between the Implementing Agency and the Authority. These Engineering personnel shall be given special training in the shops, where the equipment will be manufactured and/ or in their collaborators work and where possible, in any other plant where equipment manufactured by the Implementing Agency or his collaborator is under installation or test, to enable these personnel to become familiar with the equipment, being Supplied by the Implementing Agency.

MAINTENANCE CONDITIONS OF THE CONTRACT:

The plant after successful testing and commissioning shall be taken over by the Authority However; comprehensive regular maintenance of the plant is within the scope of the successful tenderer for the specified period. The tenderer shall operate and maintain the plant and equipment by suitable personnel. The spares required for maintenance of the plant is within the scope of the Implementing Agency. The comprehensive maintenance is inclusive of regular/Break down maintenance, preventive maintenance as per the manufacturer's manuals, etc. and to get the better performance and maximum output from the plant. All the break-downs, repairs, etc. are to be attended by the Implementing Agency immediately so as to put the plant in service within the least possible time in any case not later than the periods mentioned in this tender specification.

Any graft, commission, gift or advantage given, promised or offered by or on behalf of the Implementing Agency or his partner, agent, officers, director, employee or servant or any one on his or their behalf in relation to the obtaining or to the execution of this or any other contract with the Authority, shall result in cancellation of contract, in addition to any criminal liability which it may incur. The Authority shall be entitled to deduct the amounts payable from any moneys otherwise due to the Implementing Agency under this contract. Any question or dispute as to amount of damage payable under this clause shall be referred to sole Arbitrator appointed by mutual consent of the Implementing Agency and the Authority or as provided in the Arbitration and conciliation Act.

RELEASE OF INFORMATION:

The Implementing Agency shall not communicate or use in advertising, publicity, sales releases or in any other medium photographs or other reproduction of the works under this contract, or description of the site, dimensions, quality or other information, concerning the work unless prior written permission has been obtained from the Authority.

LIMIT OF CONTRACT:

Equipment Supplied shall be complete in every respect with all mountings, fittings, fixtures and standard accessories normally provided with such equipment" s and / or needed for erection, completion and safe operation of the equipment's as required by applicable codes though they may not have been specifically detailed in the respective specifications unless included in the list of exclusions. All similar standard equipment's provided, shall be interchangeable with one another.

GENERAL:

The Bidder shall be responsible for provision of health and sanitary arrangement more particularly described in contract labour (regulation and abolition Act), safety precautions, etc. as may be required for safe and satisfactory execution of the contract.

The Bidder shall fulfil all his obligations in respect of accommodation including proper facilities for the personnel employed by him.

The bidder shall be responsible for the proper behaviour at site and observance of all

regulations by the staff employed by him. Insurance for the labour engaged shall be the responsibility of the bidder till the equipment is taken over after completion of works in full shape and completion of maintenance period, as per applicability, by the (AUTHORITY). The insurance of the labour engaged for maintenance of the plant by the Implementing Agency shall also be the responsibility of the Implementing Agency. The bidder shall be responsible for settlement of insurance claims arising out of accident/injury to staff employed by him.

Cancellation of Order:

The Authority reserves the right to cancel the contract in part or in full by giving two weeks' notice there by, if The Implementing Agency fails to comply with any of the terms of the contract. The Implementing Agency becomes bankrupt or goes into liquidation. The Implementing Agency makes general assignment for the benefit of the creditors and Any Receiver is appointed for the property owned by the Implementing Agency.

2.0 Particular Conditions of Contract

Except where otherwise specified, all PCC should be filled in by the Employer prior to issuance of the Bidding Documents. Schedules and reports to be provided by the Employer should be annexed.

A. General	
GCC 1.1 (d)	The financing institution is: Government of India (GoI) and Government of Andhra Pradesh (GoAP)
GCC 1.1 (s)	The Employer is : Tirupati Smart City Corporation Limited <i>Authorized representative: <u>Aecom India Pvt. Ltd.</u></i>
GCC 1.1 (v)	The Intended Completion Date for the whole of the Works be As <i>specified in the scope of works</i>
GCC 1.1 (y)	The Project Manager is : Authorized Representative:
GCC 1.1 (aa)	Location of Site : <i>TUDA Office Complex, Tirupati, Andhra Pradesh.</i>
GCC 3.1	The language of the contract is <i>English</i> . The law that applies to the Contract is the law of <i>India</i> .
GCC 5.1	The Project manager <i>may</i> delegate any of his duties and responsibilities.
GCC 8.1	Schedule of other Implementing Agency: <i>[insert Schedule of Other Implementing Agency, if appropriate]</i>

