RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra for Nashik Smart city Mission, Nashik Maharasthra.



# **TENDERDOCUMENT**

Particulars	Details
Client	Nashik Municipal Smart City Development Corporation Limited
Project Name	RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
Cost of BlankTender Form	[Rs.5,000/- (Five Thousand only) + Rs 90/- (Rupees Ninety only) + 9% SGST + 9% CGST
<b>Estimated Cost</b>	INR 19,08,39,079/- (Rupees Nineteen Crore Eight Lakh ThirtyNine Thousand and Seventy Nine Only)
Bid Security/Earnest Money Deposit	INR 9,54,000/- (Nine Lakh Fifty four Thousand Four Hundred Only)
Performance Security	INR 19,08,000/-(Rupees Ninteen Lakh Eight Thousand Only)
Document Issue Date	04/02/2019
Document Number	Document No.: MAH-NAS-053

## **Nashik Municipal Smart City Development Corporation Limited**

Panditrao Khaire Panchvati Divisional Office, Nashik Municipal Corporation, Makhmalabad Naka, Panchavati, Nashik - 422003

## February 2019

Contractor	Chief Executive Officer
	Nashik Municipal Smart City Development Corporation Limited $1\mid P$ a $g$ $e$

Document No.:MAH-NAS-053-RFP

#### TENDER NOTICE

Online digitally signed Bids in 'B1' Form(item rate) for the below mentioned work is invited by NMSCDCL from the Bidders. The Tender Document is available on the website <a href="https://mahatenders.gov.in">https://mahatenders.gov.in</a>

1	Project Name	RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
2	Estimated cost	INR19,08,39,079/- (Rupees NineteenCrore EightLakh Thirty NineThousand and Seventy NineOnly)
3	Cost of Blank Bid form/ TD Fee (Non-Refundable)	Rs. 5,000/- (Rupees Five Thousand only) + Rs. 90/- (Rupees Ninety only) + 9% CGST + 9% SGST per set (Tender Document can only be downloaded from https://mahatenders.gov.in using credit card/ debit card / net banking)
4	Period of Contract	Refer the table A below
5	NMSCDCL Contact Details	Nashik Municipal Smart City Development Corporation Limited 4rth Floor, Panditrao Khaire Panchvati Divisional Office, Nashik Municipal Corporation, Makhmalabad Naka, Panchavati, Nashik Email: pmc@nashiksmartcity.in
6	Bid Validity Period	The Bid shall remain valid for a period of 120 (one hundred and twenty) days from the Bid Deadline
7	Bid Security/Earnest Money Deposit	INR 9,54,000/- (Nine Lakh Fifty Four Thousand Only)to be deposited online using credit card/ debit card/ net banking at https://mahatenders.gov.in

Contracto

RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra for Nashik Smart city Mission, Nashik Maharashtra.



## **Nashik Municipal Smart City Development Corporation Limited (NMSCDCL)**

No.: NMSCDC/1290/2019 Date: 04/02/2019

E-Tender no. 22

Nashik Municipal Smart City Development Corporation Limited (NMSCDCL) invites bids to execute the following work.

Sr. No.	Name of work	Cost of blank tender from (in INR to be paid online only)	Earnest Money Deposit	Duration of Work	Tender Publishing Date	Tender form Availability Date	Pre-Bid meeting	Last date of tender form availability	Last date of online submission	Technical Envelope opening Date
1	RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra	Rs. 5000/- + Rs. 90/- + CGST (9%) + SGST (9%)	Rs. INR 9,54,000/-	18 months (including monsoon)	04/02/2019 03:00 PM	04/02/2019 03:00 PM	15/02/2019 03:00 PM	28/02/2019 03:00 PM	28/02/2019 03:00 PM	01/03/2019 05:00 PM

<sup>\*-</sup> Online Payment mode via Net banking through mahatenders portal

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The blank tender forms would be available on <a href="www.mahatenders.gov.in">www.mahatenders.gov.in</a>. The bidder shall register themselves on Nashik Municipal Corporation (NMC) e-tendering website well in advance to the bid submission date.

The bidder shall submit its ENVELOPE- A (Tender Fee, EMD and Pre-Qualification details as per RFP), ENVELOPE- B (Financial Bid) in the prescribed format online as provided in detailed tender notice.

The Financial Bid (ENVELOPE- B) shall be opened subsequently of Bidders who have qualified under the Pre-Qualification bid.

Rights to reject any or all tenders without assigning any reasons thereof are reserved by Competent Authority of Nashik Municipal Smart City Development Corporation Limited(NMSCDCL) and whose decision will be final and legally binding on all the bidders.

Sd/-

Chief Executive Officer

Nashik Municipal Smart City Development Corporation Limited.

Contractor

RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra for Nashik Smart city Mission, Nashik Maharashtra.

#### Table A

Name of work	Construction Period
Installation of pneumatically operated automated	18 (Eighteen) months with 3 years of
mechanical gates	Comprehensive O&M commencing
	from date of the issuance of the
	Completion Certificate.

#### SCHEDULE OF BIDDING PROCESS

S. No.	Particulars	Date and Time
1.	Period of availability of the	From 04/02/2019, 15:00 hrs.
	Bidding Document on Web Site	To 28/02/2019, 15:00 hrs.
2.	Last date and address for	Date:15/02/2019 Time: 15:00hrs.
	submission of letters seeking	Email ID: pmc@nashiksmartcity.in
	clarifications or suggest	Address:
	amendments to RFP in writing	NMSCDCL Office,
		Rajiv Gandhi Bhavan, NMC,
		Nashik-422001
3.	Time and date of Pre-Bid	Date: 15/02/2019, Time: 15:00hrs.
	Conference	
4.	Last date and time for Online	Date: 28/02/2019 Time: 15:00 hrs.
	Receipt of Bids	
5.	Date and time for physical/ hard	Date: 01/03/2019 Time: 14:00 hrs.
	copy receipt of Bids	
6.	Time and date of opening of	Date: 01/03/2019, Time: 15:00 hrs.
	Envelope A (Bids will be opened	
	Online by the authorized officers)	
7.	Time and date of opening of	To be intimated separately to the
	Envelope B- Financial Bids (Bids	technically qualified bidders
	will be opened online by the	
	authorized officers)	
8.	Officer inviting Bids	Chief Executive Officer, Nashik
		Municipal Smart City Development
		Corporation Limited

#### **Notes:**

- The changes/ corrigendum, if any will only be published on <a href="https://mahatenders.gov.in">https://mahatenders.gov.in</a>.
- Right to reject any or all Bids without assigning any reasons thereof arereserved by NMSCDCL.
- The Bids shall be accepted through hard copy as well as soft copy in the prescribed format as provided in Clause 2.12 and Clause 2.13.
- All requisite information required for the submission of documents is available in the aforementioned website.
- For any queries related to the Bidding Documents, please contact NMSCDCL.

# **Chief Executive Officer NMSCDCL**

Contractor Chief Executive Officer

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RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra for Nashik Smart city Mission, Nashik Maharashtra.

#### **GLOSSARY**

The words and expressions beginning with capital letters and defined in this document shall, unless repugnant to the context, have the meaning ascribed thereto herein:

ABD	Area Based Development
Addendum	As defined in clause 2.9.1
Associate	As defined in clause 2.2.1 (d)
Bids	As defined in Disclaimer
Bidders	As defined in clause 2.2.1
Bid Document Fee	Means the fee to be submitted by the Bidder for downloading the RFP from the website
Bid Due Date	As defined in clause 1.1.7 and 2.14
Bid Price	As defined in clause 1.2.5
Bid Security	As defined in clause 1.2.3
<b>Bidding Documents</b>	As defined in clause 1.1.7
<b>Bidding Process</b>	As defined in clause 1.2.1
Conflict of Interest	As defined in clause 2.2.1 (d)
Construction Period	Means, as the case may be, the period of:  1 (one) yearfrom the date of issuance of the Work Order for installation of pneumatically operated automated mechanical gates, as set out in Appendix X of the RFP.
Contract Agreement	As defined in clause 1.1.4 and as set forth in Appendix XIII of the RFP
Defect Liability Period	Means a period of 3(three) year from the date of issue of completion certificate from appropriate authority mentioned in the Cotract Agreement
Effective Date	Means the date on which the Work Order is issued in favour of the selected Bidder

<b>Estimated Project Cost</b>	INR 19,08,39,079/- (RupeesNineteen Crore Eight Lakh Thirty Nine Thousand and Seventy Nine Only) as set out in Clause 1.1.4
Final Project Cost	Means the Final Project Cost agreed upon in the Contract Agreement under Appendix XIII between the Selected Bidder and NMSCDCL
Financial Bid	Means the Price Bid submitted online in accordance with Appendix VI by the Bidder in accordance with in clause 2.12.2of this RFP
Financial Capacity	As defined in clause 2.2.2(C)
Implementation Plan	Means the implementation plan, prepared by the Contractor, consisting of quality assurance plant, safety plan, traffic management plan and such other plan(s) as may be required by NMSCDCL for undertaking this Project by the Contractor.
L1 Bidder	As defined in clause 2.22.3
LOA	As defined in clause 2.22.6
Performance Security	As defined in clause 2.28
Qualified Bidder	Means such Bidder whose Pre-Qualification Bid is responsive in accordance with clause 2.20 and who fulfills the Technical Criteria and the Financial Criteria as set out in the RFP
NMC	Means Nashik Municipal Corporation
NMSCDCL	Means Nashik Municipal Smart City Development Corporation Limited
O&M Period	Means the period of 3 years applicable in the manner as set forth in this RFP
Project	Means:  Construction, testing and commissioning including O&M Period for installation of pneumatically operated automated mechanical gates and related works at Nashik, Maharashtra as set out in Appendix X

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	The Bidder shall engage with a Technology Partner as per the technical specifications provided in Appendix XI of this RFP
Selected Bidder	Means the L1 Bidder or the Qualified Bidder, as the case may be (refer clause 2.22) selected by NMSCDCL pursuant to this RFP for implementation of this Project and to whom LOA is issued
Technical Capacity	As defined in clause 2.2.2(B)
Technology	As defined in clause 1.1.3
Technology Partner	Means the OEM for mechanical gate as per the technological specifications provided in Appendix XI of this RFP

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#### **DISCLAIMER**

- 1. This RFP is not an agreement and is neither an offer nor invitation by NMSCDCL to the prospective Bidders or any other person. The information contained in this Request for Proposal document ("RFP") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of the NMSCDCL or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP and the Bidding Documents.
- 2. The purpose of this RFP is to provide interested parties with information that may be useful to them in submitting their bids pursuant to this RFP ("Bids"). This RFP includes statements, which reflect various assumptions and assessments arrived at by NMSCDCL in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that each Bidder may require. This RFP may not be appropriate for all persons, and it is not possible for NMSCDCL or its employees or advisors to consider the objectives, financial situation and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in the Bidding Documents, may not be complete, accurate, adequate or correct. Each Bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this RFP and obtain independent advice from appropriate sources.
- 3. Information provided in this RFP to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. NMSCDCL accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.
- 4. While due care and adequate measures have been taken in preparation of this RFP, NMSCDCL, its employees and advisors make no representation or warranty and shall have no liability to any person, including any applicant or Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way for participation in this Bidding Process.
- 5. NMSCDCL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumptions contained in this RFP. The issue of this RFP does not imply that NMSCDCL is bound to select a Bidder or to appoint the Selected Bidder or the Contractor, as the case may be, for the Project and NMSCDCL reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

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- 6. The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by NMSCDCL or any other costs incurred in connection with or relating to its Bid. All such costs and expenses shall remain with the Bidder and NMSCDCL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Bidding Process.
- 7. The Bidders are prohibited from any form of collusion or arrangement in an attempt to influence the selection and award process of the Bid. Giving or offering of any gift, bribe or inducement or any attempt to any such act on behalf of the Bidder towards any officer/employee of the NMSCDCL or to any other person in a position to influence the decision of NMSCDCL for showing any favour in relation to this RFP or any other contract, shall render the Bidder to such liability/penalty as NMSCDCL may deem proper, including but not limited to rejection of the Bid of the Bidder and forfeiture of its Bid Security.
- 8. Laws of the Republic of India are applicable to this RFP.
- 9. Each Bidder's procurement of this RFP constitutes its agreement to, and acceptance of, the terms set forth in this Disclaimer. By acceptance of this RFP, the recipient agrees that this RFP and any information herewith supersedes documents(s) or earlier information, if any, in relation to the subject matter hereto.

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#### **SECTION 1: INTRODUCTION**

#### 1.1 **Background**

- 1.1.1. Nashik is one of the 100 cities shortlisted for smart cities development in India and was ranked 11th in the second round of the smart cities challenge. The Smart City Challenge required cities to develop a proposal for the development of city in two components:ABD(developing a specific area in the city) and pan city initiative. Nashik Municipal Corporation has several initiatives on-going including the mission projects of Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Swacch Bharat Mission (SBM), Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and Smart City. Nashik Municipal Corporation has formed a special purpose vehicle Nashik Municipal Smart City Development Corporation Limited for overall management of the projects under Smart City Mission (SCM).
- 1.1.2. As part of the SCM, NMSCDCL has decided to carry out and undertake the Projectand has decided to carry out the Bidding Process for selection of a Contractor to whom the Project may be awarded.
- 1.1.3. The scope of work of the Project details of which are set out in AppendixX:

Installation of pneumatically operated automated mechanical gatesand related works at Nashik, Maharashtra: construction, testing and commissioning including O&M Period for Installation of pneumatically operated automated mechanical gatesand related works at Nashik, Maharashtra.

- 1.1.4. The Selected Bidder shall work with the technology partner havingthe technology of the OEM mechanical gate as per the specifications provided in Appendix XI of this RFP and shall be responsible for engineering, procurement and construction of the Project under and in accordance with the provisions of the agreement as set out in Appendix XIII ("Contract Agreement") to be entered into, between the Contractor and NMSCDCL in the form provided by NMSCDCL as part of the Bidding Documents pursuant hereto. The Contract Agreement shall set forth the detailed terms and conditions for undertaking the Project.
- 1.1.5. The estimated cost of the Project is INR 19,08,39,079 /-(Rupees Nineteen Crore Eight Lakh Thirty Nine Thousand and Seventy Nine Only). The estimated cost of each part of the Project is as follows:
  - (a) The assessment of actual costs, however, will have to be made by the Bidders. A broad overview of the indicative statement of work, dimensions, quantitative and other details in relation to the Scope of Work as set out in Appendix X are set out in Appendix XII ("Bill of Quantities").
  - (b) Further, conceptual drawings of the Project are set out in Appendix XV.
  - 1.1.6. The statements and explanations contained in this RFP are intended to provide a better understanding to the Bidders about the subject matter of this RFP and should not be construed or interpreted as limiting in any way or manner the scope of work and obligations of the Contractor set forth in the Contract Agreement or NMSCDCL rights to amend, alter, change,

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- supplement or clarify the scope of work, the work to be awarded pursuant to this RFP or the terms thereof or herein contained. Consequently, any omissions, conflicts or contradictions in the Bidding Documents including this RFP are to be noted, interpreted and applied appropriately to give effect to this intent and no claims on that account shall be entertained by NMSCDCL.
- 1.1.7. NMSCDCL shall receive Bids pursuant to this RFP in accordance with the terms set forth in this RFP and other documents including the Contract Agreement and its annexures to be provided by NMSCDCL pursuant to this RFP, as modified, altered, amended and clarified from time to time by NMSCDCL (collectively the "Bidding Documents"), and all Bids shall be prepared and submitted in accordance with such terms on or before the Bid Due Date specified in this RFP for submission of Bids ("Bid Due Date").
- 1.1.8. Unless the context otherwise requires, the terms not defined in this RFP, but defined in the Contract Agreement shall have the meaning assigned thereto in the Contract Agreement. Further, notwithstanding anything to the contrary contained in this RFP, the detailed terms specified in the Contract Agreement shall have an overriding effect; provided, however, that any condition or obligation imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Contract Agreement.

#### 1.2 **Brief Description of Bidding Process**

- NMSCDCL has adopted a single stage-two-partbidding process (collectively referred to as 1.2.1. the "Bidding Process") for selection of the Bidder for award of the Project. Under this process, the eligibility and qualification of the Bidder will be first examined based on the details submitted under first part Envelope A- Pre-Qualification Bid with respect to the Technical Capacity and the Financial Capacity as set out in this RFP. Prior to making an application, the Bidder shall pay to NMSCDCL a sum of Rs. 5,000 /- (Five Thousand only) + Rs 90/- (Rupees Ninety only) + 9% SGST + 9% CGST as the cost of the Bidding Documents ("Bid Document Fee"). The Financial Bid under the second part shall be opened only for theQualified Bidders who's Pre-Qualification Bids are responsive in accordance with clause 2.2to eligibility and qualifications requirements as per this RFP. Government of India has issued guidelines (see Appendix-IX of the RFP) for qualification of bidders seeking to acquire stakes in any public-sector enterprise through the process of disinvestment. The guidelines shall apply mutatis mutandis to this Bidding Process. NMSCDCL shall be entitled to disqualify a Bidder in accordance with the aforesaid guidelines at any stage of the Bidding Process. The Bidders must satisfy themselves that they are qualified to Bid and should give an undertaking to this effect in the form at Appendix-V.
- 1.2.2. The Bidding Documents include the Contract Agreement for the Project as set out in Appendix XIII. The aforesaid documents and any addenda issued subsequent to this RFP will be deemed to form part of the Bidding Documents.
- 1.2.3. A Bidder is required to deposit, along with its Bid, an amount of INR 9,54,000/- (Nine Lakh Fifty Four Thousand Only) ("Bid Security"), refundable after signing of the Contract Agreement with the Selected Bidder or after 120 (One Hundred and Twenty) days from Bid Due Date, whichever is earlier. In the case of the Selected Bidder its Bid Security shall be

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- retained till the Selected Bidder has provided the Performance Security within 15 (fifteen) days of issuance of the LOA.
- 1.2.4. Bidders are advised to examine the Project in greater detail, and to carry out, at their cost, such studies as may be required for submitting their respective Bids for award of the Project.
- 1.2.5. Bids are invited for the Project on the basis of the lowest evaluated bid value for a Bidder implementing the Project ("Bid Price) determined as per clause 2.22.3. The Bidder should quote the Bid Priceafter carefully studying the Bidding Document and duly taking into consideration:
  - Construction Period (a)
  - (b) Comprehensive O&M Period of 3 (three) years
- 1.2.6. The remaining Qualified Bidders shall be kept in reserve and may, in accordance with the process specified in the RFP, be invited to match the Bid submitted by the SelectedBidder in case such Selected Bidder withdraws, is not selected for any reason or is terminated by NMSCDCL for noncompliance or breach of any term of the RFP document (including the GCC, SCC and LOA). In the event that none of the other Qualified Bidders match the Bid of the L1 Bidder, NMSCDCL may, in its discretion, invite fresh Bids from the remaining Qualified Bidders or annul the Bidding Process, as the case may be.
- 1.2.7. Any queries or request for additional information concerning this RFP shall be submitted in writing or by fax and e-mail to NMSCDCL in the format as set out in Appendix VII of this RFP. The envelopes/ communication shall clearly bear the following identification/title:

"Queries/Request for Additional Information: RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra"

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#### **SECTION 2:**

#### 2. Instructions to Bidders

#### A. GENERAL

#### 2.1 Scope of Bid

NMSCDCL intends to receive Bids for selection of experienced and capable Contractor to execute the worksas set out in Appendix X of this RFP. It is clarified that consortium is allowed to participate in this Bidding Process.

