



AMRITSAR SMART CITY LIMITED

**NATIONAL COMPETITIVE BID (NCB)
BID REFERENCE NO: 08/ASCL/2019-20**

Bid Document for: Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period

July 2019

Project Estimated Cost: Rs.534.96 Lakh

CHIEF EXECUTIVE OFFICER

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SECTION I – INVITATION FOR BID (IFB)

Notice inviting online Bids for: Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period

Amritsar Smart City Limited, Amritsar (hereinafter referred to as “ASCL” or “Employer” or “Procuring Entity”) invites online unconditional bids through e-procurement portal <http://eproc.punjab.gov.in> from eligible and interested parties (the “Bidder” or “Bidders”).

Name & Address of ASCL	Chief Executive Officer Amritsar Smart City Limited, SCO – 21, 2nd Floor, District Shopping Complex, B-Block, Ranjit Avenue, Amritsar - 143001, Punjab, INDIA
Subject Matter of Procurement	Notice inviting Online Bids for Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period
Estimated Cost of the Project	Rs.534.96 Lakhs (Rupees Five Crore Thirty-Four Lakh and Ninety-Six Thousand)
Period of Completion of Work	06 (six) months
Period of on-line availability of Bid Documents (Start Date/ End Date)	Start Date: From: 03.07.2019 11:00 AM End Date: Till: 02.08.2019 03:30 PM
Date and time for Pre-bid Meeting	Date/ Time 12.07.2019 at 11:00 AM Place: SCO – 21, 2nd Floor, District Shopping Complex, B-Block, Ranjit Avenue, Amritsar, Punjab, 143001
Manner, Start Date for submission of Bids	Manner: Online on e-Procurement website http://eproc.punjab.gov.in Start Date: 03.07.2019 11:00 AM
End Date for submission of Bids	End Date: 02.08.2019 03:30 PM
Tender Document Fee	Rs.10,000/- + Processing Fee as per the eprocurement portal
Amount of Bid Security (Earnest Money Deposit or EMD)	Rs.10.7 Lakhs (Rupees Ten Lakhs Seventy Thousand)
Date, Place and Time of opening of Technical Bid:	02.08.2019 03:30 PM online
Date and Time of opening of Financial Bid	Will be intimated later to the Technically qualified bidders
Language	<ul style="list-style-type: none"> • This Bid Document has been issued in English language • Bids shall be submitted in English • All correspondence exchange shall be in English language
Bid Validity	120 days from the bid submission deadline

Preparation of Bids	The Bids shall comprise of the following: Technical Bid & Financial Bid as per ITB Clause 6
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Note:

- 1) The Bidding Document can be downloaded from website: <https://eproc.punjab.gov.in>. The document downloaded from the aforesaid website should not be tempered, and if any such tempering is detected before or after the opening of Bids, the Bidder shall be debarred for a period of 6 (six) months.
- 2) Bidder (through its Authorized Representative) shall submit their offer (the “**Bid**” or “**Proposal**”) on-line in Electronic formats comprising of both Technical Bid and Financial Bid. Bid Document Fees, Tender Processing Fees and Bid Security should be deposited through Amritsar Smart City Limited, "Payment Gateway Service on E-Procurement platform".
- 3) Bidder for additional details such as estimated cost, important date, detailed information, qualification and eligibility criteria, visit website: <https://eproc.punjab.gov.in> for downloading tender document.
- 4) Any subsequent addendum/ corrigendum shall be published/ uploaded only on the website <http://eproc.punjab.gov.in> and will not be published in the newspapers. In case there is a holiday on the day of opening of Bids, activities assigned on that date shall be carried out on the next working day.
- 5) While electronically submitting the Bids, it should be ensured that the Bid Documents including Conditions of Contract are digitally signed by the Bidder.
- 6) For participating in the above e-tender, the Bidders shall have to get themselves registered with <https://eproc.punjab.gov.in> and get User ID, password, Class 3 Digital Signatures Certificate (DSC) is mandatory to participate in the e-tendering process. For any clarification/ difficulty/ regarding e-tendering process Bidders can contact helpdesk on the phone numbers mentioned on the website.
- 7) The documents shall be prepared and scanned in different files and uploaded during the online submission of Bid.
- 8) Amritsar Smart City Limited will not be responsible for delay in online submission due to any reason. For this, Bidders are advised to upload their complete Bid well advance in time so as to avoid 11th hour issues like slow speed; choking of web site due to heavy load or any other unforeseen problems.
- 9) Bid documents consisting of qualification information and eligibility criterion of Bidders, plans, specifications, drawings and the set of terms & conditions of the Contract to be complied with by the Contractor can be seen on website <https://eproc.punjab.gov.in> and scanned copies of the required documents and information as per this Tender Document should be attached in the Technical Bid as prescribed in this RFP.
- 10) Uploaded documents of valid successful Bidder (hereinafter referred to also as the “**Successful Bidder**”) will be verified with the original before signing the agreement, to be submitted prior to the date and time for Bid submission is specified herein.
- 11) The Tender Document is not to be uploaded by the Bidder. The Bidder has to only agree/ disagree with the conditions in the Tender Document. The Bidder who disagrees on the conditions of the Tender Document, cannot participate in the Tender.
- 12) Bid(s) once submitted online cannot be resubmitted or withdrawn.
- 13) Conditional Bids, Bids without payment of Bid Security and Bids not meeting the qualifying

criteria on the date of receipt of Bids shall be summarily rejected.

- 14) All the prospective Bidders are encouraged to participate in the pre-bid meeting and it is advised that the work sites are visited and Bid Documents are studied thoroughly.
- 15) ASCL reserves the sole right to cancel the bid process and reject any or all of the Bids without assigning any reason.
- 16) Procurement entity disclaims any factual/ or other errors in the Bid Document (the onus is solely on the individual bidders to verify such information) and the information provided therein are intended only to help the Bidders to prepare a logical Bid/proposal.

**Chief Executive Officer
Amritsar Smart City Limited
Amritsar, Punjab**

SECTION II – INSTRUCTIONS TO BIDDERS (ITB)

A. INTRODUCTION

1. Introduction & Brief Description of Bidding Process

1.1. Introduction

- 1.1.1. The Amritsar Smart City Limited (hereinafter referred to as the “**Authority/ ASCL/ Procuring Entity**”) is engaged in the implementation of the Smart City Mission projects in Amritsar and as part of this endeavor, the ASCL has decided to carry out the bidding process for selection of an entity as to whom the Project for ***“Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period”*** (the “**Project**” or “**Work**”) may be awarded.
- 1.1.2. The need for grade separated pedestrian crossings was identified during the construction of the BRTS corridor due to the physical separation which was a result of the dedicated BRTS lane. The BRTS lane has been constructed with a guard rail measuring 1.05 m high. This physical barrier has made crossing the carriageway difficult for pedestrians and cyclists. To provide seamless connectivity for pedestrians, multiple locations across the city have been identified for construction of grade separated pedestrian crossings. However, under this Invitation for Proposal, the following two locations have been identified for construction of Foot over Bridges:
- a) Near main branch of Shri Guru Harkrishan Public School, Amritsar
 - b) Near Putlighar Chowk (Prakash Hospital)
- 1.1.3. Accordingly, Amritsar Smart City Limited invites online Bids for the aforesaid Project for selection of an agency (the “**Successful Bidder**”) who shall act as the Implementing Agency and shall be responsible for designing, engineering, execution and operation and maintenance of the Project under and in accordance with the provisions of an agreement/ 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.
- 1.1.4. The scope of work shall broadly include the following and as directed by Engineer-in-Charge:
- a. Any other work as directed by Engineer in Charge.
- For detailed scope of work of the selected agency please refer to **Section V (Scope of Work)** of this RFP. The agency shall have to comply with the terms, conditions and specification laid down in this RFP during the tenure of the assignment.
- 1.1.5. The estimated cost of the Project is Rs. 5,34,96,263/- (Rupees Five Crore Thirty-Four Lakhs Ninety-Six Thousand Two Hundred Sixty-Three) as per the Bill of Quantities/ Price Schedule. The Bidders are required to quote a percentage below, at par or above the estimated cost of the Project and not item wise.

1.2. Brief Description of Bidding Process

- 1.2.1. This Section i.e. **Section II - “Instructions to Bidders”** provide the relevant information as well as instructions to assist the prospective Bidders in preparation and submission of Bids. It also includes the mode and procedure to be adopted by the ASCL for receipt and opening as well as scrutiny and evaluation of Bids, declaration of the successful Bidder, issuance of Letter of Acceptance and subsequent execution of Contract.
- 1.2.2. ASCL has adopted online single stage two parts process involving Technical Part and Financial Part for selection of the Bidder for award of the Project (collectively referred to as the “Bidding Process”). The first step involves technical qualification and short listing of the

qualified Bidders who become eligible for opening of their Financial Bids. The Bids shall be valid for a period of not less than 120 (one hundred and twenty) days from the date specified in ITB Clause 1.3 for submission of Bids.

- 1.2.3. A Bidder is required to deposit payment of Bid Document Fee, Tender Processing Fee and Bid Security online through Amritsar Smart City Limited, "Payment Gateway Service on E-Procurement platform". The Bids not accompanied by any of the aforesaid payments and Bid Security shall be summarily rejected.
- 1.2.4. Before formulating the Bid and submitting the same to ASCL, the Bidder should read and examine all the terms, conditions and instructions etc. contained in the Bid Documents. Failure of the Bidder to provide and/ or comply with the required information, instruction etc. incorporated in these Bid Documents may result in rejection of its Bid.

1.3. Schedule of Bidding Process

ASCL shall endeavour to adhere to the following schedule:

EVENT DESCRIPTION	DATE
Period of online availability of Bid Documents (Start Date/ End Date)	Start Date: From: 03.07.2019 11:00 AM End Date: Till: 02.08.2019 03:00 PM
Last date for receiving queries	11.07.2019 by 11 AM
Date and time for Pre-bid Meeting	Date/ Time 12.07.2019 11:00 AM Place: Amritsar Smart City Limited, SCO – 21, II Floor, District Shopping Centre, Block – B, Ranjit Avenue, Amritsar, Punjab, 143001
Manner, Start Date for submission of Bids	Manner: Online on e-Procurement website http://eproc.punjab.gov.in Start Date: 03.07.2019 11:00 AM
End Date for submission of Bids (Bid Submission Date)	End Date: 02.08.2019 03:00 PM
Place, Date and Time of opening of Technical Bids:	Place: www.eproc.punjab.gov.in Latest by: 02.08.2019 03:30 PM
Place, Date and Time of opening of Financial Bids:	Place: www.eproc.punjab.gov.in Date and time: To be intimated later
Letter of Acceptance (LOA)	To be intimated later
Validity of Bids	120 days from the end date of submission of Bids
Date of signing of Contract	Within twenty-eight (28) days of LoA

2. Eligible Bidders & Minimum Eligibility Criteria

2.1. Eligible Bidder

- 2.1.1. Each intending Bidder may be a natural person/ sole proprietorship/ Company/ Partnership firm/ LLP having authority to participate in this RFP. No Consortium or Joint Venture (JV) shall be allowed or accepted to participate in this RFP.
- 2.1.2. A Bidder shall have the nationality of India. A Bidder shall be deemed to have nationality of India if the Bidder is a citizen or constituted or registered or incorporated, and operates in conformity with the provisions of the Laws of India. This criterion shall also apply to the determination of the nationality of proposed sub-contractors or suppliers for any part of the Contract including related services.

- 2.1.3. A Bidder should not have a conflict of interest in the procurement in question as stated in this Bidding document.
- 2.1.4. A Bidder debarred/ blacklisted by any State Government/ Central Government / PSU/ Government Authority in India/ ASCL, shall not be eligible to participate in any procurement process.
- 2.1.5. The Bidder (and its sub-contractor where engaged) must have a valid Labour License/ EPF, ESI registration and must be registered under the Goods and Services Tax (GST). It is also required to provide proof of Permanent Account Number)PAN(given by Income Tax Department and also provide a copy of the EPF (if applicable) registration certificate from Provident Commissioner.
- 2.1.6. In addition to the requirements set forth in ITB Clauses 2.1.1 to 2.1.5 above, a Bidder in order to be eligible for qualification, is essentially required to meet the Minimum Eligibility Criteria set forth in Section III.
- 2.1.7. Where the Successful Bidder is engaging a sub-contractor to execute any part of the Work, the Successful Bidder within 7 (seven) days of issuance of LoA, shall demonstrate in writing to the ASCL that the proposed sub-contractor possesses adequate and appropriate prior experience for executing work of the nature as envisaged under the Project by submitting its credentials (work orders, copies of contracts and completion certificates). The ASCL shall evaluate the credentials of the proposed sub-contractor and only when it finds that the proposed sub-contractor possesses adequate experience and knowhow in terms of the Scope of Work and Technical Specifications, ASCL shall give approval in writing for engaging of such sub-contractor by the Bidder.

2.2. Minimum Eligibility Criteria

- 2.2.1. In order to be eligible for qualification, the Bidder shall fulfil the Minimum Eligibility Criteria as set forth in Section III.

B. BID DOCUMENTS

3. Content of Bid Documents

- 3.1. In addition to Section I – “Invitation for Bid” (IFB), the Bid Documents include:

1. Section II – Instructions to Bidders (ITB)
2. Section III – Qualification Criteria
3. Section IV – Bidding Form
4. Section V – Scope of Work (SOW)
5. Section VI – Technical Specifications
6. Section VII - Locations where Project is to be executed
7. Section VIII – Financial Bid/ Price Schedule (*to be filled online*)
8. Section IX – General Conditions of Contract (GCC)
9. Section X - Particular Conditions
10. Section XI – Contract Data
11. Section XII – Contract Forms

- 3.2. The Bidding Document shall be uploaded on the e-procurement portal, <http://eproc.punjab.gov.in> along with the Notice Inviting Bids. The prospective Bidders may download the bidding document from the portal. The price of the Bidding Document and processing fee of e-bid shall have to be paid to ASCL in the amount and manner as specified herein and on e-procurement portal.
- 3.3. ASCL is not responsible for the completeness of the Bidding Document and its addenda, if they are not downloaded from the e-procurement portal or the State Public Procurement Portal.
- 3.4. The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Document. Failure to furnish all information or authentic documentation required by the Bidding Document may result in the rejection of the Bid.

4. Clarification of Bid Documents and Pre-Bid Conference

- 4.1 If any Bidder has any doubts on any issue of the Bid Document or as to the meaning of any portion of the conditions or of the specifications, drawings etc., it shall, before submitting the Bid, refer the same to ASCL and get clarifications. A Bidder requiring any clarification of the Bidding Document shall contact ASCL in writing or e-mail at ASCL's address mentioned below:

The Chief Executive Officer,
Amritsar Smart City Limited
SCO – 21, 2nd Floor, District Shopping Complex,
B-Block, Ranjit Avenue,
Amritsar – 143001, Punjab.
Email: ceoasclsr@gmail.com

- 4.2 ASCL will respond in writing or e-mail to any request for clarification, within 7 (seven) days provided that such request is received no later than 21 (twenty-one) days prior to the deadline for submission of Bids. The clarification issued, including a description of the inquiry but without identifying its source shall be placed on the eProcurement Portal and should ASCL deem it necessary to amend the Bidding Document as a result of a clarification, it shall do so through an addendum which shall form part of the Bidding Document
- 4.3 The Bidder or his authorized representative is invited to attend the Pre-Bid Conference. The purpose of the Pre-Bid Conference will be to clarify issues and to answer questions on any matter related to this procurement that may be raised at that stage.
- 4.4 Non-attendance at the Pre-Bid Conference will not be a cause for disqualification of a Bidder.
- 4.5 The Bidder is advised to visit and inspect the site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid.
- 4.6 The Bidder is expected to examine carefully all instructions, conditions of contract, the Contract data, forms, terms and specifications, bill of quantities, forms and drawings in the Bid Document prior to submission of its Bid; Bidder shall be solely responsible for his failure to do so.

5. Amendments to the Bid Documents

- 5.1. At any time prior to the deadline for submission of Bids, ASCL may, for any reason deemed fit, modify the Bid Documents by issuing an addendum which will form part of the Bidding Documents.
- 5.2. Such an amendment will be uploaded on website: <http://eproc.punjab.gov.in> only.

- 5.3. To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, ASCL may, at its discretion, extend the deadline for the submission of the Bids, pursuant to ITB Clause 13]Deadline for Submission of Bids[, under due publication on the e-procurement portal only.

C. PREPARATION OF BIDS

6. Technical and Financial Bids

6.1. Language of Bid

The Bid submitted by the Bidder and all subsequent correspondence and documents relating to the Bid exchanged between the Bidder and ASCL, shall be written in the English language. However, the language of any printed literature furnished by the Bidder in connection with its Bid may be written in any other language provided the same is accompanied by an English translation and, for purposes of interpretation of the Bid, the English translation shall prevail.

6.2. Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its Bid, and ASCL shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

6.3. One Bid per Bidder

No Bidder shall be entitled to submit more than one Bid. If he does so, all Bids wherein the Bidder has participated shall stand rejected.

6.4. Site Visit

The Bidder at his own responsibility, expenses and risk, is encouraged to visit and examine the Site(s) of work and its/their surroundings and obtain all information (including that on the risks, contingencies and other circumstances which may affect or influence the bid) that may be necessary for preparing the Bid and entering into a contract.

6.5. Documents Comprising the Bid

The Bid to be submitted online by the Bidder shall comprise of the following, in two separate parts:

(a) Part I: Technical Part:

The Technical Part shall contain the following documents, the scanned copies whereof shall be uploaded on the portal:

- i. Proof of Bid Document Fee paid online
- ii. Proof of Tender Document Fee paid online
- iii. Proof of Bid Security paid online
- iv. Form Tech 1 – Bid Submission Form
- v. Form Tech 2 – Bidder's Information
- vi. Form Tech 3 – Format for Power of Attorney
- vii. Form Tech 4 – Declaration for blacklisting/ debarring
- viii. Form Tech 5 – Declaration for accepting terms and conditions of Bid Document
- ix. Form Tech 6 – Past Experience of carrying out similar work
- x. Form Tech 7 – Particulars of all works executed during last 7 years
- xi. Form Tech 8 – Current Contract Commitment/ Works in Progress
- xii. Form Tech 9 – Format for Evidence of Access to or availability of Overdraft/ Credit facilities
- xiii. Form Tech 10 – Declaration of Average Annual Turnover & Net Worth

- xiv. Form Tech 11 – Litigation Details
- xv. Copies of GST registration certificate and Permanent Account Number (PAN) given by the Income Tax Department
- xvi. Copies of EPF & ESI registration certificate from Provident Commissioner (if applicable)
- xvii. Copies of original documents defining the constitution or legal status, place of registration and principal place of business
- xviii. Copies of original work orders/ purchase orders along with recommendation letters from clients towards proof of similar work experience.

All the documents/ information enclosed with the Technical Bid should be self-attested and certified by the Bidder. The Bidder shall be liable for forfeiture of his Bid Security, if any document/ information is found false/ fake/ untrue before acceptance of Bid. If it is found after acceptance of the Bid, the Employer may at his discretion forfeit his performance security/ guarantee, security deposit, etc. and take any other suitable action including the termination of the Contract without any liability to pay compensation, damages to the Contractor/ Implementing Agency.

(b) Part II: Financial Part:

- The Financial Part/ Price Proposal shall be filled online on the portal as per the format uploaded therein and shall comprise of a combined single percentage above or at par or below for the total estimated cost of project specified in the Price Schedule, both in figures and words.
- The overall percentage rate quoted by the bidder would also apply for all items of work mentioned in the document titled as “Items” which has been uploaded as a separate document.
- All duties, taxes (including GST) and other levies, including future variations, payable by the Bidder under the contract, or for any other cause, shall be included in the rates and prices, and the total Bid Price submitted by the Bidder. Prices quoted by the Bidder shall be fixed during the Bidder’s Performance of the Contract and not subject to variation on any account, unless otherwise specified in the Contract.
- Percentage shall be quoted in figures as well as in words. If any difference in figures and words is found, lower of the two shall be taken as valid and correct.
- The Authorized Representative of the Bidder must sign the Bid duly stamped at appropriate places and initial all the remaining pages of the Bid.
- A Bidder, who does not fulfill any of the above requirements and/or gives evasive information/reply against any such requirement, shall be liable to be ignored and rejected.
- Bid sent by e-mail/fax etc. shall be ignored.

7. Currencies of Bid and Payment

The price shall be quoted by the Bidder entirely in Indian Rupees. All payment shall be made in Indian Rupees.

8. Bid Validity Period

- 8.1. The Bid shall remain valid for acceptance for a period of 120 (one hundred and twenty) days after the date of Bid opening prescribed in the Bid Document. Any Bid valid for a shorter period shall be treated as unresponsive and liable to be rejected.
- 8.2. In exceptional cases, the Bidders may be requested by ASCL to extend the validity of their

Bids up to a specified period. The Bidders, who agree to extend the Bid validity, are to extend the same without any change or modification of their original Bid and they are also to extend the validity period of the Bid Security accordingly. A Bidder, however, may not agree to extend its Bid validity without forfeiting its Bid Security.

- 8.3. In case the day up to which the Bids are to remain valid falls on or subsequently declared a holiday or closed day for ASCL, the Bid validity shall automatically be extended up to the next working day.
- 8.4. ASCL may extend the deadline for submission of Bids by issuing an amendment, in which case all rights and obligations of ASCL and the Bidders previously subject to the original deadline will then be subject to the new deadline.

9. Bid Security

- 9.1. The Bidder shall deposit along with its Bid, Bid Security for amount as shown in the IFB in Section I. The Bid Security shall be deposited online through the ASCL e-procurement payment portal.
- 9.2. The Bid Security shall be valid for a period of 45 (forty-five) days beyond the validity period of the Bid.
- 9.3. Bids not accompanied with Bid Security shall not be accepted and shall be rejected by the ASCL as non- responsive.
- 9.4. In case of the Unsuccessful Bidders, the Bid Security will be returned to them without any interest, after expiry of the Bid validity period, but not later than 45 (forty-five) days after conclusion of the resultant contract. The Successful Bidder's Bid Security will be returned without any interest, after receipt of Performance Security from that Bidder.
- 9.5. Bid Security of a Bidder may be forfeited –
 - (a) if the Bidder withdraws or amends its Bid or impairs or derogates from the Bid in any respect within the period of validity of its Bid without prejudice to other rights of ASCL; or
 - (b) In case of Successful Bidder, if the Bidder fails within the specified time limit to:
 - i) sign the Agreement; or
 - ii) furnish the required Performance Security.

10. Format and Signing of Bids

- 10.1. The Bidder shall submit the Bid online comprising of documents as specified in ITB Clause 6.5. The Bid shall either be typed or written in indelible blue ink and the same shall be signed by the Authorized Representative of the Bidder who has been duly authorized to bind the Bidder to the Bid through a valid Power of Attorney as per the format prescribed herein.
- 10.2. All pages of the Bid should be page numbered, bear the signature of the Authorized Representative with stamp of the Bidder and indexed. The Bid shall not contain any erasure or overwriting, except as necessary to correct any error made by the Bidder and, if there is any such correction; the person signing the Bid shall initial the same.

11. Documents Establishing Bidder's Eligibility and Qualifications

- 11.1. Pursuant to ITB Clause 6, the Bidder shall furnish, as part of its Bid, relevant details and documents establishing its qualifications to perform the contract if its Bid is accepted.

D. SUBMISSION OF BIDS

12. Submission Sealing and Marking of Bids

- 12.1. The Bidder shall place two separate digitally signed files marked “Technical Bid (Cover-I)” and “Financial Bid (Cover-II)”.
- 12.2. The contents of Technical and Financial Bids will be as specified in Clause 6.5. All documents are to be signed digitally by the Bidders.
- 12.3. The Bidders must ensure that they upload their Bids not later than the closing time and date specified for submission of Bids.

13. Deadline for Submission of Bids

- 13.1. Complete Bids (including Technical and Financial) shall be received by ASCL online on www.eproc.punjab.gov.in not later than the date and time indicated in the ITB.
- 13.2. ASCL may extend the deadline for submission of Bids by issuing an amendment in accordance with Clause 5, in which case all rights and obligations of ASCL and the Bidders previously subject to the original deadline will then be subject to the new deadline.

14. Late Bid

- 14.1 The electronic bidding system would not allow any late submission of Bids after due date and time as per server time. The Bidders are advised to upload their respective Bids well in advance so as to avoid last minute rush and jam.

E. OPENING OF BID

15. Bid Opening

- 15.1. ASCL shall open the Bids online and the same shall be evaluated by Tender Evaluation Committee (TEC) as nominated by ASCL for the said purpose. Total transparency shall be observed and ensured while opening the Bids therefore the Bids shall be opened in the presence of the Bidders or their representatives who choose to attend at time, date and the place specified in ITB Clause 1.3. In the event of the specified date of Bid opening being declared a holiday for ASCL, the Bids will be opened at the appointed time on the next working day. ASCL reserves the rights at all times to postpone or cancel a scheduled Bid opening.
- 15.2. Bid opening shall be conducted in 2 (Two) stages i.e. stage 1- Technical Bid; and Stage 2- Financial Bid.
- 15.3. During Bid opening, prior to the detailed evaluation of Bids, ASCL will determine the substantial responsiveness of each Bid to the Bidding Document. For purposes of these clauses, a substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents including Technical Specifications without material deviations. However minor deviation and/or minor irregularity and/or minor non-conformity in the Bid may be waived by ASCL. If a Bid is not substantially responsive, it will be rejected by ASCL.
- 15.4. The Financial Proposals of only those Bidders will be opened who are qualified in Technical Evaluation.