GCC 13.1	<p>The minimum insurance amounts and deductibles be:</p> <p>(a) For loss or damage to the Works, Materials, For loss or damage to Equipment, for loss or damage to property (except the Works, Materials, and Equipment) in connection with Contract, For loss or damage to Equipment, for loss or damage to property (except the Works, Materials, and Equipment) in connection with Contract and for personal injury or death (of the Implementing Agency's employees and of other people): equivalent to the accepted <i>value of the contract</i>.</p> <p>(b) The Contractor insure against each liability for any loss, damage, death or bodily injury which may occur to any physical property (mechanical, electrical, automation work, all civil works, Storage etc. excluding pipe line) or to any person which may arise out of the Contractor's performance of his obligations under these Conditions during the O&M Period.</p> <p>(c) This insurance be for a limit of per occurrence of not less than the amount of Rs. 5 lakh, with no limit on the number of occurrences.</p>
GCC 14.1	<p>Site Data are: <i>TUDA Office Complex, Tirupati</i></p>
GCC 20.1	<p>The Site Possession Date(s) be: <i>within 7 days from the date of signing the contract</i></p>
GCC 23.1 & GCC 23.2	<p>Appointing Authority for the Adjudicator: <i>Managing Director, Tirupati Smart City Corporation Limited, Tirupati</i></p>
GCC 24.2	<p>Disputes sbe settled by arbitration in accordance with the following provisions:</p> <p>1. <u>Selection of Arbitrators.</u></p> <p>(a) Each dispute submitted by a Party to arbitration sbe heard by a sole arbitrator or an arbitration panel composed of three (3) arbitrators, in accordance with the following provisions:</p> <p>(b) Where the Parties agree that the dispute concerns a technical matter, they may agree to appoint a sole arbitrator or, failing agreement on the identity of such sole arbitrator within thirty (30) days after receipt by the other Party of the proposal of a name for such an appointment by the Party who initiated the proceedings, either Party may apply to [<i>Chairman (Delhi State Centre), The Institution of Engineers (India), New Delhi</i>] for a list of not fewer than five (5) nominees and, on receipt of such list, the Parties salternately strike names there from, and the last remaining nominee on the list sbe the sole arbitrator for the matter in dispute. If the last remaining nominee has not been determined in this manner within sixty (60) days of the date of the list, <i>Chairman (Delhi State Centre), The Institution of Engineers (India), New Delhi</i> sappoint, upon the request of either Party and from such list or otherwise, a sole arbitrator for the matter in dispute.</p> <p>(c) Where the Parties do not agree that the dispute concerns a technical matter, the Client and the Consultant seach appoint one (1) arbitrator, and these two arbitrators sjointly appoint a third arbitrator, who schair the arbitration panel. If the arbitrators named</p>

	<p>by the Parties do not succeed in appointing a third arbitrator within thirty (30) days after the latter of the two (2) arbitrators named by the Parties has been appointed, the third arbitrator shall, at the request of either Party, be appointed by <i>Registrar, The Indian Council of Arbitration, New Delhi</i>.</p> <p>(d) If, in a dispute subject to paragraph (b) above, one Party fails to appoint its arbitrator within thirty (30) days after the other Party has appointed its arbitrator, the Party which has named an arbitrator may apply to the <i>Registrar, The Indian Council of Arbitration, New Delhi</i> to appoint a sole arbitrator for the matter in dispute, and the arbitrator appointed pursuant to such application sbe the sole arbitrator for that dispute.</p> <p>2. <u>Rules of Procedure</u>. Except as otherwise stated herein, arbitration proceedings sbe conducted in accordance with the rules of procedure for arbitration under the relevant statute applicable.</p> <p>3. <u>Substitute Arbitrators</u>. If for any reason an arbitrator is unable to perform his/her function, a substitute sbe appointed in the same manner as the original arbitrator</p> <p>4. <u>Nationality and Qualifications of Arbitrators</u>. The sole arbitrator or the third arbitrator appointed pursuant to paragraphs 1(a) through 1(c) above sbe an internationally recognized legal or technical expert with extensive experience in relation to the matter in dispute and snot be a national of the Consultant's home country [<i>Note: If the Consultant consists of more than one entity, add: or of the home country of any of their members or Parties</i>] or of the Government's country. For the purposes of this Clause, "home country" means any of:</p> <p>(a) the country of incorporation of the Consultant [<i>Note: If the Consultant consists of more than one entity, add: or of any of their members or Parties</i>]; or</p> <p>(b) the country in which the Consultant's [or any of their members' or Parties'] principal place of business is located; or</p> <p>(c) the country of nationality of a majority of the Consultant's [or of any members' or Parties'] shareholders; or</p> <p>(d) the country of nationality of the Sub-consultants concerned, where the dispute involves a subcontract.</p> <p>5. <u>Miscellaneous</u>. In any arbitration proceeding hereunder:</p> <p>(a) proceedings shall, unless otherwise agreed by the Parties, be held in [<i>select a country which is neither the Client's country nor the Consultant's country</i>];</p> <p>the <i>English</i> language be the official language for all purposes; and the decision of the sole arbitrator or of a majority of the arbitrators (or of the third arbitrator if there is no such majority) be final and binding and be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement</p>
B. Time Control	
GCC 26.1	The Implementing Agency submit for approval a Program for the Works within 14 days from the date of the Letter of Acceptance.
GCC 26.3	The period between Program updates is <i>monthly</i> .