## 2.2 Eligibility of Bidders

- 2.2.1 For determining the eligibility of Bidders for their qualification hereunder, the following shall apply:
  - (a) Any Entity may submit its Bid as Bidder in accordance the terms of this RFP.
  - (b) The Bidder for qualification may be a single Entity or a group of Entities (the "Consortium"), coming together to implement the Project. However, no Bidder applying individually or as a Member, as the case may be, can be a member of another Consortium. The term 'Bidder' used herein would apply to both a single Entity and a Consortium.
  - (c) A Bidder can be a Partnership Firm formed under Indian Partnership Act 1932/ a Company incorporated under the Companies Act 1956 / 2013 or a Limited Liability Partnership incorporated under the Limited Liability Partnership Act, 2008 or any combination thereof with a formal intent to enter into an agreement to form a Consortium. A Consortium shall be eligible for consideration subject to the following requirements:
    - (i). number of members in a consortium shall not exceed 3 (three)i.e. Lead Bidder + Consortium Members;
    - (ii). subject to the provisions of sub-clause (i) above, the Bid should contain the information required for each member of the Consortium;
    - (iii). the Member purchasing the tender document will be the Lead Member (the Lead Member);
    - (iv). the Bid should include a brief description of the roles and responsibilities of individual Members of the Consortium; (for the purpose of meeting the qualification criteria, the Consortium Member)
    - (v). An individual Bidder cannot at the same time be member of another Consortium applying for qualification. Further, a member of a particular Consortium cannot be member of any other Consortium;
    - (vi). Members of the Consortium shall enter into a bindingConsortium Agreement, substantially in the form specified at Appendix IIB ("Consortium Agreement"), for the purpose of submitting a Bid. The Consortium Agreement, to be submitted along with the Bid, shall, *inter-alia*:

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- (vii). the Consortium Agreement shall clearly outline the proposed roles and responsibilities of each Member in relation to the Scope of Work as set out in Appendix X;
- (viii). a Power of Attorney by the Consortium Member in favour of the Lead Bidder in accordance Appendix IIA with authorizing him to submit the Bid, receive communications, submit documents and do all such acts, for and on behalf of, such member of the Consortium as may be necessary for submission of their Bid
  - (ix). include a statement to the effect that all Members shall be liable jointly and severally for all obligations of the Contractor in relation to the Project until the completion of the Project; and except as provided under this RFP and the Bidding Documents, there shall not be any amendment to the Consortium Agreement without the prior written consent of NMSCDCL.
- (d) A Bidder shall not have a conflict of interest (the "Conflict of Interest") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of such disqualification, the Authority shall forfeit and appropriate the Bid Security or Performance Security, as the case may be. The Bidder acknowledges and agrees that such forfeiture and appropriation of the Bid Security or Performance Security (as the case may be) is reasonable and represents the mutually agreed genuine pre-estimated loss and damages likely to be suffered and incurred by the Authority for, *inter alia*, the time, cost and effort of the Authority, including consideration of such Bidder's proposal (the "Damages") and not by way of penalty. The Bidder acknowledges and agrees that such forfeiture and appropriation of the Bid Security or Performance Security (as the case may be) is without prejudice to any other right or remedy that may be available to the Authority hereunder or otherwise. Without limiting the generality of the above, a Bidder shall be considered to have a Conflict of Interest that affects the Bidding Process, if:
  - any Bidder or its Member (or any constituent thereof) have common (i). controlling shareholders or other ownership interest; provided that this qualification shall not apply in cases where the direct or indirect shareholding of a Bidder or its Member thereof (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the paid up and subscribed share capital of such Bidder or Member, as the case may be) in the other Bidder(s) or its Member is less than 5% (five per cent) of the paid up and subscribed equity share capital thereof; provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in section 2(72) of the Companies Act 2013. For the purposes of this Clause 2.2.1(d), indirect shareholding held through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding

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- of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the shareholding of such person in the intermediary is less than 26% (twenty six per cent) of the subscribed and paid up equity shareholding of such intermediary; or
- (ii). a constituent of such Bidder is also a constituent of another Bidder in the Project; or
- (iii). such Bidder or its Member thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder or its Member or Associate, or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder or its Member or Associate; or
- (iv). such Bidder has the same legal representative for purposes of this Bid as any other Bidder; or
- (v). such Bidder thereof has a relationship with another Bidder or any Associate thereof, directly or through common third parties, that puts them in a position, to have access to each other's information about, or to influence the Bid of the other Bidder; or
- (vi). such Bidder has participated as a consultant or sub-consultant to NMSCDCL in the preparation of any documents, design or technical specifications of the Project; or
- (vii). such Bidder shall be liable for disqualification and forfeiture of Bid Security if any legal, financial or technical adviser of NMSCDCL in relation to the Project is engaged by the Bidder, its Member or any Associate thereof, as the case may be, in any manner for matters related to or incidental to the Project during the Bidding Process or subsequent to the (i) issue of the LOA or (ii) execution of the Contract Agreement. In the event any such adviser is engaged by the Selected Bidder or the Contractor, as the case may be, after issue of the LOA or execution of the Contract Agreement for matters related or incidental to the Project, then notwithstanding anything to the contrary contained herein or in the LOA or the Contract Agreement and without prejudice to any other right or remedy of the NMSCDCL, including the forfeiture and appropriation of the Bid Security or Performance Security, as the case may be, which the Authority may have there under or otherwise, the LOA or the Contract Agreement, as the case may be, shall be liable to be terminated without NMSCDCL being liable in any manner whatsoever to the Selected Bidder or the Contractor for the same. For the avoidance of doubt, this disqualification shall not apply where such adviser was engaged by the Bidder, its Member or Associate in the past but its assignment expired or was terminated prior to the Bid Due date. Nor will this disqualification apply where such adviser is engaged after a period of 1 (one) year from the completion of the Project.

#### Explanation:

In case a Bidder is a Consortium, then the term Bidder as used in this Clause, shall include each Member of such Consortium.

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For the purposes of this RFP, Associate means, in relation to the Bidder/ Member, a person who controls, is controlled by, or is under the common control with such Bidder/ Member (the "Associate"). As used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law or agreement.

- (e) A Bidder shall also work with a Technology Partner providing the OEM mechanical gate as per the specifications provided in Appendix XI of this RFP and shall submit a format for authorization from the Technology Partner as per the format provided in Appendix XVI of this RFP
- (f) A Bidder shall be liable for disqualification if any legal, financial or technical adviser of NMSCDCL in relation to the Project is engaged by the Bidder, as the case may be, in any manner for matters related to or incidental to the Project. For the avoidance of doubt, this disqualification shall not apply where such adviser was engaged by the Bidder in the past but its assignment expired or was terminated 6 (six) months prior to the date of issue of this RFP.
- (g) **Positive Net Worth:** The Bidder should have positive net worth in last financial year i.e. 2017-18. The Bidder should submit attested copies of auditor's report along with the audited financial statements as per the format set forth in Annexure 5 of Appendix V. It is clarified that in case of consolidated annual financial statements, only the net worth of the entity that is submitting the Bid shall be considered.
- (h) The Bidder shall not have been barred or black-listed by Central/ any State Government department in India as on the date of submission of the Bid. A Self Declaration shall be submitted by theBidder (in event of a Consortium, by all the Consortium Members individually) in accordance with Appendix IV.
- 2.2.2 To be eligible to bid, a Bidder shall fulfill the following conditions of eligibility:

#### (A) Assessed Available Bid Capacity

Bidderswho meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under:

Assessed Available Bid Capacity = (A\*N\*2 - B)

Where:

A= Maximum value of civil engineering works executed in any one year during the last 5 (five) financial years i.e. 2013-14, 2014-15, 2015-16, 2016-17 and 2017-18 taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of the works for which bids are invited.

B = Value of existing commitments and on-going works to be completed during the next two financial years i.e. 2018-19 and 2019-20.

Note: The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be

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countersigned by the Engineer-In-Charge, not below the rank of an Executive Engineer or equivalent.

#### **(B)** Technical Capacity:

- (a) The Bidder (All members in case of a consortium) should be in operation in India for a period of at least 5 (five) years as on 31st December 2018. Valid certificate of incorporation/registration is to be submitted.
- (b) The Bidder (or the Consortium collectively) shall have successfully completed similar works as below during the last 10 (ten) years preceding the Bid Submission Date.

"Similar works" means a project successfully completed regarding Installation of HydroGates over hydro-structures and civil work.

(i). One similar completed work costing not less than INR 15,26,71,263/- (Rupees Fifteen Crores Twenty six Lakhs Seventy One ThousandTwo Hundred and sixty three only)

Or

(ii). Two similar completed works **each** costing not less than INR 9,54,19,540/- (Rupees Nine CroresFifty Four LakhsNinteen Thousand Five Hundred and forty nly)

Or

- (iii). Three similar completed works **each** costing not less than INR 7,63,35,632/- (Rupees Seven Crores Sixty Three Lakhs Thirty Five Thousand Six Hundrsd and Thirty Two only)
- Completion Certificates for the technical capacity and experience should be issued by an officer not below the rank of Executive Engineer or equivalent from any of Central/State Govt. departments, Public Sector Undertakings, Municipal Corporations formed under relevant Act and published in central/state gazette.

#### (C) Financial Capacity

- (i). The Bidder (Lead Bidder in case of consortium) should have a minimum average annual turnover of at least INR 5,72,51,724 /- (Rupees Five CroreSeventy Two Lakhs Fifty One Thousand Seven Huandred Twenty Four only) over the last three financial years i.e. 2015-16, 2016-17 and 2017-18. Minimum average annual turnover shall mean Revenue from operations as incorporated in the profit and loss account excluding other income if any.
  - (ii). The Bidder (Lead Bidder in case of consortium) should have a Positive Net worth as on March 31, 2018. Unaudited and provisional figures for financial year 2017-18 duly certified by statutory auditor may be considered.
  - (iii). The Bidder (Lead Bidder in case of consortium) shall submit a True copy of latest valid original Solvency Certificate from Nationalized/ scheduled Bank of a value of INR 5,72,51,724 /- (Rupees Five Crore Seventy Two Lakhs Fifty One Thousand Seven Huandred Twenty Four only). The Solvency Certificate should not have been issued earlier than sixmonths from the date of submission of the bid.

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- 2.2.3 The Bidder shall enclose with its Bid, to be submitted as per the format at Appendix I, Appendix II, Appendix IV, Appendix V and Appendix VI, the certificate(s) from its Statutory Auditor specifying
  - (a) the Net Worth of the Bidder as per the format set forth at Annexure 5 of Appendix V, as on 31 March 2018
  - (b) Average annual turnover averaged over a period of 3 (three) years of the preceding financial years i.e. FY2014-15, FY 2015-16, FY 2016 -17, FY 2017 18 as the case may be.

#### 2.2.4 DELETED

- 2.2.5 The Bidder should submit a Power of Attorney as per the format at Appendix II, authorizing the signatory of the Bid to commit the Bidder.
- 2.2.6 Any Bidder (any member in case of consortium) or its Associate should not be either blacklisted or terminated for default owing to fraudulent or corrupt practices in the last three years by State/Central Government or Municipal Corporation in India in the last three years from the ate of submission of the bid. The bidder shall submit an undertaking in the format as set out in Appendix IV.
- 2.2.7 Any Bidder which has been barred by the Central / State Government, or any entity controlled by it, from participating in any project, and the bar subsists as on the date of Bid, would not be eligible to submit a Bid under this RFP.

#### 2.3 Number of Bids and costs thereof

- 2.3.1 No Bidder shall submit more than one Bid for the Project. A Bidder bidding individually or as a Member shall not be entitled to submit another Bid for the Project either individually or as a member of any other Consortium, as the case may be.
- 2.3.2 The Bidders shall be responsible for all of the costs associated with the preparation of their Bids and their participation in the Bidding Process. NMSCDCL will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

#### 2.4 Site visit and verification of information

Bidders are encouraged to submit their respective Bids after visiting the Site and ascertaining for themselves the site conditions, traffic, location, surroundings, climate, availability of power, water and other utilities for construction, access to site, handling and storage of materials, weather data, applicable laws and regulations and any other matter considered relevant by the Bidders.

#### 2.5 Acknowledgement by Bidder

- 2.5.1 It shall be deemed that by submitting a Bid, the Bidder has:
  - (a) made a complete and careful examination of the Bidding Documents;
  - (b) received all relevant information requested from NMSCDCL;

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- (c) Accepted the risk of inadequacy, error or mistake in the information provided in the Bidding Documents or furnished by or on behalf of NMSCDCL relating to any of the matters referred to in clause 2.4above.
- (d) satisfied itself about all matters, things and information including matters referred to in clause 2.4 hereinabove necessary and required for submitting an informed Bid, execution of the Project in accordance with the Bidding Documents and performance of all of its obligations there under;
- (e) acknowledged and agreed that inadequacy, lack of completeness or incorrectness of information provided in the Bidding Documents or ignorance of any of the matters referred to in clause 2.4 herein above shall not be a basis for any claim for compensation, damages, extension of time for performance of its obligations, loss of profits etc. from NMSCDCL, or a ground for termination of the Contract Agreement by the Contractor;
- (f) acknowledged that it does not have a Conflict of Interest; and
- (g) Agreed to be bound by the undertakings provided by it under and in terms hereof.
- 2.5.2 NMSCDCL shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to RFP, the Bidding Documents or the Bidding Process, including any error or mistake therein or in any information or data given by NMSCDCL.

#### 2.6 Right to accept or reject any or all Bids

- 2.6.1 Notwithstanding anything contained in this RFP, NMSCDCL reserves the right to accept or reject any Bid and to annul the Bidding Process and reject all Bids, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefore. In the event that NMSCDCL rejects or annuls all the Bids, it may, in its discretion, invite all eligible Bidders to submit fresh Bids hereunder.
- 2.6.2 NMSCDCL reserves the right to reject any Bid:
  - (a) At any time, a material misrepresentation is made or uncovered, or
  - (b) The Bidder does not provide, within the time specified by NMSCDCL, the supplemental information sought by NMSCDCL for evaluation of the Bid.

If such disqualification/rejection occurs after the Bids have been opened and the L1 Bidder gets disqualified/ rejected, then NMSCDCL reserves the right to:

- (i) Invite the remaining Bidders to match the L1 Bidder/ submit their Bids in accordance with clause2.22; or
- (ii) Take any such measure as may be deemed fit in the sole discretion of NMSCDCL, including annulment of the Bidding Process.

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- In case it is found during the evaluation or at any time before signing of the Contract Agreement or after its execution that one or more of the pre-qualification conditions have not been met by the Bidder, or the Bidder has made material misrepresentation or has given any materially incorrect or false information, or the Bidder does not perform its obligations or fails to submit relevant deliverable documents and submissions within the prescribed timelines, the Bidder shall be disqualified forthwith if not yet appointed as the contractor either by issue of the LOA or entering into of the Contract Agreement, and if the Selected Bidder has already been issued the LOA or has entered into the Contract Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by NMSCDCL to the Selected Bidder or the Contractor, as the case may be, without NMSCDCL being liable in any manner whatsoever to the Selected Bidder or the Contractor. In such an event, NMSCDCL shall be entitled to forfeit and appropriate the Bid Security or Performance Security, as the case may be, as Damages, without prejudice to any other right or remedy that may be available to NMSCDCL under the Bidding Documents and/ or the Contract Agreement, or otherwise as well as debar the Bidder/Contractor from bidding in future as the NMSCDCL deems fit..
- 2.6.4 NMSCDCL reserves the right to verify all statements, information and documents submitted by the Bidder in response to the RFP. Any such verification or lack of such verification by NMSCDCL shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of NMSCDCL thereunder.

#### 2.7 Contents of the RFP

2.7.1 This RFP comprises the Disclaimer set forth hereinabove, the contents as listed below, and will additionally include any Addendum issued in accordance with Clause 2.9.

Invitation for Qualifications		
Section 1	Introduction	
Section 2	Instructions to Bidders	
Section 3	Evaluation of Bids	
Section 4	Fraud and Corrupt Practices	
Section 5	Pre-Bid Conference	
Section 6	Miscellaneous	

Appendices		
Appendix I	Details of the Bidder	
Appendix II	Power of attorney for signing the Bid	
Appendix IIA	Power of Attorney for Lead Member of the Consortium	
Appendix IIB	Consortium Agreement	
Appendix III	Statement of Legal Capacity	
Appendix IV	Format for Declaration by the Bidder for not being Blacklisted /	
	Debarred/ Terminated	
Appendix V	Letter comprising the Pre-Qualification Bid	

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	Annexure 1	Details of work tendered for and in hand as on the
		date of submission of this RFP
	Annexure 2	Details of works carried out by the Bidder
	Annexure 3	Details of Plants and Machinery immediately
		available with the Bidder
	Annexure 4	Details of technical personnel available with the
		Bidder
	Annexure 5	1 2
	Annexure 6	Approach and Methodology
Appendix VI	Letter comprising the Financial Bid	
Appendix VII	Format of sending Pre-bid queries	
Appendix VIII-A	Format for Performance Security	
Appendix VIII-B	Format for Bank Guarantee for Mobilization Advance	
Appendix IX	Guidelines of the Department of Disinvestment	
Appendix X	Scope of Work	
Appendix XI	Technical Specifications	
Appendix XII	Bill of Quantities	
Appendix XIII	Contract Agreement	
	Annexure A	General Conditions of Contract
	Annexure B	Special Conditions of Contract
Appendix XIV	Price VariationClause	
Appendix XV	Drawings	
Appendix XVI	Authorisation Format by Technology Partner to provide services based	
	on the specificati	ons.

#### 2.8 Clarifications

- 2.8.1 Bidders requiring any clarification on the RFP may notify NMSCDCL in writing or e-mail in editable .xls format accordance with clause 1.2.7. The Bidders should send in their queries on or before the date mentioned in the **Schedule** of Bidding Process specified on page 6. NMSCDCL shall endeavor to respond to the queries within the period specified therein, but no later than 7 (Seven) days prior to the Bid Due Date.
- 2.8.2 NMSCDCL may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by NMSCDCL shall be deemed to be part of the Bidding Documents. Verbal clarifications and information given by NMSCDCL or its employees or representatives shall not in any way or manner be binding on NMSCDCL.

#### 2.9 Amendment of RFP

- 2.9.1 At any time prior to the Bid Due Date, NMSCDCL may, for any reason, whether at its own initiative or in response to clarifications requested by a Bidder, modify the RFP by the issuance of an addendum ("Addendum").
- 2.9.2 Any Addendum issued hereunder will be published on <a href="https://mahatenders.gov.in">https://mahatenders.gov.in</a> and will be part of the Bidding Document.
- 2.9.3 In order to afford the Bidders a reasonable time for taking an Addendum into account, or for any other reason, NMSCDCL may, in its sole discretion, extend the Bid Due Date.