F. EVALUATION OF BIDS

16. Evaluation of Technical Bid

- 16.1. The Part-I containing Technical Part shall be opened first.
- (i) The Bids will be taken up for evaluation with respect to the Qualification Information and other information furnished in Part-I of the Bid.
 - (ii) The Bidder will be asked in writing (usually within 10 (ten) days of opening of the Technical Bid) to clarify or modify his technical bid or to submit supporting/ additional documents, if necessary, with respect to any rectifiable defects.
 - (iii) The Bidders will respond in not more than 7 (seven) days of issue of the clarification letter.
 - (iv) On receipt of these clarifications, the Tender Evaluation Committee (TEC)/ Procurement Entity will proceed to evaluate the Technical Bids.
 - (v) During the detailed evaluation of Technical Bids, the TEC will determine whether each Technical Bid (a) meets the Minimum Eligibility Criteria as prescribed in Section III of this Bid Document; (b) contains all the information and documents as specified in the Bid Document and such documents have been properly signed (including digital signature) and stamped by the Bidder before submission; (c) is accompanied by Power of Attorney as per the format prescribed herein in favor of the Authorized Representative of the Bidder; (d) is accompanied by the required Document Fee, Tender Processing Fee and Bid Security in the amount, mode and manner as specified in this Bid Document; and (d) is substantially and unconditionally responsive to all the requirements of the Bid Document. Bids of the Bidders, who do not meet the aforesaid requirements will be treated as non – eligible and will not be considered further.
 - (vi) Bidders who meet the requirements set forth in sub-clause (v) above shall be declared as technically qualified Bidders who will become eligible for opening of their Financial Bid in the next round. The TEC/ ASCL shall prepare and finalize the list of such technically qualified Bidders.
 - (vii) Evaluation of the Technical Bids with respect to qualification information and other information furnished in Part-I of the Bid in pursuance to Clause 6.5, shall be taken up and completed within 21 (twenty-one) working days of the date of Bid opening, and a list will be drawn up of the responsive bids whose Financial Bids are eligible for consideration.
 - (viii) ASCL shall inform, by e-mail, the Bidders, whose Technical Bids are found responsive i.e. Technically Qualified Bidders, date, time and place of online opening of Part-II i.e. Financial Bid. In the event of the specified date being declared a holiday for ASCL, the Bids will be opened at the appointed time and location on the next working day. The Bidders or their representative may attend the opening of Financial Bids.
- 16.2. **Opening & evaluation of Financial Bids:** The Financial Bid of all the Technically Qualified Bidders shall be opened and downloaded. At the time of opening of “Financial Bid”, the names of the Bidders who were found responsive will be announced and the Bids of only these Bidders will be opened. The responsive Bidders’ names, the Bid prices, the total amount of each Bid, and such other details as ASCL may consider appropriate, will be announced by ASCL at the time of opening.

- 16.3. The Bidder whose Financial Bid is found responsive and has quoted the least rate, shall be declared as the Successful Bidder.

17. Process to be confidential

- 17.1. Information relating to the examination, clarification, evaluation and comparison of Bids and recommendation for the award of the contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a Bidder to influence the Procurement Entity/ TEC processing the Bids, or award decisions may result in the rejection of Bids.

18. CLARIFICATION OF FINANCIAL BIDS

- 18.1. To assist in the examination, evaluation and comparison of Bids, ASCL may, at his discretion, ask any Bidder for clarification of his Bid, including breakdown of unit rates. The request for clarification and the response shall be in writing or by e-mail.
- 18.2. Any effort by the Bidder to influence the Procurement Entity in the TEC's Bid evaluation, Bid comparison or contract award decisions may result in the rejection of the Bidder's Bid.

19. UNBALANCED BIDS

- 19.1. If the Bid of the Successful Bidder is seriously unbalanced by more than or less than 25% (twenty five percent) in relation to the Procurement Entity's estimate of the cost of work to be performed under the contract, the Procurement Entity may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analysis, the Procurement Entity may require that the amount of the Performance Security set forth in ITB Clause 23 be increased at the expense of the successful Bidder to a level sufficient to protect the Procurement Entity against financial loss in the event of default of the successful Bidder under the Contract.

G. AWARD OF CONTRACT

20. AWARD CRITERIA

Subject to requirements as mentioned in this Bid Document, the competent authority will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bid Documents and who has quoted the lowest rate for executing the Project in comparison to other Bidders.

21. ASCL's Right to accept any Bid and to reject any or all Bids

ASCL reserves the right to accept in part or in full any Bid or reject any or more Bid(s) without assigning any reason or to cancel the Bidding process and reject all Bids at any time prior to award of contract, without incurring any liability, whatsoever to the affected Bidder or Bidders.

22. Notification of Award

- 22.1. Before expiry of the Bid validity period, ASCL will notify the Successful Bidder in writing by e-mail/ courier that its Bid for works, also briefly indicating therein the essential details like description of the works, completion period, bid price that has been accepted.
- 22.2. After the notification of award, Authority will issue Letter of Acceptance (LOA) in duplicate as per the format provided in Section XI (Contract Forms). Accordingly, a contract shall be signed between Successful Bidder and ASCL. As an acceptance of the LOA, the Bidder shall sign and return back a duplicate copy of the LOA to ASCL within 7

(seven) days of receipt of LoA. In the event, the Successful Bidder fails to give acceptance of the LoA within the aforesaid time period then unless the time period is extended by the ASCL, the LoA issued shall be cancelled and the Bid Security of the Successful Bidder forfeited.

- 22.3. The Successful Bidder must furnish to ASCL, the required Performance Security within 21 (twenty-one) days from receipt of this notification, failing which the Bid Security will be forfeited and the award will be cancelled. Relevant details about the Performance Security have been provided in GCC under Section IX.
- 22.4. The Notification of Award will constitute the formation of the Contract subject only to the furnishing of a performance security in accordance with ITB Clause 23.
- 22.5. The Contract as per the format will incorporate all relevant correspondence between ASCL and the Successful Bidder. It will be signed within 21 (twenty-one) days following the Notification of Award along with the Letter of Acceptance.
- 22.6. Upon the furnishing by the successful Bidder of the Performance Security, ASCL will promptly notify the other Bidders that their Bids have been unsuccessful.

23. Performance Security

- 23.1. Within 21 (twenty-one) days of receipt of the Letter of Acceptance, the Successful Bidder shall deliver to ASCL a Performance Security [to cover the amount of liquidated damages and/ or the compensation of the breach of contract] for an amount equivalent to 5% (five percent) of the Contract Price plus additional security for unbalanced Bids in form of unconditional and irrevocable Bank Guarantee.
- 23.2. The Performance Security shall be issued in form of a Bank Guarantee issued by a Scheduled Commercial bank in India and acceptable to ASCL and the same shall be valid for 60 (sixty) days from the date of expiry of the Operation and Maintenance Period.
- 23.3. Failure of the successful Bidder to comply with the requirements of ITB Sub-clause 23.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.

24. Non-receipt of Performance Security and Contract by ASCL

- 24.1. Failure of the Successful Bidder in providing Performance Security and / or returning copy of the Contract duly signed in terms of ITB Clauses 22 and 23 above shall make the Bidder liable for forfeiture of its Bid Security and, also, for further actions by ASCL against it as per the Clause 57/ 58 of GCC – Termination of default in Section IX and also other administrative actions as per merits of the case.

25. Corrupt or Fraudulent Practices

- 25.1. The ASCL will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a Contract with ASCL. For the purpose of this Clause:
 - a. **“Corrupt Practice”** means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
 - b. **“Fraudulent Practice”** means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the ASCL, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish contract prices at artificial non-competitive levels and to deprive the ASCL of the benefits of free and open competition.

- 25.2. ASCL may at its sole discretion and at any time during the processing of tender, disqualify any Bidder from the tendering process if the Bidder has:
- a. Submitted the tender after the prescribed date and time of submission of Bids;
 - b. Made misleading or false representations in the forms, statements and attachments submitted in proof of the eligibility requirements.
 - c. If found to have a record of poor performance such as abandoning works, not properly completing the contract, inordinately delaying completion, being involved in litigation or financial failures, etc.;
 - d. Submitted Bid document, which is not accompanied by required documentation and Earnest Money Deposit (EMD) or non-responsiveness;
 - e. Failed to provide clarifications related thereto, when sought;
 - f. If the technical offer contains any price information;
 - g. Stipulated conditions in Bid;
 - h. Has been found to canvass, influence or attempt to influence in any manner the qualification or selection process, including without limitation, by offering bribes or other illegal gratification.

SECTION III – MINIMUM ELIGIBILITY CRITERIA/ QUALIFICATION CRITERIA

S.No.	Criterion	Documentary Evidence Required
1.	Bidder should be a natural person/ sole proprietorship/ Company/ Partnership firm/ LLP or any other form of legal entity registered in India under the relevant Act and operating for the last 7 (seven) years prior to the Bid submission Date.	Enclose copy of Certificate of Incorporation/ Registration issued by relevant authority in India. Copy of PAN Card.
3.	The Bidder must have a valid Labour License/ EPF, ESI registration. (wherever applicable)	Copies of license/ registration enclosed with Bid.
4.	The Bidder should have a valid GST number or should have registered under GST.	Enclose copy of GST Registration certificate
5.	<p>Bidder must have, in the last 7 (seven) years ending last day of month previous to the one in which bids are invited, satisfactorily completed:</p> <p>One single similar work costing not less than Rs.427.97 lakh</p> <p style="text-align: center;">OR</p> <p>Two similar works costing not less than Rs.267.48 each</p> <p style="text-align: center;">OR</p> <p>Three similar works costing not less than Rs.213.98 each</p> <p>Bidder must be a Contractor having experience in similar Work. Similar work(s) shall mean construction of foot over bridge or bridges or flyovers on highways or arterial roads or railway crossings or grade separators.</p>	<p>1. Details to be provided as per Form Tech 6.</p> <p>2. The requisite work order and completion/ performance certificate received from the client shall be furnished with Bid.</p>
6.	<p>Bidder must have:</p> <p>i. Positive Net Worth in the Financial Year preceding Bid Submission Date</p> <p>ii. Achieved Average Annual turnover (from civil engineering works only) in the last 3 financial years immediately preceding the current Financial Year of at least Rs.213.98 Lakhs (Rupees Two Hundred Thirteen Lakhs Ninety-Eight Thousand)</p> <p>iii. Access to line(s) of credit and availability of other financial resources facilities for not less than Rs.53.5 Lakhs, certified by the Bankers (Not more than 3 months old)</p>	<p>Details to be provided as per Form Tech 10 of the Bidding Document;</p> <p>Copies of balance sheets and statement(s) featuring turnover during the aforesaid periods should be submitted duly signed by the Bidder and the Chartered Accountant concerned, as applicable.</p> <p>Credit lines/letter of credit/certificates from Banks for meeting the funds requirement etc. shall also be enclosed.</p> <p>Undertaking that the bidder will be able to invest a minimum cash upto 25% of contract value of work, during implementation of work.</p>
7.	<i>The Bidder should not have been debarred / blacklisted by any State Government / Central Government / PSU/ ASCL/ Government authority in India for any reason and the same subsists as on Bid Submission Date.</i>	Enclose blacklisting/ debarring declaration (Refer Form Tech 3).

8.	<p>Bid Capacity</p> <p>The bid capacity of the bidder shall not be less than estimated cost of the Project.</p> <p>The formula for calculating Bid capacity is: (2xAxN)-B</p> <p>A= Maximum value of Civil Engineering Works executed in any one Financial Year during the last 7 (seven) financial years (updated to present price level @8%) taking into account the completed as well as works in progress.</p> <p>N= Number of years prescribed for completion of the Project/ Work for which these bids are invited (e.g. 6 months =6/12 year).</p> <p>B= value of existing commitments (only allotted works) on the last date of submission of bids as per bidding document and on-going works to be completed during the next one year (period of completion of the works for which bids are invited).</p> <p>Note: <i>The statement 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 attached along with certificates duly signed by the Engineer-in Charge, not below the rank of an Executive Engineer or equivalent.</i></p>	<p>The bidder shall submit calculation sheet wherein Bid capacity has been calculated as per the formula provided and the same shall also be certified by the CA. The calculation sheet shall be supported by supporting documents i.e. work orders, completion certificates, CA certificate, etc.</p>
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Note: Bidders who meet all the requirements set forth above and provide the qualification documents as specified, shall be considered further in the Bidding Process.

SECTION IV – BIDDING FORMS FOR QUALIFICATION INFORMATION

Scanned copies of Bidding Forms or Qualification document towards meeting the Minimum Eligibility Criteria as detailed below, complete in all respects, should be submitted online as per the stipulations of Clause 6 of ITB:

1. Form Tech 1 – Bid Submission Form
2. Form Tech 2 – Bidder's Information
3. Form Tech 3 – Format for Power of Attorney
4. Form Tech 4 – Declaration for blacklisting/ debarring
5. Form Tech 5 – Declaration for accepting terms and conditions of Bid Document
6. Form Tech 6 – Past Experience of carrying similar work
7. Form Tech 7 – Particulars of all works executed during last 7 years
8. Form Tech 8 – Current Contract Commitment/ Works in Progress
9. Form Tech 9 – Format for Evidence of Access to or Availability of Overdraft/ Credit facilities
10. Form Tech 10 – Declaration of Average Annual Turnover & Net Worth
11. Form Tech 11 – Litigation Details

Notes:

1. If necessary, additional sheets can be added to the schedules. Such attachments should be clearly marked as follows:

"Attachment 1 to Form (1), Attachment 2 to Form (2) etc.

2. While submitting the Qualification Information duly filled in, Bidder shall enclose latest copies of brochures of their firms and technical documentation, if any, giving additional information and proper reference to the brochures.
3. Each page of Qualification Information shall be duly signed by the Authorized Representative of the Bidder.
4. The enclosed Forms should be filled in completely and all questions should be answered. If any particular query is not relevant, it should be replied as "not applicable".
5. Financial data, Project/Work costs, value of works, etc. should be given in Indian Rupees only except for Works carried out abroad for which figures may be furnished in United States Dollars (USD).
6. If the bid is made by a firm in partnership, it shall be signed by all the partners of the firm along with their full names and current addresses, or by a partner holding the power of attorney for the firm for signing the Bid. In such a case a certified copy of the power of attorney should accompany the Bid and should be submitted in original in the office of Procuring Entity before the last date of submission of bids. A certified copy of the partnership deed, current address of the firm and the full names and current addresses of all the partners of the firm shall also accompany the Bid.
7. If the bid is made by a limited company or a corporation, it shall be signed by a duly authorized person holding the proper/legal and valid authorization for signing the application, in which case a certified copy of the proper/legal and valid authorization should accompany the application. Such limited company or corporation will be required to furnish satisfactory evidence of its existence like copy of Certificate of Incorporation in the Bid documents.
8. The information furnished must be sufficient for the satisfaction of the ASCL to show that the Bidder is capable in all respects to successfully complete the envisaged work.

9. Bidding Forms to be supported with scanned copies of all the documents as mentioned in Clause 6.5.1 which are required to be annexed as part of Technical Bid.

Form Tech 1: BID SUBMISSION FORM

To,

Date:

Chief Executive Officer,
Amritsar Smart City Limited,
Amritsar.

Subject: Bid for: “Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period”

Ref: Your Bid Document No. 08/ASCL/2019-20 dated 03.07.2019

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Document, including Addenda No.

.....

(b) We offer to execute in conformity with the Bidding Document the following Works:

“Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period”

- (c) I/We offer to execute the works described above and remedy any defects therein during the Defects Liability Period and Operation and Maintenance Period of 05 (five) years in conformity with the Conditions of Contract, Scope of Work, Technical Specifications, drawings, Bill of Quantities and Addenda for the sum (s) as quoted by me/ us in our Financial Bid.
- (d) Our Bid shall be valid for a period of **120 (one hundred twenty)** days from the date fixed for the bid submission deadline in accordance with the Bidding Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (e) If our Bid is accepted, we commit to obtain a Performance Security in the amount of 5% (five percent) percent of the Contract Price for the due performance of the Contract;
- (f) We, including the subcontractor or suppliers for any part of the Contract, are/ shall be from India;
- (g) We are not participating, as Bidder, in more than one Bid in this bidding process, other than alternative offers, if permitted, in the Bidding Document;
- (h) Our firm/ company/ partner/ director has not been blacklisted/ debarred by State Government/ Central Government / PSU/ ASCL/ Government authority in India;
- (i) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed;
- (j) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive;
- (k) We agree to permit Government of Punjab or Procuring Entity or their representatives to

inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by Procuring Entity;

- (l) We have not paid, or will pay any commissions or gratuities with respect to the bidding process and for execution of the Contract, if awarded;
- (m) We declare that we have complied with and shall continue to comply with the provisions of the bid document including Conflict of Interest as specified for Bidders in this Bidding Document during this procurement process and execution of the Works as per the Contract;
- (n) Unless and until a formal agreement is prepared and executed this Bid together with your written acceptance thereof, shall constitute a binding contract between us.

Name/ address of the Authorized Representative of the Bidder: _____

Designation: _____

Signed _____

Duly authorised to sign the Bid for and on behalf of: _____

Stamp of the Bidder

Date: _____

Tel: _____ Fax: _____

E-mail: _____

Form Tech 2: BIDDER'S INFORMATION

1	Name of the Bidder	
2	The Bidder is: a Proprietary firm a firm in Partnership a Limited Company or Corporation	
3	Year of registration/ establishment	
4	Address of registered office	
5	Address of place of business	
6	Telephone No./ Fax No.	
7	Email Address	
8	Contact Person with Designation, Contact number & Email Id.	
9	Number of years of proven experience of providing similar services	
10	PAN No.	
11	GST Registration No.	
12	EPF/ ESI Registration details	

Yours faithfully

(Signature of the Bidder)

Name:

Designation:

Seal:

Date:

Business Address:

Form Tech 3:**POWER OF ATTORNEY (PoA) FOR AUTHORIZED REPRESENTATIVE**

I/ We, M/s..... authorize the following Representative to sign and submit the Bid, negotiate terms and conditions for the contract, to sign the contract, to deal with the Amritsar Smart City Limited, to issue and receive correspondence related to all matters of the tender pertaining to **“Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period”**. We / M/s (the **“Bidder”**) undertake to ratify and accept any act of the representative appointed hereby.

For Partnership Firm

Sr. no.	Name of the All Partner	Signature of Partner with Seal
	Date	
	Name and Designation of the person Authorized	
	Attested Signature of the Authorized Representative	
	Stamp of the Firm	

For Company

Name and Designation of the person Authorized	
Name of the Company	
Address	
Telephone No. & Fax No.	
Authority by which the Power is delegated	
Attested Signature of the Authorized Representative	
Name and Designation of person attesting the signatures <i>(Proof of the authority of the attesting person to be attached with the PoA)</i>	
Company Seal	

Form Tech 4:
DECLARATION FOR BLACKLISTING/ DEBARMENT

To,

Date:

The Chief Executive Officer,
Amritsar Smart City Limited,
Amritsar.

Subject: Bid Document No. 08/ASCL/2019-20 dated 03.07.2019 for “Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period”

Sir/ Madam,

I/ We have carefully gone through the Terms & Conditions mentioned in the referred Bid Document. I/ We hereby declare that my company/ firm/ partner/ director/ owner is not currently debarred/ blacklisted by any State Government/ Central Government/ PSU/ Government Authority in India/ ASCL as on the Bid Submission Date.

Or

I declare the following

S. No.	Blacklisted/ debarred by State Government/ Central Government/ PSU	Reason	Date on which blacklisting/ debarment notification was issued

(NOTE: In case the company/ firm/ partner/ director was blacklisted previously, please provide the details regarding the Period for which the company/ firm/ partner/ director was blacklisted/ debarred and the reason/s for the same)

Yours faithfully

(Signature of the Bidder)

Name:

Designation:

Seal:

Date:

Business Address:

Form Tech 5:
DECLARATION FOR ACCEPTING TERMS AND CONDITIONS OF BID DOCUMENT

To,

Date:

The Chief Executive Officer,
Amritsar Smart City Limited,
Amritsar.

Subject: Bid Document No. 08/ASCL/2019-20 dated 03.07.2019 for “Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period”

Sir/ Madam,

I/ We have carefully gone through the Terms & Conditions mentioned in the above referred Bid Document. I/ We declare that all the provisions of this Bid Document are acceptable to my/ our company/ firm who has submitted its Bid as a Bidder for this Project. I further certify that I am an Authorized Representative of my company/ firm i.e. the Bidder and am therefore, competent to make this declaration. I further undertake on behalf of my company/ firm that we shall abide by the Bid including the Financial Bid submitted by my company/ firm.

Yours faithfully,

(Signature of the Bidder)

Name:

Designation:

Seal:

Date:

Business Address:

Form Tech 6: PAST EXPERIENCE OF CARRYING OUT SIMILAR WORK

To,

Date:

The Chief Executive Officer,
Amritsar Smart City Limited,
Amritsar.

Subject: Bid Document No. 08/ASCL/2019-20 dated 03.07.2019 for “Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period”

Sir/ Madam,

Brief particulars of similar works like carried out in the last 7 years. The copies of work order and completion/ performance certificate of the cited experience is also enclosed with the form.

Sr. No.	Items	Description
1.	Name of Government Department Institution/ Agency/ Organization or PSUs (the Client)	
2.	Address of the Client	
3.	Work Order Date	
4.	Amount	
5.	Number of Foot over Bridges constructed	
6.	Activities performed	
7.	Details of Client Contact person for reference check	Name: Address: Phone No./ Mobile No.: Email Id:
8.	Start Date (Month/ Year)	
9.	Completion Date (Month/ Year)	
10.	Period of Operation	

Note: Self attested copies of original work orders and completion/ performance certificates along with recommendation letters from clients towards proof of past similar work experience to be enclosed.

Yours faithfully,

(Signature of the Bidder/ Authorized Representative)

Name:

Designation:

Seal/ Stamp:

Date:

Business Address:

Form Tech 7: PARTICULARS OF ALL WORKS EXECUTED DURING LAST 7 YEARS

Sr. No.	Detail of work	Amount (Rs.)

Authorized Signature of Bidder with date and Office seal

Form Tech 8: CURRENT CONTRACT COMMITMENTS / WORKS IN PROGRESS

Bidder should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate is yet to be issued.

Sr. No.	Name of Contract	Employer's Contact Address, Tel, Fax	Value of Outstanding Work [Current INR Equivalent]	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [INR month]
1					
2					
3					
4					
5					

Signature of Bidder with date and Office seal

**Form Tech 9: FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF
OVERDRAFT/ CREDIT FACILITIES**

BANK CERTIFICATE

This is to certify that M/s is a reputed company with a good financial standing.

If the contract for the Project/ Work(s), namely “.....” is awarded to the above firm, we shall be able to provide overdraft/ credit facilities to the extent of INR..... to meet their working capital requirements for executing the above Contract.

Name of the Bank:.....

Senior Bank Manager:.....

Address of the Bank:.....

.....

.....

Phone & Fax No.:.....

Form Tech 10: DECLARATION OF AVERAGE ANNUAL TURNOVER AND NET WORTH

To,

Date:

The Chief Executive Officer,
Amritsar Smart City Limited,
Amritsar.

Subject: Bid Document No. 08/ASCL/2019-20 dated 03.07.2019 for “Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period”

Sir/ Madam,

I hereby declare that our firm's Annual Turnover and Net Worth is as follows. The Statutory Auditor's certificate is attached for your reference.

FINANCIAL YEAR	ANNUAL TURNOVER (IN INR)
F. Y. [2016-17]	
F. Y. [2017-18]	
F. Y. [2018-19]	
Average Turnover	

RELEVANT FINANCIAL YEAR	NETWORTH
FY 2018-19	

Note:

1. Net Worth should be in positive
2. In case of turnovers in foreign currency, the figures are to be given in relevant currency and figures in INR may be worked out as per SBI Foreign Currency selling rates prevalent on 01.04.2019.

Yours faithfully,

(Signature of the Bidder)

Name:

Designation:

Seal:

Date:

Business Address:

Form Tech 11: Litigation Details - Court Cases/arbitration

Name of Bidder							
Year	Name of the Work	Name & Address of the Employer	Title of the Court/ Arbitration case	Name of Court/ Arbitrator	Status (Pending/ Decided)	Disputed Amount (Current Value)	Actual Awarded Amount in decided Court cases/ Arbitration

Letter of Financial Bid

To

The Chief Executive Officer
Amritsar Smart City Limited
Amritsar

Project: Bid Document No.08/ASCL/2019-20 dated 03.07.2019 for “Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period”

Subject: Letter of Bid – Financial Part

1. I/ We hereby bid for the execution of the above work within the time specified at the rate (in figures) _____(in words) _____ percent below/ above or at par based on the Bill of Quantities and item wise rates given therein in all respects and in accordance with the specifications, designs, drawings and instructions in writing in all respects in accordance with such conditions so far as applicable. This percentage shall be applied to all the item rates mentioned in the Bill of Quantities.
2. I/We undertake if our Bid is accepted to commence the works immediately on the signing of the Contract, and to complete the whole of the works comprised of the works comprised in the contract within the time stated in the document.
3. I/We agree to abide by this Bid for the period of 120 days from the date fixed for receiving the same, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
4. Unless and until a formal agreement is prepared and executed this Bid together with your written acceptance thereof, shall constitute a binding contract between us.
5. I/We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this _____ day of _____ 2019

Signature _____ in the capacity of _____

duly authorized to sign bids for and on behalf of _____

(in block capitals or typed)

Address _____

Note:

- i. Only one rate of percentage above or below or at par based on the Bill of Quantities

- and item wise rates given therein shall be quoted.
- ii. Percentage shall be quoted in figures as well as in words. If any difference in figures and words is found lower of the two shall be taken as valid and correct rate. If the bidder is not ready to accept such valid and correct rate and declines to furnish performance -security and sign the agreement his earnest money deposit shall be forfeited.
 - iii. In case the percentage “above” or “below” or “at par” is not given by a bidder, his bid shall be treated as non-responsive.
 - iv. All duties, taxes (including GST), and other levies payable by the bidder shall be included in the percentage quoted by the bidder.

FINANCIAL BID/ PRICE SCHEDULE

(TO BE FILLED ONLINE ONLY; THIS IS ONLY A TEMPLATE)

SL. NO	Particulars of work	Qty	Rate	Amount (Rs.)	Bidders Quoted Percentage <i>(above/ below/at par)</i>
1	Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period	1		5,34,96,263/-	
	Total (Round off)				

Total Amount = Rs.....

Total Amount = (in words)

Note:

1. If there is a discrepancy between the unit price and total price, the unit PRICE shall prevail.
2. This format is to be filled online only. Any hard copy submission of the Financial Bid shall lead to rejection of the Bid.

Signature of Authorized Representative _____

Name & Designation _____

Name of Bidder : _____

Business Address _____

Date: _____

Seal of the Bidder _____

SECTION V –SCOPE OF WORK

Objective: The objective of the contract is the design and construction completion, testing and commissioning of the two Foot Over Bridge by the Contractor (including without limitation, the construction and removal of the Temporary Works) and the rectification of defects appearing in the works in the manner and to the standards and within the time stipulated by the Contract. In bill recognition of this objective, and with full acceptance of the obligations, liabilities and risks which may be involved, the Contractor shall undertake the design and execution of the Works.