C. Quality Control

GCC 34.1 The Defects Liability Period after issue of project completion certificate (after completion of construction and commissioning of the project) :
Two (02 Years).

GCC 41.5 **Payment Schedule**

Art District (Building Component):

- 10% mobilization advance (that will be deduced in 3 installments in subsequent payments)
- 15% payment – Post Excavation / Site Grading (Excavation, earthwork, piling and piling reinforcement/foundations/raft/ complete upto plinth)
- 15% payment - Post Sub structure (Basement works complete)
- 25% payment – Super Structure (Building Construction complete Works)
- 15% payment – On Architectural Finishes (with Interiors , Facade, Glazing windows, louvers, doors and skylights etc.)
- 15% payment – On MEP finishes (including water, wastewater, electrical, HVAC, Fire Fighting, BMS, SecurityCabin, etc.)
- 10% payment – On Landscape Finishes (Completion of all works related to Hardscape & Softscaping works (complete finish)
- 5% payment – on completion of building and site works (Internal Driveways, Pavements, Parking and Storm Water Drains, Solid Waste Equipment’s and facilities etc.)

Design Studio:

During Capex

- 10% mobilization advance (that will be deduced in 3 installments in subsequent payments)
- 60% payment - Post procurement of all Hardware/software
- 15% payment – Post installation of hardware/software
- 25% payment – Post fully operational Design Studio

During Opex

- Payment to be made on quarterly basis subject to meeting or exceeding the KPIs.
- The bidder shall conduct training and skill development of at least 25 people per quarter (including but not limited to artisans, craftsmen and non-artisans) and conduct at least one session per school per quarter for introducing the technology.
- In a scenario that bidder exceeds quarterly targets and meets/exceeds annual targets prior to completion of the specific year (i.e. conduct training and skill development of at least 100 people per year and conduct at least four sessions per school per year for introducing the technology) – they shall be eligible for regular quarterly paymetns

D. Cost Control

GCC 44.1	The currency of the Employer's country is: Indian Rupees
GCC 45.1	The Contract <i>is not</i> subject to price adjustment in accordance with GCC Clause 45.
GCC 46.1	The proportion of payments retained is: <i>5% for the certified payments.</i>
GCC 48.1	The Bonus for the whole of the Works is <i>Not applicable</i>
GCC 49.1	The Advance Payments is applicable
GCC 50.1	The Performance Security amount is 5% of the accepted contract amount <i>in the form of Bank Guarantee.</i>
	E. Finishing the Contract
GCC 56.1	<p>The date by which operating and maintenance manuals are required is during implementation stage.</p> <p>The date by which "as built" drawings are required within one month after the completion of the work.</p> <p>The operation and Maintenance period is <i>Five (05) years.</i></p>
GCC 56.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required in GCC 58.1 is <i>1% of the Final Contract amount.</i>

3.0 Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, only be completed by the successful Bidder after contract award.

Table of Forms

Contract Agreement.....	665
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Contract Agreement

THIS AGREEMENT made theday of.....,....., between
. **[name of the Employer]**..... (hereinafter “the Employer”), of the one part, and
[name of the Implementing Agency].....(hereinafter “the Implementing Agency”), of the other
part:

WHEREAS the Employer desires that the Works known as **[name of the Contract]**...
.should be executed by the Implementing Agency, and has accepted a Bid by the Implementing
Agency for the execution and completion of these Works and the remedying of any defects
therein,

The Employer and the Implementing Agency agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - (i) the Letter of Acceptance
 - (ii) the Letter of Bid
 - (iii) the addenda Nos _____(if any)
 - (iv) the Particular Conditions
 - (v) the General Conditions of Contract, including appendix;
 - (vi) the Specification
 - (vii) the Drawings
 - (viii) Activity Schedule and
 - (ix) any other document **listed in the PCC** as forming part of the Contract,
3. In consideration of the payments to be made by the Employer to the Implementing Agency as specified in this Agreement, the Implementing Agency hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Implementing Agency in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of ***[name of the borrowing country]***. . . .on the day, month and year specified above.

Signed by:
for and on behalf of the Employer

Signed by:
for and on behalf the Implementing Agency

in the presence of: _____

in the presence of: _____

Witness, Name, Signature, Address, Date

Witness, Name, Signature, Address, Date

Soil Investigaion Report



GEOTECHNICAL ENGINEERING LABORATORY

Report on Soil investigation



**DEPARTMENT OF CIVIL ENGINEERING
S.V.U. COLLEGE OF ENGINEERING
TIRUPATI - 517 502**

**REPORT ON SOIL INVESTIGATION CARRIED OUT BY
GEOTECHNICAL ENGINEERING DIVISION
DEPARTMENT OF CIVIL ENGINEERING
S.V.U.COLLEGE OF ENGINEERING
Ref. No. CE/408/AUG18/GE/2R4/CSR**



**Sub: The Vice-Chairman, Tirupati Urban Development Authority, TIRUPATI. - Construction of Building on rear side of TUDA office main building, TIRUPATI. - Soil Testing for Assessing Safe Bearing Capacity at the Proposed Site for Construction – Reg.
Ref: Lr. No.1189/E1/2014; Dated : 18.07.2018**

1.0 GENERAL

The Vice-Chairman, Tirupati Urban Development Authority, TIRUPATI is proposing to construct a Building on rear side of TUDA office main building, TIRUPATI. In this connection the undersigned have been requested to carryout soil investigation in proposed location and submit report on SBC of soil.