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#### C. PREPARATION AND SUBMISSION OF BIDS

#### 2.10 Language

The Bid and all related correspondence and documents in relation to the Bidding Process shall be in English language. Supporting documents and printed literature furnished by the Bidder with the Bid may be in any other language provided that they are accompanied by translations of all the pertinent passages in the English language, duly authenticated and certified by the Bidder. Supporting materials, which are not translated into English, may not be considered. For the purpose of interpretation and evaluation of the Bid, the English language translation shall prevail.

#### 2.11 Format and Signing of Bid

- 2.11.1 The Bidder shall provide all the information sought under this RFP. NMSCDCL will evaluate only those Bids, in the required formats and complete in all respects, whose Pre-Qualification Bids are submitted online through the e- procurement portal as well as in hard copy and Financial Bids are submitted only online through the online procurement portal.
- 2.11.2 The Bid shall be typed or written in indelible ink and signed by the authorized signatory of the Bidder who shall also initial each page. All the alterations, omissions, additions or any of their amendments made to the Bid shall be initialed by the person(s) signing the Bid.

#### 2.12 Sealing, Marking and submission of Bids

2.12.1 While the Bidders are required to submit the Envelope A-Pre-Qualification Bid online as well in hard copy, the Financial Bid is only to be submitted online through e- procurement portal comprising of the following documents along with supporting documents as appropriate.

#### **Envelope A- Pre-Qualification Bid (To be submitted online and offline):**

- (a) Appendix I Details of the Bidder
  - i) Copy of PAN, TAN certificates and GST registration of the Bidder;
  - ii) Signed and stamped copy of the Bidding Documents (including amendments and clarifications, if any) by the authorized signatory of the Bidder on each page.
- (b) Appendix IIPower of attorney for signing the Bid
- (c) Appendix IIA Power of Attorney for Lead Member of the Consortium
- (d) Appendix IIB Consortium Agreement
- (e) Appendix III Statement of Legal Capacity
- (f) Appendix IV Format for Declaration by the Bidder (Each member in case of consortium) for not being Blacklisted / Debarred / Terminated
- (g) Bid Security of INRI9,54,000/- (NineLakh Fifty Four Thousand Four Only)
- (h) Cost of Bid Document Fee of INR Rs. 5,000 /- (FiveThousand only) + Rs 90/- (Rupees Ninety only) + 9% SGST + 9% CGST;
- (i) Approach and methodology statement in accordance with Clause 3.1.5 and as provided in Annexure 6 of Appendix V.

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(j) Appendix - V (Letter comprising the Pre-Qualification Bid) including Annexure 1 to 5 and supporting certificates/documents.

Note: Scanned copy of above mentioned document shall be uploaded in non-editable (PDF) version.

#### **Envelope B- Financial Bid (To be submitted online only)**

- (a) Appendix-VI (Letter comprising the Financial Bid).
- 2.12.2 All pages of the Bidding document shall be duly signed by the authorized person of the Bidder.

#### 2.13 Bid Currency

Bidders must submit bid in Indian Rupeers (INR) only

#### 2.14 Bid Due Date

2.14.1 Pre-Qualification Bidand Financial Bid comprising of the document listed in clause2.12of the RFP shall be submitted online through e-procurement portal on or before 1500 hours IST on the Bid Due Date. Bidder shall submit the hard copies of the Pre-Qualification Bid on or before the date and time specified in the Schedule of Bidding Process on Page 6at the below address:

"Chief Executive Officer.

Nashik Municipal Smart City Development Corporation Limited, 4rth Floor,Panditrao Khaire Panchvati Divisional Office, Nashik Municipal Corporation,

Makhmalabad Naka,

Panchavati,

Nashik"

2.14.2 NMSCDCL may, in its sole discretion, extend the Bid Due Date by issuing an Addendum in accordance with clause 2.9uniformly for all the Bidders.

#### 2.15 Late Bids

Hard copy of the Bids received by NMSCDCL after the specified time shall not be eligible for consideration and shall be summarily rejected and returned unopened even if submitted online on time. Online submission would not be possible beyond the time specified in the Schedule of Bidding Process specified in the Schedule at Page 6.

#### 2.16 Modifications/ Substitution/ Withdrawal of Bids

- 2.16.1 The Bidder may modify, substitute or withdraw its Bid after submissionprior to Bid Due Date.
- 2.16.2 Any alteration/modification in the Bid or additional information supplied subsequent to the Bid Due Date, unless the same has been expressly sought for by NMSCDCL, shall be disregarded.

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#### D. EVALUATION PROCESS

#### 2.17 Opening and Evaluation of Bids Evaluation of Pre-Qualification Bids:

- 2.17.1 NMSCDCL shall open the Bids as specified in Bid Data Sheetas specified in the Schedule of this RFP at Page 6in the presence of the Bidders who choose to attend.
- 2.17.2 Pre-Qualification Bids of those Bidders, who have not submitted their Bid online, shall not be considered for opening and evaluation.
- 2.17.3 NMSCDCL will subsequently examine and evaluate Pre-Qualification Bids in accordance with the provisions set out in SECTION 3 of this RFP.
- 2.17.4 Bidders are advised that qualification of Bidders will be entirely at the discretion of NMSCDCL. Bidders will be deemed to have understood and agreed that no explanation or justification on any aspect of the Bidding Process or selection will be given.
- 2.17.5 To facilitate evaluation of Pre-Qualification Bids, NMSCDCL may, at its sole discretion, seek clarifications in writing from any Bidder regarding its Pre-Qualification Bid. Such clarification(s) shall be provided within the time specified by NMSCDCL for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing.
- 2.17.6 If a Bidder does not provide clarifications sought under clause 2.21below within the prescribed time, its Bid may be liable to be rejected. In case the Bid is not rejected, NMSCDCL may proceed to evaluate the Bid by construing the particulars requiring clarification to the best of its understanding and the Bidder shall be barred from subsequently questioning such interpretation of NMSCDCL.
- 2.17.7 NMSCDCL reserves the right to reject any Pre-Qualification Bid which is non-responsive as per clause 2.20 and no request for alteration, substitution or withdrawal shall be entertained by NMSCDCL in respect of such Bid.
- 2.17.8 Any information contained in the Bid shall not in any way be construed as binding on NMSCDCL, its agents, successors or assigns, but shall be binding against the Bidder if the Project is subsequently awarded to it on the basis of such information.
- 2.17.9 NMSCDCL reserves the right not to proceed with the Bidding Process at any time without notice or liability and to reject any or all Bid(s) without assigning any reasons.
- 2.17.10 If any information furnished by the Bidder is found to be incomplete, or contained in formats other than those specified herein, NMSCDCL may, in its sole discretion, exclude the related information.
- 2.17.11 In the event that a Bidder claims credit for an eligible project, and such claim is determined by NMSCDCL as incorrect or erroneous, NMSCDCL shall reject such claim and exclude the same from computation of the eligible score, and may also, while computing the aggregate experience score of the Bidder, make a further deduction equivalent to the claim rejected hereunder. Where any information is found to be patently false or amounting to a material misrepresentation, NMSCDCL reserves the right to reject the Bid in accordance with the provisions of clauses 2.6.2 and 2.6.3
- 2.17.12 NMSCDCL will evaluate the Pre-Qualification Bids for their compliance to the eligibility and qualification requirements pursuant to clause 2.2.1 & 2.2.2 of this RFP.

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#### 2.18 Opening and Evaluation of Bids Evaluation of Financial Bids:

- 2.18.1 After evaluation of the Pre-Qualification Bids, NMSCDCL will publish a list of Qualified Bidders whose Financial Bids shall be opened. NMSCDCL will not entertain any query or clarification from the Bidders who fail to qualify.
- 2.18.2 NMSCDCL shall inform the venue and time of online opening of the Financial Bids to the Qualified Bidders through e-procurement portal of NMSCDCL and e- mail. NMSCDCL shall open the Financial Bids online on date and time to be informed in this clausein the presence of the authorized representatives of the Qualified Bidders who may choose to attend. NMSCDCL shall publically announce the Bid Price quoted by the Qualified Bidder. NMSCDCL shall prepare a record of opening of Financial Bids.

#### 2.19 Confidentiality

Information relating to the examination, clarification, evaluation, and recommendation for the qualified Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising NMSCDCL in relation to, or matters arising out of, or concerning the Bidding Process. NMSCDCL will treat all information, submitted as part of Bid, in confidence and will require all those who have access to such material to treat the same in confidence. NMSCDCL may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or NMSCDCL or as may be required by law or in connection with any legal process.

#### 2.20 Tests of responsiveness

- 2.20.1 Prior to evaluation of Bids, NMSCDCL shall determine whether each Bid is responsive to the requirements of the RFP. A Bid shall be considered responsive only if:
  - (a) It contains all the information and documents (complete in all respects) as requested in this RFP:
  - (b) It is received in the format as prescribed in Appendix I, II, III and IV along with all supporting documents;
  - (c) It is accompanied by the approach and methodology statement in accordance with Clause 3.1.5.
  - (d) It is received as per the format at Appendix-V(including all annexures) and Appendix VI along with all supporting documents;
  - (e) It is received by the Bid Due Date including any extension thereof pursuant to clause 2.14.2;
  - (f) It is signed, and submitted as stipulated in clause 2.12.2;
  - (g) It contains information in formats same as those specified in this RFP;
  - (h) Payment of INR Rs. 5,000 /- (Five Thousand only) + Rs 90/- (Rupees Ninety only) + 9% SGST + 9% CGST as the Bid Document Fee and Bid Security INR 9,54,000/- (Nine Lakh Fifty four Thousand Four Hundred Only) is made by Bidder using available net banking option/ credit card/ debit card on e-procurement portal of Govt. of Maharashtra i.e. https://mahatender.gov.in.
  - (i) It does not contain any condition or qualification; and
  - (j) It is not non-responsive in terms hereof.

Contractor Chief Executive Officer

2.20.2 NMSCDCL reserves the right to reject any Bid which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the NMSCDCL in respect of such Bid.

#### 2.21 Clarifications

- 2.21.1 To facilitate evaluation of Bids, NMSCDCL may, at its sole discretion, seek clarifications from any Bidder regarding its Bid. Such clarification(s) shall be provided within the time specified by NMSCDCL for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing.
- 2.21.2 If a Bidder does not provide clarifications sought under Clause 2.21 above within the prescribed time, its Bid shall be liable to be rejected. In case the Bid is not rejected, NMSCDCL may proceed to evaluate the Bid by construing the particulars requiring clarification to the best of its understanding, and the Bidder shall be barred from subsequently questioning such interpretation of NMSCDCL.

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#### E. QUALIFICATION OF BIDDING

#### 2.22 Selection of Bidder

- 2.22.1 Subject to the provisions of clause 2.6, the Qualified Bidder whose Bid is adjudged as responsive in terms of clause 2.20 shall be qualified at the pre-qualification stage and shall be eligible for invitation to the Financial Bid opening.
- 2.22.2 Deleted

#### 2.22.3 Selected Bidder

The bidder with the lowest Financial Bid(i.e. L1 bidder) shall be declared as the selected bidder

- 2.22.4 In the event that the L1 Bidder withdraws or is not selected for any reason in the first instance ("first round of bidding"), NMSCDCL may invite all the remaining Qualified Bidders to revalidate or extend their respective Bid Security, as necessary, and match the Bid of the aforesaid L1 Bidder ("second round of bidding"). If in the second round of bidding, only one Qualified Bidder matches the L1 Bidder, it shall be the Selected Bidder. If two or more Qualified Bidders match the said lowest Bidder in the second round of Bidding, then the Qualified Bidder whose Bid was lower as compared to other Qualified Bidders in the first round of bidding shall be the Selected Bidder. For example, if the third and fifth lowestQualified Bidders in the first round of bidding, the said third lowest Qualified Bidder shall be the Selected Bidder.
- 2.22.5 In the event that no Bidder offers to match the L1 Bidder in the second round of bidding as specified in clause 2.22.4, NMSCDCL may, in its discretion, invite fresh Bids ("third round of bidding") from all the Bidders except the L1 Bidder of the first round of bidding, or annul the Bidding Process, as the case may be. In case the Bidders are invited in the third round of bidding to revalidate or extend their Bid Security, as necessary, and offer fresh bids, they shall be eligible for submission of fresh Bids provided, however, that in such third round of bidding only such Bids shall be eligible for consideration which are lower than the Bid of the second lowest Bidder in the first round of bidding.
- 2.22.6 After selection, a Letter of Award ("LOA") shall be issued, in duplicate, by NMSCDCL to the Selected Bidder and the Selected Bidder shall:
  - (a) within 7(seven) days of the issuance of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof;
  - (b) within 15 (fifteen) days of the issuance of the LOA, submit an Implementation Plan;
  - (c) Within 15 (fifteen) days of the issuance of the LOA, submit Performance Security.
- 2.20.5 In the event the duplicate copy of the LOA duly signed by the L1 Bidder and the Implementation Plan is not received by the stipulated date, NMSCDCL may, unless it consents to extension of time for submission thereof, appropriate the Bid Security of such Bidder as Damages on account of failure of the L1 Bidder to acknowledge the LOA and submit the Implementation Plan.
- 2.20.6 After acknowledgement of the LOA and submission of the Implementation Plan as aforesaid by the Selected Bidder, NMSCDCL shall give its preliminary comment(s) on the

Contractor Chief Executive Officer

Implementation Plan and cause the Selected Bidder to execute the Contract Agreement. The Selected Bidder shall not be entitled to seek any deviation, modification or amendment in the Contract Agreement.

2.20.7 The Selected Bidder shall suitably incorporate the comments of NMSCDCL in the Implementation Plan and submit the revised Implementation Plan on or before the execution of the Contract Agreement. The Selected Bidder agree and acknowledge to two level review process of Implementation Plan by NMSCDCL, one before the execution of the Contract Agreement and one after the execution of the Contract Agreement.

#### 2.23 Proprietary data

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

#### 2.24 Correspondence with the Bidder

Save and except as provided in this RFP, NMSCDCL shall not entertain any correspondence with any Bidder in relation to the acceptance or rejection of any Bid.

#### 2.25 Contacts during Bid Evaluation

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

#### 2.26 Other Conditions

- 2.26.1 Notwithstanding anything to the contrary contained in this RFP, the detailed terms specified in the Contract Agreement shall have overriding effect; provided, however, that any conditions or obligations imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Contract Agreement.
- 2.26.2 The Bidding Documents including this RFP and all attached documents are and shall remain the property of NMSCDCL and are transmitted to the Bidders solely for the purpose of preparation and the submission of a Bid in accordance herewith. The Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Bid. NMSCDCL will not return any Bid or any information provided along therewith.
- 2.26.3 This RFP is not transferable.
- 2.26.4 Any award of contract pursuant to this RFP shall be subject to the terms of the Bidding Documents.

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#### F. **BID SECURITY**

#### 2.27 **Bid Security**

- 2.27.1 The Bidder shall furnish as part of its Bid, a Bid Security referred to in clause 1.2.3through online payment using available net banking option/ credit card/ debit card on e-procurement portal of Govt. of Maharashtra i.e. <a href="https://mahatender.gov.in">https://mahatender.gov.in</a>.
- 2.27.2 Any Bid not accompanied by the Bid Security shall be rejected by NMSCDCL as nonresponsive.
- 2.27.3 The Bid Security of Bidders other than the Selected Bidder will be returned by NMSCDCL, without any interest, as promptly as possible on the execution acceptance of the Bid of the selected bidder or when the bidding process is cancelled by NMSCDCL.
- 2.27.4 The Selected Bidder's Bid Security will be returned, without any interest, upon the Selected Bidder signing the Contract Agreement and furnishing the Performance Security in accordance with clause 2.28.
- 2.27.5 NMSCDCL shall be entitled to forfeit and appropriate the Bid Security as damages inter alia in any of the events specified in clause 2.27.6herein below. The Bidder by submitting its Bid pursuant to this RFP, shall be deemed to have acknowledged and confirmed that NMSCDCL will suffer loss and damage on account of withdrawal of its Bid or for any other default by the Bidder during the period of Bid Validity as specified in this RFP. No relaxation of any kind on Bid Security shall be given to any Bidder.
- 2.27.6 The Bid Security shall be forfeited and appropriated by NMSCDCL as damages payable to NMSCDCL for, inter alia, time, cost and effort of NMSCDCL without prejudice to any other right or remedy that may be available to NMSCDCL under the Bidding Documents and/or under the Contract Agreement or otherwise, under the following conditions:
- 2.27.7 If a Bidder submits a non-responsive Bid;
- 2.27.8 If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice as specified in Clause 4 of this RFP;
- 2.27.9 If a Bidder withdraws its Bid during the period of Bid validity as specified in this RFP and as extended by mutual consent of the respective Bidders and NMSCDCL;
- 2.27.10 In the case of Selected Bidder, if it fails within the specified time limit:
  - to sign and return the duplicate copy of LOA; (a)
  - to sign the Contract Agreement; or (b)
  - to furnish the Performance Security within the period prescribed in clause 2.28; or (c)
  - (d) To submit the Implementation Plan.

#### **Performance Security** 2.28

2.28.1 The Selected Bidder shall obtain (at his cost) a Performance Security for proper performance, ance Secamounting to INR 9541954/- (Rupees Ninty Five Lakh Forty One Thousand Nine Hundred Fifty Four Only)("Performance Security").

- 2.28.2 The Selected Bidder shall, within 15 (fifteen) days from the date of issuance of LOA, furnish 50% of the Performance Security, which may be in form of an unconditional and irrevocable bank guarantee in accordance with Appendix VIII-A.
- 2.28.3 The remaining 50% of the Performance Security, shall be deducted by NMSCDCL at the rate of 5% of the Running Account Bill amounts payable monthly till the cumulative deduction amount reaches the remaining 50% of the Performance Guarantee
- 2.28.4 The Performance Security shall be released on the following landmarks:
  - (i) The initial submission of 50% of the Performance Security shall be released after one year from date of issuance of Completion Certificate.
  - (ii) For the remaining 50% of the Performance Security it shall be released on the successful completion of the Defect Liability Period of work, subject to relevant deductions and after NMSCDCL has ensured that the Works have been completed in accordance with the Contract and the Work Order.
- 2.28.5 The Performance Security shall be forfeited without prejudice to the Bidder being liable for any further consequential loss or damage incurred to NMSCDCL in accordance with the terms of the Contract Agreement.