1 SCOPE OF WORKS

The work under this contract shall be carried out in accordance with the various documents constituting the contract and shall consist of various silent items as generally described below:

1.1 SCOPE OF WORK INCLUDED IN (BOQ):

- Topographical - survey, GPR survey, geotechnical survey and all other relevant investigations at respective construction site prior to the commencement of the detailed design drawings.
- Based on the actual surveys and related required investigations conducted by the contractor, the preparation and subsequent revision of the following design drawings, but not limited to architectural, structural and electrical drawings, the contractor will have to design and get it vetted and approved by 'Engineer in Charge'.
- Submission and approval of Design and Drawings shall be carried out by PMC ASCL which must be provided with a certification and approval from a Third-party agency. The Third-party agency for the vetting of these designs and drawings shall be finalized by the Engineer-in-Charge appointed by ASCL.
- The structure should have aesthetically pleasant appearance as well as earthquake resistant.
- Construction of structural components (RCC/Structural Steel) of Foot Over Bridge as per the approved drawings and technical specifications.
- Finishing works including granite flooring in walkway/staircase areas/landscape areas. Stone cladding works, provision of tactile paver blocks, railings, other landscaping works, painting works, aluminum composite panel cladding etc.
- Electrical Works including but not limited to light fixtures, cabling, earthing, Distribution boards and connection with main electrical supply system:
- Road works including but not limited to earthwork, GSB, WMM, BM, DBM, BC etc., as required, kerb stones in footpath & median, painting of kerb stones and restoration of lane markings using thermoplastic paint etc.
- Supply, installation & commissioning of escalators and Lifts including maintenance during defects liability period.
- Testing and commissioning by the contractor.
- NoC to be obtained from the concerned department by the Contractor.

1.2 TRAFFIC MANAGEMENT/ TRAFFIC SAFETY/ WORK AREA SAFETY: The Contractor shall carry out the Works so as to minimize disruption to road and pedestrian traffic. The Contractor shall prepare his traffic management plan based on his proposed construction methodology in co-ordinate with Engineer-in-Charge and in conjunction with Traffic Police. He shall comply strictly with the approved plan during construction of his works. Development of traffic management/diversion plans/schemes & traffic safety plans and its approval from Traffic Police & other local authorities shall be the responsibility of the Contractor. Development of work area safety plans as per the provisions of contract and its implementation at site. Traffic barricades with blinkers, reflective tapes, road delineators, traffic cones, portable signages, reflective lights and other necessary traffic signage should be provided wherever required as per detailed plans, as required and as directed by Engineer-in-Charge/Traffic Police. Temporary traffic diversion for smooth flow of traffic will be provided during construction including necessary traffic signs, repairs to diverted route/services lanes if required. Properly equipped Traffic marshals shall be deployed for the period of diversion to guide the road users and to avoid traffic congestion (deployment of guards for safety of work area etc. shall be the responsibility of contractor and nothing shall be paid for this). Restoration of diverted route in original condition etc. shall be done by Contractor.

1.3 Identification & Shifting of Utilities (included in provisions in BOQ):

Identification of underground utilities. preparation of utility shifting/relocation plans for underground/over ground utilities to be affected due to project execution. Shifting of all affected utilities like sewer lines/storm water lines, water supply lines and unfiltered water lines except electrical cables under the provisions in BOQ. Electrical lines shall be shifted through PSPCL as deposit work. Coordination of same shall be responsibility of the contractor. The work of identification of all underground utilities, preparation of utility shifting/relocation plans for underground/over ground utilities to be affected due to project execution shall be considered incidental to work and no payment shall be made to contractor. However, payments for actual relocation/shifting of all affected utilities like sewer lines/storm water lines and water supply lines except electrical cables shall be made under the provisions in BOQ.

No payment shall however be made for supporting the utilities during course of work.

The utilities shall be diverted with proper liaison and approval of the utility owning agencies. The utilities which are not be diverted but require supporting, proper supporting shall be done so that they are not damaged. Precautions to be taken while handling the utilities are mentioned as under;

- Utilities must not be damaged at any cost. If due to some or the other reason, mis happening occurs, it should be rectified immediately by the Contractor at his own cost under intimation of Engineer-in-Charge/Employer.
- Till rectification of the damaged trunk sewers, the Contractor shall arrange substitute arrangement for sewer pumping and its disposal as per directions of utility owning agency. The similar arrangement to be done for other utilities.
- The covers of manholes be saved from heavy machinery movement to avoid any accident/Slippage of malba in manholes etc. into the T/Sewers which may cause blockage of lines. In case of damage of manhole cover & frame the same shall be replaced immediately by the Contractor at his own cost.

- Manholes of the trunk sewer should be kept freely accessible for cleaning and removal of blockages and malba should not be dumped over these manholes.
- Branch sewer connections which are connected with the trunk sewers should also be taken care of. If the same are damaged, the same should be restored immediately on priority.

1.4 There is possibility of some of the items not getting mentioned here. Contractors are requested To go through the Bid drawings in detail as the works mentioned above, as well as indicated in the Bid drawings would be considered inclusive in the scope of work. However bidder must carry out activities only after obtaining the approval for the final Good for Construction Drawings.

1.5 The scope of works shall also include but not limited to the following incidental activities:

- Site clearance and dismantling of obstructions etc., before commencement of work as specified or as directed
- Preparing fabrication/shop/erection drawings for structural work and obtaining approval in respect thereof from the Employer, inclusive of incorporation of all modifications, alterations, changes, etc. that may be required to be carried as directed;
- True and proper setting out and layout of the Works, benchmarks and provision of all necessary labor, instruments and appliances in connection therewith as specified or as directed;
- All aspects of quality assurance, including testing of materials and other components of the work, as specified or as directed;
- The Contractor has to ensure cleanliness of the work area and its surroundings by deploying manpower for the same. The Contractor shall have to ensure proper brooming, cleaning and washing of work area till the currency of the contract including disposal of sweepage. Nothing extra shall be payable on this account;
- Day to day cleaning of work site throughout the execution period.
- Clearing of site and handing over of all the Works, as specified or as directed;
- Maintenance of the completed Work during the period as specified;
- Submission of completion (i.e. 'As-Built') drawings and other related documents as specified;
- The scope of work includes working under all conditions at site, moisture, water, weather etc., diversion/pumping/bailing out of water, if required.
- In terms of the provisions of the relevant conditions of contract, complying with all safety & environmental protection guidelines at site during construction period. Protection & safety of existing structures in or within the vicinity the construction area.
- Liaison with other government departments whenever required.
- Underpinning and protection of existing buildings and structures wherever required.
- Dewatering arrangements, if required.
- Dismantling of road crust, footpaths, kerb stones etc. during construction, proper stacking of serviceable material and cartage to stores/godowns of Transport Department. Disposal of surplus earth, malba, unserviceable material to the nearest sanitary landfill site.
- Construction of temporary diversions during construction.

- Provision of site laboratory for testing of materials.
- Any other incidental work mentioned elsewhere in Conditions of Contract

The above-mentioned activities shall be considered incidental to work and nothing extra shall be paid to contractor in this regard.

1.6 **All ancillary and incidental facilities** required for execution of the work e.g. labor camps, stores laboratory at site, work shop facilities, watch and ward, temporary structure for plants and machinery, water storage structure, tube wells, electric/ telephone installation and charges, liaison work, protection work during execution, not included in the main items, any other item/ activity contained in the Bid documents which is necessary for execution of work in the opinion of the Engineer-in-Charge, shall be deemed to be included in BOQ and nothing extra shall be paid for the same. Wireless communication system for communication, provision of office accommodation for Engineer-in-Charge at site & provision of vehicle for transportation to be provided by Contractor shall also be deemed to be included in the BOQ and nothing extra shall be paid for the same separately.

1.7 The construction of Foot Over Bridge will have to be planned in such a phased manner so as to comply with the traffic management/diversion plans. Contractor shall have no claim whatsoever for the construction to be taken up in the phased manner in order to meet these requirements.

2 ENVIRONMENTAL CONSIDERATIONS: All provisions and conditions contained in the Bid documents and other statutory provisions regarding environmental protection, safety & health shall be strictly complied with and shall be incidental to work.

3 STANDARDS: Equipment, materials and systems shall be designed, manufactured and tested in accordance with the latest issue of International and/or National codes and standards. The Contractor shall submit copies to the Engineer-in-Charge of all codes and standards used for the work. Reference to standards or to materials and equipment of a particular manufacturer shall be regarded as followed by the words "or equivalent-. The Contractor may propose alternative standard materials, or equipment that shall be equal to or better than those specified. If the Contractor for any reason proposes alternatives to or deviations from the specified standards, or desires to use materials or equipment not covered by the specified standards, the Contractor shall apply for the consent of the Engineer-in-Charge. The Contractor shall state the exact nature of the change, the reason for making the change and relevant specifications of the materials and equipment in the English language.

4 SPECIFICATIONS:

- **Excavation:** Earth work to be carried out for the construction of footings to the depth of 2m from existing surface ground level, size of excavation area for column and pedestal footings are to be taken as per approved drawings, specifications and approval of Engineer-in-charge. Excavation will be carried out both manually as well as mechanically.
- **Laying of Cement Concrete:** A layer of 100mm thick made in such a manner that it was not mixed with the soil. It provides a solid base for the foundation and a mix of 1:4:8. Plain concrete is vibrated

to achieve full compaction with stone ballast or shingle using concrete mixer volumetric type. Concrete placed in ground containing deleterious substances should be kept free from contact with such a ground and with water draining there from during placing and for a period of seven days, as per approved drawings, specifications and approval of Engineer-in-charge.

- **Footing:** The depth of the foundation below G. L. is 2m. Size of footings are to be taken as per approved drawings, specifications and approval of Engineer-in-charge. So, based on that available report near to our location was considered while designing the structures. Confirmatory geotechnical survey has to be conducted by the contractor and report must be submitted to the Engineer in Charge before finalization of design.
- **Reinforcement:** Mild steel bars confirming to IS:432 (Part I) and it is suggested to use cold-worked steel high strength deformed bars conformed to IS:1876 (grade Fe 500) as per approved drawings, specifications and approval of Engineer-in-charge.
- **Concrete:** Grade of concrete is M30 will be used for the construction, as per approved drawings, specifications and approval of Engineer-in-charge.
- **Structural Steel Arrangements:** Columns are of square hollow section (SHS), circular hollow sections (CHS), girders ISMB connected with bolts confirmed by IS: 800 and other relevant codes as per the design requirements. Steel sections should be connected to RCC column with the help of base plate confirmed to the IS: 2062. Firstly, to stable the SHS welding would be done and then to strengthen the connection bolts are used Confirmed to IS: 2062, with required bracing as per approved drawings, specifications and approval of Engineer-in-charge.
- **Shear Connectors:** Shear connectors are placed before the slab casting to achieve the composite action of steel and concrete) as per approved drawings, specifications and approval of Engineer-in-charge.
- **Deck Slab:** The standard thickness of the Deck slab is 200mm. The minimum clear height should be 5.5 meters from the existing road level as per IRC specifications. At location of planter boxes areas the Desk slab thickness shall be 250 mm and the minimum width of deck slab should be 5 meters. The deck slab shall be provided in the form of cast in-situ. RCC slab of M30 concrete grade having reinforcement according to design of Fe 500 has been taken. Main reinforcement of 12mm dia. Bars @200mm c/c whereas distribution steel bars of 10mm dia. @ 250mm c/c. are placed carefully as per approved drawings, specifications and approval of Engineer-in-charge.
- **Roofing:** Providing and fixing 10 mm thick Polycarbonate sheeting of approved colour and manufacture on ceiling/roof supported over aluminium section framework fixed with dash fastener etc. complete as per manufacture specifications and direction of the project Engineer including necessary scaffolding.

- **Railing:** Providing & fixing 16 gauge stainless steel pipe railing of grade 304 duly fixed on steps with the help of bolts grouted on steps with hand rail and newel post of 50mm dia. Stainless steel pipe, Balusters of 40mm dia. Stainless steel pipe and guard 3 Nos of 15mm dia. Stainless Steel pipe complete in all respect carefully as per approved drawings, specifications and approval of Engineer-in-charge.
- **Flooring:**

Staircases: Black granite stone tiles 15 to 20mm thick in skirting, risers of steps dado, walls and pillars laid in 12.5mm thick cement mortar 1:3 (1 cement, 3 coarse sand) and jointed with neat cement slurry mixed with pigment to match the shade of stone, including rubbing and polishing including labor for fixing dowels pins and cramps

Deck slab: Colored granite stone tiles 15 to 20mm thick in skirting, risers of steps dado, walls and pillars laid in 12.5mm thick cement mortar 1:3 (1 cement, 3 coarse sand) and jointed with neat cement slurry mixed with pigment to match the shade of stone, including rubbing and polishing including labor for fixing dowels pins and cramps as per approved drawings, specifications and approval of Engineer-in-charge.
- **Cladding:** Providing and Fixing polyvinylidene difluoride (PVDF) coated ACP sheet 3mm using aluminium section 1"x1.5", 15 Feet length and 1.5 kg per Piece for lift columns with Weather coated silicon finishing as per approved drawings, specifications and approval of Engineer-in-charge.
- **Painting for concrete surfaces:** Finishing walls with Premium Acrylic smooth exterior paint with silicon additives of required shade with two coats applied @ 1.43litre/10 sqm over and including base coat of water proofing Cement Paint applied @ 2.20 Kg/10 sqm for soffit of deck slab. Finishing walls with exterior decorative cement-based paint such as snowcem, etc. two coats to give an even shade for staircase waist slab as per approved drawings, specifications and approval of Engineer-in-charge.
- **Painting for structural steel:** Applying priming coat with metal primer on new steel or iron work including preparation of surface. (With special quality paint) and Painting two coats with ready mixed paint for metallic surfaces in all shades on steel or iron work for steel structure as per approved drawings, specifications and approval of Engineer-in-charge.
- **Cycle Access Ramp:** Mild steel channel sections riveted or welded, including cutting and fixing all gusset plates, bolts, nuts, rivets, welding rods, etc. complete with flange plates, heads, sole plates angle connections, etc. with hoisting and erecting in position as per approved drawings, specifications and approval of Engineer-in-charge.
- **Planter Box:**

Brick work: First class burnt brick work laid in cement sand mortar 1:4 in first storey up to 4 metres above plinth level. 12.5 mm thick cement plaster 1:4 as per approved drawings, specifications and approval of Engineer-in-charge.

Water proofing: Providing and laying four courses of waterproofing treatment with bitumen felt over roofs consisting of first and third courses of blown type bitumen grade 85/25 applied hot @ 1.20kg per sqm of area for each course, second course on roofing felt type 3 grade-I (Hessian base self-finished bitumen felt) and fourth and final course of stone grit 6mm and down size or pea-sized grit spread at 0.006 cubic meter (Cum) per sqm including preparation of surface complete as per approved drawings, specifications and approval of Engineer-in-charge.

Finishing: Fine dressed red sandstone 40mm thickness, thick set in 12.5mm cement mortar 1:3 including painting with cement mortar 1:2 with an admixture of pigment to match the shade of stone as per approved drawings, specifications and approval of Engineer-in-charge.

Noising: Extra labor for projected nosing of staircase of any shape and design.

Good Earth: Supply of Good Earth, watering the earth laid in 20cm layers as per specifications for compaction, including loading, Unloading & including Carriage of 10 km.

Planting: Planting permanent shrubs including digging of earth pits size 60cmx60cmx60cm deep, refilling the excavated earth with manure supplied @ 0.056 cum each and watering Supplying through tractor tanker.

Drainage: Providing, laying, fixing, jointing and testing ISI Marked H.D.P.E Pipes as per ISI-4984 -1995 casting (premium make such as (Dura-line/Reliance with the approval of Engineer-in-charge) along the trenches and laying the same in trenches to correct alignment and gradients, cutting , jointing and testing complete as per specifications.

- **Pavement:** For footpaths 60 mm thick cement concrete interlocking paver block of M-35 grade machine made rubber moulded smooth finish by strong vibratory process or with vibro-hydraulic compaction machine and of approved size and design / shape laid in Ordinary Grey Color and pattern over and including 40 mm thick compacted bed of coarse sand, filling the joints with fine sand etc., all complete as per directions of Engineer-in-Charge for Light Traffic Areas such as Pedestrian plazas, shopping complexes, ramps, car parks, office driveways, housing colonies, office complexes, rural roads with low volume traffic, farm houses, beach sites, tourist resorts, local authority footways, residential roads, etc. as per approved drawings, specifications and approval of Engineer-in-charge.
- **Wet Mix Macadam:** Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per technical clause 406 of MORT&H specifications as per approved drawings, specifications and approval of Engineer-in-charge.

- **Dense Graded Bituminous Macadam:** Providing and laying dense graded bituminous macadam 80mm to 100mm thick with batch type HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30 @ 4%, Dense Graded Bituminous Macadam 80mm to 100mm thickness (Grading I) carriage of mixed material to site of work, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete as per technical clause 507 of MORT&H specifications as per approved drawings, specifications and approval of Engineer-in-charge.
- **Bituminous Concrete:** Providing and laying bituminous concrete 30mm to 45mm thick with batch type hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30 @ 6%, carriage of mixed material to site of work, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete as per technical clause 509 of MORT&H specifications as per approved drawings, specifications and approval of Engineer-in-charge.
- **Prime Coat:** Providing and applying primer coat with bitumen emulsion SS on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.85kg/sqm complete as per technical clause 502 of MORT&H specifications as per approved drawings, specifications and approval of Engineer-in-charge.
- **Tack Coat:** Providing and applying tack coat with bitumen emulsion RS using emulsion pressure distributor at the rate of 0.25 kg per sqm on the prepared bituminous surface/granular surface treated with prime coat after cleaning the surface complete as per technical clause 503 of MORT&H specifications as per approved drawings, specifications and approval of Engineer-in-charge.
- **Water storage tanks:** Providing and placing in position on terrace (at all floor levels) HDPE water storage tanks of approved make with cover with suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipe but without fittings and base support for tank. Providing & fixing in position G.I. Tank Nipple of approved make in PVC water storage tanks complete in all respect. Providing, laying, fixing, jointing and testing ISI Marked G.I. Pipe (as per ISI 1239) B-Class premium make such as (Jindal Hissar) including cost of specials (such as tees, bends, sockets, elbow etc.), painting with anti-corrosive bitumastic paint, testing, cutting, threading inside building complete.
- **Water connections:** Bailing out water from the trenches for making new connections in existing pipelines including cleaning trimming and dressing the trenches to correct alignment and grade. Providing, fixing & jointing water meter of approved make as per IS:779/94 in G.I. pipeline including cutting and threading pipe including cost of water meter but excluding the cost of specials in all respect complete. Providing, fixing and jointing Brass Ball valves screwed with SS/BRASS

ball & spindle & teflon seats on G.I. Pipelines including all carriages complete as per approved drawings, specifications and approval of Engineer-in-charge.

4.1 Utility Diversion Works:

Excavation: Excavation of trenches with straight or open cutting in a Streets, Lanes or in Open Area with 3D/JCB or excavator including manually dressing bed, trimming sides and side slopes for sewer and manholes to full depths as shown in drawings, including, dressing to correct sections and dewatering , provision for diversion for traffic , protection of existing services i. e telephone cables, electrical lines, water supply lines and Gas lines etc, providing and fixing of night signals, profiles, Pegs, Sight rails, boning rods, watching, etc fixing and maintenance of caution boards, fencing, refilling trenches, watering , ramming and restoration of surface to original conditions and removal of Surplus Spoil from the Site of Works up to one chain 15m complete in all respect as per approved drawings, specifications and approval of Engineer-in-charge.

Cement Concrete: Cement Concrete 1:6:12 with 40mm gauge stone aggregate using concrete mixer volumetric type as per approved drawings, specifications and approval of Engineer-in-charge.

R.C.C Pipe (NP2 & NP3): "Providing, Lowering, jointing and cutting of Plain and Reinforced Cement Concrete spigot and socketed Pipes and Specials with rubber ring ISI marked as per IS code IS 458-2003 into Trenches for all Depths and Laying out the same to correct alignment, gradients, levels etc. including all dressing and trimming and cutting of concrete beds and joints holes, supporting the pipes and specials in correct position in a suitable rigid manner while the same are being jointed and until the surrounding benching, haunches and envelopes are completed. The pipes shall rest on the beds at all joints through their lengths and to ensure this, they shall be grouted in where necessary including jointing the socketed pipe with cement sand mortar 1:1 after stretching and fixing of rubber ring, facing, troweling and finishing the joints at an angle of 45 degree, keeping the joint covered and wetted till the same are cured, testing the pipes for leakage and making good the same leakage and all defects to the entire satisfaction of the Engineer-in-charge including all cartage etc." as per approved drawings, specifications and approval of Engineer-in-charge.

Manholes: Constructing brick masonry manhole in cement mortar 1:5 (1 cement : 5 coarse sand) R.C.C. top slab 20 cm thick using M-20 mix by using mixer and vibrator, TMT Fe 500 @ 3.464 kg/cum , foundation concrete 1:4:8 mix (1 cement: 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement and making 40mm thick benching in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement, Orange colored PVC steps including RCC cover with frame (extra heavy duty). Complete as per standard design complete in all respects. as per approved drawings, specifications and approval of Engineer-in-charge.

Road Gully Chamber: Constructing brick masonry road gully chambers as per standard drawings (as per sizes given below) including dressing of beds and sides of chambers to exact profiles, 15cm thick lime concrete 16:24:100 (as per specified in item No. 10.3) in foundation, first class brick work laid in cement sand mortar 1:5, 40mm thick cement concrete 1:2:4 topping inside the chamber with a floating coat of 1.5mm thick neat cement laid in one operation to the topping, the entire inner surface of the chamber rendered with neat cement not less than 12.50mm in thickness of 1:2 cement sand plaster and finished with a floating coat of neat cement 1mm thick left absolutely smooth polished and correct to templates including labor for fixing the C.I. road gully grating and frame

including paint with coal tar (as specified in item No. 29.74) complete and to the requirement of the Engineer-In-Charge.

4.2 Applicable Codes of Practice

The following specifications, standards and codes are included as part of this Specification. All Standards, specifications, codes of practice current on the date of signing of agreement and referred to herein shall be applicable.

1. IS 456-2000 Plain and Reinforced Concrete - Code of Practice
2. IS: 800 (1984): Code of Practice for General Construction in Steel.
3. IS: 808 (1989): Dimensions for Hot Rolled Steel Beam, Column, Channel and Angle Sections.
4. IS: 814 (1991): Covered Electrodes for Manual Metal Arc Welding of Carbon & Carbon - Manganese Steel.
5. IS: 816 (1969): Code of Practice for Use of Metal Arc Welding for General Construction in Mild Steel.
6. IS: 817 (1969): Code of Practice for Training and Testing of Metal Arc Welders.
7. IS: 919 (1993): ISO System of Limits & Fits (Part 1 & Part 2)
8. IS: 1148 (1982): Hot Rolled Rivet Bars (up to 40mm) for Structural Purposes.
9. IS: 1182 (1983): Recommended Practice for Radio Graphic Examination of Fusion Welded Butt Joints in Steel Plates.
10. IS: 1363 (1992): Hexagon Head Bolts, Screws and Nuts of Product grade C. (Part 1 to Part 3)
11. IS: 1364 (1992): Hexagon Head Bolts, Screws and Nuts of Product Grades A & B (Part 1 to 5)
12. IS: 1367 (1991): Technical Supply Conditions for Threaded Steel Fasteners.
13. IS: 1852 (1985): Rolling & Cutting Tolerances for Hot-Rolled Steel Product.
14. IS: 1893 (2016): Criteria for Earthquake Resistant Design Of Structures.
15. IS: 2016 (1967): Plain Washers.
16. IS: 2062 (2006): Hot Rolled low, medium and high tensile structural steel_
17. IS: 2595 (1978): Code of Practice for Radio Graphic Testing.
18. IS: 3600 (1985): Methods of Testing Fusion Welding Joints (Part 1 to Part 9)
19. IS: 3613 (1974): Acceptance Tests for Wire Flux Combinations for Submerged Arc Welding.
20. IS: 3658 (1981): Code of Practice for Liquid Penetrate Flow, Detection.
21. IS: 3757 (1985): High Strength Structural Bolts.
22. IS: 4000 (1992): High Strength Bolts in Steel Structures-Code of Practice
23. IS: 4353 (1967): Recommendations for Submerged Arc Welding of Mild Steel and Low Alloy Steel.
24. IS: 4943 (1968): Assessment of Butt and Fillet Fusion Welds in Steel Sheet, Plate and Pipe.
25. IS: 5334 (1981): Code of Practice for Magnetic Particle Flow Detection of Welds
26. IS: 5369 (1975): General Requirements for Plain Washers and Lock Washers.
27. IS: 5372 (1975): Taper Washers for Channels
28. IS: 5374 (1975): Taper Washers for I Beams.
29. IS: 6623 (1985): Specification for High Strength Structural nuts
30. IS: 6649 (1985): Specifications for hardening and tempering washers for high strength structural nuts
31. IS: 6755 (1980): Double Coil Helical Spring Washers.
32. IS: 7215 (1974): Tolerances for Fabrication of Steel Structure.

33. IS: 7318 (1974): (Part I) Approval Tests for Welders When Welding Procedure Approval is not required -fusion Welding of Steel.
34. IS: 8910 (1978): General requirements of Supply of Weldable Structural Steel.
35. IS: 9595 (1980): Recommendations for Metal Arc Welding of Carbon & Carbon• Manganese Steels.
36. IS: 1161 (1998): Code of practice for 'Steel Tubes for structural purposes': 1998

All other relevant codes as per requirement shall be applicable.