2.0 STRUCTURE

The proposed building is RCC framed structure with G+4 floors. The actual location of columns, number of columns, and column loads are not known at the time of writing this report. However, a maximum column load of 1000kN (100 tons) is presumed for assessing the bearing capacity.

3.0 SITE INVESTIGATION

The party concerned has opened three trial pits of size 2.1m x 2.1m extending to a depth of 4.3m from the existing ground level for extracting undisturbed and disturbed but representative soil samples and to enable field testing in order to estimate in-situ soil properties at the proposed site. The trial pits are designated as TP1, TP2 and TP3 for convenience. The undersigned visited the site for inspecting the test pits and to conduct field-tests. The layout of the site along with approximate location of trial pits is shown in Fig.1. Collection of undisturbed samples was not possible at the bottom of the three trial pits since moorum soil is encountered so, undisturbed soil samples were collected at the bottom of the

This report is of 7 pages and is issued to **The Vice-Chairman, Tirupati Urban Development Authority, TIRUPATI.** in connection with construction of a **Building with (G+4) Floors on rear side of TUDA office main building, TIRUPATI.** Page 1 of 7

trial pits. Both undisturbed and disturbed but representative soil samples were collected in each trial pit at varying depths. The soil samples were transported with due care for further testing in the laboratory.

4.0 TESTS CONDUCTED

The following tests were conducted on all the soil samples in accordance with relevant BIS codes of practice.

1. Grain Size Distribution
2. Liquid Limit
3. Plastic Limit
4. Free Swell Index
5. In-situ Density
6. Natural Moisture Content
7. Triaxial Shear Test
8. One dimensional Consolidation Test

Apart from the above, a field penetration test as devised by the undersigned has been conducted in the field. All the test results are summarized in Table 1.

5.0 SOIL PROFILE

Based on visual inspection, field test and laboratory test results, soil profiles have been arrived as shown in Fig.2 and the same are described below.

The proposed site for construction of building is located on **rear side of existing TUDA office main building, TIRUPATI**. In the first trial pit TP1, the top soil up to a depth of 0.6m from the existing ground level is filledup soil followed by Greyish Clayey Sand (Moorum) with raw Calcium stones extending upto excavated depth of 4.3m. In the second trial pit TP2, the filledup soil is existing upto 0.9m depth from the ground level followed by Blackish to Brownish Clay existing upto 1.6m depth. The subsequent layer is Light Greyish Clayey Sand with raw Calcium stones extending upto excavated depth of 4.3m. Greyish Silty Sand existing upto 2.6m depth underlain by Whitish to Light Reddish Well Graded Sand to Clayey Sand(Moorum) is existing at this excavated depth. In the hird trial pit TP3, the top

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layer of soil upto 1.5m depth from existing ground level is filledup soil followed by Black Clayey soil layer of .1m thickness i.e., existing upto 1.6m depth. The subsequent layer is Light Greyish Clayey Sand with raw Calcium extending upto excavated depth of 4.3m. According to the client concerned and the local sources, GWT is beyond 20.0 m depth even during rainy season with bounty rain fall.


6.0 SUGGESTIONS

Based on soil profile, test results the following suggestions are made.


1. Open isolated foundations in the form individual footings may be employed for foundations located at a depth of **2.5m** below the existing Ground Level.
2. The foundations may be designed for a Safe Bearing Capacity of **190 kN/m²** (19.0 t/m²) at this foundation depth (Refer to Appendix-1 and II for supporting calculations).
3. All the footings should rest on a lean concrete mat of not less than 15cm thickness underlain by well compacted sand cushion of 30cm thickness compacted in two or three layers (Total depth of Foundation pit/trench is $\geq 2.95\text{m}$).
4. Uniform spacing of columns is preferable.
5. Stiff plinth beams shall connect the columns both longitudinally and laterally. This renders the sub-structure additional rigidity.
6. The excavated soil shall not be used for backfilling of the foundation trenches/ basement.

The above suggestions are based on the assumption that the soil conditions prevailing in the trial pit locations are representative of the entire site which should be ensured by the client concerned at the time of construction.

The undersigned may be contacted for further clarifications, if any.


HEAD OF THE DEPT.
HEAD
Department of Civil Engineering
S. V. U. College of Engineering
TIRUPATI-517 502 (A.P.)