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#### 2.29 Additional Performance Security

- 2.29.1 In the event that project cost quoted by the Bidder is less than the Estimated Project Cost provided in the RFP amounting to INR 19,08,39,079/- (Rupees Nineteen Crore Eight Lakh Thirty Nine Thousand and Seventy Nine Only ), the Bidder shall submit an Additional Performance Security (APS), which may be in form of an unconditional and irrevocable bank guarantee in accordance with Appendix VIIIA or
- 2.29.2 The Additional Performance Security submitted by the Bidder shall be payable by the Bidder as mentioned below:

Final Project Cost	Additional Performance Security (APS)
If final project cost is up to 10% below	1% of the Estimated Project Cost
the Estimated Project Cost	
If final project cost is more than 10% and	% of the APS = (% rate quoted $-10\%$ ) plus 1%.
upto 15% below the Estimated Project	
Cost	
If final project cost is more than 15%	% of the APS =(%rate Quoted - 15%) multiply
below the Estimated Project Cost	by 2

- 2.29.3 The Additional Performance Security payable shall be submitted by the Bidder within8 (eight) days from the date of issuance of LOA, at the time of submitting 50% of the Performance Security under Clause2.28.
- 2.29.4 In case bidder fails to deposite APS within 8 (eight) days then L2 bidder can be invited by written correspondance for accepting to do the work at L1 rate and he can be awarded the contract.
- 2.29.5 The Additional Performance Security shall be released after completion of the Project, within 15 (fifteen) days of awarding the Completion Certificate in favour of the Contractor.

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#### **SECTION 3**

#### 3 Criteria for Evaluation

### 3.1 Evaluation Parameters

- 3.1.1 The Bidder (in event of a Consortium, all members of the Consortium) shall submit a Self-declaration, duly signed by the authorized signatory on Non –judicial stamp paper of INR 100/-in accordance with Annexure IV
- 3.1.2 Subject to Clause 2.1, the Bidder's competence and capability is proposed to be established under the Pre-Qualification by the following parameters:
  - (a) Assessed Available Bid Capacity as set out in clause 2.2.2 (A);
  - (b) Technical Capacity as set out in clause 2.2.2 (B); and
  - (c) Financial Capacity as set out in clause 2.2.2 (C).
- 3.1.3 The Bids of the Bidders considered as responsive in terms of Clause 2.20.1 ("**Bidders**") shall be evaluated. Bids of the Bidders who do not meet these criteria shall be rejected.
- 3.1.4 In case of any discrepancy between the documents submitted in hard copy and in soft copy (online), the documents, except the Power of Attorney, submitted online shall prevail.
- 3.1.5 The Bidders are encouraged to conduct their own assessment of the Project prior to the bid submission that would help them to prepare a substantially detailed approach and methodology statement as a part of the Pre-Qualification Bid in order to demonstrate their understanding and capabilities for undertaking the Project which shall *inter alia* take into account the timelines, resource deployment plan, understanding and mitigation of risks. While doing so, the Bidder shall take into due consideration the scope of work as set forth in Appendix X and the technical specification as set forth in Appendix XI. For the avoidance of doubt, the approach and methodology to be submitted by the Bidder shall also include:
  - (a) proposed plan including timeframe for performing various tasks in accordance with the scope of work as set out in Appendix X;
  - (b) flow chart of process setting out the manner in which the Bidder shall undertake the Project; and
  - (c) Manner in which the Bidder proposes to tackle the sludge in order to successfully undertake the Project.

NMSCDCL shall evaluate the approach and methodology as part of the Technical Capacity evaluation

# 3.2 Details of Experience

- 3.2.1 The Bidder should furnish the details of assignments for the last 5 (five) financial years immediately preceding the Bid Due Date in order to fulfill the Technical Capacity.
- 3.2.2 The Bidder should furnish the required Project-specific information and evidence in support of its claim of Pre Qualification Capacity, as per the format at Annexure-1 to 6 of Appendix-V

RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra The Bidder should furnish the required statutory auditor certificate in support of its Financial Capacity as per the format at Annexure 5 of Appendix V. **Chief Executive Officer** Nashik Municipal Smart City Development Corporation Limited 36 | P a g e Document No.: MAH-NAS--053-RFP

### **SECTION - 4**

## 4. Fraud and Corrupt Practices

- 4.1.1 The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process and subsequent to the issue of the LOA and during the subsistence of the Agreement. Notwithstanding anything to the contrary contained herein, or in the LOA or the Agreement, NMSCDCL may reject a Bid, withdraw the LOA, or terminate the Agreement, as the case may be, without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder or the Contractor, as the case may be, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process. In such an event, NMSCDCL shall be entitled to forfeit and appropriate the Bid Security or Performance Security, as the case may be, as Damages, without prejudice to any other right or remedy that may be available to NMSCDCL under the Bidding Documents and/ or the Agreement, or otherwise.
- 4.1.2 Without prejudice to the rights of NMSCDCL under clause 4.1.1hereinabove and the rights and remedies which NMSCDCL may have under the LOA or the Agreement, or otherwise if a Bidder or Contractor, as the case may be, is found by NMSCDCL to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Bidding Process, or after the issue of the LOA or the execution of the Agreement, such Bidder or Contractor shall not be eligible to participate in any tender or RFP issued by NMSCDCL during a period of 2 (two) years from the date such Bidder, or Contractor, as the case may be, is found by NMSCDCL to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practices, as the case may be.
- 4.1.3 For the purposes of this Section 4, the following terms shall have the meaning hereinafter respectively assigned to them:

## 4.1.4 "Corrupt practice" means

(a) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of NMSCDCL who is or has been associated in any manner, directly or indirectly, with the Bidding Process or the LOA or has dealt with matters concerning the Agreement or arising therefrom, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of NMSCDCL, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process); or

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- (b) save and except as permitted under clause 2.2.1 of this RFP, engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Contract Agreement, who at any time has been or is a legal, financial or technical adviser of NMSCDCL in relation to any matter concerning the Project;
- 4.1.5 "Fraudulent practice" means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;
- 4.1.6 "Coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person's participation or action in the Bidding Process;
- 4.1.7 "Undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by NMSCDCL with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest; and
- 4.1.8 "Restrictive practice" means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

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#### **SECTION - 5**

#### 5. Pre-Bid Conference

- 5.1 Pre-Bid conference of the Bidders shall be convened at the designated date, time and place. A maximum of 2 (two) representatives of prospective Bidders shall be allowed to participate on production of authority letter from the Bidder.
- 5.2 During the course of Pre-Bid conference(s), the Bidders will be free to seek clarifications and make suggestions for consideration of NMSCDCL. NMSCDCL shall endeavor to provide clarifications and such further information as it may, in its sole discretion, consider appropriate for facilitating a fair, transparent and competitive Bidding Process. However, NMSCDCL reserves the right not to respond to any question or provide any clarification, in its sole discretion and is not under any obligation to entertain/ respond to suggestions made or to incorporate modifications sought for.
- The Bidder is advised, as far as possible, to submit the queries in writing or email and the same should be sent to NMSCDCLon or before the specified date in schedule of bidding process as set forth in the Schedule of this RFP.
- 5.4 The list of the questions raised and the responses given during the meeting together with any response prepared after the meeting will be hosted on https://mahatenders.gov.in
- 5.5 Pursuant to the Pre-Bid Conference, if NMSCDCL deems necessary to amend the Bidding Document, it shall be done by issuing amendment/corrigendum pursuant to clause 2.9.

#### **SECTION - 6**

#### 6 Miscellaneous

- 6.1 The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts in Nashik, Maharashtra shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Bidding Process.
- 6.2 NMSCDCL, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;
  - (a) suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;
  - (b) consult with any Bidder in order to receive clarification or further information;
  - (c) retain any information and/ or evidence submitted to NMSCDCL by, on behalf of, and/ or in relation to any Bidder; and/ or
  - (d) Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.
- 6.3 It shall be deemed that by submitting the Bid, the Bidder agrees and releases NMSCDCL, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder and the Bidding Documents, pursuant hereto, and/ or in connection with the Bidding Process, to the fullest extent permitted by applicable law, and waives any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.

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# **APPENDIX I: Details of the Bidder**

S. No.	Particulars	Details
1.	Name of the Bidder	
2.	Certificate of incorporation (in case of	Attach relevant documents
	consortium for each of the members)	
3.	Address of Communication	
4.	Telephone Number with STD Code	
5.	Fax Number with STD Code	
6.	PAN	
7.	GST No.	
8.	TAN	
9.	EPF Registration	
10.	Landline Number	
11.	E-mail Address for all communications	
12.	<b>Details of Authorized Representative</b>	
13.	Name	
14.	Designation	
15.	Postal Address with pin code	
16.	Telephone Number with STD Code	
17.	Fax Number with STD Code	
18.	Mobile Number	
19.	E-mail Address	

Signat	ure of	Bidder	with	Seal
Date:				

List of Supporting Documents:

- (a) Certificate of incorporation
- (b) PAN
- (c) TAN
- (d) GST Certificate

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# **APPENDIX II:** Power of Attorney for signing the Bid

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

Know all men by these presents, we,(Na	me and
address of the registered office of the Bidder as applicable) do hereby constitute, appoint and at	uthorize
Mr. /Ms (name & residential address) who is presently employed	
and holding the position of as our true and lawful attorned	-
in our name and on our behalf, all such acts, deeds and things necessary in connection with or in	
to submission of our Bid in response to the RFP No	
issued by Nashik Municipal Smart City Development Corporation Limited (NMSCDCL), in	_
signing and submission of the Bid and all other documents related to the Bid, including but not	
to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other downich NMSCDCL may require us to submit.	Cument
The aforesaid Attorney is further authorized for making representations to NMSCDCL and pr	_
information/ responses to NMSCDCLrepresenting us in all matters before NMSCDCL and go dealing with NMSCDCL in all matters in connection with Bid till the completion of the	•
Process.	Didding
	larram af
We hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this P Attorney and that all acts, deeds and things done by our aforesaid attorney shall be binding or	
shall always be deemed to have been done by us.	i us and
All the terms used herein but not defined shall have the meaning ascribed to such terms under the	ho DED
An the terms used herein but not defined shan have the meaning ascribed to such terms under the	He KFF.
Signed by the within named	
(Insert the name of the executants company)	
Through the hand of	
Mr	
Duly authorized by the Board to issue such Power of Attorney	
Dated this day of	
Accepted	
Signature of Attorney	
•	
(Name, designation and address of the Attorney)	
Attested	
Contractor Chief Executive Officer	

Nashik Municipal Smart City Development Corporation Limited

gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
(Signature of the executants)
(Name, designation and address of the executants)
Signature and stamp of Notary of the place of execution
WITNESS
(Signature)
Name
Designation
(Signature)
Name
Designation

RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical

## **Notes:**

- The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants(s) and the same should be under common seal of the executants affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executants(s) in this regard.
- Also, wherever required, the executants(s) should submit for verification the extract of the chartered documents and documents such as a Board resolution/power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executants(s).

# APPENDIX IIA: POWER OF ATTORNEY FOR LEAD BIDDER BY THE OTHER CONSORTIUM MEMBER

(On Non- Judicial Stamp paper of appropriate value to be purchased in the name of Consortium)

Know All Men By These Presents That We, the Members whose details are given hereunder
having our Registered Office(s)/ Head Office(s) at(Hereinafter called
the 'Consortium' which expression shall unless repugnant to the context or meaning thereof, include
its successors, administrators and assigns) do hereby constitute, nominate and appoint
M/s having its
Registered/ Head Office at as our duly constituted lawful Attorney
(hereinafter called "Lead Bidder") to exercise all or any of the powers for and on behalf of the
CONSORTIUM to participate in Bid for, as per the scope of work stipulated
therein for which Bids have been invited by the Nashik Municipal Smart City Development Corporation
Limited (NMSCDCL), to undertake the following acts:
i. To submit Bid, participate and correspond in respect of the aforesaid Bid on behalf of the "Consortium".
ii. To negotiate with NMSCDCL the terms and conditions for award of the contract pursuant to the aforesaid bid and to sign the contract with the NMSCDCL ("Contract") for and on behalf of the "CONSORTIUM".
iii. To do any other act or submit any document related to the above.
iv. To receive, accept and execute the Contract for and on behalf of the "Consortium".
v. To submit the performance security or additional performance security in the prescribed formation
and as per terms of the Contract.
It is clearly understood that the Lead Bidder shall ensure performance of the Contract and if either of the members fail to perform their respective portion of the Contract, the same shall be deemed to be a default by all the members.
We hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers
It is expressly understood that this power of attorney shall remain valid, binding and irrevocable till completion of the Contract period i.e., from the date of execution of the Contract.
The consortium hereby agrees and undertakes to ratify and confirm all the whatsoever the said Lead Bidder quotes in the Bid, negotiates and signs the Contract with the NMSCDCL and/or proposes to accombehalf of the Consortium by virtue of this Power of Attorney and the same shall bind the Consortium members as if done by itself.
In Witness Thereof, the members constituting the Consortium as aforesaid have executed these present on this

**Chief Executive Officer** 

Nashik Municipal Smart City Development Corporation Limited Document No.: MAH-NAS--053-RFP

for and on behalf of the member of the Consortium
(3' )
(Signature)
Name, Title and Address of the Attorney)

#### **Notes:**

- 1. The mode of execution of Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- 2. Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a resolution / Power of attorney in favour of the Person executing this power of attorney for the delegation of power hereunder on behalf of the executant(s).

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# **APPENDIX IIB: Consortium Agreement**

Draft agreement executed by the members of the consortium [On non-judicial stamp paper duly attested by notary public]

This agreement (Agreement) entered into this day of [Date] [Month] 201 at [Place] between
(hereinafter referred to as "") and having office at [Address], India, as Party of the Fin
Part and (hereinafter referred as "") and having office at [Address], as Party
the Second Part and (hereinafter referred as "").
and are individually referred to as 'Party' and collectively as 'Parties'.
WHEREAS Nashik Municipal Smart City Development Corporation Limited (NMSCDCL), has issue a Tender Document dated [Date] (TD) for for RFP for Selection of Contractor for Installation pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridg across river Godavari in Nashik, Maharashtra ("hereinafter referred to as the " <b>Project</b> ")
AND WHEREAS the Parties have had discussions for formation of a consortium for submitting the Bid for the Project and have reached an understanding on the following points with respect to each the Parties' rights and obligations towards each other and their working relationship.
BASIS THE MUTUAL UNDERSTANDING OF THE PARTIES, IT IS HEREBY AGREE AND DECLARED AS FOLLOWS:
<ul> <li>The purpose of this Agreement is to define the principles of collaboration among the Parties to</li> <li>a. Jointly Bid for the "Project" as a Consortium.</li> </ul>
b. Sign contract with NMSCDCL in case of award ("Contract").
<ul> <li>c. Provide and perform the supplies and services which would be ordered I NMSCDCL pursuant to the Contract.</li> </ul>
ii. This Agreement shall not be construed as establishing or giving effect to any legal entity. It sharelate solely towards NMSCDCL for "Project" to be performed pursuant to the Contract and sharelate solely towards not extend to any other activities.
iii. The Parties shall be jointly and severally responsible and bound towards NMSCDCL for the
Project in accordance with the terms and conditions of the TD and Contract.
iv (Name of Party) shall act as Lead Bidder of the Consortium.
such, it shall act as the coordinator of the Party's combined activities and shall carry out the
following functions:
a. To ensure the technical, commercial and administrative co-ordination of the
Project;
b. To lead the Contract negotiations with NMSCDCL;
c. The Lead Bidder is authorized to receive instructions and shall assume

responsibilities for and on behalf of all Parties; and

the Parties for execution of the Contract.

d. In case of an award, act as channel of communication between NMSCDCL and

•	The Parties shall carry out all responsibilities in terms of the Project:
i.	The broad roles and the responsibilities of each Party as per each member's field of expertise a each stage of the bidding shall be as below:  Party A:  Party B:
i.	The proposed administrative arrangements (organization chart) for the management and execution of the Project shall be as follows:
i.	The profit and loss sharing ratio shall be
ζ.	The Parties agree that all the members of the Consortium shall be jointly and severally liable for all obligations in relation to the Contract until the completion of the Project in accordance with the Contract and also thereafter
Κ.	The Parties affirm that they shall implement the Project in good faith and shall take all necessary steps to see the Project through expeditiously.
i.	That this Agreement shall be governed in accordance with the laws of India and courts inshall have exclusive jurisdiction to adjudicate disputes arising from the terms herein.
	vitness whereof the Parties affirm that the information provided is accurate and true and have caused Agreement duly executed on the date and year above mentioned.
Par	ty of the first part) (Party of the second part) (Party of the third part)
(1 aı	
	ness:

Contractor

# **APPENDIX III:** Statement of Legal Capacity

(To be forwarded on the letterhead of the Bidder)

Ref.	Date:
To,	
Chief Executive Officer Nashik Municipal Smart City Development Corporation Limited 4rth Floor, Panditrao Khaire Panchvati Divisional Office, Nashik Municipal Corporation, Makhmalabad Naka, Panchavati, Nashik	
Dear Sir,	
We hereby confirm that we satisfy the terms and conditions laid out in the RFP.	
We, as a consortium, hereby appoint [•]. (Insert individual's name and designated as authorized signatory for submission of the bid as well as such docume required with respect to RFP. Further, the authorized signatory is vested with requisions letter and authenticate the same.	ents, letters, contracts
Thanking you,	
Yours faithfully, [●]	

Contractor

# APPENDIX IV: Format for Declaration by the Bidder for not being Blacklisted / Debarred/ Terminated

(In case of consortium, to be provided by all the members of the Consortium)

# (On the non-judicial stamp paper of appropriate value)

Date: [●]
То
Chief Executive Officer  4rth Floor, Panditrao Khaire Panchvati Divisional Office, Nashik Municipal Corporation, Makhmalabad Naka, Panchavati, Nashik
<b>Subject:</b> Declaration for not being debarred/ black-listed/terminated by Central/ any State Government department in India as on the date of submission of the Bid
RFP Reference No: XXXX
Dear Sir,
I, authorized representative/signatory of the company/consortium
In the event of any deviation from the factual information/ declaration, NMSCDCL reserves the right to reject the Bid or terminate the Contract without any compensation.
Thanking you.
Yours faithfully,
Signature of Authorized Signatory (with official seal)  Date: Name: Designation: Address: Telephone &Fax: E-mail address

**Chief Executive Officer** 

ontractor

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# **APPENDIX V:Letter comprising the Pre-Qualification Bid**

(Refer Clause 2.12.1)

To

Chief Executive Officer

4rth Floor, Panditrao Khaire Panchvati Divisional Office,

Nashik Municipal Corporation,

Makhmalabad Naka,

Panchavati.

Nashik

Subject:Application for Pre-Qualification Bidfor RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra

Dear Sir,

With reference to your RFP dated [•], we, having examined the document and understood its contents, hereby submit our Bid for the aforesaid Project. The Bid is unconditional and unqualified.