4.3 Brief Electrical O&M and installation guidelines:

1. Preparing log book and maintaining data for preventive maintenance schedule in coordination with Engineer In charge.
2. The Successful Bidder has to be proactive in monitoring lighting system regularly and performing preventive maintenance and not relying solely on Complaint Management System. Repairing the system as and when required to keep the system on. The Successful Bidder must take adequate care, by using black cotton tape or better quality tape for connection of wires, to avoid short circuiting of connections especially during monsoon season between luminaire wire and overhead network of DISCOM. No extra charge will be payable to the Bidder for this work.
3. The Successful Bidder will provide surge protection arrangement to protect the luminaries from switching surges which are expected/prevalent in Light supply networks. In case of voltage surges due to lightning, it is expected that lights, in the affected circuit, will fail in a group and not in an isolated manner. Hence, any such failure of lights in a group on account of Lightning surges, may be reported to the Municipal Corporation of Amritsar (MCA), along with circumstantial evidence preferably within 48 hours of such occurrence, for the purpose of damage claim. The responsibility for submission of supporting documentation rests with the Successful Bidder.
4. Earthing provisions of IS-3043, may be referred to in general and to Clause no. 21.3, 21.4 and 32.5 of the said IS Specifications in particular. The Successful Bidder shall carry out earth resistance measurement of neutral conductor of supply network during the initial commissioning phase and subsequently on yearly basis or as may be felt necessary for reliable operation of the Light Luminaries. Wherever, in CCMS provision of additional earth electrode is felt necessary to meet the provision of IS: 3043, the same shall be taken up with MCA for mutual agreement. No claim for failure of Luminaries will be entertained on account of earthing issues.
5. The Successful Bidder must intimate MCA about any cases of power theft or unauthorized connection of load during festivals from the street lighting network on priority basis. MCA will be responsible for taking all the corrective measures required and not penalize the Successful Bidder for such theft.
6. At the expiry of the Contract Period, all rights and titles to, and interests in, all improvements and equipment constructed or systems installed are vested in MCA, free and clear of all and any liens and encumbrances created or caused by the Successful Bidder. The Successful Bidder shall surrender possession of the LED luminaries and CCMS panels, along with CCMS bill of material, to MCA with 98% (ninety eight percent) of them in working condition.
7. The Successful Bidder has to store inventory minimum 1% (one percent) of total light points in the city of LED luminaries for maintenance requirements.
8. The Successful Bidder will open an office with basic infrastructure where the Bidder will make available a person with amenities like computer, printer, phone, complaint register, etc. during working shift timings. These complaint handling centers will be connected to MCA's existing Complaint Management System and such centers should become fully operational within 30 (thirty) days of allocation of such space by MCA.

9. All complaints lodged in the system have to be resolved within 48 (forty eight) hours of lodging of complaint. For example, if the complaint is lodged on 16th May at 2200 Hours then the complaint has to be resolved by 18th May 2159 Hours. In certain cases, Successful Bidder has to resolve the complaints immediately as per the instruction of EIC.
10. The Successful Bidder shall ensure the availability of sufficient ladder vehicle, Hydraulic Vehicle (suitable to reach upto 10m height) and other relevant vehicle & equipment for O&M. The vehicle used for O&M should have valid registration documents.
11. The Successful Bidder will be penalized for non-achievement of following O&M performance parameters:

Performance Parameters	Particulars	Penalty for Non- Achievement
Complaint resolution	The complaints need to be solved within 48 hours of lodging of complaint	Rs. 100/lamp/day
Addressing phase failure issue	The phase failure should be resolved within same day	Rs. 500/ phase/ day
		Rs. 500/visit If MCA staff is engaged for resolving phase issue
Hours of operation of lights	As per normal operating hours	Increased bill amount + 100% as a penalty on this increased bill if average hours of operation per annum are more than 11 hours/ day without the approval of MCA.

The Successful Bidder should address the queries or issues raised by employees of MCA O&M practices from time to time. The Successful Bidder shall assign an overall in charge for coordination and monitoring of day to day activities of entire work.

Insurance: The Goods supplied under the Contract shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage, delivery, completion of installation and commissioning. For delivery of goods at site, the insurance shall be obtained by the Successful Bidder, for an amount not less than the Price of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War risks and strikes.

Safety: During the period of installation and O&M, the Successful Bidder should ensure implementation of measures to ensure Safety of working personnel, as per all applicable laws in general and with special focus on the following

4.4 Working at heights / Working on/in the vicinity of power supply lines

Suitable work instructions/procedures shall be prepared for each type of work location (Height or type of supply network configuration) and the working personnel shall be trained at regular intervals by a competent person possessing valid certificate w.r.t Safety issues.

All the working personnel shall be provided with appropriate Personnel Protection Equipment such as Safety harness for working at heights, safety helmets, Earthing rods, etc. The Successful Bidder shall arrange to carryout safety audit at regular intervals by a competent person possessing valid certificate

w.r.t safety issues and suitable remedial measures shall be taken based on the findings/recommendation of the safety audit.

Note: The 3-phase meter installed at the feeder panel shall be as per the specifications of PSPCL which are provided at Annexure (PSPCL 3-phase meter specifications).

O&M period shall commence from the date of issue of satisfactory Installation, Testing and Commissioning certificate of all LED lights from Engineer-in-charge. The payment for O&M will begin after date of issue of satisfactory Installation, Testing and Commissioning certificate of all LED lights.

4.5 System Documents, User Documents

The Successful Bidder will provide all project related documents. This documentation should be submitted as the Project undergoes at various stages of implementation. Indicative list of documents include: Project Commencement Documentation: Project Plan in giving out micro level activities with milestones & deadlines.

Equipment Manuals: Original Manuals from OEMs.

Installation Manual: For all the application systems.

Training Material: Training Material will include the presentations used for trainings and also the required relevant documents for the topics being covered. Training registers should be submitted for same.

User Manuals: For all the application software modules, required for operationalization of the system.

System Manual: For all the application software modules, covering detail information required for its administration.

Standard Operational Procedure (SOP) Manual: The Successful Bidder shall be responsible for preparing SOP Manual relating to Operation and Maintenance of each and every service as mentioned in the RFP. The draft process (SOP) document shall be formally signed off by MCA before completion of Final Acceptance Test. This SOP manual will be finalized by the Bidder within 2 (two) months of operationalization, in consultation with the MCA and formally signed off by the MCA.

Note: The Successful Bidder will ensure upkeep & update all documentation and manuals during the contract period. The ownership of all documents, supplied by the Bidder, will be with MCA. Documents shall be submitted in two copies each in printed (duly hard bound) & in softcopy formats.

In addition to the telephone call, the Successful Bidder shall also provide other channels for call logging like email and web interface. Following is also part of scope of work of the Successful Bidder: (a) Development of training material for MCA employees (b) training to be imparted to MCA

4.6 Capacity Building

The Successful Bidder need to provide training and capacity building to MCA employees and other stakeholders as directed by ASCL/ MCA. The Successful Bidder will maintain a copy of all the training material on the portal and access will be provided to relevant stakeholders depending on their need and role. The access to training on the portal would be finalized with MCA. The Successful Bidder has to ensure the following points:

- The contents developed shall be the property of MCA with all rights.

- The training sessions held are effective and that the attendees would be able to carry on with their work efficiently. For this purpose, it is necessary that the effectiveness of training sessions is measured.
- Will prepare a comprehensive feedback form that will capture necessary parameters on measuring effectiveness of the training sessions. This form will be discussed and finalized with MCA.

Hand-over of the system at the end of contractual period

The Bidder will supply to the MCA the following before the expiry of the contract:

- I. Information relating to the current services rendered and data relating to the performance of the services.
- II. Entire documentation relating to various components of the Project, any other data and confidential information related to the Project.
- III. All other information (including but not limited to documents, records and agreements) relating to the products & services related to the Project to enable MCA and its nominated agencies, or its replacing the Bidder to carry out due diligence in order to transition the provision of the Project Services to MCA or its nominated agencies, or its replacing the Bidder (as the case may be).

4.7 TECHNICAL SPECIFICATONS – Electrical Components

Standard LED Lights specifications

The LED Lighting system consists of following parts:

- LED
- Luminaire
- Driver

The typical specifications are as follows:

Table: Typical specifications for LED Lighting

S.No.	Typical specifications of LED Flood Lights	Supporting document
1	High bright white power LEDs shall be used in the luminaries and the wattage of these LEDs shall be < 2W	LED Technical Data sheet
2	Life span of LEDs used in the Luminaire shall be more than 50,000 hours at 70% light output.	LM-80/IS16105, L70 Report test report including technical data sheet of LED Chip

3	LED chip make –Nichia, Philips, Lumiled, Cree, Osram, Seoul		
4	LED chip efficacy shall be more than 35 Lumens/watt at TJ 25°C in case of uplighters		LED Technical Data Sheet
5	Junction Temperature (TJ) should be <105°C		Manufacturer self-certify
6	Power Factor	> 0.90	LM-79 report
7	Lumen depreciation for rated life <10%		LM 80 Report to be submitted and self-certified by manufacturer
8	The luminaire light output (lumen) shall be constant. The voltage variations / fluctuations in the specified voltage range shall not impinge upon the lumen it produces. Maximum +/-2 % is allowed throughout in the input operating voltage range		LM-79 report
9	Operating voltage: 140 V to 270V universal electronic driver with internal surge protection of 4 KV (Applicability IS 15885, Driver Safety 16104-1/2)		NABL accredited lab report
10	Over-voltage cut off limit > 295 V		NABL accredited lab report
11	Total Harmonic Distortion:< 10% THD - Test Method IEC:610003-2		NABL accredited lab report
12	LED Drive current	< 750 mA	LM-79 report
13	LED driver efficiency	> 85%	LM-79 report
14	Heat dissipation / heat sink: Well-designed thermal management system with defined heat sink		NABL accredited lab report
15	The luminaire housing shall be made up of corrosion free High-Pressure Aluminum die cast thus conforming the luminaire to minimum IP-66 for all wattages and safety as per IEC 60598/IS 10322. (Only single housing fixtures allowed).		NABL accredited lab report
16	The luminaire shall be equipped with distortion free, clear, heat resistant, toughened, UV stabilized glass / Poly- carbonate cover in the front fixed to the die cast Aluminium frame which shall be fixed to the housing by means of Corrosion resistant or Brass		NABL accredited lab report

	screws for areas not inside IP66 rated chamber. Zinc plated steel or equivalent screws can be applied inside sealed chambers.		
17	Frequency	50Hz +/- 3%	
18	Operating temperature	Range: -10C to +50C	NABL accredited lab report
19	Protection S	IP65 for all type of lamps to be installed Surge protection 4 kV, IEC61000-4-5	NABL accredited lab report
20	Working humidity	10% to 90% RH	
21	Finish	Aesthetically designed housing with corrosion resistant polyester powder coating	Self-Declaration
22	Luminaire configuration / technical requirement	Side entry type. Shall consist of separate optical and control gear compartments. It should be easily replaceable in the field condition.	Self-Declaration
23	Compliance	RoHS/CE/ERTL/ERDI	Confirmation
24	Surge Protection	External Surge protection of minimum 10 kV/ 10 kA to be separately installed with the each	As per ANSI C 136.2-2014

4.8 ACTIVITY SCHEDULING:

D = Date of issue of work order

Activity	Duration (in days)
Survey and Investigation	D+15
Preparation of detailed design drawings	D+30
Submission and Approval	D+60
Excavation & Construction of sub structure	D+90

Construction of super structure	D+150
Installation of lighting and horticulture	D+160
Installation of lifts & escalators	D+170
Testing & commissioning by Employer	D+180

4.9 Specifications for Passenger Lifts

General Requirements of passenger lifts

The passenger lifts shall be suitable for operation in outdoor environment and shall be of outdoor/ heavy duty type as these are to be installed in the Foot Over Bridge.

Civil Requirements

Civil Requirements	
Clear Inside Shaft (required)	1650 mm Width x 1750 mm Depth
Clear Inside Shaft (available)	1800 mm Width x 1800 mm Depth
Pit Depth	1500 mm
Minimum Floor to floor height (required)	2600 mm
Travel Height	6.0
Headroom Height	4200 mm
Lintel Height (required)	2180 mm from finished floor level
Lockable storage room (required)	250 Sq.feet
Stilt area under roof (required)	200 Sq.feet
Elevator Specifications	
Number of Persons	10
Rated Load	680 kg
Number of stops	2
Number of Access sides 1	1
Floor designations G, 1	G, 1
Drive System	Alternating Current Voltage Frequency (ACVF)

Type of controller	Down collective control – Simplex
Speed of travel	1.0 m/s
Car Size	1200 mm (W) x 1400 mm (D) x 2139 mm (H)
Door Width	800 mm
Door Height	2000 mm
Rated output motor	4.6 kw
Car Design	
Car walls finish in Stainless Steel Hairline	
Car doors finish in Stainless Steel Hairline	
Car door in Stainless steel finish	
Granite Flooring finish in Black Sea	
Deco Ceiling finish in Stainless Steel Hairline	
Full height mirror on rear car panel	
Car Operating Panel	
Stylish, touch sensitive glass panel	
Door open/close and alarm buttons	
Visual call confirmation	
Car Position Indicator	
Pre-announcing arrows for collective controls	
16 Segment displays	
Landing Doors	
Fully Automatic Landing doors in Stainless steel Hairline finish	
Door Opening Direction: Center	
Standard Features	
Close loop control system	
Self-diagnostic control	
2 Hours Fire rated landing doors	

Overload detection	
Automatic evacuation to nearest floor (ARD)	
Light curtain on Car entrance	
Alarm horn	
Handrail in stainless steel finish on rear wall	
Auto Fan Off	
Auto Light Off	
Emergency Supply	Inverter backup with trickle/ boost charges arrangement for at least 30 minutes with maintenance free batteries for emergency light, alarm bell and inter-com system.
Automatic Rescue Device (ARD)	<p>i) Automatic Rescue Device (ARD) should monitor the normal power supply in the main controller and shall activate rescue operations within ten seconds of normal power supply failure. It should bring the Lift to the nearest floor at a slower speed than the normal run. While proceeding to the nearest floor the Lift will detect the zone and stop. After the Lift has stopped, it automatically opens the doors and parks with door open. After the operation is completed by the ARD the Lift is automatically switched over the normal operations as soon as normal power supply resumes.</p> <p>ii) In case the normal supply resumes during Automatic Rescue Device (ARD) in operation the Lift will continue to run in ARD mode until it reached the nearest landing and the doors are fully opened. If normal power supply resumes when the Lift is at the landing, it will automatically be switched to normal power operation.</p> <p>iii) All the lift safeties shall remain active during the ARD at least seven times a day. Provided the duration between usages is at least 30 minutes to operate the ARD at least Seven times a day. Provided to duration between usage is at least 30 minutes.</p>

Maintenance Requirements of Passenger Lifts:

Defects Liability Period (DLP):

Preventive maintenance & corrective maintenance of the lifts shall be done and carried out by the Contractor during defect liability period (DLP) for a period of 1 year from the date of taking over, including operations from 6.00AM to 10.00 PM including Sunday & holidays.

Comprehensive Maintenance Services (CMS) – Five years (Inclusive 1 Year DLP):

Comprehensive maintenance services of the lifts provided under the contract for a period of 5 years is covered under the scope of work and hence shall be deemed to have been included in the quoted amount. Maintenance service shall cover regular examination of the installations by the trained technician of the contractor including necessary adjustments, greasing, oiling, cleaning, replacement of all necessary defective parts, provision all consumables, light lamps, diodes etc. to keep the equipment in excellent operational state.

The contractor shall also provide 24 hours emergency operational state. The contractor shall also provide 24 hours emergency repair service to attend the escalator at any time of the day or night including Sundays and holidays.

The reliability, availability and maintainability of equipment/ components shall be judged on the basis of Call out Ratio (COR) i.e. engineer visits to the site for unscheduled maintenance of a lift. During the CMS period also the contractor should endeavor that the COR does not exceed 2.5 per lift per year.

Penalty shall be calculated as under:

Nature of Defects		Deductions to be made as under
(i)	If Lift is kept out of service for more than 2 hrs and up to 6 hrs.	Penalty of INR 10,000 per hour shall be imposed for each such case.
(ii)	If Lift is kept out of service for more than 6 hrs.	Penalty of INR 60,000 per day shall be imposed for each such case.
(iii)	If the visit of engineer for non-scheduled maintenance exceeds 2.5 per lift per year.	Penalty of INR 20,000 (Rs. Twenty Thousand Only) shall be imposed for each such visit. The penalty shall be applicable during DLP and CMC period also (if separate contract will be awarded for CMC after completion of 5 years).

- 1 Every item of machinery, likely to produce sound owing to vibration or any other causes, must be isolated from structure so as to eliminate any possibility of sound travelling to other parts of the buildings. The set of isolation material required for this purpose shall be deemed to be covered in the scope of work and quoted rate.
- 2 Two copies of copy of maintenance manual shall be submitted after installation & commissioning of lifts.
- 3 The cost of lifts as quoted by Contractor shall include the shall include the cost of the following civil works:
 - a. Cutting holes in walls, floor etc. and making good to match the existing surface of walls, floors etc.
 - b. Supply and fixing necessary bolts, nuts, washers etc. required for execution of work.
 - c. Hoisting arrangement if required
 - d. Providing protection like cover barricading- tc. During storing and execution to protect the lifts from dust, water etc.
 - e. During execution, the contractor shall at all-time keep the working and storage areas free from waste or rubbish.
 - f. All necessary arrangements for hoisting & installation of lift including scaffolding etc.

4. Testing of Installation after Completion:

On successful completion of the installation / testing shall be carried out to the full satisfaction of Employer. The tests shall be accordance with the relevant BIS/ CPWD or any other relevant specifications. Necessary instruments for tests shall be arranged by the contractor during the test at his own cost.

5. The Responsibilities of Contractor.

During the defects liability period, the Contractor shall also be responsible for (incidental to work and no separate payment shall be made to Contractor for these):

- I. Carrying out day to day maintenance and cleaning of the lifts as per the Maintenance Schedule submitted.
 - II. Deputing trained supervisory staff to carry out the scheduled maintenance and operation of lifts. The Supervisory staff will visit the site daily, inspect the escalators twice a day & shall be responsible for keeping regular coordination for maintenance/ repair of escalator.
 - III. Maintaining proper conditions of operating control installed inside and outside the Lifts for convenient and safe operation of lifts.
 - IV. Replacing the wornout parts of the Lift with genuine spare parts as necessitated and observed during routine inspection or otherwise.
 - V. Keeping Employer informed in a prescribed and agreed format at all the time regarding maintenance etc. carried out on the Lift.
 - VI. (iv) Providing all spares and consumable during the defects liability period.
 - VII. Response time of maximum 4 hours shall be maintained for emergency services/ repairs throughout the year. 1.2.8 Lift Signages: Contractor shall provide necessary signages and user instructions on each lift. The cost of these shall be deemed to be covered in the scope of work and quoted rate.
6. Keeping in view, the required time for ordering, manufacture, inspection, delivery & installation of Lift within the overall contract period, Contractor shall take action for ordering the Lift at the earliest after issue of letter of acceptance. However, before ordering the lifts, Contractor shall submit the relevant details/ make/ model of lifts proposed by him for work to Employer for approval within 15 days and place confirmed order with the manufacturer within 2 days of receiving approval of Employer. Only lifts of make/model approved by Employer shall be used in the works. Only the Lift approved by Employer shall be procured/ installed for the work.

4.10 PASSENGER ESCALATORS

List of Standards	
Standards	Description
EN 115	Safety rules for the construction and installation of Escalators.
EN 10048	Hot rolled narrow steel strip.
EN 10051	Specification for continuously hot-rolled uncoated plate, sheet and strip of non-alloy and alloy steels.
EN 10095	Heat resisting steels and nickel.

EN 50214	Flexible cables for Escalators.
IEC 60364	Electrical installations of buildings.
IEC 60947	Specification for low-voltage switchgear and control gear.
BS 4999	General requirements for rotating electrical machines.
BS 5000 Part 99	Rotating electrical machines of particular types or for particular applications.
BS 56	Specification for guide rails.

Component	Specification / Requirement
Balustrade profile	The balustrades are mounted vertically and are self-supporting. Handrails centered on glass panels.
Balustrade joint	Standard configuration
Balustrade height	1000 mm
Speed (m/s)	0.5 mm
Vertical rise (mm)	6000 mm
Step width (mm)	1000 mm
Balustrade Panel	The balustrade panels are 10-mm tempered safety glass panels
Intermittent Operation	ENTRANCE MONITOR
Direction Indication	IND translation is still open
Outer decking: material	ALU POWDER COATED
Outer decking colour	
Colour of Filling	The glass panels are clear, transparent.
Inner Decking Material	ALU POWDER COATED
Colour of skirting cover sheet	WHITE ALUMINIUM (RAL9006)
Skirting Material	SHEET PAINTED
Colour of Filling	The glass panels must be clear, transparent.
Skirting: Thickness	2 mm
Skirting: colour	AF-COATING-BLACK
Hand rail	Black

Skirting sheet	SHEET PAINTED
Truss Height	The truss is a welded framework. The soffit of the truss is equipped with an oil-tight welded steel sheet. Escalator supports with rubber insulation.
Auto Lubrication System	Yes (With Oil Collector)
Outside Truss Cladding	Hairline Stainless Steel
Auto-Start	3d Sensor Type
Motor Protecting Rate	IP55
Lighting Voltage	240 V
Frequency	50hz
Power Voltage	415 V
Motor Power	11 Kw And Above
Deflection Of Truss	1/750*L
Inner & Outer Decking Hairline	Stainless Steel
Step Demarcation	Yellow Demarcation
Step	Die Cast Aluminium
Panel Of Landing Plate	Etched Stainless Steel
Combs	Die Cast Aluminium
Broken Drive-Chain Contact	To Be Provided
Skirting Contact	To Be Provided
Broken Step-Chain Contact	To Be Provided
Step Sag Contact	To Be Provided
Phase Monitor	To Be Provided
Zinc Steel Flying Wheel Cover	To Be Provided
Motor Overload and Overheat Contact	To Be Provided
Comb Contact	To Be Provided
Alarm Buzzer	To Be Provided
Motor Speed & Anti- Reversal Monitor	To Be Provided

P Anti-Static Brush	To Be Provided
Emergency Stop Button	To Be Provided
Handrail Anti-Static Roller	To Be Provided
Service Brake Release Contact	To Be Provided
Landing Plate Switch	To Be Provided
Skirting Brush	To Be Provided
Step Anti-Upthrust Device	To Be Provided
Led Comb Lighting	To Be Provided

STEPS

STEP DEMARCATION

The surface of the steps shall be horizontal at all positions exposed to passenger. The nominal width of steps shall be 1000 mm unless otherwise specified. Yellow lines of 25 mm width shall be marked on both sides and front of the leading/trailing edges of the steps with durable and wear resistant materials to show demarcation between comb and cleat.

INTEGRAL DIE-CAST ALUMINIUM STEP TREAD AND RISER

The step treads shall be die-cast aluminium with closely spaced cleats designed to provide a secure foothold, the latter being grooved parallel to the travel of the steps to mesh with the comb teeth at the entrance and exit. Step risers shall also be die-cast aluminium integral with the step treads and shall include vertical cleats designed to pass between the cleats of the tread on the adjacent steps thus providing a combing action with minimum clearances.

ROLLERS

Each step shall be supported on four rubber or synthetic material tyred ball bearing rollers, grease sealed for life and so mounted that tilting and rocking of steps is prevented whilst ensuring smooth quiet operation in service.

TRACTION

Traction to the steps shall be by means of two endless roller chains.

DIMENSIONS OF STEP

The depth of any step in the direction of travel shall not be less than 400 mm. The rise of any such step shall not be more than 240 mm.

CLEAR HEIGHT ABOVE STEP

The clear height above the steps at all points shall not be less than 2.30 m.

FLAT STEPS

There shall be at least a length of two complete steps i.e. 0.80 m at either end of the escalator travelling horizontally from the comb line.

STEP CHAINS

STEP CHAIN

The steps shall be driven by at least 2 steel link chains of which at least one shall be located at each side of the step.

MATERIALS

The step chains shall be made of high tensile steel links with hardened and ground pins, unless otherwise specified.

QUIET OPERATION

The rollers shall accurately engage with the drive sprockets to ensure smooth and quiet operation.

TRACKS

CURVED SECTION

All the curved sections of the tracks shall be manufactured in steel or aluminium pressure die-castings.

STRAIGHT SECTION

The straight sections of the tracks shall be of steel or aluminium extrusions. The tracks forming both running surfaces and guards over the trailing rollers shall essentially be channels or of such formation as to prevent derailing.

LANDING OPENING AND LANDING PLATE

OPENING

Openings of adequate size in the floor will be provided by the Building Contractor on both upper and lower landings. The Contractor shall indicate on site the exact dimensions of the openings, excavation, drains and ventilation holes required.

LANDING PLATE

Removable floor landing plates shall be provided by the Contractor over the openings to give access to the mechanism for maintenance purpose. These landing plates shall be of stainless steel or wear resistant aluminium alloy which shall afford a secure foothold. Alternative material will not be accepted without the prior approval of the Employer.

LANDING GAP

The gap between the balustrade exterior panelling and the wall or obstacle shall not exceed 100 mm.

COMBS

COMBS

Combs shall be provided at the top and bottom landings and shall be wear resistant aluminium alloy with anti-slip pattern.

COMB TEETH SECTION

The comb teeth sections shall have fine pitch teeth to allow the cleats of the step tread to pass them with a minimum of clearance. The comb teeth sections shall be made of synthetic resin, metal or equivalent material. Each such comb teeth sections shall be such that, it is adjustable horizontally and vertically and sections forming the same are readily removable in case of emergency. The teeth of every comb teeth section shall be so meshed with and set into the slots of the tread surface of the steps of the escalator that the points of such teeth are always below the upper surface of such tread surface.

BALUSTRADING

BALUSTRADES

Solid balustrades shall be installed on each side of the escalator and shall consist of the following components:-

(1) Skirting

The skirting panels shall be vertical and constructed of smooth hairline finish stainless steel with thickness of not less than 2 mm. Embossed, perforated or roughly textured materials shall not be used.

(2) Balustrade Panel

Balustrade panel shall be of double side Stainless steel Sandwich panel of SS 304 material with 1.5 mm thick with hairline finish. The balustrade shall have sufficient mechanical strength and rigidity.

(3) Balustrade decking

The decking shall be of stainless steel or extruded aluminium, polished and anodized in natural color. The decking is to be situated under the handrail and forms the top cover of the balustrade panelling. Appropriate measure shall be provided to discourage people from sliding along the decking.

(4) Extended newel

The newel including the handrails shall project beyond the root of the comb teeth by at least 0.6 m in longitudinal direction.