OFFICER- INCHARGE
Dr. CH. SUDHA RANI
Professor
Department of Civil Engineering
S.V. University College of Engineering
TIRUPATI


FACULTY MEMBER
ASSOCIATED WITH THE REPORT
Dr. CH. SUDHA RANI
Professor
Department of Civil Engineering
S.V. University College of Engineering
TIRUPATI-517 501

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TABLE 1: SOIL PROPERTIES

S.No.	Property	TP1		TP2		TP3	
		@2.10m	@4.30 m	@2.00m	@4.30m	@2.10m	@4.40m
1	% Gravel	22.3	67.5	20.1	37.2	7.2	42.4
2	% Sand	62.8	27.4	54.4	39.0	55.5	45.4
3	% Silt +Clay	14.9	5.1	25.5	23.8	37.3	12.2
4	Liquid Limit (%)	22	NP	40	NP	35	22
5	Plastic Limit (%)	12	NP	15	NP	14	12
6	Plasticity Index (%)	10	NP	25	NP	21	10
7	IS Classification	SC	GP	SC	SM	SC	SC
8	Free Swell Index (%)	15	5	40	5	35	15
9	Degree of Expansion	Low	Low	Low	Low	Low	Low
10	Field Penetration Number	122*	>350*	133*	>350*	59*	>350*
11	Standard Penetration Number	17	>50	19	>50	8	>50
12	In-Situ Density kN/m ³	20.05	-	21.27	-	19.69	-
13	Natural Moisture Content %	9.8	-	14.0	-	13.9	-
14	Undrained Shear Parameters Angle of Internal Friction (ϕ ,degrees) Cohesion (kPa)	-	-	21.0	-	-	-
15	Compression Index(C_c)	-	-	0.0090	-	-	-

* Corrected Overburden Pressure

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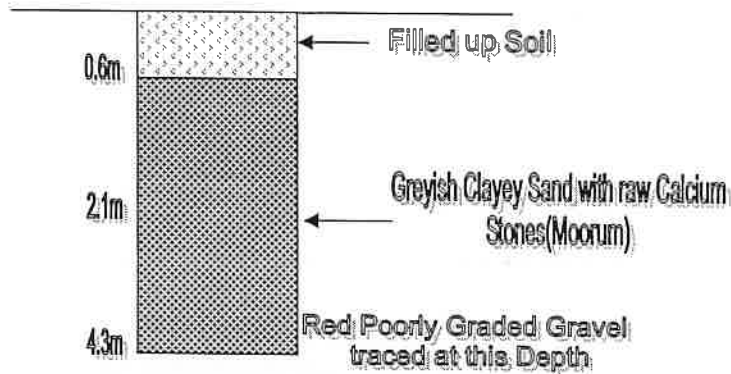


Fig. 2.a. Soil Profile (TP1)

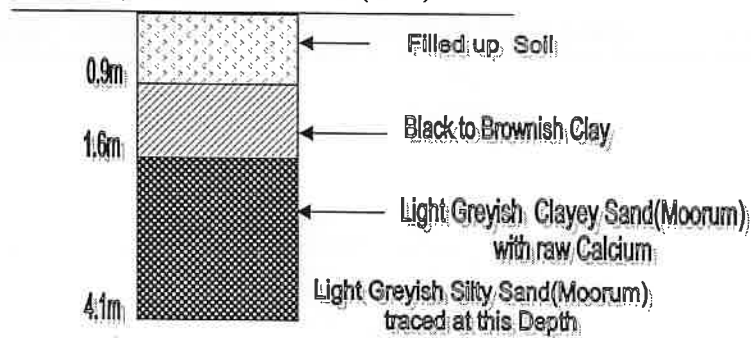


Fig. 2.b. Soil Profile (TP2)

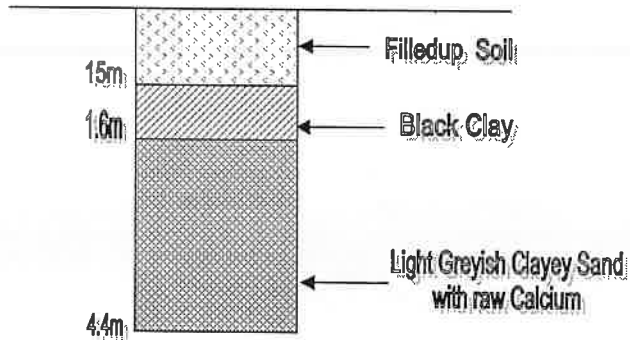


Fig. 2.c. Soil Profile (TP3)

FIG. 2. Soil Profile at Trail Pit Locations

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APPENDIX-I

Appendix – I (Typical Settlement Calculations)

Let Allowable Bearing Pressure = $q_a = 190$ kPa

Load acting on the footing = $Q = 1000$ kN

Width of Foundation = $B = 2.3$ m

Depth of Foundation = $D_f = 2.5$ m

Depth of Water Table = $d_w = 2.0$ m

SPT value = $N = 50$

From IS: 8009 Part 1, 1976

For $B = 2.3$ m, $N = 50$, $C_N = 0.0054$

Total settlement = $C_N \times q_a \times R_w$

$$= 0.0054 \times 1.9 \times 1.0 \times 1000 = 10.26 \text{mm} < 40 \text{mm (O.K)}$$