- 1. I acknowledge that NMSCDCL will be relying on the information provided in the Bid and the documents accompanying such Bid for selection of the Bidders for the aforesaid project, and we certify that all information provided in the Bid and in Annexure 1 to 5of Appendix V is true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying such Bid are true copies of their respective originals.
- 2. This statement is made for the express purpose of qualifying as a Bidder for undertaking: which includes an O&M Period and Defect Liability Period
- 3. I shall make available to NMSCDCL any additional information it may find necessary or require to supplement or authenticate the qualification statement.
- 4. I acknowledge the right of NMSCDCL to reject our Bid without assigning any reason or otherwise and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
- 5. I certify that in the last 3 (three) years, wehave neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial employer or a judicial pronouncement or arbitration award, nor been expelled from any project or contract by any public employer nor have had any contract terminated by any public employer for breach on our part.
- 6. I declare that:
  - (a) I have examined and have no reservations to the RFP, including any Addendum issued by NMSCDCL.
  - (b) I do not have any conflict of interest in accordance with Clause 2.2.1(b) and I am not disqualified in accordance with the provisions of Clause 2.2.1(c) of the RFP.

- (c) I have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in Clause 4 of the RFP, of any tender or request for proposal issued by or any agreement entered into with NMSCDCL or any other public sector enterprise or any government, Central or State; and
- (d) I hereby certify that we have taken steps to ensure that in conformity with the provisions of Section 4 of the RFP, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.
- 7. I understand that you may cancel the Bidding Process at any time and that you are neither bound to accept any Bid that you may receive nor to invite the Bidders to Bid for the Project, without incurring any liability to the Bidders, in accordance with Clause 2.16.9 of the RFP.
- 8. I believe that we satisfy the Net Worth criteria and meet all the requirements as specified in the RFP document and are qualified to submit a Bid.
- 9. I certify that in regard to matters other than security and integrity of the country, we have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory employer which could cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.
- 11. I further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law.
- 12. I further certify that no investigation by a regulatory authority is pending either against us or against our CEO or any of our directors/ managers/ employees.
- 13. I further certify that we are not barred by the Central/ State Government or any entity controlled by it, from participating in any project, and that no bar subsists as on the date of Bid.
- 14. I further certify that we are qualified to submit a Bid in accordance with the guidelines for qualification of bidders seeking to acquire stakes in Public Sector Enterprises through the process of disinvestment issued by the GOI vide Department of Disinvestment OM No. 6/4/2001-DD-II dated 13th July, 2001 which guidelines apply *mutatis mutandis* to the Bidding Process. A copy of the aforesaid guidelines form part of the RFP at Appendix-VII thereof.
- 15. I undertake that in case due to any change in facts or circumstances during the Bidding Process, we are attracted by the provisions of disqualification in terms of the provisions of this RFP, we shall intimate NMSCDCL of the same immediately.

Contractor

- 16. The Statement of Legal Capacity as per format provided at Appendix-IV of the RFP and duly signed, is enclosed. The power of attorney for signing of Bid, as per the format provided at Appendix II of the RFP is also enclosed.
- 17. I certify that the Bidder (Lead bidder in case of consortium) is an existing Company incorporated under the {Indian Companies Act, 1956/ Indian Companies Act, 2013}.
- 18. I hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by NMSCDCL in connection with the selection of Bidders, selection of the Successful Bidder, or in connection with the selection/ Bidding Process itself, in respect of the above mentioned Project and the terms and implementation thereof.
- 19. The documents accompanying the Pre-Qualification Bid, as specified in Clause 2.12.1 of the RFP, have been submitted in separate files online on the procurement portal and is submitted in hard copy at the address set forth in Clause 2.14.1.
- 20. I offer a Bid Security of INR 9,54,000/- (NineLakh Fifty Four Thousand Only) toNMSCDCL in accordance with the RFP.
- 21. I agree and undertake to abide by all the terms and conditions of the RFP.
- 22. I certify that in terms of the RFP, our Net worth of INR [•] (Rupees. In words) is positive.
- 23. I undertake to engage personnel specialized/ sub-contractors for construction of those elements of the Project for which we do not have adequate experience.
- 24. I agree and undertake to be jointly and severally liable for all the obligations of the Contractor under the Contract Agreement.
- 25. I hereby submit our Bid and offer a Bid Price as indicated in Financial Bid for undertaking the aforesaid Project in accordance with the Bidding Documents and the Agreement.
- 26. I shall keep this offer valid for 120 (one hundred and twenty) days from the Bid Due date specified in the RFP.

In witness thereof, we submit this bid under and in accordance with the terms of the RFP.

Yours faithfully,

Place: (Signature, name and designation of the Authorized Signatory)

Date: {Name and seal of the Bidder}

Contractor

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# ANNEXURE 1: Details of work tendered for and in hand as on the date of submission of this RFP

# NAME OF THE BIDDER:

			Work in hand			Works tendered for			
			Tendered	Cost of	Anticipated	Date when S		Stipulated	
Sr.	Name of work	Place	cost	remaining	date of	Estimated	decision is	date or	Remarks
No.		and		work	completion	cost	expected	period of	
		Country						completion	
1	2	3	4	5	6	7	8	9	10

# ANNEXURE 2: Details of works carried out by the Bidder

# NAME OF THE BIDDER:

Sr. No.	Name of work	Cost of work	Date of starting	Stipulated date of completion	Actual date of completion	Remarks
1	2	3	4	5	6	7

Contractor Chief Executive Officer

# ANNEXURE 3: Details of plants and machinery immediately available with the Bidder

# NAME OF THE BIDDER:

Sr. No.	Name of equipment	No. of units	Kind and make	Capacity	Age and condition	Present location	Remarks
1	2	3	4	5	6	7	8

6.3.2

Contractor Chief Executive Officer

ANNEXURE 4: Details of technical personnel available with the Bidder.

## NAME OF THE BIDDER:

Sr. No.	Name of the person	Qualification	Whether working in field or office	Experience of execution of similar works	Period for which the person is working with the Bidder	Remarks
1	2	3	4	5	6	7

NOTE: The specific persons proposed to be deployed for this Site shall be nominated as Resident Engineer, Quality Control Engineer etc. along with Photographs, Signed Bio-data and Certificates.

Minimum Qualification

Contractor Chief Executive Officer

# **ANNEXURE 5:** Financial capacity of the Bidder

(Refer Clause (C), 2.2 of the RFP)

#### Part I:

	Financial 2016	Year	2015-	Financial Year 2016- 2017	Financial Year 2017- 2018
Average Turnover					

Note: To be supported by audited financial statements of the organization duly certified by a Chartered Accountant.

## Part II:

	Financial Year preceding the Bid Due Date as on 31st March 2018
Net Worth	

Note: To be supported by certificate from statutory auditors of the Bidder specifying the positive Net Worth along with the details of computation of the Net Worth.

Contractor

**Chief Executive Officer** 

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AN NEXURE 6 : Approach and Methodology.

(Refer Clause 3.1.5 of the RFP)

Bidders to provide details of:

- (a) Proposed plan including timeframe for performing various tasks in accordance with the scope of work as set out in Appendix X;
- (b) Flow chart of process setting out the manner in which the Bidder shall undertake the Project; and
- (d) Manner in which the Bidder proposes to tackle the sludge in order to successfully undertake the Project.

Contractor

# **APPENDIX VI:** Letter comprising the Financial Bid

(*Refer Clause 2.12.1*))

(To be submitted only online in separate folder named Financial Bid)

Subject:Financial Bid for RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra

Dated: [●]

Dear Sir,

With reference to your RFP document dated [•], {I/we}, having examined the Bidding Documents and understood their contents, hereby submit {my/our} BID for the aforesaid Project. The Bid is unconditional and unqualified.

- I acknowledge that NMSCDCL will be relying on the information provided in the Bid and the
  documents accompanying the Bid for selection of the Contractor for the aforesaid Project, and we
  certify that all information provided in the Bid are true and correct; nothing has been omitted which
  renders such information misleading; and all documents accompanying the Bid are true copies of
  their respective originals.
- 2. I undertake that the prices are in conformity with the specifications prescribed. The quote/ price are inclusive of all cost likely to be incurred for executing this Project. The prices are inclusive of all type of government taxes/duties as may be applicable for undertaking this Project.
- 3. I undertake, if our Bid is accepted, to complete the Project in adherence to the Bidding Document.
- 4. I have examined and have no reservations to the Bidding Documents, including any corrigendum/addendums issued by NMSCDCL.
- 5. I hereby declare that in case the contract is awarded to us, we shall submit the performance security and additional performance security, if applicable, as prescribed in the Bidding Document.
- 6. I agree to abide by this Bid for a period of 120 (One Hundred and Twenty) days from the Bid Due Date and it shall remain binding upon us and may be accepted at any time before the expiry of that period.
- 7. I hereby declare that in case the LOA is awarded to us and accepted by us and until a formal contract is prepared and executed, this Bid, together with NMSCDCL written acceptance thereof and notification of award by NMSCDCL shall constitute a binding contract between us.

- 8. I hereby declare that our Bid is made in good faith, without collusion or fraud and the information contained in the Bid is true and correct to the best of our knowledge and belief.
- 9. I understand that NMSCDCL is not bound to accept the lowest or any bid it may receive. We agree to all the terms and conditions as mentioned in the Bidding Document and certify that we have not submitted any deviations in this regard.
- 10. In case of any discrepancy between words and figures, the words shall prevail over the figures.

In witness thereof, we submit this Bid under and in accordance with the terms of the RFP.

Yours faithfully,

Name of the Authorized Signatory: Designation of the Authorized Signatory: Seal of the Bidder

Financial Proposal Format and Instructions

# To be submitted on e-Tendering Portal only

RFP Reference No: [●]

:

I/We quoted my/our offer as at par or [●] percent above or [●] percent below the Estimated Project Cost i.e. [•]/- (Rupees [•] Only).

Contractor

# **APPENDIX VII:** Format of sending pre-bid queries

*RFP No:* [●]

Bidder's Request For Clarification									
Name and complete official address of			Telephone, Fax and E-mail of the organization						
Orgai	nization sub	omitting query / 1	request	_					
for cl	arification		•	Fax:					
				Email:					
Sr.	Clause	Page No.	Conte	nt of	RFP	Clarification	required/	Change	
No.	No.	_	Requi	ring Clarifi	cation/	Requested			
			change	_		_			
			8						
1									
2									

Signature:

Name of the Authorized signatory:

Company seal:

Date and Stamped

Note: Bidder(s) are requested to send the queries in PDF with Sign and Company Seal and also in MS Excel for making consolidation process easy.

Contractor

# **APPENDIX VIII-A:** Format for Performance Security

(Refer Clause 2.28 of the RFP)

# (To be on non-judicial stamp paper of appropriate value)

- In consideration of the ----- [Insert name of the Bidder] submitting the response to the RFP for RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra(RFP no. [●] dated [●]) issued by Nashik Municipal Smart City Development Corporation Limited (hereinafter referred to as "NMSCDCL") and NMSCDCLconsidering such response to the RFP of {insert the name of the Selected Bidder} (which expression shall unless repugnant to the context or meaning thereof include its executers, administrators, successors and assignees) and selecting the {insert name of the Selected Bidder} and issuing LOA dated [●] as per the terms of RFP and the same having been accepted by {insert name of the Selected Bidder}.
- As per the terms of the RFP, {insert name & address of the bank} (hereinafter referred to as "Guarantor Bank") hereby agrees unequivocally, irrevocably and unconditionally to pay to NMSCDCL forthwith on demand in writing from NMSCDCL or any Officer authorized by it in this behalf, any amount up to and not exceeding Rupees [•] [Total Value] only, on behalf of {Insert name of the Selected Bidder}
- 3 This guarantee shall be valid and binding on this Guarantor Bank up to and including [●] and shall not be terminable by notice or any change in the constitution of the Guarantor Bank or the changes in the term of contract or by any other reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or variations or alternations made, given, or agreed with or without our knowledge or consent, by or between parties to the respective agreement.
- 7 The Guarantor Bank hereby expressly agrees that it shall not require any proof in addition to the written demand by NMSCDCL, made in any format, raised at the above-mentioned address of the Guarantor Bank, in order to make the said payment to NMSCDCL.

K	atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
8	The Guarantor Bank shall make payment hereunder on first demand without restriction or conditions and notwithstanding any objection by [Insert name of the Selected Bidder]. The Guarantor Bank shall not require NMSCDCL to justify the invocation of this BANK GUARANTEE, nor shall the Guarantor Bank have any recourse against NMSCDCL in respect of any payment made hereunder
9	This BANK GUARANTEE shall be interpreted in accordance with the laws of India and the courts at Nashik shall have exclusive jurisdiction.
10	The Guarantor Bank represents that this BANK GUARANTEE has been established in such form and with such content that it is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.
11	This BANK GUARANTEE shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the Guarantor Bank.
12	This BANK GUARANTEE shall be a primary obligation of the Guarantor Bank and accordingly NMSCDCL shall not be obliged before enforcing this BANK GUARANTEE to take any action in any court or arbitral proceedings against the [insert the name of the Selected Bidder] to make any claim against or any demand on the Selected Bidder or to give any notice to [insert the name of the Selected Bidder] or to enforce any security held by or to exercise, levy or enforce any distress, diligence or other process against the Selected Bidder.
13	Notwithstanding anything contained hereinabove, our liability under this Guarantee is restricted to INR (Rs only) and it shall remain in force until
Sig	gnature
Na	me
Po	wer of Attorney No
For	r
	[Insert Name of the Bank]
Co	ntractor Chief Executive Officer

Contractor

Banker's Stamp and Full Address.
Dated this day of, 20
Witness:
1
2
Signature
Nama and Addrage

Contractor

# **ANNEXURE 1:** Check list for Performance Security

Sr. No.	Details of checks	YES/NO
A	Is the Bank Guarantee ("BG") on non-judicial Stamp paper of appropriate value, as per applicable stamp Act of the place of execution	
В	Whether date, purpose of purchase of stamp paper and name of the purchaser are indicated on the stamp paper? (The date of purchase of stamp paper should be not later than the date of execution of BG and the stamp paper should be purchased either in the name of the executing Bank or the party on whose behalf the BG has been issued.).	
С	Has the executing Officer of BG indicated his name, designation and Power of Attorney No. /Signing Power no. /Other similar authorization on the BG?	
D	Is each page of BG duly signed / initialed by executants and whether stamp of Bank is affixed thereon? Whether the last page	
Е	Does the Bank Guarantees compare verbatim with the Performa prescribed in the RFP?	
F	Are the factual details such as RFP No. amount of BG and validity of BG correctly mentioned in the BG	
G	Whether overwriting/cutting if any on the BG have been properly authenticated under signature & seal of executants?	
Н	Contact details of issuing bank including details of Branch Manager, email id, mobile number etc.	
I	Is the Jurisdiction of Court is restricted to Courts of Nashik	

Contractor

RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra

APPENDIX VIII-B: Format for Bank Guarantee for Mobilization Advance

Deleted

Contractor

# **APPENDIX -IX:** Guidelines of the Department of Disinvestment

(Refer Clause1.2.1 of the RFP)

No. 6/4/2001-DD-II

Government of India Department of Disinvestment

Block 14, CGO Complex

New Delhi. Dated 13th July, 2001

**OFFICE** 

#### **MEMORANDUM**

Sub: Guidelines for qualification of Bidders seeking to acquire stakes in Public Sector Enterprises through the process of disinvestment Government has examined the issue of framing comprehensive and transparent guidelines defining the criteria for bidders interested in PSE-disinvestment so that the parties selected through competitive bidding could inspire public confidence. Earlier, criteria like net worth, experience etc. used to be prescribed. Based on experience and in consultation with concerned departments, Government has decided to prescribe the following additional criteria for the qualification/ disqualification of the parties seeking to acquire stakes in public sector enterprises through disinvestment:

- (a) In regard to matters other than the security and integrity of the country, any conviction by a Court of Law or indictment/ adverse order by a regulatory authority that casts a doubt on the ability of the bidder to manage the public sector unit when it is disinvested, or which relates to a grave offence would constitute disqualification. Grave offence is defined to be of such a nature that it outrages the moral sense of the community. The decision in regard to the nature of the offence would be taken on case to case basis after considering the facts of the case and relevant legal principles, by the Government of India.
- (b) In regard to matters relating to the security and integrity of the country, any charge- sheet by an agency of the Government/ conviction by a Court of Law for an offence committed by the bidding party or by any sister concern of the bidding party would result in disqualification. The decision in regard to the relationship between the sister concern would be taken, based on the relevant facts and after examining whether the two concerns are substantially controlled by the same person/persons.
- (c) In both (a) and (b), disqualification shall continue for a period that Government deems appropriate.
- (d) Any entity, which is disqualified from participating in the disinvestment process, would not be allowed to remain associated with it or get associated merely because it has preferred an appeal against the order based on which it has been disqualified. The mere pendency of appeal will have no effect on the disqualification.
- (e) The disqualification criteria would come into effect immediately and would apply to all bidders for various disinvestment transactions, which have not been completed as yet.

Contractor

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
- (f) Before disqualifying a concern, a Show Cause Notice why it should not be disqualified would be issued to it and it would be given an opportunity to explain its position.
- (g) Henceforth, these criteria will be prescribed in the advertisements seeking Expression of Interest (EOI) from the interested parties. The interested parties would be required to provide the information on the above criteria, along with their Expressions of Interest (EOI). The bidders shall be required to provide with their EOI an undertaking to the effect that no investigation by a regulatory authority is pending against them. In case any investigation is pending against the concern or its sister concern or against its CEO or any of its Directors/ Managers/ employees, full details of such investigation including the name of the investigating agency, the charge/ offence for which the investigation has been launched, name and designation of persons against whom the investigation has been launched and other relevant information should be disclosed, to the satisfaction of the Government. For other criteria also, a similar undertaking shall be obtained along with EOI.

Sd/-

(A.K. Tewari) Under Secretary to the Government of India)

Contractor

## APPENDIX X:Scope of Work

# Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra

There exists a weir at the downstream edge of the Holkar Bridge which functions as a storage facility. The bridge structure was built during British era before Independence and thus is functioning for more than 100 years. Some new additions have been incorporated to enhance road way lane width which is also kept aloof from the existing structure and road way. The existing weir spans between the piers of old bridge. Accumulation of silt on up stream of Godavari river may result to rise in water level during floods thus may cause inundation of neighborhood settlers (Residential area) of Godavari river thus causing alarming impact. Severe flood hazard was experienced during 2008 floods in this area's, and thus affected the developmental works. Modifications of existing structure to accommodate traditional gates and its operational facilities, do impose additional loadings which are not healthy for structural stability, and In view of these gates with the provision of automatically operative with minimum of no impact on the existing structure is preferable at such locations. Provision of Smart Automated Mechanical Pneumatically Operated gates will overcome the handicap of silt deposition within the pond zone and surge of flood water in to neighborhood residential areas and thus rejuvenate the river regime for healthy River front developmental works. Therefore it is as per the Government of India National water Policy the Proposed scheme not only aims to improve its health and living condition of the population and livestock in adjacent to Godavari River but also at the same time ensures environmentally sustainable development for River front. Water supply to the water scarce areas, Recreation, Navigation development activities ensured suitably managing the planned storage facility. It is with these main focus, some evolutions on adoptability of innovative designs of storage facility which can be well suited and can be built and safely operative, with reduced construction period have been considered.