DRESS GUARD

Dress guards of brush bristles type shall be provided along the full length of the lower part of the skirting panels. Brush bristles type dress guard shall be made of nylon filaments. The nylon filaments shall not support combustion and shall be durable and with flagged ends to give a soft face and be securely held within a pressed steel holder. The assemblies shall be easily removed when replacement is necessary. It shall consist of anodized aluminium carrier which is suitable for the escalator sidewall. The bottom of the carrier shall have chamfer angle to eliminate trapping of feet, trolley wheels and parcels, etc. The carrier shall be fixed onto the skirting panel by secret fixings which are concealed by the filaments but are easily removable.

EXTERNAL CLADDING

The external cladding of the undersides and sides of the escalator will be of hairline finish stainless steel with thickness of not less than 1.5mm.

SLIM TYPE ESCALATOR

For escalator with the horizontal distance between the balustrade interior panelling greater than the distance between handrail, the following additional requirement must be met :-

- (1) Rated speed shall not exceed 0.5 m/s;
- (2) Normal width of the step shall be at least 0.8 m
- (3) The distance between projection of the comb intersection line and the point at the newel where the handrails change their direction of the movement shall be at least 1.2 m.

HANDRAILS

RUBBER HANDRAIL

The handrails shall be constructed of multi-layered canvas with the exposed surface covered with smooth black abrasion resistant rubber which shall be vulcanized into an endless loop.

SPEED

The handrails shall move in the same direction and substantially at the same speed as the steps. The speed of the handrail is permitted to deviate from the speed of the steps, pallets or belt within the limits of 0% to +2%.

SAFETY GUARD

Safety guards shall be provided where the handrails enter and leave the escalator newels to prevent pinching of fingers and hands.

HANDRAIL GUIDE

The handrail guides shall be in specially formed section to allow easy movement of the handrail but properly shaped as to retain the handrail always in its place.

WIDTH OF HANDRAIL

The width of the handrail shall be between 70 mm and 100 mm.

HANDRAIL CLEARANCE

The horizontal distance between the outer edge of the handrail and walls, adjacent criss-cross escalators or other obstacles shall under no circumstances be less than 80 mm and shall be maintained to a height of at least 2100mm above the steps, pallets or belt of the escalator/passenger conveyor.

TRUSS

CONSTRUCTION

The structural steel truss shall be a rigid steel fabricated structure and shall be capable of carrying a full complement of passengers together with mechanism of the escalator, the balustrades and the weight of exterior covering. The supporting structure shall be designed in a way that it can support the

dead weight of the escalator plus a passenger weight of 5000N/m². The factor of safety used in the design of structural members of the escalator trusses shall not be less than 5 based on static load.

STEP CHAIN BREAKING

The entire tracking system shall be so designed that in the unlikely event of a step chain breaking, there shall be no likelihood of the steps lifting out of place.

MACHINERY SPACE

The upper section of the truss shall contain the drive machine and shall be fitted with a trap door. In cases where several drive machines are placed along the length of an escalator, suitable means of access to the drive machines shall be provided.

LUBRICATION

LUBRICATION

Effective means for lubricating the bearings and moving parts as required shall be provided with easy access.

OIL PAN

Oil tight drip pans shall be provided for the entire length of the escalator to contain any waste and lubricants within the truss. Where necessary, the oil tight drip pans shall be removable to give access to both the machinery space and the return station for maintenance.

DRIVING MACHINERY

INDEPENDENT DRIVING MACHINE

Each escalator shall be driven by at least one machine of its own.

REDUCTION GEAR

The driving machine shall incorporate a reduction gear system employing worm gear, planetary gear or other proven gear types.

(1) Worm gear system

The driving machine shall incorporate a worm reduction gear with a vertical flange-mounted motor or other proven design. It may be connected by chain or other proven means to the main drive shaft of the escalator. The worm shaft and worm wheel shall be housed in a substantial cast iron housing which shall also hold the lubricant.

(2) Planetary gear system

The motor, planetary gears and brakes shall be fully enclosed and form a unique, compact no-chain unit. Motor and bearings shall have life-time lubrication.

MOTOR

The motor shall be integrally mounted, A.C. squirrel cage, three phase induction motor of continuous rating, reversible type with high starting torque and low starting current and specially designed for

escalator application. Other proven motor types may also be used subject to the approval by the Employer.

SPEED

The rated speed of the escalator shall not be more than 0.75 m/s and 0.5 m/s for an escalator with an angle of inclination not exceeding 30 and 35 from the horizontal respectively. The rated speed of passenger conveyors shall not exceed 0.75 m/s. However, this rated speed may be increased to 0.9 m/s maximum provided.

BEARING

The motor shall be fitted with grease lubricated ball bearings.

BRAKING

ELECTRO-MECHANICAL BRAKE

Each escalator shall be provided with braking that is mechanically applied and electrically held off type of sufficient capacity to efficiently bring the escalator to rest with uniform deceleration when travelling at full contract speed in either direction.

AUXILIARY BRAKE

Escalators and inclined passenger conveyors shall be equipped with auxiliary brake(s) acting immediately on the non-friction part of the driving system for the steps, pallets or the belt (one single chain is not considered to be a non-friction part), if

- (a) The coupling of the operational brake and the driving wheels of the steps, pallets or the belt is not accomplished by shafts, gear wheels, and multiplex chains, two or more single chains.
- (b) The operation brake is not an electro-mechanical brake.
- (c) They are —Public Service Escalators as defined in the Code of Practice on the Design and Construction of Lifts and Escalators.

HANDWINDING:

Provision shall be made for hand winding the escalator in either direction, and shall be suitably marked for "UP" and "DOWN" operation. Crank handles and perforated hand wheels are not permitted. Instructions for hand winding devices in English shall be displayed prominently in the machinery space. If the hand winding device is detachable, it shall not be accessible to unauthorized persons. The hand winding device shall be painted yellow.

STOPPING DISTANCES:

The stopping distances for unloaded and loaded passenger conveyors shall be between the following values :-

Rated Speed	Stopping distance between
0.50 m/s	min. 0.20 m and max. 1.00 m
0.65 m/s	min. 0.30 m and max. 1.30 m
0.75 m/s	min. 0.35 m and max. 1.50 m

0.90 m/s min. 0.40 m and max. 1.70 m

For escalators/passenger conveyors with intermediate speeds the stopping distances are to be interpolated. The stopping distances shall be measured from the time the electric stopping device is actuated.

FOOTLIGHTS AND STEP LIGHTS UNDER LANDINGS

FOOTLIGHT

Footlights shall be provided on either side of the interior of the skirting at both upper and lower landings and energy efficient LED luminaires shall be used. The intensity of illumination shall be not less than 150 lux for indoor; or shall be not less than 150 lux for outdoor escalators or passenger conveyors at the landings, measured at floor level.

STEP LIGHTS UNDER LANDINGS

Energy efficient LED luminaires shall be provided underneath landings to illuminate the clearance between steps, steps and skirting, steps and comb, at the horizontal steps portion of the escalator. The color of these lights shall be green.

REPLACEMENT OF LIGHTING FIXTURES

Facility shall be incorporated for the easy replacement of lamp.

SUPPORT BEAMS

CONCRETE SUPPORT

Concrete supporting beams will be provided by the Building Contractor at both landings and the intermediate support if required by escalators with a large vertical rise.

MOUNTING FACILITIES

All other supports and mounting facilities, e.g. R.S.J. beams, mounting brackets, bearing plates, etc. required for the installation of the escalator shall be provided by the Contractor.

SAFETY DEVICES

(1) Emergency stopping devices Emergency stop devices shall be placed in conspicuous and easily accessible positions at or near to landings of the escalator. For escalators with rise above 12 m, and for passenger conveyors with a length of the tread way of more than 40m, additional emergency stopping devices shall be installed.

(2) Broken step chain device The broken chain safety device shall be incorporated as part of the tension carriage, and they shall operate if the bottom sprocket moves unduly in either direction in the event of either both step chains breaking or becoming unduly lengthened due to wear of the pins, or tension in either chain dropping below a pre-determined value.

(3) Broken drive chain device A device shall operate for breakage of the chain between the driving machine and the escalator main drive shaft. Auxiliary brake if provided shall also operate.

(4) Broken step device If any part of the step is sagging so that meshing of the combs is no longer ensured, switching off shall be operated at a sufficient distance before the comb intersection line to ensure that the step which has sagged does not reach the comb intersection line. The control device can be applied at any point of the step.

(5) Broken handrail device Broken handrail devices shall be situated inside both balustrades at the lower end of the incline, which shall be actuated if either or both handrails break.

(6) Non-reverse device A non-reversing device shall be arranged to prevent a travelling escalator to slow unduly or attempts to reverse its direction of travel. The escalator shall be stopped once the device is operated and it shall only be started again by the key operated switch.

OPERATION OF THE SAFETY DEVICE

The operation of any one of these safety devices shall cause the electrical supply to

the driving motor to be disconnected and the electro-mechanical brake to be operated thus

bringing the escalator to rest.

CONTROL

CONTROL STATION

Position

Control station shall be provided at both the upper and lower landing newel, which shall contain an emergency stop switch, two key operated direction switches, an audio alarm switch and if specified a foot light switch. The station shall be so positioned as to enable any person operating any of the Switches to afford a full view of the escalator.

Type of switch

The emergency stop switch shall be push button type with a red button and shall be suitably protected against accidental operation. But the up and down directional starting switch shall be of the key-operated spring off type.

Marking

All control switches shall be provided with clearly engraved markings in English.

AUTOMATIC OPERATION

Escalators which start automatically by the passing of a user shall start to move before the person walking reaches the comb intersection line. This can, for instance, be accomplished by light-rays or contact mat. The escalator shall be stopped automatically after a sufficient time (at least the anticipated passenger transfer time plus 10 seconds) the passenger has actuated the automatic starting device.

CONTROLLER

CONTENT

The controller shall be a self-contained unit containing all the necessary electromagnetic switchgears including a residual current circuit breaker, local control push buttons, D.C. power supply, etc.

LOCATION

The controller shall be located in the truss at the upper landing, and provision shall be made for easy access for maintenance.

METAL CABINET

The controller shall be fitted inside a dust proof 1.2 mm thick stainless steel cabinet.

MAINTENANCE FACILITIES AND NOTICES

MACHINERY SPACE LIGHTING

A permanent light, suitably protected, will be provided in the machinery space by the Electrical Contractor, and which can be switched without passing over or reaching over any part of the machinery.

SWITCHED SOCKET OUTLET

A 16 amp. 3 pin switched socket outlet will be provided by the Electrical Contractor in each escalator machinery space. The socket outlet will be fitted adjacent to the light switch.

EMERGENCY STOP SWITCH IN MACHINERY SPACES

A stop switch for the machinery shall be provided in each machinery space where means of access to the space is provided.

The stop switch shall:-

- (1) Be of a manually opened and closed type;
- (2) Be conspicuously and permanently marked "STOP".

EXCEPTION: A stop switch needs not be provided in a machinery space if the main switch is located therein and close to the machinery.

NOTICE ON THE ACCESS DOOR

On each access door to the machinery space in upper and lower landing a notice of durable materials with the inscription of message.

MARKING OF ESCALATOR

At least at one landing, the name of the manufacturer & the manufacturer's serial number shall be indicated, visible from outside.

NOTICE FOR AUTOMATIC START

In the case of escalators starting automatically, a clearly visible and audible signal system, e.g. road traffic signals, shall be provided indicating to the user whether the escalator is available for use, and its direction of travel.

NOTICES NEAR ENTRANCES OF ESCALATOR

Whenever possible, these notices shall be given in the form of pictographs. The minimum size of the pictographs shall be 80 x 80 mm.

ALARM BUZZER/BELL

ALARM BUZZER / BELL PROVIDED BY THE CONTRACTOR

An alarm buzzer / bell shall be supplied and installed in the machinery space which shall be sounded when any emergency safety device operates.

REQUIREMENTS FOR WEATHER-PROOF ESCALATORS

PROTECTION AGAINST WEATHER

The escalator(s) will be protected by a canopy or other similar structure constructed by the Building Contractor.

LUBRICATION

Automatic oilers shall be provided for chain lubrication and operated in pre-determined period. Device for separation of oil and water shall be provided if the lubrication system is of re-circulating type.

DRIVING MACHINE

The driving motor shall have a degree of protection of at least IP 55. Watertight cover shall be provided on all bearings.

ELECTRICAL WIRINGS AND ACCESSORIES

All exposed wiring terminals, junction boxes, switches, etc. shall have a degree of protection of at least IP 65.

DRAINAGE

The Contractor shall provide effective drainage facilities for the escalator. A permanent drain point will be provided by the Building Contractor at the bottom of the escalator pit. An additional drain point at the upper pit of an escalator shall be provided by the Contractor if found practicable so that water can be collected and directed to the nearest drain pit provided by others. An alarm giving a warning of flooding at the lowest escalator pit coupled with a timer to stop the escalator after a preset time shall be provided by the Contractor.

1.2 Maintenance Requirements of Passenger Escalators:

1.2.1 Defects Liability Period (DLP):

Preventive maintenance & corrective maintenance of the Escalators shall be done and carried out by the Contractor during defect liability period (DLP) for a period of 1 year from the date of taking over, including operations from 6.00AM to 10.00 PM including Sunday & holidays.

1.2.2 Comprehensive Maintenance Services (CMS) – Five years (Inclusive 1 Year DLP):

Comprehensive maintenance services of the Escalators provided under the contract for a period of 5 years is covered under the scope of work and hence shall be deemed to have been included in the quoted amount. Maintenance service shall cover regular examination of the installations by the trained technician of the contractor including necessary adjustments, greasing, oiling, cleaning, replacement of all necessary defective parts, provision all consumables, light lamps, diodes etc. to keep the equipment in excellent operational state. The contractor shall also provide 24 hours emergency operational state. The contractor shall also provide 24 hours emergency repair service to attend the escalator at any time of the day or night including Sundays and holidays.

The reliability, availability and maintainability of equipment/ components shall be judged on the basis of Call out Ratio (COR) i.e. engineer visits to the site for unscheduled maintenance of a Escalator. During the CMS period also the contractor should endeavor that the COR does not exceed 2.5 per Escalator per year.

Penalty shall be calculated as under:

Nature of Defects		Deductions to be made as under
(i)	If Escalator is kept out of service for more than 2 hrs and up to 6 hrs.	Penalty of INR 10,000 per hour shall be imposed for each such case.
(ii)	If Escalator is kept out of service for more than 6 hrs.	Penalty of INR 60,000 per day shall be imposed for each such case.
(iii)	If the visit of engineer for non-scheduled maintenance exceeds 2.5 per Escalator per year.	Penalty of INR 20,000 (Rs. Twenty Thousand Only) shall be imposed for each such visit. The penalty shall be applicable during DLP and CMC period also (if separate contract will be awarded for CMC after completion of 5 years).

Every item of machinery, likely to produce sound owing to vibration or any other causes, must be isolated from structure to eliminate any possibility of sound travelling to other parts of the buildings. The set of isolation material required for this purpose shall be deemed to be covered in the scope of work and quoted rate.

Two copies of copy of maintenance manual shall be submitted after installation & commissioning of lifts.

The cost of lifts as quoted by Contractor shall include the shall include the cost of the following civil works:

- Cutting holes in walls, floor etc. and making good to match the existing surface of walls, floors etc.
- Supply and fixing necessary bolts, nuts, washers etc. required for execution of work.
- Hoisting arrangement if required
- Providing protection like cover barricading· tc. During storing and execution to protect the lifts from dust, water etc.
- During execution, the contractor shall at all-time keep the working and storage areas free from waste or rubbish.
- All necessary arrangements for hoisting & installation of lift including scaffolding etc.

TESTING AND COMMISSIONING

20.1 ADJUSTMENTS, PERFORMANCE TESTS AND COMMISSIONING

The Contractor shall commission the installation and carry out complete performance tests for all equipment and systems installed by him, making all necessary adjustments including setting all controls and checking the operation of all protective and safety devices in accordance with the manufacturers' instructions, the requirements of the statutory rules and regulations and to the satisfaction of the Employer. Prior to any tests, the Contractor shall submit detailed procedures and a programme for testing and commissioning to the Employer for approval.

20.2 LABOUR AND MATERIALS

The Contractor shall employ a Registered Lift/Escalator Engineer under the Lifts and Escalators (Safety) Ordinance to undertake examination, testing and commissioning of the complete installation. All labor, materials, tools and instrument necessary for carrying out the work shall be provided by the Contractor. The Building Contractor will provide the necessary electricity supply but the Contractor shall coordinate with and to inform the Building Contractor his requirements.

20.3 TESTING

The tests and examination undertaken by the Registered Lift/Escalator Engineer shall include those specified in the Code of Practice on the Design and Construction of Lifts and Escalators, the Code of Practice for Lift Works and Escalator Works and those recommended by the lift/ escalator/ passenger conveyor manufacturer. The relevant forms/certificates as required by the Lifts and Escalators (Safety) Ordinance shall be signed and submitted by the Registered Lift/Escalator Engineer to the Employer on completion of the escalator.

Test and examination certificates as required, Testing and Commissioning Procedure for Lift, Escalator and Passenger Conveyor Installation shall be submitted together with the relevant statutory forms upon completion of the installation. Tests which purely demonstrate the performance characteristics of the Escalator shall be performed in the presence of the Employer or his/her Representative at the acceptance of the installation.

MAINTENANCE DURING DLP & CMS:

The Contractor shall, in addition to his obligations under the General Conditions of Contract, furnish maintenance free of charge for the entire installation for the whole Maintenance Period following the certified date of completion of the Contract. The extent of work required to be carried out is as follows:-

Planned maintenance

- 1) To be responsible for any repairs necessary to maintain the installation in good and safe working order at all times.
- 2) To dispatch competent workers once weekly during normal working hours to maintain each Escalator in accordance with Maintenance Schedule for Escalator.
- 3) To supply all lubricants, cleaning materials, rope preservatives etc.
- 4) Replace all burnt out lamp with correct rating.
- 5) To provide, repair or replace at no additional cost to the Employer such mechanical and electrical parts of the installation necessary for the safe and normal operation of the installation.

Emergency maintenance

- (1) To provide a 'call-out' service during and outside normal working hours to carry out emergency maintenance by competent workers.

Statutory examination and testing

- (1) To carry out the periodic examination and periodic testing of the safety of equipment as stated in the Lifts and Escalators (Safety) Ordinance and to provide such copies of the test certificates, duly signed by a Registered Lift/Escalator Engineer till Comprehensive Maintenance Services.
- (2) Provided always that any renewals or repairs necessitated by reason of negligence or misuse of the equipment by others or by reason of any other cause beyond the Contractor's control with the exception of normal wear and tear, these works shall be carried out by the Contractor, if so required by the Employer, at an additional cost to be negotiated by both parties.

- (3) All works under this maintenance provision shall be performed by the Contractor's directly employed competent workers under the supervision of the Contractor.

Testing of Installation after Completion:

On successful completion of the installation / testing shall be carried out to the full satisfaction of Employer. The tests shall be accordance with the relevant BIS/CPWD or any other relevant specifications. Necessary instruments for tests shall be arranged by the contractor during the test at his own cost.

The Responsibilities of Contractor.

During the defects liability period, the Contractor shall also be responsible for (incidental to work and no separate payment shall be made to Contractor for these):

- I. Carrying out day to day maintenance and cleaning of the Escalator as per the Maintenance Schedule submitted.
- II. Deputing trained supervisory staff to carry out the scheduled maintenance and operation of Escalator. The Supervisory staff will visit the site daily, inspect the escalators twice a day & shall be responsible for keeping regular coordination for maintenance/repair of escalator.
- III. Maintaining proper conditions of operating control installed inside and outside for convenient and safe operation of Escalator.
- IV. Replacing the worn out parts of the Escalator with genuine spare parts as necessitated and observed during routine inspection or otherwise.
- V. Keeping Employer informed in a prescribed and agreed format at all the time regarding maintenance etc. carried out on the Escalator.
- VI. Providing all spares and consumable during the defects liability period.
- VII. Response time of maximum 4 hours shall be maintained for emergency services/repairs throughout the year.

Escalator Signages: Contractor shall provide necessary signages and user instructions on each Escalator. The cost of these shall be deemed to be covered in the scope of work and quoted rate.

Keeping in view, the required time for ordering, manufacture, inspection, delivery & installation of Escalator within the overall contract period, Contractor shall take action for ordering the Escalator at the earliest after issue of letter of acceptance. However, before ordering the Escalator, Contractor shall submit the relevant details/make/model of Escalator proposed by him for work to Employer for approval within 15 days and place confirmed order with the manufacturer within 2 days of receiving approval of Employer. Only Escalator of make/model approved by Employer shall be used in the works.

Only the Escalator approved by Employer shall be procured/installed for the work.

SECTION VI – TECHNICAL SPECIFICATONS

Please refer Section V-Scope of Work

SECTION VII – LOCATIONS WHERE PROJECT TO BE EXECUTED

Please also refer Section V-Scope of Work

Location 1: Shri Guru Harkrishan Public School

This location is on GT Road outside the main branch of Shri Guru Harikrishan School, Amritsar. It is approximately 50m west from the intersection of the railway station road ROB and GT road. This location witnesses heavy footfalls due to the presence of 2 educational institutions, a private hospital and several retail commercial establishments. In order to assess the situation in detail, stakeholder interactions were done with the authorities of the Shri Guru Harkrishan Public School.

The Google map co-ordinates of this location are 31.634170, 74.860776.



Figure 4.1: Map of Location 1 - Shri Guru Harkrishan Public School

Location 2: Near Putligarh Chowk (Parkash Hospital)

This location is identified on GT Road between Putligarh Chowk and Putligarh (Ranjit Hospital) BRTS stop. The FOB is proposed at the intersection of Dilawari Street and GT road. High pedestrian movement is observed at this location due to the presence of 3 private hospitals catering to low- and middle-income group citizens. In addition, this area is the hub for retail commercial establishments in Putligarh. The Dilawari Street is completely commercialized with the presence of many textile, tailoring, electronics and jewellery stores.

The Google map co-ordinates of this location are 31.633091, 74.845919



Figure 4.2: Map of Location 2 - Near Putligarh Chowk (Parkash Hospital)

SECTION VIII - FINANCIAL BID/ PRICE SCHEDULE

Please refer Section IV – Bidding Forms

SECTION IX – CONDITIONS OF CONTRACT

A. GENERAL

1. DEFINITIONS

- 1.1. Terms which are defined in the **Contract Data** may not necessarily have been defined in the conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.

Compensation Events are those defined in **Clause 44** hereunder.

The **Completed Work** means the work completed in all respects as per laid down specifications, drawings & conditions of the contract to the entire satisfaction of Engineer.

The **Completion Date** is the date of completion of the Completed Works as certified by the Engineer-in-charge in accordance with **Sub-Clause 54.1**.

Communication between parties are the written and signed letters, notices, reminders, memorandum and instructions recorded in the instruction book or books kept at site.

The **Contract** is the contract between the Employer and the Implementing Agency to Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period. It also consists of the documents listed in Clause 2 below.

The **Contract Data** defines the documents and other information which comprise the Contract. The Engineer-in-charge will clarify queries on the **Contract Data**.

“**Contract Period**” means works execution Period of 06 (Six) months followed by 1 (one) year of Defect Liability Period and Operation followed by Operation and Maintenance Period of 04 (four) years. This Contract Period will begin from the date of signing of the Contract and will end with successful taking over of the Project Site by Municipal Corporation, Amritsar. It will also include any time extensions given by the Procuring Entity.

The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

Days are calendar days; **Months** are calendar months.

A **Defect** is any part of the Project/Works not completed in accordance with the Contract.

The **Defects Liability Period** is the period named in the **Contract Data** and calculated from the Completion Date.

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 or by the Implementing Agency (subject to approval of Employer) in accordance with the Contract.

The **Employer** means the Amritsar Smart City Limited who will employ the Implementing Agency to carry out the Project. The Employer may delegate any or all functions to a person or body nominated by him for specified functions.

The **Engineer-in-charge** is the person/ consultancy firm/ PIU named in the **Contract Data** (or any other competent person appointed and notified to the Implementing Agency to act in replacement of the Engineer-in-charge) who is responsible for supervising the Works/ Project, administering the Contract, certifying payments due to the Implementing Agency, issuing and valuing Variations to the Contract, awarding extensions of time, and valuing the Compensation Events and getting the contract executed on behalf of the Employer.

Equipment is the Implementing Agency's machinery and vehicles brought to the Site to construct the Project/Works.

The **Government** or the **State Government** shall mean the Government for the State of Punjab.

GCC mean the General Conditions of Contract contained in this section.

The **Implementing Agency** is a person or corporate body whose Bid to carry out the Project/Works has been accepted by the Employer.

The **Implementing Agency's Bid** is the completed Bidding Documents submitted by the Implementing Agency to the Employer and includes Technical and Financial Bids.

The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.

The **Intended Completion Date** is the date on which it is intended that the Implementing Agency shall complete the construction and installation works (*including successful trial run*) of the two Foot Over Bridges. The Intended Completion Date is specified in the **Contract Data**. The Intended Completion Date may be revised only by the Engineer-in-charge by issuing an extension of time.

Materials are all supplies, resources, things, items, objects, including consumables, used by the Implementing Agency for incorporation in the Project/Works.

MCA means the Municipal Corporation Amritsar.

Operation and Maintenance or O&M means operation and maintenance (routine or major) of the Project/ Works and includes all matters connected with or incidental to such operation and maintenance, provision of services and facilities in accordance with the terms hereof.

Operation & Maintenance Period means the period starting from the date of issuance of Certificate of Completion and ending upon issuance of Project Completion Certificate.

Plant is any integral part of Project/ Works which have a mechanical, electrical, electronic or chemical or biological function.

Project means the **Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period**

Project Completion Date means the date when the Operation & Maintenance Period ends as evidenced by the issuance of Project Completion Certificate by the Engineer-in-charge/ Employer.

Project Completion Certificate means the certificate issued by the Engineer-in-charge/ Employer upon successful completion of the Project including Operation & Maintenance Period in accordance with the Conditions of Contract.

Project Sites is the area specified as such in the **Contract Data** and Section V-Scope of Work.

Routine Maintenance is the maintenance of all the components of the two Foot Over Bridges and as specified in the Section V – Scope of Work.

Start Date is given in the **Contract Data**. It is the date when the Implementing Agency shall commence execution of the Project/ Works. It does not necessarily coincide with any of the Site Possession Dates.

Sub-contractor is a person or corporate body who has been approved by the Employer for entering into a contractual arrangement with the Implementing Agency to carry out a part of the work under the Contract.