ALTERNATIVELY

According to Peck et al. (1974) the net Allowable Bearing Pressure, accounting for Water Table is given by the following Equation.

$$q_{na} = C_w \times 0.41 \times N \times S \text{ kPa}$$

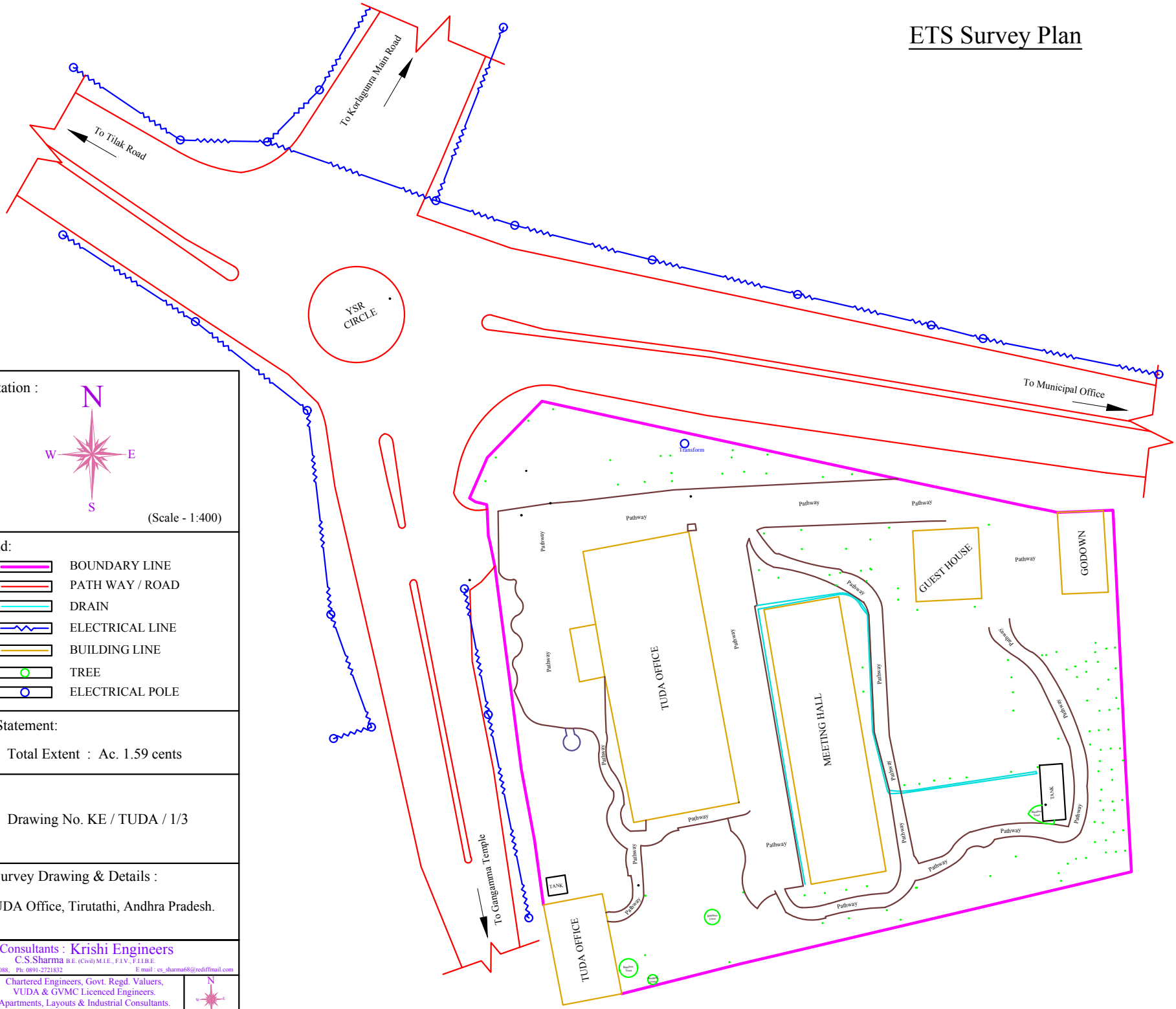
Where $C_w = 1$ (Water Table Correction Factor)

$S =$ Permissible Settlement in mm = 40mm (say)

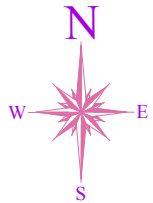
$$\begin{aligned} \text{Therefore Allowable Bearing Pressure} &= q_{na} = 1.0 \times 0.41 \times 50 \times 40 \\ &= 820 \text{ kPa} > 190 \text{ kPa (O.K)} \end{aligned}$$

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ETS Survey Plan










Orientation :



(Scale - 1:400)

Legend:

-  BOUNDARY LINE
-  PATH WAY / ROAD
-  DRAIN
-  ELECTRICAL LINE
-  BUILDING LINE
-  TREE
-  ELECTRICAL POLE

Area Statement:

Total Extent : Ac. 1.59 cents

Drawing No. KE / TUDA / 1/3

ETS Survey Drawing & Details :

TUDA Office, Tirutathi, Andhra Pradesh.