The present assignment conforms the provision of Automated Mechanical Pneumatically Operated gates across Godavari River at the Bridge location near Ramkund to facilitate storage facility with its appurtenances, incorporating there in the Detail Topographical Survey, including the cost estimates to be incorporated with the Studies on Rejuvenation of River Godavari and integrated plan for improvement of environmental status for Nashik region Maharashtra, Sponsored by Nashik Municipal corporation.

## 1. Scope of the Work

- **a.** The scope of Work broadly includes the following:
  - Reconnaissance survey of the project area and Topographical survey and Alignment of Gated weir.
  - Collection of data relating to the Storage capacity, Hydraulics of river channel and Fixing control levels from Project authorities,
  - Proposal of innovative pneumatically operated Smart Automated Mechanical Pneumatically Operated Spillways Gated Weir.
  - Project Report to be prepared as per BOQ and to include siting and architectural drawings of control room. The site to be approved by NMC before commencement of the work.

- b. This section includes the design and fabrication requirements for a pneumatic crest gate and appurtenances for control of water at the Ahilayabai Holkar Bridge (Victoria Bridge) Across Godavari in Nashik District, India.
- c. Items to be supplied by the pneumatic crest gate supplier include (but are not limited to) the following:
  - Steel gate panels.
  - Steel Shield Plates.
  - Polyester reinforced air bladders and associated piping components to attach to Contractor supplied main air piping.
  - Reinforced rubbers inter panel seals and stainless-steel attachment hardware.
  - Spillway gate clamping hardware and stainless-steel anchor bolts, nuts, and washers.
  - Reinforced rubber restraining straps and stainless-steel attachment hardware.
  - Napee breakers and stainless-steel attachment hardware.
  - Stainless steel abutment plates with anchoring hardware.
  - Model 10-3-1 mechanical control cabinet complete and ready for installation per engineer's direction.
  - Model 10-3 Schneider Electric M340 PLC based water level control system complete and ready for installation per engineer's direction
  - Ingersoll Rand air compressor equipment including air compressor, filters, refrigerated type air dryer, and receiver tank.
  - Water level transducer.
  - Anchor bolt setting template.
  - Installation, testing, commissioning, supervision and training to technicians.
  - Three-year written warranty on pneumatic crest gate system.
  - All related civil and allied control room, electricity arrangement etc.
  - Comprehensive operation and maintenance of three years.

## 2. Work to be performed by the Installation Contractor:

- Verify conditions.
- Required concrete work or civil modifications
- Any required concrete work or civil modifications.

- Air supply pipe and installation of same.
- Installation of anchor bolts.
- Installation of the pneumatic spillway gate system including air bladders, gate panels, and other related components.
- Provide and install all air piping and supports.
- Installation of abutment plates including any needed grouting.
- Provide and install any required electrical conduit and wiring.
- Provide and install any required control conduit and cable.
- Installation of all pneumatic spillway gate control equipment.
- Installation of all mechanical equipment in accordance with original manufacturer's specification.
- Start-up, debug, and test spillway gate in conjunction with manufacturer.
- Provide Never seize or other approved lubricating compound for all stainless steel anchor bolts and fasteners.
- Provide 100% silicone caulk for all inter panel seals.
- Provide and install condensate purge valves at near side abutment.
- Provide and install a stilling well for installation and protection of water level sensor. Junction box and routing of signal cable between stilling well and control system.

#### 3. Installation

• The installed work shall be in accordance with the crest gate manufacturer's approved written instructions to comply with the requirements specified herein and on the drawings.

## 4. Field Testing

- All air supply pipes shall be tested prior to covering with concrete, back filled, or otherwise concealed.
- The air piping downstream of the plumbing cabinet shall be tested by pressurizing to 4-bar for 24-hours. Pressure readings and ambient air temperature shall be recorded at six different times during the test. Any joints or fittings exhibiting leakage during this time shall be repaired or replaced.
- The air piping upstream of the plumbing cabinet shall betested by pressurizing to 10-bar for 24-hours. Pressure readings and ambient air temperature shall be recorded at six different times during the test. Any joints or fittings exhibiting leakage during this time shall be repaired or replaced.

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
  - The pneumatic spillway gate supplier shall be present and shall aid in the startup, debugging, and testing of complete system.
  - After installation of the gate system the spillway gates shall be fully raised and lowered three times using the control system. The gate shall operate smoothly with no binding.
  - After installation of the spillway gate system, the air bladders shall be inflated to 1/2 normal operating pressure. The gate system shall be isolated form the air supply system and held at pressure for 24 hours. Pressure and outside ambient temperature shall be recorded at the beginning and end of the test and at four different intervals during the test. Any bladders exhibiting leakage will be repaired by the manufacturer at no cost to the Owner. If the Contractor is responsible for the damage, the Contractor shall be responsible for making the necessary repairs that shall be acceptable to the Owner and the Gate Supplier at no cost to the Owner or Supplier
- **5. Operation and Maintenance:** The scope of Work includes operation and comprehensivemaintenance for 3 (three) years

Contractor

#### APPENDIX XI: TECHNICAL SPECIFICATIONS

RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates at Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, MaharashtraPNEUMATIC CREST GATE

## A. CIVIL & MECHANICAL GATE

## 1. PERFORMANCE CRITERIA

- The pneumatic crest gate system, including gate panels, air bladders, air supply components, abutment plates, controls and associated Appurtenances shall be furnished by the gate supplier unless otherwise indicated. The crest gate shall be installed by the installation contractor.
- The crest gates shall consist of a steel gate panel attached to the spillway crest by means of an elastomeric hinge and an air bladder mounted between the hinged gate and the spillway crest. The hinge shall be anchored using stainless steel anchor bolts. The elastomeric hinge shall allow the pneumatic crest gate to operate through a range from fully raised to fully lowered. Rubber wiper type abutment seals shall be provided to allow a watertight seal across the full range of gate motion.
  - Pneumatic air control lines (supplied by the Installation Contractor) to and from the gates shall be manufactured from stainless steel
- The pneumatic crest gates shall be specifically designed for this project. 2 gate assemblies shall be mounted at elevation 559.797 meters and shall extend to elevation 562.24 meters, 2 gate assemblies shall be mounted at elevation 557.076 meters and shall extend to elevation 562.24 meters and 1 gate shall be mounted at elevation 557.590 meters and shall extend to elevation 562.24 meters in the fully closed position. The gates shall be designed for 300-mm of overtopping in the completely raised position.
- The 5 gate assemblies shall be 17.4 meters wide. Each 17.4 meter gate will comprise 2 individual nominal 8.7 meter wide gate panels and bladders. All gate panels/air bladders shall operate in unison to create a total of 5 gate, 17.4 meter wide control sections.
- The pneumatic crest gate shall operate within the ambient temperature range of plus 50 degrees C to minus 40 degrees.
- The crest gate system shall be capable of withstanding impact from floating logs and debris and shall have a minimum gate steel thickness of 16 mm.
- The pneumatic crest gate system shall be designed to operate in both a fully raised and a partially raised position for extended periods of overtopping without experiencing significant oscillation, adverse flow conditions or wear.
- The pneumatic crest gate system shall be anchored to the concrete spillway crest. The anchor bolt allowable shear and tension stresses for attachment to the concrete shall not exceed that recommended by the anchor bolt manufacturer.
- The gap between adjacent gates shall be sealed by a rubber web clamped to each gate panel and made of polyester reinforced rubber. The pneumatic crest gate system shall be watertight at these seals.
- The pneumatic crest gate system shall be designed, manufactured, and installed so as not to cause binding or damage to component parts of the system.

- A stainless steel abutment plate shall be supplied and installed at each concrete abutment. The abutment plate will provide a flat vertical sealing surface for the pneumatic spillway gate system.
- A restraining strap shall be incorporated to limit the upstream travel of the gate and to define the maximum gate height.

# 2. Pneumatic Crest Gate Control Equipment

- The control system shall be supplied by the crest gate manufacturer and installed by the contractor. The control system shall be provided in dual Nema 12 rated steel electrical cabinets.
- The control system shall measure upstream water elevation using a submersible depth transmitter.
   The gate shall automatically maintain a constant upstream water elevation to within 50-mm of set-point.
- The control system shall include a pressure regulator for regulating internal air bladder pressure.
- An ASME stamped pressure relief valve shall be incorporated into the control system to protect the air bladders from over pressurization. The pressure relief valve shall be set at a pressure not more than 20% higher than maximum operating pressure.
- The control system will include pressure gages for monitoring air receiver pressure, set pressure, and air bladder pressure.
- The control system shall incorporate manual by-pass valves for manual inflation and deflation of the gate.

## 3. Codes and Standards:

Codes and Standards: Comply with the provisions of the following except as otherwise indicated:

- AISC "Manual of Steel Construction Allowable Stress Design" latest Edition.
- AWS D1.1 "Structural Welding Code" latest Edition.
- ASTM A36 Standard Specification for Carbon Structural Steel
- ASTM123-89A Specification for Zinc coating on Iron and Steel Hardware.
- ASTM 153-82 Specification for Zinc Coating on Iron and Steel Hardware.
- ASTM A313 Standard Specification for Stainless Steel Spring Wire.
- ASTM A572 Standard Specification for High- Strength Low-Alloy Columbium-Vanadium Structural Steel.
- ASTM D751 Standard Test Methods for Coated Fabrics.
- ASTM D1149 Standard Test Methods for Rubber Deterioration-Cracking in an Ozone Controlled Environment.
- ASTM D2000 Standard Classification System for Rubber Products in Automotive Applications.

## 4. Material Specifications

## 1. Steel

- The steel gate panels and restraining strap clamps will be manufactured from ASTM A572 grade 50 steel or approved equal.
- Hinge retainers, web retainers, clamp bars and other non-structural components to be manufactured from A36 steel or approved equal.

- All threaded fasteners shall be from AISI 304/304L stainless steel or approved equal. The main anchor bolts shall be from heat treated 17-4 PH stainless steel or approved equal. Minimum tensile properties shall be in accordance with calculations supplied by the gate manufacturer.
- All welded stainless steel components shall be passivated by stainless steel wire wheel or by acid.
- All steel components to be designed so that the maximum stress level in each component is less than 40% of yield strength and less than 25% of ultimate strength.
- All carbon steel components shall be sand blasted in accordance with SSPC-SP 10 and coated with a minimum of two coats of CeramKote 54 epoxy paint in accordance with original manufacturer's recommendations.

#### 5. Shield Plate

- A shield plate shall be furnished with the bottom hinged gate and shall be designed to protect the bladder on the downstream side of the bottom hinged gate from vandalism including vandalism
- Associated with firearms. It shall be hinged to the top of the gate panel and employ at least two rollers on the side which contacts the sill. The shield plate shall be shaped to reduce interference from debris on the sides and at the roller contact with the sill.
- The shield plate shall be manufactured from type A 572 grade 50 steel plates or approved equivalent material.
- The shield plate design shall include stainless steel plates embedded and anchored in the sill to provide a smooth surface for the shield plate rollers.
- The shield plate shall be supplied and configured so that the Engineer can elect to not install it but still install the bottom hinged gate.

## 6. Air Bladders

- The working pressure for the air bladder shall not exceed 250 kPa. The air bladder body shall be designed for a minimum nominal safety factor of 8 when comparing hoop stress to working pressure.
- The air bladder shall be reinforced with not less than two plies of unidirectional polyester tire cord. Use of square woven fabric is not permitted.
- The polyester tire cord shall have a minimum tensile strength of 400 N/mm.
- The air bladder shall be completely sealed in a one stage high pressure/heat vulcanization process. No vulcanization of previously cured rubber material is permitted. Use of adhesives for the purpose of sealing previously vulcanized rubber material is not allowed.
- A means to relieve fabric stress shall be incorporated into the air bladder wherever the reinforcing fabric changes direction. Stress relief size will be determined by the manufacturer.
- The outer weathering layer shall meet or exceed ASTM D2000 2BA5.515A14B13C12.
- The air bladder material shall have a minimum thickness of 10 mm as measured in accordance with ASTM D751.
- An abrasion test using an H18 stone with a 1-kgf pound load for 1000 repetitions as modified from ASTM C501 shall show less than 0.5 cubic cm of abrasion.
- An ozone test shall show no abnormality in appearance when subjected to an ozone test conducted as 100pphm, 104 degrees Fahrenheit and 50 percent elongation, in accordance with ASTM D 1149.

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• The adhesion between the polyester reinforcement and the rubber shall be a minimum of 90newtons per cm before aging and a minimum of 65-newtons per cm after aging in 40 degrees C for 96 hours.

# 7. Air Piping and Electrical Conduit

- The air supply piping between the control system plumbing cabinet and of the gates to be 304/304L stainless steel 50- mm schedule 10 pipe conforming to ASTM A312 and ANSI/ASME B36.19 or owner approved substitute.
- Contractor to provide all piping up to and including 20-mm barb hose nipple at the connection to each air bladder. Gate system manufacturer to provide connection hardware between barb hose nipple and air bladder.
- Contractor to provide means of removing condensate from air line at low point of air pipe system or at control side abutment.
- Any exposed portions of the piping shall be securely supported on six-foot centers using 14 gauge galvanized steel unistrut. A minimum of two 12-mm stainless steel epoxy type anchor bolts per 6-meter pipe span shall be used to mount unistrut.
- All air piping shall utilize welded fittings. All welding to be in accordance with AWS structural
  welding specifications. All fittings shall meet MSS SP-43, ASTM A403/403M and ANSI/ASME
  B16.9. All pipe joints shall be leak free.
- Before installation of gate system, the entire run of pipe and connections shall be inspected and pressure tested to 4-bar and each joint checked for leaks in the presence of the owner's representative.

## 8. Abutment Plates

- The abutment plates shall be supplied by the gate manufacturer and installation by the contractor. The abutment plates shall be manufactured from 304/304L stainless steel.
- The abutment plates shall be installed plumb and square to + or − 3mm to the gate system anchor bolt centerline per drawings.

## 9. Air Supply System

- The air supply system shall inflate the gates to operating pressure in less than 60-minutes.
- The air compressor system shall include dual \_ rotary screw air compressors or equal. Each machine shall provide the gate system with \_ACMM at 8.5-bar.
- Each air compressor unit to be equipped with ODP electric motor, air cooled after cooler, softstart starter, auto start/stop and constant speed control function, low sound metal enclosure, prefilter, 8000-hour rated coolant, oil filter, and separator element. Owner to specify voltage and phase.
- The system shall incorporate dual refrigerated air dryers model or equivalent to provide a dew point level of +3 degrees C.
- The air supply system shall incorporate a coalescing filter to remove any aerosols or other contaminants. The filter shall be mounted between the air compressor and air dryer.
- The air supply system shall incorporate an after filter for removing any desiccant dust from the compressed air stream. The filter shall be mounted between the air dryer and the dry receiver

tank.

- A1500-liter receiver tank shall be provided for storage of clean dry compressed air. Each ASME rated receiver tank will be complete with condensate drain and pressure relief valve.
- All equipment shall be installed in accordance with original manufacturer's instruction. All
  components will be installed using sufficient unions and proper fittings to facilitate long term
  maintenance.

## 10. Control System

- The gate system manufacturer shall supply the control system. Control system to be factory assembled, tested and ready for connection into owner supplied piping and wiring. The control system shall be packaged in two cabinets: PLC and mechanical.
- The control system shall utilize a Schneider Electric M340 PLC to monitor upstream water elevation and to adjust gate position as required in order to maintain an operator input constant upstream water level.
- A minimum 18" color touch screen (HMI) shall be provided for operator interfacing to the PLC.
   Specific HMI model information will be submitted and approved by the owner prior to control system fabrication.
- The PLC shall be factory programmed for automatic upstream water level control. A copy of the program shall be provided in the operation and maintenance manual
- The mechanical cabinet shall include the inflate and deflate solenoid valves along with pressure regulator, pressure gages, manual by-pass valves, air bladder pressure transducer, and other equipment required for gate operation.
- The solenoid valves will use high pressure pilot air for operation. High pressure pilot air shall be stored in a stand-alone accumulator tank located in the control cabinet.
- The control cabinets shall be a NEMA 12 rated electrical cabinets. Each enclosure will be sized for easy maintenance of all equipment.
- The solenoid control voltage shall be 24VDC. A power supply shall be provided in the PLC cabinet to convert 110- volt AC input to 24VDC.
- A pressure transducer shall be supplied for measuring air bladder pressure in each independent section of gate. The pressure transducer shall provide a 4-20 am signal in proportion to air bladder pressure.
- A KPSI water level transmitter shall be supplied for measuring upstream water elevation. The transmitter shall be lightning protected and shall be complete with 15-meter cable.
- All electrical connections in the control cabinet shall terminate in a well-defined terminal block for easy connection into owner supplied control system logic.
- The contractor shall be responsible for providing and installing all external electrical wiring, electrical conduit, and piping between control system components.

## B. Electrical

## 11. <u>Double Pole Structure</u>

a. Scope:

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The scope of work includes fabrication, supply, erection, painting as per the drawing and IS, and getting the two pole structure approved from Electrical&Mechanical department/Eingineer in Chrge. The pole structure comprising of following items:

- All M.S. elements of channels, angles, flat shall be painted with two coats of primer and further painted with two coats of Aluminum paint. All nut & bolts, washer etc. used shall be of hot dip galvanized of fine machine finish and cadmium plated.
- Vertical pole of minimum ISMB 175 (175 mm x 90 mm) size of approximately 9.0 / 10.0 mtr., with 400 x 400 x 8 mm size base plate welded to one end of both the joists
- Cross member of minimum ISMC 100 (100 mm x 50 mm) size channels approximately 3.5 mtr. each.
- Cross bracing angle of minimum ISA 50 ( 50 mm x 50 mm x 6 mm) size of 4.5 mtr. each.
- Side clamps, stay clamps, cleats, patties, etc. Fabricated from minimum 50 mm x 6 mm size M.S flats as per actual requirement.
- All nuts, bolts, washers etc. shall be of minimum 15 mm size.
- Erection of poles and fixing of all structural members as per drawing and instruction of Site engineer. The structure shall be erected in plumb, line level, properly facing the incoming and outgoing lines. Cross member shall be firmly tightened.
- All members shall be fabricated to suit the mounting / fixing of GOD, L.A, DOF, DISC/PIN/POST insulators, cable end termination kit / box etc. As per the drawing.
- All necessary hardware, nut-bolts, extra members, sundry items are included in the scope of work
- All M.S parts shall be first derusted and then painted with primer and aluminum paint.
- Earthing terminal shall be provided by welding 12 mm size bolt / cleat of 50 x 6 mm size M.S flat shall be fixed to each joist with a hole of 15 mm size and cadmium coated nuts, bolts, washers shall be provided as earthing terminals. Fixing or joining of any members is allowed by nut and bolt only welding is strictly not allowed.
- Suitable M.S. flat supports and cleats shall be fixed to ISMB poles for supporting / fixing the earthing protection strip in the manner approved by the Client.
- All drawing shall be prepared and submitted to energy Dept. for approval. Obtain the approval from M. & E. Dept.
- Vitreous enameled caution boards or any other requirements shall be provided.
- C.T.P.T. mounting channels, clamps, bracing angles, nut-bolts, hardware, etc. shall be supplied and erected.