Technical Specifications means the specification of the Project/ Works specified in Section VI of the Bid Documents and includes any modification or addition made or approved by the Engineer-in-charge during the course of execution of the Project.

Temporary Works are works designed, constructed, installed and removed by the Implementing Agency which are needed for execution of the Works.

Tender Evaluation Committee [TEC] is the committee constituted by the Employer for receiving, opening, processing and evaluating the bids.

A **Variation** is an instruction given by the Engineer-in-charge, which varies the Project/Works. The **Project/Works**, as defined in the **Contract Data**, are what the Contract requires the Implementing Agency to construct, install, maintain and turn over to the Employer/ MCA through the Engineer-in-charge, as defined in the **Contract Data**. This term shall be used synonymously with the term “Works” hereinafter or anywhere in the Contract.

Work or **Works** shall, unless there is something either in the subject or context repugnant to such construction, be construed and taken to mean the Works by virtue of the Contract contracted to be executed whether temporary or permanent and whether original, altered, substituted or additional works.

2. INTERPRETATION

- 2.1. In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter and the other way around. Headings have no significance. The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions. In this Contract, except where the context requires otherwise:
 - a) Works have their normal meaning under the language of the Contract unless specifically defined. The Engineer-in-charge will provide instructions clarifying queries about the Conditions of the Contract;
 - b) words indicating the singular also include the plural and words indicating the plural also include the singular;
 - c) provisions including the word “agree”, “agreed” or “agreement” require the agreement to be recorded in writing;
 - d) “written” or “in writing” means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
 - e) The word “tender” is synonymous with “bid” and “tenderer” with “bidder” and the words “tender document” with “bidding document”.
- 2.2. The damages payable by the Implementing Agency, as set forth in the Conditions of Contract,

whether liquidated or not or on *per diem* basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the “**Damages**”).

- 2.3. The rule of construction, if any, that a contract should be interpreted against the parties responsible for the drafting and preparation thereof, shall not apply.
- 2.4. Any word or expression used in this Agreement shall, unless otherwise defined or construed in this Agreement, bear its ordinary English meaning and, for these purposes, the General Clauses Act 1897 shall not apply.
- 2.5. The Implementing Agency may complete the work in sections as per the approved work program and in such case, references in the Conditions of Contract to the Works, the Completion Date and the Intended Completion Date shall apply to such section of the Works (other than references to the Completion Date and Intended Completion date for the whole of the Works.)
- 2.6. The documents forming the Contract shall be interpreted in the following order of priority:
 - a) Contract
 - b) Letter of Acceptance
 - c) Contract Data including Scope of Work & Technical Specifications
 - d) Conditions of Contract including Conditions of Particular Application
 - e) Drawings
 - f) Bill of Quantities
 - g) Implementing Agency’s Bid and
 - h) any other document listed in the **Contract Data** as forming part of the Contract

If there are varying or conflicting provisions in the documents forming part of the contract, the authority competent to approve the tender shall be the final deciding authority with regard to the intention of the document.

3. LANGUAGE AND LAW

- 3.1. The language of the Contract and the law governing the contract are stated in the **Contract Data**.

4. ENGINEER-IN-CHARGE’S DECISIONS

- 4.1. Except where otherwise specifically stated, the Engineer-in-charge shall decide contractual matters between the Employer and the Implementing Agency in the role representing the Employer. Any clarifications on the **Contract Data** shall be given by the Engineer-in-charge.

5. DELEGATION

- 5.1. The Employer may delegate any of his duties and responsibilities to other person after notifying the Implementing Agency and may cancel any delegation after notifying the Implementing Agency.

6. COMMUNICATIONS

- 6.1. Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered under Registered post or Speed post or Facsimile (fax) or other electronic means. The notice sent by Registered post or Speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service.

The notice sent by Facsimile (fax) or other electronic means shall be effective on confirmation of the transmission.

7. SUB-CONTRACTING

- 7.1. The Contractor may sub-contract any portion of work, upto a maximum limit of 25% (twenty-five percent) of contract value or as specified in **Contract Data** whichever is less, with the approval of the Engineer but shall not assign the Contract without the approval of the Engineer in writing. Sub-contracting does not alter the Contractor's obligations and responsibilities under the contract.

8. OTHER CONTRACTORS

- 8.1. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Engineer on behalf of the Employer between the dates given in the Schedule of other Contractors. The Contractor shall, as referred to in the Contract Data, also provide facilities and services for them as described by the Engineer.

9. PERSONNEL

- 9.1. The Implementing Agency shall employ the key personnel named in the Schedule of Key Personnel as referred to in the **Contract Data** and such other skilled/ semi-skilled personnel to carry out the functions stated in the Schedule or other personnel approved by the Engineer-in-charge. The Engineer-in-charge will approve any proposed replacement of key personnel only if their qualifications, abilities and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.
- 9.2. If the Engineer-in-charge asks the Implementing Agency to remove a person who is a member of Implementing Agency's staff or his work force or Sub Implementing Agency's staff or his 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.

10. MATERIALS, MACHINERY & EQUIPMENT

- 10.1. The contractor shall arrange and supply at his own cost all material, machinery, equipment, plant, tools, appliances, implements, ladder, cordage, tackle, scaffoldings, water and power supply and temporary works requisite or proper for effective execution of the work, whether original, altered or substituted and whether included in the specification or other documents forming part of the Contract or referred to these conditions or not, all of which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer as to any matter which under these conditions he is entitled to be satisfied or which he is entitled to require together with the carriage therefore to and from the work.
- 10.2. The Contractor shall bear all the expenses including taxes, transportation, loading, unloading, stacking, storage, safe custody against the damage due to sun, rain, dampness, fire, theft etc.
- 10.3. The Contractor shall procure all material from sources approved by the Engineer in charge in writing. All the material brought to the site shall be duly accounted for by the contractor and got insured against loss due to any reason what so ever. Proof regarding this supported by the copies of the requisite document shall be regularly submitted to the Engineer-in-charge. The department may summon the complete record of the procurement of materials from the contractor at any time if needed. At site, the material shall be accounted in a manner prescribed by Engineer-in-charge in writing. The material procured by the contractor shall be strictly according to the specification of that material conforming to ISI standard or any other approving authority as applicable. Storage of the material should be as per

approved norm. No damaged or inferior material will be kept at site of work for more than seven days from the date of orders of Engineer in charge to remove the material.

11. LABOUR & COMPLIANCE WITH LABOUR REGULATIONS

- 11.1. The Implementing Agency shall unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or otherwise, and for their payment, housing, feeding and transport.
- 11.2. The Implementing Agency shall, if required by the Engineer-in-charge, deliver to the Engineer-in-charge a return in detail, in such form and at such intervals as the Engineer-in-charge may prescribe, showing the staff and the number of the several classes of labour from time to time employed by the Implementing Agency on the site and such other information as the Engineer-in-charge may require.
- 11.3. During continuance of the Contract, the Implementing Agency and his sub-Implementing Agencies shall abide, at all times, by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. The Implementing Agency shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any act or rules made there under, regulations, or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe or for non-observance of the provisions stipulated in the notifications/ bye laws/ Acts/ Rules/ regulations including amendments, on the part of the Implementing Agency, the Engineer-in-charge/ Employer shall have the right to deduct this amount from any money due to the Implementing Agency, including his amount of performance security. The Employer/ Engineer-in-charge shall also have right to recover from the Implementing Agency any sum required or estimated to be required for making good the loss or damage suffered by the Employer.
- 11.4. The employees of the Implementing Agency and the Sub-Implementing Agency in no case shall be treated as the employees of the Employer at any point of time.

12. EMPLOYER'S AND IMPLEMENTING AGENCY'S RISKS

- 12.1. The Employer carries the risk which this Contract states are Employer's risks, and the Implementing Agency carries the risks which this Contract states are Implementing Agency's risks.

12.2. EMPLOYER'S RISKS

The Employer is responsible for the excepted risks which are : (a) in so far as they directly affect the execution of the Works in India, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Implementing Agency's employees) and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or (b) a cause due solely to the design of the Works, other than the Implementing Agency's design.

12.3. IMPLEMENTING AGENCY'S RISKS

All risks of loss of or damage of physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks referred to in Clause 12.2, are the responsibility of the Implementing Agency.

13. LIMITATION OF LIABILITY

- 13.1. Neither party shall be liable to the other party in respect of any loss on any account whatsoever in relation to the Work, towards any loss of estimated profit, loss of any other thing or for any direct or

indirect/ consequential loss or damage, which might be suffered or has been suffered by the other party in connection with any event arising out of the Contract except for those, which have been specifically provided for in the Contract Agreement.

14. INSURANCE

- 14.1. The Implementing Agency shall provide, in the joint names of the Engineer-in-charge 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 **Contract Data** for the following events which are due to the Implementing Agency's risk:
- a) loss of or damage to the Works, Plant and Materials;
 - b) loss of or damage to Equipment;
 - c) loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and
 - d) personal injury or death.
- 14.2. Policies and certificates for insurance shall be delivered by the Implementing Agency to the Engineer-in-charge for the Engineer-in-charge'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.
- 14.3. If the Implementing Agency does not provide any of the policies and certificates required, the Employer may affect 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.
- 14.4. Alterations to the terms of insurance shall not be made without the approval of the Engineer-in-charge.
- 14.5. Both parties shall comply with any conditions of the insurance policies.

15. WORKS TO BE COMPLETED BY THE INTENDED COMPLETION DATE

- 15.1. The Implementing Agency (and its sub-contractor in terms of Clause 7 if engaged) 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 Engineer-in-charge, and complete them by the Intended Completion Date.

16. ECOLOGICAL BALANCE

- 16.1. The Contractor shall maintain the ecological balance by preventing water pollution and defacing of natural landscape. The Contractor shall so conduct his construction operation as to prevent destruction, scarring or defacing of natural surroundings in the vicinity of Work.
- 16.2. No separate payment shall be made for compliance with provisions of this clause and all costs shall be deemed to have been included in the bid.
- 16.3. The Contractor shall make his own arrangement for the disposal of the spoils from the Works to such place where the same shall not cause nuisance and should be acceptable to the authorities concerned.

17. SITE INVESTIGATION

17.1. To the extent which was practicable)taking account of cost and time(, the Implementing Agency shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Bid for Works. To the same extent, the Implementing Agency shall be deemed to have inspected and examined the Project Sites, its surroundings, the above data and other available information, and to have been satisfied before submitting the Bid as to all relevant matters, including)without limitation(:

- the form and nature of the Site, including sub-surface conditions,
- the hydrological and climatic conditions,
- the extent and nature of the work and goods necessary for the execution and completion of the Works and the remedying of any Defects,
- the Laws, procedures and labour practices of India, particularly Punjab, and
- the Implementing Agency's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.

18. IMPLEMENTING AGENCY TO CONSTRUCT THE WORKS

18.1. The Implementing Agency shall construct and install the Works in accordance with the Specifications and designs and drawings approved by the Engineer-in-charge.

19. DEFECTS LIABILITY PERIOD AND OPERATIONS & MAINTENANCE

19.1. Operation & Maintenance Period shall be of 05 (five) years including 01 (one) year of Defect Liability Period after total completion of Works as certified by the Engineer-in-charge. It shall commence from the date of issuance of Certificate of Completion.

19.2. During the aforesaid period of 05 (five) years, the Implementing Agency shall be solely responsible for undertaking operation and maintenance including undertaking minor/ major repairs that may be required from time to time and remedying/ repairing, restoring to the original condition any apparent, virtual or observed defects, deficiencies in the Works, or its performance as per the Scope of Work & Technical Specifications (Sections V & VI), to the satisfaction of the Engineer-in-charge. If the Implementing Agency fails to repair & restore the defect(s)/ deficiency(ies) after a notice issued by the Engineer-in-Charge, the Employer will be free to get it remedied at the risk and cost of the Implementing Agency besides taking any other action including levy of Liquidated Damages at the rate of 0.5% of the Contract Price for each week of delay, as per the Contract, if the Implementing Agency does not get it remedied within the period specified in such notice.

20. APPROVAL BY THE ENGINEER-IN-CHARGE

20.1. The Implementing Agency shall submit specifications, designs and drawings complete in all respects supported by requisite documents showing the proposed works including Temporary Works to the Engineer-in-charge, who is to approve them if they comply with the Technical Specifications and requirements.

20.2. The Engineer-in-charge's approval shall not alter the Implementing Agency's responsibility for design of the Works.

20.3. The Implementing Agency shall obtain approval of third parties to the design of the Works where required. If the design is not to the satisfaction of the Employer then it may lead to re-designing and approval of the structure. The cost of the such re-designing shall be borne by the Contractor. There will be no extension of time of the Contract Period because of delay in submitting or approval of the design and drawings.

- 20.4. All designs and drawings prepared by the Implementing Agency for the execution of the temporary or permanent Works in line with the Scope of Work provided by the Employer at the bidding stage, are subject to prior approval by the Engineer-in-charge before their use. In case of dispute, if any, decision of the Employer will be final and binding.

21. SAFETY

- 21.1. The Implementing Agency shall be responsible for maintaining the safety of all activities on the site, including smooth flow of traffic at his own cost following the laid down guidelines.

22. DISCOVERIES

- 22.1. Anything of historical or other interest or of significant value unexpectedly discovered on the site is the property of the Employer. The Implementing Agency is to notify the Engineer-in-charge of such discoveries and carry out the Engineer-in-charge's instructions for dealing with them.

23. POSSESSION OF THE PROJECT SITE

- 23.1. The Employer shall facilitate in handing over possession of the specific sites/ locations mentioned in the Contract Data, to the Implementing Agency from the MCA or the concerned department, as per the work program of the Implementing Agency approved by Engineer-in-charge. If possession of a part of the site required as per the work program is not given by the date when it is actually required for carrying out the Work, the Employer is deemed to have delayed the start of the relevant activities for that part of the site and this will be a Compensation Event for the purpose of time extension only.

24. ACCESS & INSPECTION

- 24.1. The Employer, Engineer-in-charge or any other person authorized by the Engineer-in-charge or Employer shall at all times have access to the Site and/ or to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured/ fabricated/ assembled for the works.
- 24.2. All the work under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Engineer-in-charge and his senior/subordinate and the Contractor shall at all times during the usual working hours and at all other times at which reasonable notice of the intention of the Engineer-in-charge or his senior/subordinate to visit the works shall have been given to the Contractor, either himself to be present to receive orders and instructions or have a responsible agent, duly accredited in writing, present for that purpose. Orders given to a Contractor's agent shall be considered to have the same force as if they had been given to the Contractor himself.
- 24.3. The Contractor shall agree with the Engineer on the time and place for the inspection or testing of any materials for the Works as provided in the Contract. The Engineer shall give the Contractor not less than 24 (twenty-four) hours' notice of his intention to carry out the inspection or to attend the tests. If the Engineer, or his duly authorized representative, does not attend on the date agreed, the Contractor may, unless otherwise instructed by the Engineer, proceed with the tests, which shall be deemed to have been made in the presence of the Engineer. The Contractor shall forthwith forward to the Engineer duly certified copies of the test readings, if the Engineer has not attended the tests, he shall accept the said readings as accurate.

25. INSTRUCTIONS

- 25.1. The Implementing Agency shall carry out all the instructions of the Engineer-in-charge pertaining to Works which comply with the applicable laws where the site is located.
- 25.2. The Contractor shall permit the Engineer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Engineer or the Employer, if so, required by the Engineer or Employer.

26. DISPUTES RESOLUTION MECHANISM

- 26.1. If any dispute or differences of any kind what-so-ever arise between the Employer, its authorized representatives and the Implementing Agency in connection with or arising out of this Contract or the execution of Work, they shall be resolved as under.
- 26.2. Whether before its commencement or during the progress of Project/ Works or after the termination, abandonment or breach of the Contract, the dispute shall in the first instance supported with complete documents and further documents, if any, required by him, be referred for settlement to the Engineer-in-Charge of the Work and he shall, within a period of 30 (thirty) days after being requested in writing by the Implementing Agency to do so, convey his decision to the Implementing Agency. Such decision in respect of every matter so referred shall, subject to arbitration as hereinafter provided, be final and binding upon the Implementing Agency. In case the Work is already in process, the Implementing Agency shall continue with the execution of the Work as aforesaid with all due diligence, whether any of the parties requires arbitration as hereinafter provided or not.
- 26.3. If the Engineer-in-Charge has conveyed his decision to the Implementing Agency and no claim for arbitration has been filed by the Implementing Agency within a period of 30 (thirty) days from the receipt of the letter communicating the decision, the said decision shall be final and binding upon the Implementing Agency and will not be a subject matter of arbitration at all.
- 26.4. If the Engineer-in-Charge fails to convey his decision within a period of 30 (thirty) days from the date on which the said request was made by the Implementing Agency, he may refer the dispute for arbitration as hereinafter provided.
- 26.5. All disputes or differences in respect of which the decision is not final and conclusive shall, at the request of either party made in communication sent through registered A.D. post, be referred for arbitration to the sole Arbitrator appointed by CEO, PMIDC.
- 26.6. The reference to the Arbitrator shall be made by the claimant party within 60 (sixty) days from the date of dispute of claim arises during the execution of Work. If the claim pertains to rates or recoveries introduced in the final bill, the reference to the Arbitrator shall be made within 4 (four) calendar months from the date of payment of the final bill to the Implementing Agency or from the date a registered notice is sent to the Implementing Agency to the effect that his final bill is ready by the Engineer-in-charge (whose decision in this respect shall be final and binding) whichever is earlier.
- 26.7. The provisions of the Arbitration and Reconciliation Act, 1996 or any other statutory law thereunder or modification thereof and for the time being in force shall apply to the arbitration proceedings under this clause.
- 26.8. The Arbitrator shall give a reasoned award for each claim/counter claim.
- 26.9. The independent claims of the party other than one seeking arbitration as also the counter claims

of any party shall be entertained by the arbitrator.

- 26.10. The venue of arbitration shall be **Amritsar**, Punjab. The work under the contract shall continue during the arbitration proceedings.
- 26.11. The stamp fee due on the award shall be payable by the party as desired by the Arbitral Tribunal and in the event of such party's default, the stamp fee shall be recoverable from another sum due to such party under this or any other contract.
- 26.12. Neither party shall be entitled to bring a claim for arbitration, if it is not filed as per the time period already specified or within 6 (six) months of the following:
- a. of the date of completion of the Work as certified by the Engineer-in-charge; or
 - b. of the date of abandonment of the Work or breach of Contract under any of its clauses; or
 - c. of its non-commencement or non-resumption of Work within 10 (ten) days of written notice for commencement or resumption as applicable; or
 - d. of the cancellation, termination or withdrawal of the work from the Implementing Agency in whole or in part and/or revision for closure of the Contract; or
 - e. of receiving an intimation from the Engineer-in-charge that the final payment due or to be recovered from the Implementing Agency had been determined, for the purpose of payment/adjustment whichever is the latest.

If the matter is not referred to arbitration within the period prescribed above, all the rights and claims of either party under the contract shall be deemed to have been forfeited and absolutely barred by the time for arbitration and even for civil litigation.

- 26.13. No question relating to this Contract shall be brought before any civil court without first invoking and completing the arbitration proceedings, if the issue is covered by the scope of arbitration under the Contract. The pending arbitration proceedings shall not disentitle the Engineer-in-charge to terminate the Contract and to make alternate arrangement for completion of the Works.
- 26.14. Arbitrator shall be deemed to have entered into the reference on the day, notice is issued to the parties fixing the first date of hearing. The Arbitrator may, from time to time, with the consent of the parties enlarge the initial time for making and publishing the award. However, the Arbitrator/ Arbitral Tribunal shall make all out efforts to decide each claim within a period of 6 (six) months from the date of initiation.
- 26.15. The expiry to the contractual time limit, whether originally fixed or extended, shall not invalidate the provisions of this clause.

B. TIME CONTROL

27. PROGRAMME

- 27.1. Within the time stated in the Contract Data, the Implementing Agency shall submit to the Engineer-in-charge for approval a program showing the general methods, arrangements, order and timing for all the activities in the Works along with monthly cash flow forecast. Provided however, such work program shall be in line with the Project timelines stipulated by the Employer in the **Contract Data**.
- 27.2. 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.

- 27.3. The Implementing Agency shall submit to the Engineer-in-charge, for approval, an updated Program at intervals no longer than the period stated in the **Contract Data**. If the Implementing Agency does not submit an updated Program within this period, the Engineer-in-charge may withhold the amount stated in the **Contract Data** 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.
- 27.4. The Engineer-in-charge'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 Engineer-in-charge again at any time. A revised program is to show the effect of variations if any and compensation events.
- 27.5. **The program shall be supported with all the details regarding key personnel, equipment and machinery proposed to be deployed on the Project for its execution.** The Implementing Agency shall submit the list of equipment and machinery being brought to site, the list of key personnel being deployed, the list of machinery/equipment being placed in the field laboratory, if any setup by the Implementing Agency.

28. EXTENSION OF THE INTENDED COMPLETION DATE

- 28.1. If the Implementing Agency shall desire an extension of the time for completion of the Work on the ground of his having been unavoidably hindered in its execution or due to any other ground, he shall apply in writing to the Engineer-in-charge (with corresponding time extension in Performance Security) within 30 (thirty) days of the date of hindrance (but before the expiry of time limit) on account of which he desires such extent in as aforesaid and the Employer if in his opinion (which shall be final) reasonable grounds be shown therefore and also taking into account the recommendations of the Engineer-in-charge, authorize such extension of time as may in his opinion be necessary or proper. If the Implementing Agency fails to apply for extension as aforesaid and the Work is not completed within the time limit, the Contract shall be determined absolutely after action under relevant clauses.

29. DELAYS ORDERED BY THE ENGINEER-IN-CHARGE

- 29.1. The Engineer-in-charge may instruct the Implementing Agency to delay the start or progress of any activity within the Works. However, any delay of totaling beyond 30 (thirty) days shall require prior written approval of the Employer.

30. MANAGEMENT MEETINGS

- 30.1. The Engineer-in-charge may require the Implementing Agency 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.
- 30.2. The Engineer-in-charge shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Engineer-in-charge either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

31. EARLY WARNING

- 31.1. The Implementing Agency is to notify the Engineer-in-charge at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of Work, increase the Contract Price or delay the execution of Works. The Engineer-in-charge 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 is to be provided by the Implementing Agency as soon as reasonably possible.

- 31.2. The Implementing Agency shall cooperate with the Engineer-in-charge 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 Engineer-in-charge.

C. QUALITY CONTROL

32. INSPECTION, TESTING/ TRIAL RUN AND QUALITY CONTROL

- 32.1. The Implementing Agency shall intimate at least 7 (seven) days in advance about the readiness of all the components to commensurate with the work program, for getting material inspected. The Employer/ Engineer-in-charge at its discretion may waive the inspection or conduct inspection along with other inspecting officer(s)/ experts of MCA/ PWD to test/ examine and inspect the Works. Such inspection and acceptance shall not, however, relieve the Implementing Agency from its sole and entire responsibility for execution of the works conforming to the requirements of the Technical Specifications nor shall it prejudice any claim because of defective or unsatisfactory execution of works. The expenses for inspection and testing shall be borne by the Implementing Agency which apart from other things will include expenses for travelling, lodging, etc of the inspecting officials.
- 32.2. The Engineer-in-charge along with other authorized officials of PWD or MCA will be free to conduct surprise, random or in situ checks any time during the execution and after the completion of the Works but not later than the Operation & Maintenance Period, so as to have cross check in quality of works carried out and compliance to specifications and standards at all stages of the Work.
- 32.3. Nothing in this clause shall reduce the overall responsibility of the Contractor regarding quality and he shall remain liable for any defect in the execution of the Project/Works at all stages during the currency of the Contract Period.
- 32.4. Upon completion of the Project at one or more of the locations comprised in the Project Site, and before commissioning of such completed section of the executed works, the Implementing Agency shall inform the Engineer-in-charge about the readiness of the completed section to be put to test/ trial run. The Engineer-in-charge on the date and time accompanied with other concerned and authorized officials/ experts from PWD, MCA (as may be required) shall inspect the works in the completed section of the Project Site and the Implementing Agency shall in the presence of such officials/ experts also conduct trial run of the executed works including the installed electrical components. The Engineer-in-charge shall prepare the report of such inspection and trial run mentioning in detail the defect(s)/ deficiencies/ faults/ slippages found and remedial steps required to be taken by the Implementing Agency to rectify the same and the time period within which such remedial/ rectification works are to be accomplished by the Implementing Agency. The Engineer-in-charge shall provide a copy of the same with the Implementing Agency and submit another copy to the Employer. The Implementing Agency shall forthwith take action on the Report by rectifying and repairing the defect(s)/ deficiencies so reported within the time allowed. Once all the defect(s)/ deficiencies are attended to, the Implementing Agency shall again notify the Engineer-in-charge for inspection and the procedure set forth in this clause 32.4 shall apply in *mutatis mutandis* to such second round of inspection.
- 32.5. In the event, the Implementing Agency fails to attend to the deficiencies pointed out in the report of the Engineer-in-charge within the specified time period (or within such extended time period as mutually agreed), the consequences as stipulated under Clause 36 shall apply.

33. IDENTIFYING DEFECTS

- 33.1. The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. The notice of the Engineer shall give the description of the defects in sufficient detail, including the obligations as per the Contract. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.
- 33.2. If the Engineer-in-charge instructs the Implementing Agency to carry out a test not specified in the Technical 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.

34. ACTION AND COMPENSATION IN CASE OF BAD WORK

- 34.1. If it appears to the Engineer or his subordinate-in-charge of the work that any work or part of it has been executed with unsound, imperfect, unskillful workmanship or with materials of any inferior description or that any articles or materials provided by the Contractor for the execution of the work are unsound or of inferior quality to that contracted for or otherwise not in accordance with the contract, the Contractor shall, on written instructions by the Engineer specifying unsound the work, materials or articles, forthwith rectify or remove and reconstruct the work so specified in whole or part, as the case may require or as the case may be, remove the materials or articles at his own proper charge and cost, within a period specified by the Engineer. In the event of his falling to do so, the Contractor shall be liable to pay compensation at the rate of 1.00 % of the estimated amount of unsound work per week. In case the Contractor does not make the necessary compliance at all, the Engineer may rectify or remove and, re-execute the work or remove and replace with others, the materials or articles complained of as the case may be, at risk and expenses of the Contractor.