Consultants : **Krishi Engineers**

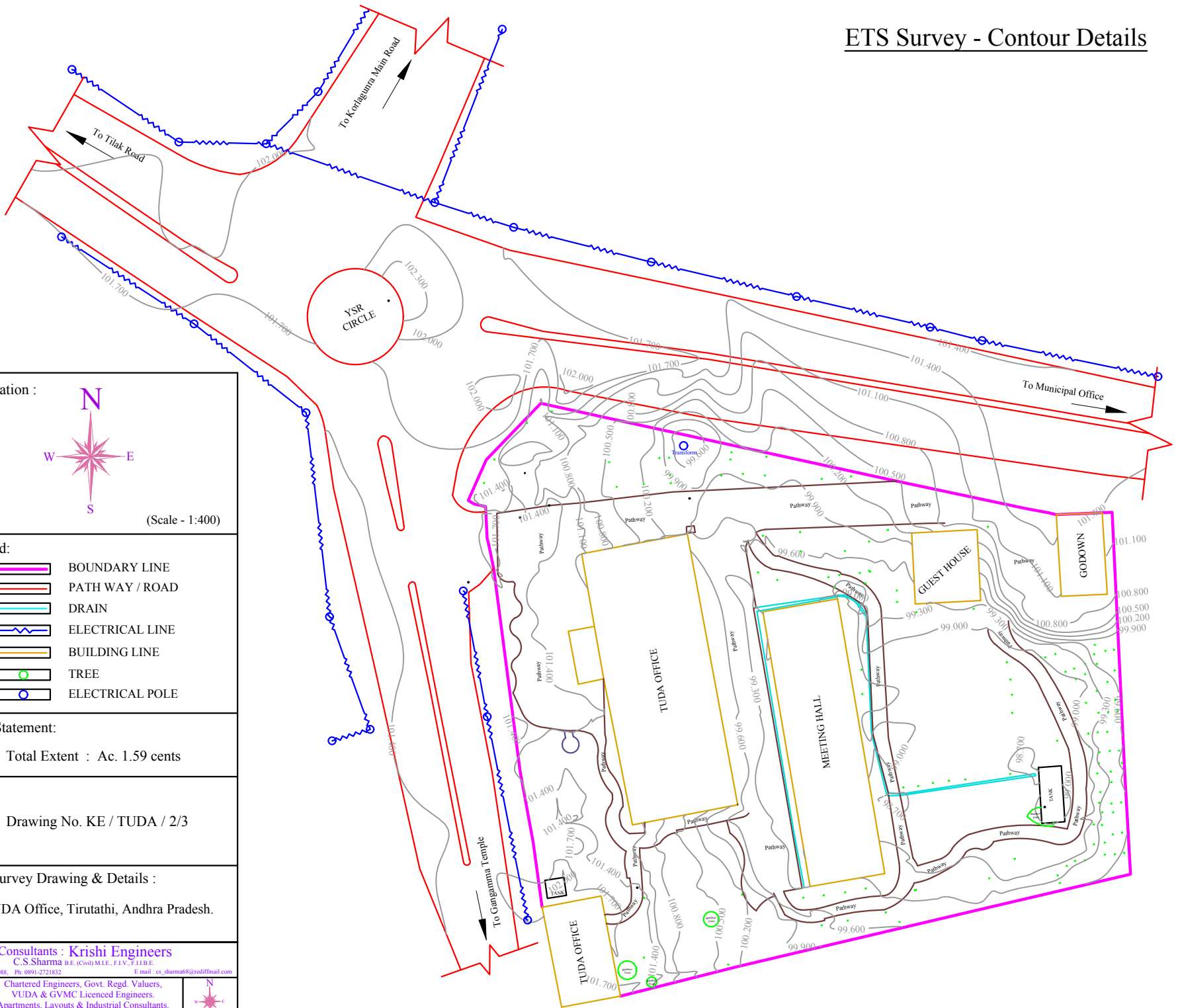
C.S.Sharma B.E. (Civl) M.E., F.I.V., F.I.R.E.

Cell : 98481-39088, Ph: 0891-2721832 E mail : cs_sharma68@rediffmail.com

Chartered Engineers, Govt. Regd. Valuers,
VUDA & GVMC Licenced Engineers,
Apartments, Layouts & Industrial Consultants.
Total Station Surveyors



ETS Survey - Contour Details



Orientation :

(Scale - 1:400)

- Legend:
- BOUNDARY LINE
 - PATH WAY / ROAD
 - DRAIN
 - ELECTRICAL LINE
 - BUILDING LINE
 - TREE
 - ELECTRICAL POLE

Area Statement:

Total Extent : Ac. 1.59 cents

Drawing No. KE / TUDA / 2/3

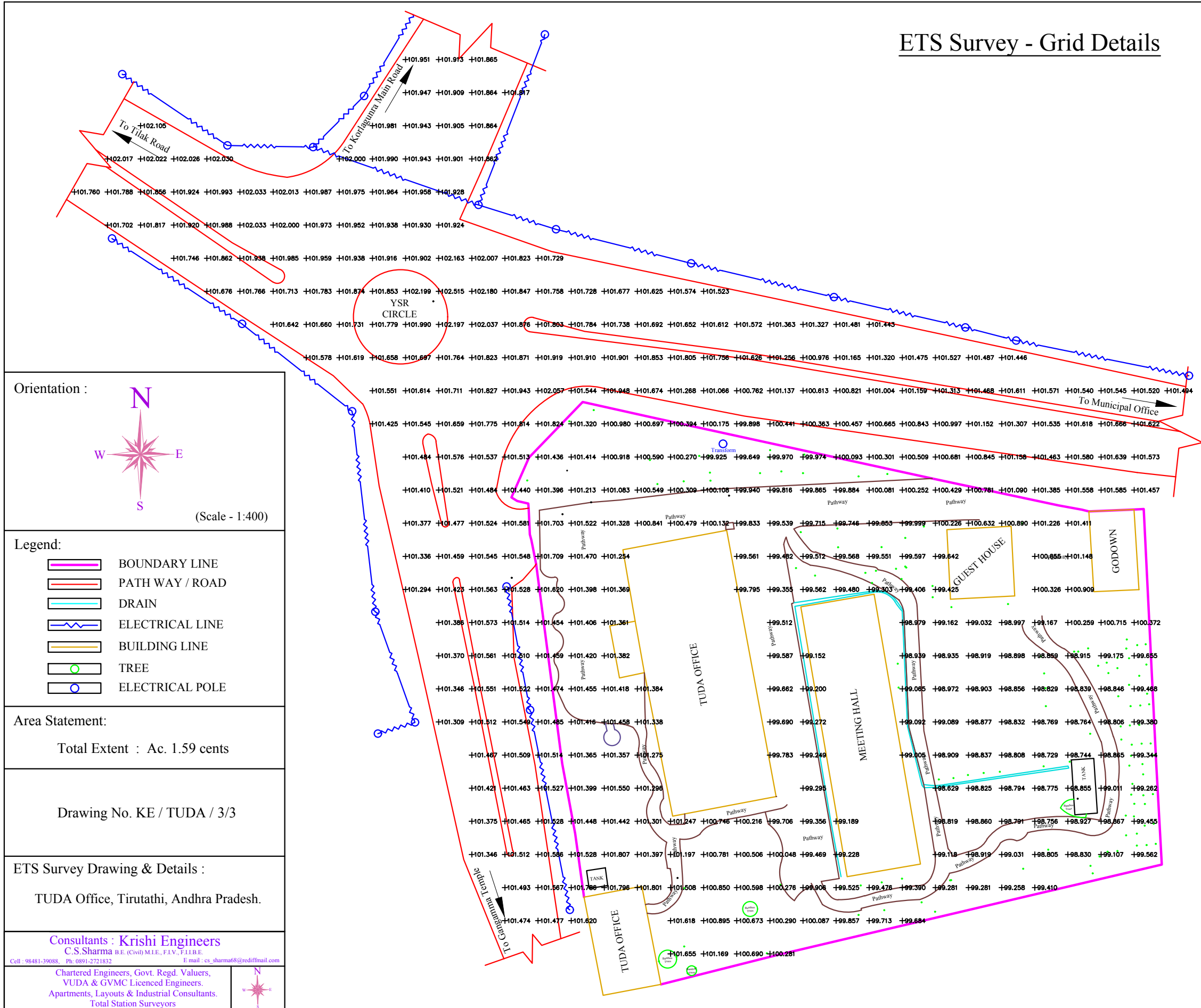
ETS Survey Drawing & Details :

TUDA Office, Tirutathi, Andhra Pradesh.

Consultants : **Krishi Engineers**
 C.S.Sharma B.E. (Civil) M.E., F.I.V., T.I.I.B.E.
 Cell : 98481-39088, Ph: 0891-2721832, E mail : cs_sharma68@rediffmail.com

Chartered Engineers, Govt. Regd. Valuers,
 VUDA & GVMC Licenced Engineers,
 Apartments, Layouts & Industrial Consultants.
 Total Station Surveyors

ETS Survey - Grid Details



Orientation :

(Scale - 1:400)

- Legend:
- BOUNDARY LINE
 - PATH WAY / ROAD
 - DRAIN
 - ELECTRICAL LINE
 - BUILDING LINE
 - TREE
 - ELECTRICAL POLE

Area Statement:
Total Extent : Ac. 1.59 cents

Drawing No. KE / TUDA / 3/3

ETS Survey Drawing & Details :
TUDA Office, Tirutathi, Andhra Pradesh.

Consultants : **Krishi Engineers**
C.S.Sharma B.E. (Civl) M.E., F.I.V., F.I.L.B.E.
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