#### b. Air break switch:

- The air break switch should be constructed as per IS: 9920 / 1985, are provided with test certificate.
- The A.B. switch should be triple pole type with movable center pole. All the poles should be opened / closed simultaneously by a lockable operating mechanism.
- The porcelain insulator shall be sound free from defects, thoroughly vitrified and smoothly glassed. Insulators shall have compressing type glassed with a good luster and of uniform brown color.
- The air break switch should be provided with 1 year guarantee and the test report.

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- The A.B. switch should be manually operated and shall be able to:
- Carry rated current without excessive temperature rise.
- Withstand the short circuit forces developed during fault.
- Carry the inrush current of transformer.
- Interrupt small inductive / capacitive current.
- The contacts shall be of silver faced copper ensuring sufficient contact pressure. The male & female contacts should be of self-aligning type to ensure trouble free operation during opening and closing. Mild steel arcing horn capable of breaking the magnetizing current shall be provided.

## c. Drop Out Fuse

- The D.O. Fuse assembly should be suitable for 11 KV supply and in accordance with IS 9385 / 1985. And provided with a test certificate
- The assembly shall be mounted on double pole structure complete with 3 fuse elements of required ampere rating. The fuse link shall consist of iron channel base, stack insulator per phase, fuse carrier bakelite tube, non-ferrous metal parts and spring loaded phosphor-bronze contacts. The insulator shall comply with impulse voltage test in accordance with IS 3106.

## d. Lightning Arrestor

- i. TYPE AND RATING:
- Lightning arrestor shall be station class, heavy duty & nonlinear resistance type gap less with rating as 7.8 KV.
- The arrestor shall have adequate thermal discharge capacity for severe switching surges, long duration surges and multiple strokes.
- ii. CONSTRUCTIONAL FEATURES
- The arrestor shall be single pole and hermetically sealed off. It shall be of robust construction with excellent electrical and mechanical characteristics.
- Insulators must be non-hygroscopic and shall be wet process porcelain, brown glazed and free from imperfection. All metal parts and hardware shall be hot dip galvanized.
- Creep age distance shall correspond to heavily polluted atmosphere. Grading ring if required shall be provided to maintain voltage gradient within permissible limit.
- The arrestor shall be provided with pressure relief device if applicable to prevent shattering of approach in case excessive gas pressure builds up.

#### iii. ACCESSORIES

• Lightning arrestor shall be furnished complete with insulating base, surge counter and anchoring hardware for mounting on steel structure.

- A surge counter shall be mounted at a convenient height for reading counter Terminals shall be such as to permit connections with minimum bends.
- A leakage current detector shall be furnished with the counter as an integrate part. This is for monitoring the leakage to indicate any possible breakdown.
- A suitable sized bypass shunt along with necessary terminals shall be furnished for bypassing the discharge counter if required.

#### iv. TERMINALS

- All connection terminals shall be of corrosion resistant material and shall be provided with complete connection hardware.
- High voltage line terminal connector suitable for ACSR conductor.

## 12. Transformer

a. Transformer shall generally conform to the requirements of IS 2026-2011 and IS 1180. The transformer shall be of HIGH EFFICIENCY, LOW LOSS Design & outdoor type. The general ratings with regard to voltage, frequency, etc. shall be as follows:

HT Voltage 11000 Volts LT Voltage 433 V Frequency 50 Hertz

b. Transformer tap changer should be off load type with +5% to -10% voltage variations. The transformer shall be double wound, delta-star connected, as per vector group DYn 11, otherwise called for. The transformer shall be rated for a maximum temperature rise of 45 deg C by thermometer in oil and 50 deg C by resistance at CMR with a daily average ambient temperature of 40 deg C and peak ambient temperature of 45 deg C. magnetizing current <1.5% of FLC.

#### c. TRANSFORMER CORE

Transformer core shall be made of high quality non-ageing, **low loss**; cold rolled grain oriented Grade M4 or better, silicon steel laminations conforming to IS 648-1962 and shall have insulation on both sides. The core shall be pressed and tightly held so that hum is minimized. The cores shall be provided with adequate ventilation ducts.

#### d. WINDINGS

Winding shall be made of electrolytic copper with circular or rectangular cross section. The windings shall be insulated with class"A" insulation material as per the specifications of IS 1271-1985. The windings shall have uniform insulation with respect to earth. The insulation shall withstand impulse voltage as laid down in IS 2026 part -3 -2009 the windings shall be fully dried, pre-shrunk by vacuum presses and impregnated. The coils shall be properly braced and secured to the frame structure both in radial and axial directions to withstand thermal and dynamic

**Contractor** 

(electromagnetic) stress during short circuit. The transformer shall be capable of operation at its rated kVA on any tapping without injury.

#### e. TRANSFORMER TANK

Transformer tank shall be fabricated from MS plates of proper thickness. The tank shall withstand a pressure test of 1kg/cm2 (As per CBIP) in excess of static head of oil. All bolted joints, inspection holds shall be provided with non-deteriorating gaskets. The transformer shall be fitted with, fixed or removable seamless radiator tubes adequately braced to the tank.

#### f. OIL

The transformers and all associated oil filled equipment's shall be supplied along with first filling of oil plus 10% extra quantity. The oil shall meet all requirements of IS: 335 / 1983 with amdt. 1 to 4. The oil shall be supplied in non-returnable steel drums.

#### g. PREVENTION OF ACIDITY

The design aid for all materials and processes used in the construction of the transformers is such as to reduce to a minimum risk of development of acidity in the oil. The use of the best quality material is to be made to ensure that there is no acidity introduced after the tank is filled with oil. Special measures such as nitrogen scaling or the use of inhibited oil are not required.

#### h. BUSHINGS

The bushings shall be suitable for indoor type covered with a cable box & conform to the latest version of IS: 2099 / 73 with amendment No. 1 and Is: 3347. Should the bushings conform to any other internationally approved standard, details of the same along with the points of deviations from the Indian Standard shall be given in the tender. In the case of oil filled bushing, oil level indicator and drain plug for draining out the oil shall be provided. The bushing shall be fitted with end shields if required for even distribution of electrostatic stresses. The test voltage for 36 and 433 V class bushing shall be as per table 4A of IS: 2099/1986. The tenderer should also ensure that the creepage distance adopted should be such as to suit for heavy polluted atmospheric conditions prevailing at the site. The insulation class of neutral bushing shall be properly coordinated with that of main winding.

## i. OLTC (If Applicable)

On load tap changer shall be of a design such that it may be adopted to operate by automatic control with master-slave logic. The OLTC shall have arrangement for local and remote electric control and local hand operation as detailed below:

## • MANUAL MECHANICAL CONTROL:

The cranking device for manual operation of OLTC shall be removable and suitable for operation at about 1200mm above ground level. The mechanism shall be complete with the following:

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- A mechanical tap position indicator. A counter device shall be fitted to indicate the number of operations completer by the equipment.
- Mechanical stops to prevent over cranking of the mechanism beyond extreme tap positions.

#### • ELECTRICAL CONTROL:

The electrical control shall have the following feature:

- It shall not be possible to energize the electric drive when the hand operating gear is in use.
- It shall not be possible for local electric and remote electric control to be operated at the same time (i.e. a local and remote change over switch to be provided to cut off remote control during local electric local operation.)
- Operation from the local or remote control switch shall cause one tap movement only, unless the control switch is returned to normal position between successive operations.
- The design of the load tap changer equipment shall ensure that when a step movement has been commenced it shall be completed independent of the operation of the control relays or switches. If a failure of the auxiliary power supply during a step movement or any other contingency would result in that movement not being completed, means shall be provided to safe guard the transformer and its auxiliary equipment against such condition.
- Limit switches shall be provided to prevent overrun of the on load tap changer mechanism & shall be directly connected into the circuit of the operation motor. A robust mechanical stop shall be provided to prevent run of tap changer mechanism at the two extreme positions.
- On load tap changer mechanism shall be protected against short circuit and overload by means of relays. The motor shall be enclosed in a ventilated weatherproof housing.
- A tap-position indicator for on load tap changer to give indication of the tap positions shall be provided.
- The lowest number shall be the tapping position corresponding to maximum number of high voltage winding turns i.e. plus percent position. The highest number shall represent the tapping position corresponding to the minimum number of high voltage winding turns i.e. minus present position. Indicators for both local and remote control positions of on load tap charges shall be provided. Remote control indicator shall be mounted on separate control panel.

## • REMOTE TAP CHANGING CONTROL PANEL (PANEL):

Remote control cubicle including all accessories required for remote operation of tap changer with following control items shall be supplied.

- Push Buttons for raise / lower operation of Tap changer.
- Tap position indicator (digital LED display type.)
- Tap change in progress by means of indicating lamps.
- An operation counter to register the accumulated number of tap changes performed.

# • FITTINGS

Generally fittings as enumerated in table X of IS 2026 shall be provided. However, the manufacturer shall provide following minimum fittings:

- Rating and diagram plate.
- Lifting lugs
- Air release plug
- Conservator with oil filling hole and drain plug & air bag.
- Buchholz relay with 2 nos. isolating valves and alarm & trip contacts
- Explosion vent with double bakelite diaphragm, equalizer pipe and oil site glass & vent pipe from side of body.
- 2nos. thermometer pockets
- 2nos. earthing terminals
- Bottom drain cum filter valve
- Top filter valve
- 1no. silica gel breather
- Plain oil level indicator
- Detachable type radiator with butterfly valves at tank side.
- 4nos. bi-directional rollers
- 6" dial type oil temp. indicator with alarm & trip contacts
- 6" dial type winding temp. indicator with alarm & trip contacts
- Magnetic oil level gauge with low level alarm contact
- Marshalling box with interconnecting cables
- OLTC with AVR and RTCC
- Inspection cover
- Separate LV neutral
- Neutral CT.
- Oil surge relay
- First fill of oil
- Pressure Release Valve.
- O/P of Transformer to be tapped for AVR & 4 pole MCB with aux contact shall be fixed at Marshalling box for indication.
- Earthing strip size 50x6 mm CU-2 nos.

The additional fittings, if required, shall be as per the equipment schedule.

## • H.V Terminations

11 kV HT cable Terminal box. As per mention in datasheets.

# • LV Terminations

L.V bus duct flange arrangement

TESTING

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Transformer shall be factory tested as per the requirements laid down in IS 2026. The original test certificate shall be furnished for each transformer.

- All routine tests as per IS:2026
- Measurement of winding resistances
- Ratio polarity and phase relationship
- Impedance voltage
- Load losses
- No-load losses and no-load current
- Insulation resistance
- Induced over voltage withstand

The tests other than IS should be carried out on one transformer are:

Heat run test for one transformer.

In addition to above valid type test certificate for heat run and impulse with stand test from recognized testing institute shall be submitted at the time of inspection call.

#### PROTECTIONS

All transformers shall be fitted with Buchholz relay with alarm and trip contacts, winding temperature indicator with alarm and trip contacts in addition to the regular tripping and alarm as per regulations. Buchholz relay shall be provided with isolating valves on it's both sides.

## INSTALLATION

IS: 10028 (Code of Practice of installation maintenance of transformer) shall be followed by the Contractor.

## COMMISSIONING AND TESTING

The following pre-commissioning tests shall be carried out before commissioning on Site: -

- Visual inspection for broken parts, cracks, leaks & oil level, top up, if oil level is low.
- Three samples of oil shall be taken after filtration from the bottom of the tank and tested to withstand a voltage for 60 seconds against a 4 mm. gap as described in Appendix of IS: 335/1993. In addition to above following test should be carried out and test report should be submitted:
  - o Tan Delta
  - Acidity
- The insulation resistance between:
  - a) HV and LV

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- b) Winding and earth shall be tested with a 1000V DC Megger and the values should correspond to the factory results.
- Wherever the oil sample tests and IR values are not satisfactory (in the opinion of the Consultant) the transformer shall be dried out using a stream line filter. The drying process should be carried out until the insulation resistance curve shows a definite and steady increasing trend and the meggared IR value of not less than 2 mega ohms per kV. Wherever the top cover is lifted for any reason whatsoever, the transformer shall be dried out. All drying out shall be free of cost.
- All transformer mountings and accessories such as, Buchholz relay, breather, gauges, thermometer etc. should thoroughly be checked and adjusted. All such checks and adjustments shall be recorded.

After satisfactory testing as above, the transformer shall be energized on no load and maintained on no-load for a period of 8 hours. Thereafter, the full load shall be built-up progressively over a period of another 8 hours.

Transformers shall be mounted on a concrete plinth and M.S. Channels. After installation, the rollers shall be locked by wedges or any other means to prevent accidental movement of transformer.

Transformer neutral, core and tanks shall be earthed as specified.

In the case of aluminum conductors being used for connecting copper terminals on the transformers, suitable bimetallic type connectors should be used to prevent electrolytic corrosion.

# DATA SHEETS (TO BE FILLED BY THE VENDOR)

Sr. No.	<b>Technical Details</b>	
		To be filled in by bidder
1	Type and class of insulation	Outdoor
2	Output in kVA (continuously rated)	As per BOQ
3	Rated voltage:	
	• HV (volts)	11 kV
	• LV (volts)	433 volts
4	Rated current:	
	• HV (amps)	
	• LV (amps)	
5	No. of phases	3
6	Type of cooling	ONAN
7	Frequency	50 Hz
8	Winding connection / vector group	Dyn11
9	Tapings	+5% to -10% @2.5%
		Off load
10	Design ambient temperature	45
11	Temperature rise of oil / winding	45/50

Contractor

Sr. No.	Technical Details	
10		To be filled in by bidder
12	Class of insulation	A
13	Dimensions:	
	• Length (mm)	
	• Width (mm)	
	• Height (mm)	
	Headroom required for lifting ( mm)	
14	% impedance	As per IS
15	X / R ratio	
16	Iron losses at normal voltage ratio	
17	Load losses at normal voltage ratio at full load @ 75°C	
18	Efficiency at unity PF & 0.8 PF	
	• Full load	
	• 75% load	
	• 50% load	
	• 25% load	
19	Energy Efficiency Level as per IS 1180	Level 1
20	Component Losses At Rated Voltage On Principal	Ecver 1
20	Tappings & Rated Frequency	
	Loss @ 50% Loading	kW
	Loss @ 100% loading	kW
21	Regulation @ 100%, 75%, 50% & 25%	
	• unity PF	
	• 0.8 PF	
22	Impedance At Principal Tap	
	Reactance	
	Resistance At 75°C	
23	Insulation Level	
	Separate Source Power Frequency Voltage	
	Withstand	
	a. HV Winding	kV RMS
	b. LV Winding	kV RMS
	Induced overvoltage withstand	
	a. HV Winding	kV RMS
	b. LV Winding	kV RMS
	• Full Wave Lighting Impulse Withstand	
	Voltage Value 21gming impulse Willistand	kV Peak
	a. HV Winding	-
	b. LV Winding	
24	Max. Transformer η at 75 % loading	
25	Harmonic handling capacity (current) =20%	
25	Harmonic nandling capacity (current) =20%	

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Sr. No.	Technical Details	To be filled in by bidder
26	Approximate weight	·
	• core (kgs)	
	• winding (kgs)	
	• total (kgs)	
27	H.V. box clearances (minimum)- (As per CBIP)	
	Phase to Phase	130mm
	Phase to Earth	80mm
28	Accessories	
29	Termination Details	
	• HT	As per site condition
	• LT	

## 13. <u>DG SET</u>

• Diesel Engine

Engine make and Model should be suitable for Developing rated BHP at 1500 RPM rated for continuous duty, with an additional 10% overload capacity for one hour in any period of twelve hours of continuous operation at standard operating conditions as per BS:649/5514. The diesel engine is inclusive of standard accessories as follows:

- Radiator cooled
- Flywheel to suit flexible coupling
- Flywheel housing complete with starter gearing and coupling
- Fuel hoses.
- Electronic Governor
- Air cleaner
- Fuel and Lub oil filter
- By pass filter
- Corrosion Resistor
- Fuel pump PTR type
- Water pump
- Lub oil pump
- Electric Starter 24 V-DC
- Battery Charging Generator
- Residential Silencer
- Safety control against lub oil pressure and high cooling water temp. trip and alarm
- Lub oil cooler

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- Flexible pipe for silencer
- Over speed trip and alarm.

#### • Instrument Panel

- Lub Oil Temp. gauge
- Starting switch with key
- Water temp. gauge
- Lub oil pressure gauge
- Hour meter with RPM indicator
- Battery charging ammeter

#### Alternator

- A) Synchronous alternator of rated kVA rated RPM at 0.8 lagging power factor at 415 / 440 volts suitable for 50 Hz 3 phase systems and shall be suitable for 10% overload for one hour in any 12 hours period without damage. The alternator shall be in SP-DP enclosure brushless self-excited self-regulated, floor mounted with ball and roller bearings on end shields. The alternator shall conform to IS: 4722/BS: 2613 and will be suitable for tropical conditions. Six numbers embedded RTDs to measure the winding temperature and 2 nos to measure bearing temperature shall be provided. On line greasing facility with grease nipples and grease relief device shall be provided. Alternator shall be provided with anti-condensation space heaters of adequate rating suitable for 240V, 50Hz 1 phase AC supply and shall be wired up to separate terminal box. Alternator shall be of continuous duty type and shall have "F" class of insulation.
- B) The short circuit ratio (SCR) of alternator at rated KVA and rated voltage shall be between 0.4 to 0.6.
- C) Alternator shall withstand without mechanical damage an over speed of 20% for a period of 3 minutes
- D) Alternator shall be provided with anti-condensation space heater of adequate rating suitable for 240V 50Hz 1ph A.C. Supply and shall be wired up to a separate terminal box. Thermostatically controlled shall work when the machine is ideal condition only
- E) Alternator shall be provided with suitable terminal box for terminating cables drops/ bus duct connection.
- F) The alternator shall be capable to sustain the unbalance current between the phases minimum 20% of rated current provided that the KVA rating and maximum current does not exceed 11% of rated current in any phase as per BS4999 Part-101
- G) The alternator shall be capable to sustain the total harmonic distortion up to 20 %.

# • Automatic Voltage Regulator

Contractor

- A. An automatic high speed, dead band type regulator shall be provided completely with all accessories. The regulation system shall be provided with equipment for automatic as well as for manual control.
- B. The voltage regulation shall be dual type i.e. the voltage regulation shall be through compound transformer ormagnetic amplifierand the electronic regulation through solid state devices automatically both shall be sensed from all three phase.
- C. The combined voltage regulation shall be +/-1% at any load, independent of powerfactor and with 4% speed regulation of engine.
- D. Voltage regulation and steady state modulation shall be within +/-1%
- E. Manual voltage adjustment capability within +/- 5%.
- F. The maximum permissible wave form distortion should not exceed +/-5% at any load.
- G. Necessary equipment for field suppression and surge protection shall be provided.
- H. The response time of AVR shall be less than 10 milliseconds.
- I. The voltage dip shall not exceed 15 % when a rated continuous load is supplied. & the voltage overshot shall not exceed 20 %, when rated load is withdrawn.
- J. AVR system shall be provided with equipment for auto manual operation from remote for all the alternators.