35. CORRECTION OF DEFECTS

- 35.1. The Engineer-in-charge shall give notice to the Implementing Agency of any Defects at any time during the Contract Period. The Operation & Maintenance Period shall be extended for as long as Defects remain to be corrected.
- 35.2. Every time notice of a Defect is given; the Implementing Agency shall correct the notified Defect within the length of time specified by the Engineer-in-charge's notice.

36. UNCORRECTED DEFECTS

- 36.1. If the Contractor has not corrected a Defect within the time specified in the Engineer-in-charge's notice, the Engineer-in-charge will assess the cost of having the Defect corrected, and recover 1.5 times of this amount from the payments (including CAPEX and OPEX amount) due to the Contractor or retention money or Performance Security.

Note: *Where in certain cases, the technical specifications provide for acceptance of works within specified tolerance limits at reduced rates, Engineer-in-charge will certify payments to Implementing Agency accordingly and the Implementing Agency shall be bound by the same.*

37. ISSUANCE OF CERTIFICATE OF COMPLETION

- 37.1. Upon being satisfied that the quality work under the Project has been executed by the Implementing Agency in accordance with the Conditions of Contract, Scope of Work, Technical Specifications, Employer's requirements, Drawings, etc., and also upon the trial run/ tests having been conducted

successfully, the Engineer-in-charge shall issue a Certificate of Development Completion signifying completion of construction of Works and commencement of Defects Liability Period and Operation & Maintenance Period. However, no certificate shall be issued nor shall the work be considered to be complete until the Implementing Agency has cleared all scaffolding, surplus materials, garbage and all huts and sanitary arrangements set up for the labour at the site and cleaned off the dirt from the Project Sites.

D. COST CONTROL

38. BILL OF QUANTITIES

- 38.1. The Bill of Quantities shall contain items for the construction, execution, testing and commissioning of the works to be done by the Implementing Agency.
- 38.2. The Bill of Quantities is used to calculate the Contract Price. The Implementing Agency shall be paid for the quantity of work done at the rate in the Bill of Quantities for each item.

39. CHANGE IN THE QUANTITIES

- 39.1. The Engineer-in-charge shall have power to make any variations, alterations omission, additions to or substitutions for the original specifications, drawings, designs and instructions that may appear to be necessary or advisable during the progress of the work, and the Implementing Agency shall be bound to carry out the work in accordance with any instructions which may be given to him in writing, signed by the Engineer-in-charge. Such alterations/ additions/ substitutions shall not invalidate the contract and shall be carried out by the Implementing Agency on the same conditions in all respects on which he agreed to do the main work. The time of completion of the work shall be extended in the proportion that the altered, additional or substituted works bears to the original contract work and the certificate of the Engineer-in-charge shall be conclusive as to such proportion.
- 39.2. If the final scope of work differs from the quantity in the Bill of Quantities for the particular item by more than 25% (twenty-five percent) provided the change exceeds 1% (one percent) of initial Contract Price, the Engineer-in-charge shall adjust the rate to allow for the change, duly considering:
- a) Justification for rate adjustment as furnished by the Implementing Agency;
 - b) Economies resulting from increase in quantities by way of reduced plant, equipment and overhead costs;
 - c) Entitlement of the Implementing Agency to compensation events where such events are caused by any additional work;
 - d) The revised rates will be applicable to the quantity that exceeds 25% (twenty five percent) limit and not on the entire quantity.
- 39.3. The Engineer-in-charge shall not adjust rates from changes in scope of work, if thereby the Initial Contract Price is exceeded by more than 15% (fifteen percent), except with the prior approval of the Employer.
- 39.4. If requested by the Engineer-in-charge, the Implementing Agency shall provide the Engineer-in-charge with a detailed cost breakdown of any rate of the item undergoing variation in the scope of work.
- 39.5. All variations shall be included in updated Programs produced by the Implementing Agency.

40. PAYMENT FOR VARIATIONS

- 40.1. The Implementing Agency shall provide the Engineer-in-charge with a quotation (with breakdown of unit rates) for carrying out the Variation when requested to do so by the

Engineer-in-charge. The Engineer-in-charge shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Engineer-in-charge and before the Variation is ordered.

- 40.2. If the work in the Variation corresponds with an item description in the Bill of Quantities and if, in the opinion of the Engineer-in-charge, the quantity of work above the limit stated in Sub Clause 39.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Implementing Agency shall be in the form of new rates for the relevant items of work.
- 40.3. If the Implementing Agency's quotation is unreasonable, the Engineer-in-charge may order the Variation and make a change to the Contract Price which shall be based on Engineer-in-charge's own forecast of the effects of the Variation on the Implementing Agency's cost.
- 40.4. If the Engineer-in-charge 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.
- 40.5. The Implementing Agency shall not be entitled to additional payment for costs which could have been avoided by giving early warning.

41. CASH FLOW FORECASTS

- 41.1. When the Program is updated, the Implementing Agency is to provide the Engineer-in-charge with an updated cash flow forecast.

42. PAYMENT CERTIFICATES

- 42.1. The Implementing Agency shall submit to the Engineer-in-charge monthly statements/ bills of the estimated value of the Work completed less the cumulative amount certified previously, along with copies of the following documents:
 - (i) measurements and quantities of items of work done since last bill; and
 - (ii) copies of instructions recorded in the instruction book containing the instructions and compliance made thereof, covering the work done since last bill.

The Implementing Agency shall submit all bills as per the format prescribed by the Engineer-in-charge.

- 42.2. The Engineer-in-charge shall check the Implementing Agency's monthly statements within 30 (thirty) days and certify the amount to be paid to the Implementing Agency after taking into account any deductions for advance payments, retention, other recoveries in terms of the contract and taxes at source, as applicable under the law, and the credit or debit for the month in question in respect of materials for the works in the relevant amounts and under conditions set forth in clause 50. The Implementing Agency shall be required to sign the corrections made, if any, in token of acceptance of the same, before release of payment.
- 42.3. The value of work executed shall be determined by the Engineer-in-charge.
- 42.4. The value of work executed shall include the valuation of Variations and Compensation Events. The Implementing Agency shall be deemed to have waived off all claims not included in such bills/ statements and will have no right to enforce any claim not so included,

whatsoever be the circumstances.

- 42.5. The Engineer-in-charge may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in light of later information.

43. PAYMENTS

- 43.1. The Employer shall pay the Implementing Agency the amounts certified by the Engineer-in-charge as per the stages of payment set forth in the Contract Data and as promptly as possible. It will be the endeavour of the Employer not to delay the payments to the Contractor. However, no interest shall be payable for delayed payments by the Employer.
- 43.2. Items of the Project/Works, for which no rate or price or percentage of lump sum rate has been entered in, will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.
- 43.3. Any excess payment made to the Implementing Agency inadvertently or otherwise under this Contract or on any account whatsoever and any other sum found to be due to the Government by the Implementing Agency in respect of this Contract shall be recoverable from the performance security and/ or retention money of the Implementing Agency and/ or from any payments due to the Implementing Agency.
- 43.4. The Engineer-in-charge may refuse or suspend payments on account of a work when executed by a firm or by an Implementing Agency described in his Bid as a partnership firm, unless receipts are signed by all the partners, or one of the partners or an authorized representative of the Implementing Agency who produces a valid authority in writing enabling him to give effectual receipts on behalf of the firm.
- 43.5. All the intermediate payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed; and shall not preclude the requiring of bad, unsound, imperfect or unskilled work to be removed and taken away and reconstructed, re-laid or re-erected, or be considered as an admission of the performance of the contract or any part thereof in any respect of the occurring of any claim, nor shall it conclude, determine or effect in any way the powers of the Engineer-in-charge under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way, vary or affect the contract.
- 43.6. The receipt of the Accountant or Clerk for any money paid by the Implementing Agency to the Employer will not be considered as a receipt of payment to the Engineer-in-charge and the Implementing Agency shall be responsible for ensuring that he procures a receipt duly signed by the Engineer-in-charge.
- 43.7. Final payment at the end of the Contract Period i.e. at the end of Operation and Maintenance period will be made only when whole of the Site/ work is handed over to the Municipal Corporation, Amritsar or the concerned department.

44. COMPENSATION EVENTS

- 44.1. The following are Compensation Events unless they are caused by the Implementing Agency:
- a) The Employer does not facilitate access to a part of the Project Site as stipulated in Clause 23;
 - b) The Employer modifies the schedule of other contractors in a way which affects the work of the Implementing Agency under the Contract;

- c) The Engineer-in-charge orders a delay or does not issue/ approve drawings, specifications and/or instructions required for execution of Works on time;
 - d) The Engineer-in-charge gives an instruction for dealing with an unforeseen condition, caused by the Employer, or other reasons;
 - e) The effect on the Implementing Agency of any of the Employer's Risks;
 - f) The Engineer-in-charge unreasonably delays issuing of Certificate of Completion;
 - g) Other Compensation Events as listed in the **Contract Data** or mentioned in the Contract.
- 44.2. 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 will be extended. The Engineer-in-charge 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.
- 44.3. 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 is to be assessed by the Engineer-in-charge and the Contract Price shall be adjusted accordingly. If the Implementing Agency's forecast is deemed unreasonable, the Engineer-in-charge shall adjust the Contract Price based on Engineer-in-charge's own forecast. The Engineer-in-charge will assume that the Implementing Agency will react competently and promptly to the event.
- 44.4. The Implementing Agency shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Implementing Agency not having given early warning or not having cooperated with the Engineer-in-charge.

45. TAXES

- 45.1. The rates quoted by the Implementing Agency shall be deemed to be inclusive of all the taxes (including GST), levies, etc. including their variations as notified by the concerned authority from time to time during the contract period, and also of all the new taxes and levies that may be imposed by the competent authority that the Contractor will have to pay for the performance of this Contract. The Engineer on behalf of the Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.
- 45.2. Nothing in the Contract shall relieve the Contractor from its responsibility to pay any tax that may be levied in India on profits made or otherwise by it in respect of the Contract.
- 45.3. The Implementing Agency shall comply with the applicable bye-laws and legal orders of the local body or public authority under the jurisdiction of which the work is executed and pay all fees and charges for which he may be liable. Nothing extra shall be payable on this account.

46. CURRENCIES

- 46.1. All payments shall be made in Indian Rupees.

47. PRICE ADJUSTMENT

- 47.1. Contract price shall be adjusted for increase or decrease in rates of specified components only in accordance with the following principles and procedures and as per formula given in the **Contract Data**:

- a) The price adjustment shall apply for the work done from the start date given in the **Contract Data** upto end of the initial intended completion date or extensions granted by the Engineer-in-charge. However, for the work done during the period for which extension has been granted by the Engineer-in-charge, the price adjustment shall be made using either the rates/ prices prevailing at the time of intended date of completion, or the rates/ prices as prevailing for the period under consideration, whichever is less.
 - b) The price adjustment shall be determined during each month from the formula given in the **Contract Data**. It will exclude value for works executed under variations for which rates will be worked separately based on the terms mutually agreed.
- 47.2. To the extent that full compensation for any rise or fall in costs to the Implementing Agency is not covered by the provisions of this or other clauses in the contract, the bid price shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.

48. RETENTION MONEY (SECURITY DEPOSIT)

- 48.1. The Employer shall retain 5% (five percent) of the amount of each payment due to the Implementing Agency until Completion of whole of the Project/Works to cover the cost that may be involved in removal of defects, imperfections or taking remedial measures in the work executed.
- 48.2. 50% (fifty percent) of the total amount retained shall be repaid to the Contractor after 1 (one) year (Defect Liability Period) of completion of construction of the whole of the Project/ Work as certified satisfactory by the Engineer with respect to removal of all defects, imperfections, short comings and taking remedial measures, that may be necessary and after recording of final measurements of work done, for which the certificate of the Engineer would be conclusive.
- 48.3. The remaining amount of the retained money shall be repaid when the Operation & Maintenance Period has passed, and after the Engineer has issued a Project Completion Certificate certifying that the Employer or concerned department has taken over the Works and all Defects notified by the Engineer to the Contractor before the end of this Period have been corrected.

49. LIQUIDATED DAMAGES

- 49.1. The Implementing Agency shall ensure due diligence to achieve progress of work not less than that indicated in the following milestones:

i)	On lapse of 25% contractual time	:10%
ii)	On lapse of 50% contractual time	:30%
iii)	On lapse of 75% contractual time	:65%
iv)	On lapse of 100% (full) contractual time	:100%

In case of default, the Implementing Agency shall, notwithstanding issuance of a prior notice in this regard, pay prospectively as liquidated damages an amount equal to 0.5% of the total contract value for every week of the period for which the work remains un-commenced after ten (10) days of the execution of the Contract; or the minimum progress of work stated above is not achieved, unless such default or slow progress is as a result of an event attributable to the Employer or MCA or PWD or Force Majeure.

- 49.2. In case of continued default or shortfall in progress, the Engineer-in-charge may go on enhancing the levy of liquidated damages, each time limited to 0.5% of the amount of contract per week of further default subject to maximum limit of 7.5% (seven point five percent) of the Contract value.

- 49.3. The Employer on representation from Implementing Agency and after hearing both the Engineer-in-charge and Implementing Agency may reduce the amount of liquidated damages after passing speaking orders and his decision in writing shall be final and binding.
- 49.4. If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer-in-charge shall correct any overpayment of liquidated damages by the Implementing Agency by adjusting the next payment certificate.
- 49.5. If the contractor fails to comply with the time for completion as stipulated in the tender, then the Contractor shall pay to the Employer (through the Engineer), the relevant sum stated in the Contract Data as Liquidated damages for such default and not as penalty for everyday or part of day which shall elapse between relevant time for completion and the date stated in the taking over certificate of the whole of the works on the relevant section, subject to the limit stated in the Contract Data.
- 49.6. The Engineer/ Employer may, without prejudice to any other method of recovery deduct the amount of such damages from any monies due or to become due to the Contractor. The payment of deduction of such damages shall not relieve the Contractor from his obligation to complete the works or from any other of his obligations and liabilities under the Contract.
- 49.7. If, before the Time for Completion of the whole of the Works or, if applicable, any Section, a Taking – Over Certificate has been issued for any part of the Works or of a Section, the liquidated damages for delay in completion of the remainder of the Works or of that Section shall, for any period of delay after the date stated in such Taking-Over Certificate, and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the Works or Section, as applicable. The provisions of this Sub-Clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

50. ADVANCE PAYMENT

- 50.1. The Engineer-in-charge on behalf of the Employer shall make advance payment to the Implementing Agency of the amounts upto 5% (five percent) of the Contract amount (excluding maintenance cost, if any) against provision by the Implementing Agency of an Unconditional Bank Guarantee in favour of the Employer, in a form and by a bank acceptable to the Employer in amounts and currencies equal to 110% (one hundred and ten percent) of the amount of 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. 12% (twelve percent) interest shall be charged on the advance payment.
- 50.2. The Implementing Agency is to use the advance payment only to pay for Equipment, Plant and Mobilization expenses required specifically for execution of the Works. The Implementing Agency shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Engineer-in-charge.
- 50.3. 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, or Liquidated Damages.

51. SECURED ADVANCE

- 51.1. The Implementing Agency, on signing an indenture in the form to be specified by the Engineer-in-charge, shall be entitled to be paid, during the execution of Work, upto 75% (seventy five percent) of the estimated value of any materials/ components, which, in the opinion of the Engineer-in-charge, are non-perishable and which have been procured and adequately stored against damage, but which have not been incorporated in the works at the time of making advance.

This secured advance shall be subject to the following:

- a) The materials are in accordance with the specification for Works;
- b) Such materials have been delivered to site, and are properly stored and protected against damage or deterioration to the satisfaction of the Engineer-in-charge. The Implementing Agency shall store the bulk material in measurable stacks;
- c) The Implementing Agency's records of the requirements, orders, receipt and use of materials are kept in a form approved by the Engineer-in-charge and such records shall be available for inspection by the Engineer-in-charge;
- d) The Implementing Agency has submitted with his monthly statement the estimated value of the materials on site together with such documents as may be required by the Engineer-in-charge for the purpose of valuation of the materials and providing evidence of ownership and payment thereof;
- e) Ownership of such materials shall be deemed to vest in the Employer for which the Implementing Agency has submitted an Indemnity Bond in an acceptable format; and
- f) The quantities of materials are not excessive and shall be used within a reasonable time as determined by the Engineer-in-charge.

52. SECURITIES

52.1. Performance Security

- (i) The Performance Security (including additional security for unbalanced bids) shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued for an amount and form and by a bank acceptable to the Employer and denominated in Indian Rupees. The Performance Security shall be in favour of the Employer and valid until 60 (sixty) days beyond the expiry of the Contract Period including the O&M Period. The additional security for unbalanced bids shall be valid until a date 30 (thirty) days from the issue of the Certificate of Construction Completion.
- (ii) The Bank Guarantee for Performance Security shall be unconditional and irrevocable and issued by a scheduled Bank in India in the prescribed format. The Bank Guarantee shall be got verified from the issuing bank and confirmer, if any.
- (iii) The Implementing Agency shall be responsible to maintain the validity and enforceability of the Bank Guarantee at all times during the Contract Period including any extension thereof by way of time to time renewals which shall be done at least 20 (twenty) days prior to expiry of the previous period. In the event, the Implementing Agency fails to provide the renewed Bank Guarantee for the extended period within the aforesaid time period, the Employer may claim full amount of the Performance Security. Upon such claim/ revocation, the Implementing Agency shall be liable to provide a fresh Bank Guarantee for the requisite amount.

52.2. Additional Performance Security

- (i) If the Bid, which results in the lowest evaluated bid price, is seriously imbalanced or front loaded in the opinion of the Employer, by more than or less than 25% (twenty five percent) in relation to the Employer's estimate of the cost of work to be performed under the Contract, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analysis, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased to a maximum of 20% of the bid value of such items(at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default by the successful Bidder under the Contract.
 - (ii) Without limitation to the provisions of the rest of this Sub-Clause, whenever the Engineer-in-charge determines an addition to the Contract Price as a result of a change in Cost, or as a result of a Variation of the Contract Price, the Implementing Agency shall at the Engineer-in-charge's request promptly increase the Performance security to a level of 10 percent of the increased Contract Price.
 - (iii) The Performance Security (including additional security for unbalanced bids) shall be provided to the Engineer-in-charge on behalf of the Procuring Entity no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Procuring Entity and denominated in Indian Rupees. The Performance Security shall be in favour of the Procuring Entity and valid until a date sixty (60) days pursuant to the date of expiry of the Operations & Maintenance Period and the additional security for unbalanced bids shall be valid until a date thirty (30) days from the issue of the Certificate of Construction Completion.
- 52.3. The proceeds of the Performance Security shall be forfeited and shall be payable as compensation to the Employer on happening of any of the events mentioned below:
- (i) when the Implementing Agency does not execute the agreement within the specified time, after issue of letter of acceptance/ placement of work order; or
 - (ii) when the Implementing Agency fails to commence the work within the time specified; or
 - (iii) when the Implementing Agency fails to complete the work satisfactorily within the time specified; or
 - (iv) when any terms and conditions of the contract is breached by the Implementing Agency; or
 - (v) failure by the Implementing Agency to pay the Employer any amount due, either as agreed by the Implementing Agency or determined under any of the Sub-Clauses of these Conditions, within 30 (thirty) Days of the service of notice to this effect by Engineer-in-Charge.
- 52.4. The Employer shall return the Performance Security to the Implementing Agency after completion of all obligations under the Contract, more specifically, after the expiry of 60 (sixty) days from the end of the Contract Period provided there are no outstanding claims of the Employer against the Implementing Agency.
- 52.5. In the event of the Contract being determined or rescinded due to default of the Implementing Agency, the Performance Security shall stand forfeited in full and shall be absolutely at the disposal of the Employer.

53. COST OF REPAIRS

- 53.1. Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Operation & Maintenance Period shall be remedied by the Implementing Agency at Implementing Agency's cost for any loss or damage.

E. FINISHING THE CONTRACT

54. COMPLETION

- 54.1. The Implementing Agency shall request the Engineer-in-charge to issue a Project Completion Certificate of the Completed Works and the Engineer-in-charge along with other concerned experts and concerned Engineers from Municipal Corporation Amritsar or PWD, within 30 (thirty) days of the receipt of such request, shall inspect the Work and if there is no defect in the Work (usual wear and tear excepted), the Engineer-in-charge shall furnish the Implementing Agency with such a certificate of Project completion. In the event, some defects or shortcoming or non-compliance is noticed by the Engineer-in-charge, the Implementing Agency shall be liable to repair such defects and remove the deficiencies pointed out within the period specified. In the event, the Implementing Agency fails to do so the Employer may get the works rectified at the risk and cost of the Implementing Agency. Further, the Implementing Agency shall be liable to pay Damages @ 0.02% of the Contract Price for each day of delay until the work is done.

55. TAKING OVER

- 55.1. At least 20 (twenty) days prior to completion of the Operation and Maintenance Period, the Implementing Agency may apply by notice to the Engineer-in-charge for Taking-Over Certificate for taking over the Works by Municipal Corporation Amritsar or PWD or the concerned department. If the Works are divided into sections, the Implementing Agency may similarly apply for a Taking-Over Certificate for each section of the Project Site. The Engineer-in-charge shall, after receiving the Implementing Agency's application:
- i. Issue the Taking-Over Certificate to the Implementing Agency, provided there are no defects or deficiencies; or
 - ii. Reject the application, giving reasons and specifying the work required to be done by the Implementing Agency to enable the Taking-Over Certificate to be issued. The Implementing Agency shall then complete this work before issuing a further notice under this Sub-Clause.

56. FINAL ACCOUNT

- 56.1. The Implementing Agency shall supply to the Engineer-in-charge a detailed account of the total amount that the Implementing Agency considers payable under the Contract after the end of construction/ improvement works. The Engineer-in-charge shall issue the Certificate of Development Completion and certify any final payment that is due to the Implementing Agency within 56 (fifty-six) days of receiving the Implementing Agency's account, if it is correct and complete. If it is not, the Engineer-in-charge shall issue within 56 (fifty-six) 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 Engineer-in-charge shall decide on the amount payable to the Implementing Agency and issue a payment certificate, within 56 (fifty-six) days of receiving the Implementing Agency's revised account.
- 56.2. The procedure in sub-clause 1 above shall be followed after the completion of Operations and Maintenance Period also.

57. MANUALS & REGISTERS

- 57.1. If "as built" Drawings and/ or operating and maintenance manuals are required, the Implementing Agency shall supply them by the dates stated in the **Contract Data**.

- 57.2. If the Implementing Agency does not supply the Drawings and/or manuals by the dates stated in the **Contract Data**, or they do not receive the Engineer-in-charge's approval, the Engineer-in-charge shall withhold the amount stated in the **Contract Data** from payments due to the Implementing Agency.
- 57.3. The Implementing Agency shall also furnish, if so desired by the Engineer-in-charge, the following documents duly signed by him or his authorized representatives:
- i) Variation statement showing the altered items, if any against those provided in the original drawings;
 - ii) Original site instruction book;
 - iii) Original registers for various quality control tests as specified;
 - iv) Register of consumption of all the materials.

58. TERMINATION

- 58.1. The Employer or the Implementing Agency may terminate the Contract if the other party causes a fundamental breach of the Contract. For this purpose, 14 (fourteen) days' notice in writing shall be served by either party on the other party clearly mentioning the particular grounds of Breach of Contract with a copy to the Engineer-in-charge.
- 58.2. Fundamental breaches of Contract include, but shall not be limited to the following:
- (a) the Implementing Agency stops work for 28 (twenty-eight) days when no stoppage of work is shown on the current program and the stoppage has not been authorized by the Engineer-in-charge;
 - (b) the Employer or the Implementing Agency is declared bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
 - (c) the Engineer-in-charge 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 Engineer-in-charge;
 - (d) the Implementing Agency does not maintain a security which is required;
 - (e) the Implementing Agency has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined in the **Contract Data**;
 - (f) the Implementing Agency, in the judgment of the Engineer-in-charge or the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract;
 - (g) the Implementing Agency, having been given a notice in writing by the Engineer-in-charge, fails to rectify, reconstruct or replace any defective work or continues the execution of work in an inefficient, improper, unworkmanlike manner or not in accordance with sound engineering practices or without complying with the directions and requirements of the Engineer-in-charge/ Employer or the Implementing Agency continues to be in default of its Operation & Maintenance related obligations, within a period of 10 (ten) days of the issue of said notice;
 - (h) the Implementing Agency being a company shall pass a resolution or a court shall make

an order of the effect that the company shall be wound up or if a receiver or a manager on behalf of the credit or shall be appointed or if circumstances shall arise which entitle the court of creditor to appoint a receiver or manager or to make a winding up order;

- (i) the Implementing Agency has not completed at least 30% (thirty percent) of the value of construction works required to be completed after half of the completion period has elapsed;
- (j) the Implementing Agency persistently neglects to carry out his obligations under the Contract and/ or commits default in complying with any of the terms and conditions of the Contract and does not remedy it or take effective steps to remedy it within fifteen Days after a notice in writing is given to him on that behalf by the Engineer-in-charge;
- (k) the Implementing Agency commits any acts of defaults with respect to conditions of contract.

58.3. When either party to the Contract gives notice of a breach of contract to the Engineer for a cause other than those listed under Sub Clause 58.2 above, the Engineer shall decide whether the breach is fundamental or not.

58.4. Notwithstanding the above, the Employer may terminate the Contract for convenience.

58.5. If the Contract is terminated, the Implementing Agency shall stop work immediately, make the Project Sites safe and secure and leave the Site as soon as reasonably possible.

58.6. After the termination of the Contract under this clause, the Employer shall be at liberty to get the balance work executed through some other contractual agency or through departmental means or to abandon the balance work altogether or to modify the design and scope of the work in any manner. The Implementing Agency shall have no claim against the Employer in this regard.

59. PAYMENT UPON TERMINATION

59.1. If the Contract is terminated because of a fundamental breach of Contract by the Implementing Agency, the Engineer-in-charge shall issue a certificate for the value of the work done less advance payments received upto the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less 5% (five percent) of the Contract value towards compensation for the breach of Contract. The total amount of liquidated damages and compensation for breach of Contract shall, however, be limited to 7.5% of the Contract value or the amount available with the Engineer-in-charge (in the shape of retention money, performance security and due amount of work done if any), whichever is less. The requisite amount for which the Implementing Agency may become liable shall be realized by encashing the Performance Security furnished by the Implementing Agency and/ or from other amounts due to the Implementing Agency in respect of this work.

59.2. If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Engineer-in-charge shall issue a certificate for the value of the work done. This work value shall take into account the cost of balance material, electrical components brought by the Implementing Agency and available at site, 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 Works. The advance payment received upto the date of the certificate, other recoveries due in terms of the contract and the taxes due to be deducted at source as per applicable law, shall be deducted from the work value.

59.3. No Compensation for Alteration in or Restriction in Works

If at any time after the commencement of the work the Government, for any reason whatsoever, does not require the whole Project/ Works or part thereof to be carried out, the Engineer-in-charge

shall give notice in writing of the fact to the Implementing Agency, who shall have no claim to any payment or compensation whatsoever on account of any profit or advantage, which he might have derived from the execution of the work in full, but which he did not derive in consequence of the full amount of work not having been carried out, neither shall he have any claim for compensation by reasons of any alteration having been made in the original specifications, drawings, designs and instructions, which shall involve any curtailment of the work originally contemplated.

60. PROPERTY

- 60.1. All materials on the Site, Plant, Equipment and Works are deemed to be the property of the Employer, if the Contract is terminated as per Clause 58.2 above because of Implementing Agency's default.

61. RELEASE FOR PERFORMANCE

- 61.1. 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 Engineer-in-charge 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 commitment was made.

SECTION X: CONDITIONS OF PARTICULAR APPLICATION[COPA]

1. All the Works shall be carried out as per specifications, applicable laws, good engineering practices and instructions of Engineer-in-charge.
2. Any recovery imposed by Technical Audit cell or by higher authority will be deducted from Implementing Agency's running final bills during execution of works and Operation & Maintenance Period and/ or will be adjusted from performance security if final bill is processed during Operation & Maintenance Period.
3. All the Defects appearing during execution of work will have to be rectified as directed by Engineer-in-charge within shortest possible time. During Operation & Maintenance Period, the Implementing Agency will deploy sufficient staff as mentioned in the Contract document for proper maintenance of work. If Implementing Agency fails to attend the defects within reasonable time period, the same will be got rectified by the Employer and all expense so incurred will be adjusted from performance security of the Implementing Agency.
4. The Implementing Agency will adopt PERT to complete the project in time. A detailed program and weekly working program will have to be submitted by Implementing Agency regularly.
5. Role of Consultant appointed by ASCL as per Smart City Guidelines: Notwithstanding any other provision under the Contract, the Project Management Consultant)PMC(appointed by ASCL as per the guidelines of Smart City shall be responsible for all activities as defined in Smart City guidelines including Quality & Safety.
6. The Implementing Agency is expected for innovative ideas and suggestion in design in such a way that there is no impact on the contract value and shall comply with the specification as mentioned in the tender. Implementing Agency shall take prior approval of Engineer-in-Charge before commencement of any work.
7. The Works shall not be considered to be completed for the purposes of taking-over until such operation and maintenance manuals have been submitted to the Employer's Representative for the entire system.
8. In case any operation connected with the works necessitates diversion, obstruction or closure of any road or any other right of way, the approval of the Engineer-in-charge or the Engineer's Representative and the respective competent authorities shall be obtained well in advance by the Implementing Agency. In case the Implementing Agency's operations obstruct access to adjacent properties, the Implementing Agency shall be responsible to provide reasonable temporary access to the affected parties. The Implementing Agency will also be responsible to ensure completion of his work with utmost effort in earliest possible period to ensure minimum inconvenience to the public at large. If in the opinion of the Engineer-in-Charge, the work has not been done in time and the passage way not restored satisfactorily in time, he may after giving a notice of seven days have the work done through any other agency. He will, in these circumstances, enter the work done as work done by the Implementing Agency in measurement book and pay for the same to the Implementing Agency and also recover the actual cost paid by him for the work plus 5% (five percent) of the value of this work from the payments or any other money due to the Implementing Agency.
9. During the execution of work electricity supply will be in the scope of Implementing Agency. However, during Defect Liability Period and O&M Period, cost on account of electricity consumed shall be borne by the Municipal Council Amritsar or PWD.

10. The Implementing Agency shall place order for the material and the equipment only after approval of the Engineer-in-charge. The Implementing Agency shall submit the detailed drawings to the Engineer-in-charge for approval. Provided however, the testing, approval for dispatching shall not absolve the Implementing Agency's obligations for satisfactory performance of the equipment/material.

11. Extension of Operation and Maintenance Period

The Operations & Maintenance Period may be extended for another period of 3 (three) years based on such terms as acceptable to both Parties i.e. the Contractor and the Amritsar Smart City Limited/ Amritsar Municipal Corporation.

In such an event, either Party shall notify its intention to extend the Operations & Maintenance Period at least 6 (six) months before its expiry and commence discussions with the other Party to arrive at a mutually agreed basis of terms and conditions for the extended period.

12. Good Engineering Practice

In respect of the Contractor, its subcontractors, and all other such third party agents of the Contractor, practices, methods, techniques and standards, as changed from time to time, that are generally accepted for use internationally for construction of Foot Over Bridges during construction, development, operations and maintenance, taking into account conditions in India.

SECTION XI: CONTRACT DATA

Name of the Project/Work : **Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period**

Contract Identification No. :

The Contract Data hereunder pertains to some specific, but in no way exhaustive, information on the Project/ Works. The Bidders are required to study and account for this data in conjunction to various other Sections of the Document. GCC stands for ‘General Conditions of Contract’.

CONDITIONS	REF. GCC CLAUSE	DATA			
Employer’s name and address	1.1	CHIEF EXECUTIVE OFFICER Amritsar Smart City Limited. II Floor, SCO-21, District Shopping Complex, B-Block, Ranjit Avenue, Amritsar, Punjab, Tel: 0183-5015048 E-mail : : ceoasclar@gmail.com			
Engineer-in-charge’s name and address	1.1	To be nominated later			
Defect Liability Period & Operation & Maintenance Period	1.1	Defect Liability Period: 1 (one) year from the date of issuance of Certificate of Construction Completion. It will also include operation of the works. Operation and Maintenance Period: A period of 60 (Sixty) months from the date of issuance of Certificate of Construction Completion			
Start Date	1.1	The Works shall be commenced from the date of signing of the Contract.			
Location of Site	1.1	The Site is located in Amritsar City. Section V of this document shall also be referred for exact locations.			
Intended Date of Completion	1.1 & 14	The intended completion date for the whole works is 06 (six) months after start of work.			
Additional document that also form part of contract	2.6 (h)	None			
The law and language which applies to the Contract	3.1	The Law of the Union of India and the language shall be English			
Amounts of Insurance & Deduction by Engineer-in-charge	14.1	Item	Amount to be Insured		Deductibles
		A.	Loss of or damage to the works.	10% of contract value	Deductibles for insurance

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			Plants and materials		shall be as per latest tariff of General Insurance Company of India plus 20% of premium amount for items A, B, C & D
		B.	Loss of or damage to equipments	2.5% of contract value	
		C.	Loss of or damage to property (except the works, plant, Materials, and Equipment) in Connection with the contract:	1% of contract value	
		D.	Personal injury or death	Rs. 2 lacs per occurrences for maximum three occurrences	
Project Sites	23.1	a) On GT Road outside the main branch of Shri Guru Harikrishan School, Amritsar. b) on GT Road between Putligarh Chowk and Putligarh (Ranjit Hospital) BRTS stop.			
The Period of Submission of the Program for approval of Engineer-in-charge	27	(a) 21 (twenty-one) days from the issue of Letter of Acceptance (b) updated program shall be submitted at interval of 30 (thirty) days. (c) amount to be withheld for late submission of an updated program shall be Rs. 20,000/- (Rupees Twenty Thousand only)			
Stages of Payment	43.1	80% (Eighty percent) of the CAPEX (Construction) amount incurred by the Contractor shall be payable during the implementation phase of 06 (Six) months and remaining CAPEX amount of 20% (Twenty percent) shall be payable monthly during the O&M period. The payments shall be made after making the requisite deductions as required to be made by the Employer on account of liquidated damages, retention money or otherwise in accordance with the Conditions of Contract. Payments shall be made only on the quantity of work executed which shall be verified by Engineer-in-Charge. During the implementation period, payments will only be paid when the Contractor will raise the invoice after achieving a particular milestone. The Contractor shall ensure due diligence to achieve progress of work not less			

		<p>than that indicated in the following milestones of equivalent value of Contract price percentage:</p> <p>i) On lapse of 25% contractual time :10%</p> <p>ii) On lapse of 50% contractual time :30%</p> <p>iii) On lapse of 75% contractual time :65%</p> <p>iv) On lapse of 100% (full) contractual time :100%</p> <p>OPEX (Operation and Maintenance) amount shall be payable quarterly during the O&M Period subject to satisfactory performance by the Contractor.</p> <p>Final payment will be made after successful handing over of all the sites/ sections to Municipal Corporation, Amritsar.</p>
The additional compensation events are:	44.1 (g)	<p>(i) Substantially adverse ground conditions encountered during the course of execution of work not provided in bidding document;</p> <p>(ii) Removal of underground utilities detected subsequently;</p> <p>(iii) Significant change in classification of soil requiring additional mobilization by the Contractor e.g. ordinary soil to rock excavation;</p> <p>(iv) Removal of unsuitable material like marsh, debris dumps, etc. not caused by the Contractor;</p> <p>(v) Artesian conditions;</p> <p>(vi) Seepage, erosion, landslide;</p> <p>(vii) Presence of historical, archaeological or religious structures, monuments interfering with the works;</p> <p>(viii) Restriction of access to ground imposed by civil, judicial, or military authority.</p>
The currency of the Contract	46	Indian Rupees
The formula (e) for adjustment of prices	47	No Price Adjustment is applicable on this Contract
Secured Advance	51	Not applicable
Taking Over	55	<p>Taking Over after the expiry of Operation & Maintenance Period</p> <p>55.1 Two months prior to the expiry of the Contract period, the Employer/ Municipal Corporation Amritsar (MCA) or PWD will inspect and notify the Implementing Agency, the maintenance that is required at the Project Sites for taking over in an acceptable physical conditions)physical conditions in reference to the initial physical condition at the start of O&M period, after accounting reasonable wear and tear during operation(and in fully operational condition.</p>

		<p>Notwithstanding to the notification given by Employer/ MCA/ PWD as above, the Implementing Agency shall repair, maintain and operate the Project as per the terms and conditions of this contract, till 12.00 Noon up to the date of expiry of the Contract Period.</p> <p>55.2 The Implementing Agency shall be liable to repair all defects occurred or noticed prior to the 12.00 Noon, up to the date of expiry of contract, even if the facilities are taken over by the Employer/ MCA/ PWD subsequently, due to expiry of contract period, as per Clause 55.1 above. However, the MCA/ PWD/ Employer has to notify all such defects/ liabilities of Implementing Agency within 30 days of taking over of facilities.</p> <p>53.3 On expiry of contract, the Implementing Agency shall hand over all spares, tools and for which he has been paid.</p> <p>53.4 After expiry of the Contract, the Implementing Agency shall provide two copies of the updated O&M manual. The components of communication system used during O&M period in operating condition.</p> <p>53.5 If the Implementing Agency does not comply with any of the provisions of Clause 55, or any other requirement in pursuance of good industry practices, the Engineer-In-charge shall estimate the cost of liabilities due to violation of any of the provisions of this Contract. Such estimates made by Engineer-In-Charge shall be final and binding for the Implementing Agency. However, in a reasonable endeavor, such estimates shall be communicated to the Implementing Agency, within 15 days of expiry of the Contract. The Implementing Agency shall be given an opportunity to rectify the damages through his staff/agents, or for supply of required material provided such rectification of defects on maintenance do not require any shut down of the system, within 30 days of such notification of estimates by Employer/ MCA/ PWD.</p> <p>55.6 After the date of expiry of contract and recoveries of all dues payable by the Implementing Agency, the Engineer-In-Charge shall issue a "Certificate of Taking over."</p>
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		Till the date of expiry of Contract Period, the Implementing Agency shall do all routine and periodic/ break-down maintenance as required in the O&M manual in force at the time of expiry of contract.
(i) "as built" Drawings (ii) schedule of submission of operating and Maintenance manual:	57.1	(i) On completion of work, Contractor shall submit one complete set of original tracings developed in Auto CAD, soft copy in CD in PDF as well as editable form and two prints of "Completion/As Built" Drawings (in scale as directed) to the Engineer-in-charge/ Employer. These Drawings shall be accurate and correct in all respects and shall be shown to and approved by the Engineer-in-charge. The date by which "as-built" Drawings (in scale as directed) are required is within 15 (fifteen) days of issue of certificate of completion of whole works.
The amount to be withheld for failing to supply "as built" drawings, if any, by the date required	57.2	Rs. 10,000/- (Rupees) or 1% (one percent) of the Contract amount, whichever is higher

SECTION XII – CONTRACT FORMS

- 1. Format of Letter of Acceptance**
- 2. Format of Contract Agreement**
- 3. Format of Performance Security Bank Guarantee**
- 4. Annexure A: Compliance with the Code of integrity and No Conflict of interest**
- 5. Annexure B: Declaration by the Bidder regarding Qualifications**

LETTER OF ACCEPTANCE/ Notification of Award

No.

Dated

To:

[name and address of the Successful Bidder]

Subject: **Notification of Award for** Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period; Bid Reference No. 08/ASCL/2019-20

This is to notify you that your Bid dated _____ for execution of the “Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period” bearing Bid Ref. No. 08/ASCL/2019-20 for the Accepted Contract Amount of **Rs. _____ (INR in words)**, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by Amritsar Smart City Limited and you are hereby declared as the Successful Bidder.

You, the Successful Bidder, is requested to return the duly signed and stamped duplicate copy of this Letter of Acceptance/ Notification of Award within 7 (seven) days from the date of receipt of this LoA, as a token of the receipt and acknowledgment of this LoA, and undertaking of absolute, unconditional and unqualified compliance of the conditions mentioned herein.

Further, you are requested to furnish the Performance Security for an amount of Rs. _____ (Rupees in words) in favour of “Chief Executive Officer, Amritsar Smart City Limited” within 15 (Fifteen) days of the receipt of this Letter of Acceptance/ Notification of Award, in accordance with the Conditions of Contract, using for that purpose the Performance Security Form enclosed herewith. Such Performance Security shall be valid up to 60 days beyond the expiry of the Operation and Maintenance Period.

Upon the Performance Security being furnished by you, the Successful Bidder, for the requisite amount and in the format at prescribed, Amritsar Smart City Limited shall execute the Contract Agreement with you. Accordingly, it is requested that stamp paper of appropriate value (purchased from the State of Punjab) be provided to the Amritsar Smart City Limited for the said purpose.

Chief Executive Officer
Amritsar Smart City Limited

Amritsar

CONTRACT AGREEMENT

(on non-judicial stamp paper of appropriate value)

THIS AGREEMENT made on ____ day of _____ 2019 amongst the following at Amritsar:

Amritsar Smart City Limited acting through its Chief Executive Officer, and having its office at SCO, 21, 2nd Floor, Distt. Shopping Complex, B-Block, Ranjit Avenue, Amritsar, Punjab (hereinafter “the Employer” which expression unless repugnant to the context includes its successors, representatives and permitted assigns);

AND

_____ acting through _____ and having its office at _____ (hereinafter “the Contractor” which expression unless repugnant to the context includes its successors, legal heirs, representatives and permitted assigns).

The Employer and Contractor are hereinafter referred to individually as a Party and collectively as the Parties.

WHEREAS

- A. the Employer desires that the Works known as **Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period** (the “Project”) should be executed by the Contractor, and has officially accepted the Bid dated _____ by the Contractor for the execution and completion of the Works forming part of the Project as per the terms of the RFP and the Conditions of Contract (GCC & PCC);
- B. Notification of Award bearing no. _____ dated _____ has been issued by Employer and in pursuance of the same, the Contractor has furnished Performance Security in the form of Bank Guarantee for an amount of Rs. _____ (Rupees in words) in favour of Chief Executive Officer, Amritsar Smart City Limited, Amritsar;

Now the Parties 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. The obligations of the parties towards each other mentioned in the following documents shall be construed to be arising under this Agreement. This Agreement shall prevail over all other Contract documents:
 - (a) Letter of Acceptance
 - (b) Notice to proceed with the works, if any
 - (c) Bidding Document (Request for Proposal)
 - (d) Contractor’s Bid (Technical Part & Financial Part)
 - (e) Addendum, Corrigendum & Clarifications, if any

- (f) Contract Data
 - (g) Special Conditions of Contract
 - (h) General Conditions of contract
 - (i) Specifications
 - (j) Drawings
 - (k) Bill of Quantities
 - (l) Payment Schedule and
 - (m) Any other document listed in the Contract Data / PCC as forming part of the contract
3. In consideration of the payments to be made by the Employer to the Contractor as specified in this Agreement, the Contractor 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 shall not be liable to the Contractor under this Agreement for any loss of profit, loss of revenue or any other indirect or remote or consequential damages that may be suffered by the Contractor. Further, the Contractor shall not be entitled for any interest from Employer for any payment delayed for reasons, whatsoever may be.
5. The Employer hereby covenants to pay the Contractor 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.
6. The Contractor shall execute the work as per the terms, conditions, designs and specifications given by the Employer. After successful completion of the Project including the Operation and Maintenance Period, the Contractor shall co-ordinate with the concerned department viz. Municipal Corporation, Amritsar or PWD for Taking Over of Project in accordance with the RFP (Taking Over of Works and Sections).

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of India on the day, month and year specified above.

Signed by:

Signed by:

For and on behalf of the
Employer:

For and on behalf of the
Contractor:

In the presence of:

Witness 1.:

Witness 2.:

BANK GUARANTEE FORM FOR PERFORMANCE SECURITY

To,

Beneficiary: Chief Executive Officer
Amritsar Smart City Limited,
SCO 21, 2nd Floor,
Distt. Shopping Complex,
B-Block, Ranjit Avenue,
Amritsar

Performance Guarantee No.:

WHEREAS M/s (name and address) (hereinafter called the “Contractor”) has undertaken to execute **Design and Construction of two Foot Over Bridges in Amritsar City under Smart City Mission with 05 (five) years of Operation & Maintenance including 01 (one) year of Defect Liability Period** (name of Contract and brief description of Works) (hereinafter called the “Contract”) vide Letter of Acceptance/ Notification of Award No. _____ dated _____.

AND WHEREAS it has been stipulated by you in the said Letter of Acceptance/ Notification of Award that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the obligation in accordance with the Contract.

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee.

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, upto a total of Rs. (amount of guarantee) _____ (Rupees in words) such sum being payable in the types and proportions of currencies in which the Contract Price is payable. And we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of Rs. (amounts of guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the Contractor of the works to be performed thereunder or of any of the contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee and where by waive notice of any such change, addition of modification.

That Guarantee shall be valid until 60 (sixty) days from the date of expiry of the Operation and Maintenance Period.

Signature and seal of the Guarantor

Name of Bank

Address

Dated

Annexure A: Compliance with the Code of integrity and No Conflict of interest

Any person participating in a procurement process shall –

- a. Not offer any bribe reward or gift or any material benefit either directly or indirectly in exchange for an unfair advantage in procurement process or otherwise influence the procurement process;
- b. Not misrepresent or omit that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
- c. Not indulge in any collusion, Bid rigging or anti-competitive behaviour to impair the transparency, fairness and progress of the procurement process;
- d. Not misuse any information shared between the procuring entity and the Bidders with an intent to gain unfair advantage in the procurement process;
- e. Not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
- f. Not obstruct any investigation or audit of a procurement process;
- g. Disclose conflict of interest, if any; and
- h. Disclose any previous transgressions with any entity in India or any other country during the last three years or any debarment by any other procuring entity at state, National and International Level.

Conflict of interest:

The Bidder participating in a bidding process must not have a conflict of interest.

A Conflict of interest is considered to be a situation in which a party has Interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with palpable laws and regulations.

A Bidder may be considered to be in conflict of interest with one or more parties in a bidding process if , including but not limited to :

- a. Have controlling partners/shareholders in common; or
- b. Receive or have received any direct or indirect subsidy from any of them; or
- c. Have the same legal representative for purposes of the Bid; or
- d. Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the procuring Entity regarding the bidding process; or
- e. The Bidder participates in more than one Bid in a bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the Bidder is involved. However, this does not limit the inclusion of the same subcontractor, not otherwise participating as a Bidder in more than one Bid; or

Construction of two Foot over Bridges under Smart City Mission

- f. The Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Goods, works or services that are the subject of the Bid; or
- g. The Bidder or any of its affiliates has been hired)or is proposed to be hired(by the procuring Entity as engineer-in-charge/consultant for the contract.

Signature of Tenderer with seal

Annexure B: Declaration by the Bidder regarding Qualifications

Declaration by the Bidder

1. I/ We, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm M/s _____ have abandoned any work under Government of India or Govt. of Punjab nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.
3. The undersigned hereby authorize(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.
4. The undersigned understand(s) and agree (s) that further qualifying information may be requested and agrees to furnish any such information at the request of the Departmental / Project implementing agency.
5. The under signed are not debarred for contract work by Govt. of Punjab or any other Agency of Government of India or any of the State Governments at present. Or the undersigned was debarred for contract work by for a period of and have completed my/our term.
6. The undersigned has never been convicted by any court of law for any of the offences under any Indian/ foreign laws.

(Signed by an Authorized Signatory of the Bidder)

Designation :

Name of Bidder :

Stamp of the Bidder :

Place :

Date :

PREAMBLE TO BILL OF QUANTITIES & PRICES

1.0 Preamble to Financial BID

1.1 Introduction

The bill of quantities shall be read in conjunction, with the instructions to Bidders, Conditions of Contract, Technical Specifications and Drawings.

A(The Bidder shall quote his offer/rates for the Work under this package in the BOQ downloaded from web site only and rates quoted on other BOQ or on old BOQ)if any(shall not be considered. The Bidders are advised to up load the financial bid on latest BOQ downloaded from Web site.

B(Unless stated otherwise, all rates entered in the Bill of quantities shall be deemed to include the following:

)a(Labour and all costs in connection with the execution, completion, testing and commissioning of the work.

)b(The supply of materials, goods, storage and all costs in connection there with including wastage, shrinkage and delivery to Site.

)c(Item of Excavation, dismantling of old Plaster, Bituminous & Granular Courses & CC pavements and Road Restoration shall be measured net as per drawings and no allowance will be made for wastage, working space, bulking or shrinkage, overlaps, re-handling and the like.

)d(Plant, equipment and all costs in connection there with.

)e(Sampling and testing materials and goods, testing workmanship, providing, storing, packing and transporting samples to and from the place of testing.

)f(Fixing, erecting, installing or placing of materials and goods in position.

)g(Disposing of surplus and unsuitable materials and goods and excavated materials, including stacking, storing, loading, transporting and unloading.

)h(All Temporary Works

)i(Construction and maintenance of temporary access roads within the Site and of any roads required for access to any part of the Site for the purpose of carrying out the Works, taking into account that the access roads under the Contractor's maintenance control will also be used by the Procuring Entity and his staff's vehicles.

)j(Construction, maintenance and removal, if required, of temporary Site drainage on the Site, and for ensuring that all drains are kept clear of debris and blockages at all times.

)k(All general obligations, liabilities and risks involved in the execution and maintenance of the Works set forth or reasonably implied in the documents on which the Tender is based.

)l(Establishment charges, overheads and profits.

)m(Co-operating with other contractors if required.

The bidder shall enter rates in G/H schedules for the whole work as mentioned in Bid documents.

Abbreviations used in Bill of quantities and Rates have the meanings shown below.

mm Millimeter, cm Centimeter, WBM Water bound Macadam road, m Meter IRC Indian Road Congress, Km Kilometer CC Cement Concrete, Sqm Square Meter CM Cement Mortar, Cum Cubic

Meter, SFRC Steel Fiber Reinforced Concrete, MT Metric Tones MORTH Ministry of Shipping Road Transport And Highways, SWG Standard Wire Gauge BOQ Bill of Quantity and Prices, RM Running Meter, No. Numbers, CI Cast Iron, MS Mild Steel, RCC Reinforced Cement Concrete, Wt Weight, Kg Kilogram, L.S Lump sum, Dia Diameter, SW Storm water, GMS Galvanized Mild Steel, DI Ductile Iron

2.0 GENERAL

2.1 The Contractor shall be deemed to have read and examined the Tender Documents before quoting the **PERCENTAGE** below/ above or at par based on the Bill of Quantities and item wise rates given therein in all respects and in accordance with the specifications, designs, drawings and instructions in writing in all respects in accordance with such conditions so far as applicable. The Drawings, Specifications, Schedules etc. are to be considered as explanatory of each other and no advantage shall be taken of any omission in tender documents.

2.2 The Contractor shall be deemed to be fully conversant with and to have made full allowance in his Tender for the site conditions, the nature and complexity of the work to be undertaken, the other extensive development and construction work currently being or which may be executed on and around the Site and all changes in the nature and condition of the Site from that existing at the time of Tender.

2.3 The key rates quoted in the schedule shall be the all-inclusive value for the work described in tender document and be deemed to include for all the Contractor's liabilities and obligations and all risks set forth or implied in the document and all matters and things necessary for the proper construction, of the Works including setting out, plant, labour, supervisor, materials, erection, maintenance, insurance, profit, taxes and duties together with all general risks liabilities and obligations set out or implied in the Contract.

2.4 Classification of soil/rock for payment shall be based on onsite geo-technical investigations by Geological survey of India)GSI(.

2.5 Disposal of all excavated material shall be including of all lead and lift and re-handling to disposal point as directed by ENGINEER IN CHARGE.

2.6 The Maintenance charges have been fixed per year and indicated in the BOQ. The contractor has to carry out Maintenance for 1st year after taking over certificate without any cost during Defect Liability Period.

2.7 Items Incidental to Work:

Following is the list of items)Indicative Only(incidental to work which are to be executed by Contractor but no separate payment shall be made. This also includes any material, equipment, appliances and incidental work not specifically mentioned herein or noted on the Drawings/Documents as being furnished or installed, but which are necessary and customary to be performed under this contract.

S. No Items Incidental to Work)Indicative Only(

- i. All topographic surveys
- ii. As built drawings
- iii. Traffic diversions arrangements
- iv. Project Staff and manpower
- v. Project Office and Laboratory
- vi. Construction safety equipments
- vii. Environmental and social safeguard compliances

Any other item necessary and customary to be performed under this contract.