#### Fuel Tank

990 Ltrs. capacities Overhead/ Inside enclosure type made out of 12 SWG MS sheet, duly painted and fitted with inlet outlet, returns, connections, air vent, drain valve and level indicator.

#### • Batteries & Battery Leads

4 Nos. Batteries of 12 Volts 180 AH STANDARD Dry SMF type, uncharged to cater for the electrical starting of the engine along with the battery leads, battery charging facility with battery charger during idle time.

#### • Arrangements

The above engine and alternator would be coupled by means of a specially designed flexible coupling and both the units including the radiator / heat exchanger would be mounted on a rigid fabricated base frame to form a compact arrangement of the equipment. Base frame and foundation bolts would be of MS steel suitably machined to ensure perfect alignment of the engine and alternator, to ensure minimum vibration.

## • Exhaust Pipe Line

- Each set shall have individual MS class "B" pipe complete with flanges, bends as required as per local pollution control norms & practice.
- Insulation with 50 mm thick mineral wool covered with chicken mesh and clad with aluminum foils, necessary ladder & testing hole etc.
- Exhaust pipe support by means of clamps and bolts on support structure shall be provided with Lightning arrester & earthing system.
- Testing pot at exhaust pipe with platform & ladder with hand rails.
- Auto Main Failure Panel:

- i. The AMF panel is designed to meet the following requirements of Automatic Operation of D.G. set.
  - While the Main supply is normal and the D.G. set is at rest, the load is applied directly from Mains through mains Contactor.
  - When the Main Supply fails or drops below a certain preset value, the automatic system gives starting signal to D.G. set and D.G. set starts.
  - As soon the D.G. set reaches its operational voltage and speed, the D.G. contactor closes, and the connected load is supplied from the D.G. set.
  - When the Main supply is restored approximately for at lease one minute, the load gets transferred to mains Contractor and D.G. set will have brought to rest.
  - The panel is also designed for manual operation of D.G. set through Push Button Start/Stop as required
- ii. Additional Features:
  - a) Short Circuit Protection.
  - b) In built Battery Charger
  - c) Low Lube Oil Pressure (LLOP) Protection.
  - d) Overload Protection.
  - e) Emergency Trip.
- iii. Apparatus & Instrumentation of Panel: The panel will be of sheet metal, 16 guage free standing/floor mounting type. It will be provided with removable backside door and a hinged front door for easy accessibility. Suitable provision for connecting incoming and outgoing leads should be made in the control panel. The degree of protection shall be IP 41 IS: 2147/62. The panel shall incorporated of require size of breakers, metering instruments, indicating lamps, push button, etc which are required for operation with all safety.

## • Noise and Vibration Control

- The noise control measures envisaged shall include acoustic enclosure to DG set so that sound level outside DG set at 1 meter away shall not exceed 75 db or a value as required by local pollution control board at time of installation whichever is more stringent.
- Vibration control measures shall include anti-vibration mountings.
- All items offered shall be supported by design calculation to justify design criteria.
- The Bidder shall submit the following details in the prescribed format:
- i. Technical particulars for DG Set to be submitted by bidders in the following Table format

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SL. NO.	DESCRIPTION	Details to be furnished by bidders
	Model /Make	
1.	No. & arrangement of cylinders	
2.	Method of starting	
3.	Rated RPM	
4.	Time require for starting from cold	
5.	Type of governor	
6.	Specifications of fuel recommendation	
7.	Rated output at site conditions	
8.	Overload (as per BSS:649)	
9.	Fuel consumption in Liters/hr Full load 3/4 load Half load	
10.	Guaranteed lub oil consumption at NTP full rated output (liters/Hr)	
11.	Mechanical efficiency	
12.	Thermal efficiency	38%
13.	Safety protection Overspeed trip Low lub oil pressure trip High cooling water temp.	To be provided Yes Yes
14.	Whether engine is 2 or 4 stroke	4 Stroke
15.	Method of Cooling	Radiator cooled

# ii. Technical particulars of alternator to be submitted by bidders in the following Table format

SL. NO.	DESCRIPTION	Details to be furnished by bidders
	Model make	
1.	Current Amps. ( continuous)	
2.	Efficiency at F.L. 0.8 PF	
3.	Temperature Rise	
4.	Class of insulation	

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SL. NO.	DESCRIPTION	Details to be furnished by bidders
5.	IP class of enclosure	
6.	Rated kVA	
7.	Value of reactance in % Xd' Xd"	

# iii. Technical details for DG Set to be submitted by bidders in the following Table format

Without acoustic enclosure	Weight of the DG Set	
	Genset dimensions (lxbxh)	
With acoustic enclosure	Recommended room size (lxbxh)	
	Exhaust pipe diameter	

# iv. Metering & Protection Parameters to be confirmed by the Bidder in the following Table format.

1	5.1.1.Metering	Confirmation Yes/No
2	5.1.2.	For 62.5 KVA DG
3	5.1.3.Water temp gauge	
4	5.1.4.Lub oil Pressure	
5	5.1.5.Voltage	
6	5.1.6.Current	
7	5.1.7.Engine speed	
8	5.1.8.Frequency	
9	KW	
10	5.1.9.KWH	
11	5.1.10. KVAR/KVA	
12	5.1.11. P.F.	
13	5.1.12. Running Hrs	
14	5.1.13. No. of Trips	
	5.1.14.	
15	5.1.15. <b>PROTECTION</b>	
16	5.1.16. Over Speed	
17	5.1.17. High Water Temp	
18	5.1.18. Low Lub oil	
10	Pressure	
19	5.1.19. U/V or O/V	
20	5.1.20. UF/OF	
21	5.1.21. Overload	

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22	5.1.22. Low battery	
	Voltage	
23	5.1.23. Breaker detail	
24	5.1.24. S/C protection	
25	5.1.25. O/C protection	
26	5.1.26. E/F protection	
27	5.1.27. R.P. Relay	
28	5.1.28. AMF panel	
	/Controller	

## 14. LT Panel & Switchgear

- a. General
- i. The panels shall be of 600V grade suitable for the system short circuit capacity of **25 kA for 1 sec.** for main LT panel. These panels shall comprise of following: -
  - Incoming & outgoing feeders.
  - Bus bars and feeders connections.
  - Meters, indicators and wiring.
  - Sheet steel enclosure.
- ii. Panel fabrication drawings and control / wiring diagram should be got approved in writing before taking up the manufacturing.

## b. Standards

The latest edition of following standards and rules shall be applicable: -

- i. IS:13947– (part II) Specification for A.C. Circuit breakers.
- ii. IS:4047- Specification for Heavy Duty Air Break Switches and fuses for voltages not exceeding 1000V.
- iii. IS:1818- Specification for A.C. Isolators and earthing switches.
- iv. IS:13947- Moulded case circuit breaker
- v. IS:2208- HRC cartridge fuse links upto 650V.
- vi. IS:3072- Code of practice for installation and maintenance of switchgear.
- vii. IS:3106- Code of practice for selection, installation and maintenance of fuses (voltages not exceeding 650V).
- viii. IS:4237- General requirements for switchgear and control gear for voltages not exceeding 1000V.
- ix. IS: 5578-Marking and arrangement for switchgear bus bars, main connection & auxiliary wiring.
- x. IS:2705- Current Transformers
- xi. IS:1248- Direct acting electrical indicating instruments.
- xii. IS:2419- Dimensions of electrical indicating instruments.
- xiii. IS:3231- Electrical relays for power system protection.

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- xiv. IS:2147- Degree of protection provided by enclosures for low voltage switchgear and control gear.
- xv. IS: 8623 Low voltage switchgears and control gear assemblies.
- xvi. IS:10118 Code of practice for selection, installation and maintenance of switchgear and control gear.
- xvii. IS: 513 Cold rolled low carbon steel sheets and strips.
- xviii. IS: 5082 Aluminum alloy bars, rods, tube sections for electrical application.

#### c. Construction

The boards shall comply with the following constructional features: -

- The panels shall be of 600V Insulation Voltage grade suitable for the system short circuit capacity and rated current as specified.
- Panel enclosure shall be fabricated from CRCA Sheet steel, having combination of main frame and doors, covers & partition, free standing, totally enclosed, extensible modular, dust and vermin proof, IP-52 for indoor and IP-55 with canopy & two doors construction for outdoor installation.
- Flush dead front, all components accessible from front for maintenance.
- All metallic parts shall be given pretreatment for degreasing, phosphatizing etc. in seven-tank process. It shall be given two coats of powder coated paint of shade RAL 7032 i.e. Siemens Grey.
- Panels having depth of 800 mm. and above can have accessibility for busbars and cables from rear subject to space availability.
- Independent vertical compartments for busbars, feeders and cables shall be provided with
  partitions between each other. Horizontal busbar chamber throughout length shall be provided
  at top / bottom for extendible design.
- For Main LT panel, Cable / Bus duct entry shall be from Top.
- Each feeder compartment shall be totally enclosed, self-sufficient with ACB/MCCB/SFU unit, meters, relay, indicators, interlocked door, pad locking facility, labelled terminal block, engraved anodized aluminum labels (white letters in black background) for each feeder. Name plate details to indicate designation of main lighting panel & DBs shall be provided with engraved anodized aluminum label. Maximum height of operating handle shall be 2000 mm. and minimum operating height of 200 mm for all panels from floor level.
- Earthing non current carrying metal and hinged doors to earth bar which shall be run throughout the length of the panel and shall be provided with two independent earthing connections to external grid.
- Feeder connections shall be by solid copper/aluminum strips/wires with bimetallic clamps wherever required, through lugs, nuts, bolts and spring washers.
- Earthing of non current carrying metallic components of each feeder to the earth busbar.
- All doors and shall be folded type with gasket.
- Provision of insulating covers on outgoing terminals for protection against accidental touch.
- Base channel of ISMC 75 shall be provided.

- Four lifting eyes per each shipping section.
- Vitreous enameled danger board with skull and indication of voltage level in three languages.
- The panel shall be provided with louvers for ventilation and heat dissipation, wherever required. The louvers shall be covered with brass / S.S. wire mesh to avoid access of reptiles and insects in the panel.
- The panel shall be provided with hinged door for access to equipment. The hinged door shall be interlocked so as to prevent opening of the door when the switch is 'ON' & to prevent opening of the door when switch is in 'ON' & to prevent closing of the door switch when the door is not fully closed. However, a device for by passing the door interlock shall be provided to enable operation of the switch with the door open.
- Quote to be submitted for panel with copper bus bars.
- All flexible links will be copper wire braided and tinned.
- All nut bolts should be crome plated of at least 8.8 hardness. Washer should be 2 mm thick up to 8 mm size and 3 mm thick for 10 mm and above.
- Cooling fan with filter and exhaust louver with filter to be provided in each compartment of cable and bus bar chamber.
- Electronic energy meter with communication port to be provided (in place of amps and kWh meter).

## d. Busbars

- i. The busbars assembly shall be fabricated & grade as per IS: 5082 and copper busbar as indicated, enclosed in a separate horizontal enclosure and shall comply the following features: -
- ii. Uniform cross-section with **max. 45<sup>o</sup> C rise above ambient** and with maximum current density of copper 1 A/sq.mm for 50 kA. Busbars shall be provided with **Colour coded rubberized sleeves** for phases and neutral identification.
  - Branch busbars rated for 100% of aggregate capacities of feeders connected.
  - Neutral bar : 100% of phase bar.
  - Earthing bar : 50% of phase bar.
  - Earthing is braded Cu earthing.
- iii. Busbars should be supported by cast resin / SMC insulators suitable to withstand thermal and dynamic short circuit loads. Air clearance between busbar ends and end covers shall be provided with minimum 3mm thick hylem-insulating plates.
- iv. Minimum clearance between busbars of different phases, between phases and neutral and also between phases / neutral and earth shall be all 25mmwith shrouds of bakelite material between busbars at joint of breaker and busbars.
- e. Air Circuit Breakers

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- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
- The ACB's shall be air break, quick make, quick break, trip free, horizontal draw out electrically / manually operated type, of uninterrupted duty and shall comply the following features (FIXED type ACBs above 630A are not acceptable) -
  - 3 poles / 4 poles as specified in BOQ
  - ICU=ICW=ICS for 1 sec.
  - Breaking capacity and Icw for 1 sec as specified.
- ii. Continuous current rating of ACBs indicated in the enclosed BOQ are the derated value of continuous current I<sub>n</sub> as per clause 4.3.2.3 of IS-13947, at 45°C temperature inside the room where panels are to be installed. For bidding, any derating required from catalogue rating for this ambient shall be taken into account by the bidder, based on manufacturer's recommendation. Later on no additional cost will be granted for requiring using higher rated component on account of derating due to ambient temperature.
- iii. Non welded silver alloy main and arcing contacts of tungsten alloy with arc chutes.
- iv. Microprocessor based releases, triple pole direct over current, short circuit and earth fault, wherever specifically asked for, suitable for discrimination with up and down stream feeders. Microprocessor based release shall have following features:
- v. Over load protection: Current settings = from min. 50% to 100% and time settings = min 3.5 to 25 sec. @ 6 times Ir.
- vi. Short circuit protection: Current settings = from min. 200% to 800% and time settings = min 20 to 600 m.sec.
- vii. Instantaneous Short circuit protection: Current settings = from min. 200% to 1600%.
- viii. Earth fault protection: Current settings = from min. 20% to 60% and time settings = min 100 to 400 m.sec
- ix. Individual fault indication.
- x. Serve, test, isolation and maintenance position settings with locking facility, isolation plugs and safety shutters.
- xi. In case of 4 poles ACB, neutral pole shall have rated current equal to 100% of phase pole and shall not break before and shall not make after other phase poles.
- f. Moulded Case Circuit Breakers
  - i. **The MCCB's shall be of FIX type,** current limiting, air break, quick make, quick break, trip free operation, line load reversibility, fixed type with high mechanical and electrical life, shall not re-

close on fault, shall be provided with rotary handle with padlock & door interlock and shall comply the following features:-

3 poles / 4 poles as specified in BOQ

- ii. Continuous current rating of MCCB indicated in the enclosed BOQ are the de rated value of continuous current I<sub>n</sub> as per clause 4.3.2.3 of IS-13947, at 45°C temperature inside the room where panels are to be installed. Any derating required from catalogue rating for the installation shall be taken into account by the bidder, based on manufacturer's recommendation.
  - Icu = 100 % Ics and values for different ratings shall be as specified.
  - Ics = 50 kA for Main LT panel.
  - In case of 4 poles MCCB, neutral pole shall have rated current equal to 100% of phase pole and shall not break before and shall not make after other phase poles.
  - Non-welding silver alloy main contacts and arcing contacts with arc chutes.
  - Inverse time instantaneous O/C and S/C releases shall be temperature compensated, O/C release shall be adjustable and with integral tripping mechanism.
  - Moulded, heat resistant resin bonded fiber glass or phenolitic material housing.

## iii. All MCCBs shall have following minimum accessories:

- Extended terminals (above 63A)
- Phase barrier
- Terminal shrouds
- Knob padlocking device
- Rotary handle with door interlock

## g. Accessories

# i. Control and Selector Switches

Control and selector switches shall be:

- Rotary type
- Adequately rated for the purpose intended (Minimum acceptable rating is 10A continuous at 240V AC and 1A inductive break) 220V DC.
- Provided with escutcheon plates clearly marked to show the positions.

Control switches for circuit breakers shall be provided with pistol grip type handles.

Control switches for circuit breaker control shall be provided with:

Contact development and sequencing device.

Selector switches shall be:

 Of the maintained contact stay put type. Switches in ammeter circuits shall have make-before-break type contact.

Provided with oval handles.

#### ii. Push Buttons

Push button shall be:

- Of the momentary contact, push to actuate type rated to carry 10A at 240V AC and 1A (inductive breaking) at 220V DC.
- Fitted with self-reset, 2 NO and 2 NC contacts.
- Provided with integral escutcheon plates marked with its function.
- 'Start', 'Open', 'Close' push buttons shall be green in colour.
- 'Stop' push buttons shall be red in colour.
- All other push buttons shall be black in colour.
- 'Emergency Stop' push buttons shall be of the lockable in the pushed position type and shall be shrouded to prevent accidental operation. Key shall not be required for the operation of the push button.

#### h. Instrument Transformers

The current transformers shall be Epoxy Moulded base mounted, as per IS 2075 and comply the following features: -

- Class 0.5 accuracy for metering with rated burden of 15/30 VA on secondary.
- Error limit to specific class of accuracy.
- Air or epoxy resin insulated with bar or wound primary.

## i. Meters and Indicators

- i. The meters and relays shall comply the following:-
  - Class-0.5 accuracy for digital meters & Class-I accuracy for Analogue meters accuracy.
  - Ammeter and Voltmeter shall be analogue dial type and of 96 x 96 mm. square or square bazal flush mounting type with selector switches and back up fuses.
- ii. Incomer of Main LT panel shall be provided with communicable **load manager similar to type SLM34 or LM 6400** with RS485 port & necessary protocol etc.
  - Energy meters on outgoing side shall be digital type. This shall be duly tested from local supply authority from Government approved lab.

# iii. All Indicating lamps shall be LED type with fuses. Phase indicating lamps shall be colour coded.

## j. Surge Protecting Devices

- Surge protector devices shall be used as per the specifications given below.
- For Main LT panel it shall be Class-1/Class-B Encapsulated Spark Gap
- At PDB level Surge arrester Class C shall be used.

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
  - The Bidder shall submit the following details in the Tables prescribed hereunder:
- i. Class B / Class 1: (Phase to Neutral): Lightning current arrester (Encapsulated Spark Gap Class B / Class 1 type) for the connection between Phase and Neutral with the following ratings:

Sr. No.	Parameters	Specifications
1	Туре	Encapsulated / Non –
		exhausting Spark Gap
2	Nominal Voltage, U <sub>n</sub>	230V, 50/60 Hz
3	Max continuous operating voltage Uc	255/ 440 V
4	Lightning Impulse Current (10/350 μsec) between R, Y,	≥ 50 KA
	B & N, I <sub>imp</sub>	
5	Voltage Protection Level, U <sub>p</sub>	≤ 1.3 KV
6	Main Follow –up current quenching capacity at Uc	≥ 12.5 KArms
7	Max. Series fuse	500 A
8	Max Asymmetric S.C. Current with fuse	25 KA
9	Response Time	≤ 100 nano seconds
10	Operating temperature range	-40°C to + 85°C
11	Mounting on	Din Rail
12	Degree of Protection	IP 20
13	Mode number	MCD 50 – B or Equivalent

*ii.* Class B / Class 1: (Neutral to Earth): One number of lightning current arrester (Encapsulated Spark Gap Class B / Class 1 type) for the connection between Neutral & Earth with the following ratings:

Sr. No.	Parameters	Specifications
1	Туре	Encapsulated / Non –
		exhausting Spark Gap
2	Nominal Voltage, U <sub>n</sub>	230V, 50/60 Hz
3	Max continuous operating voltage Uc	255/ 440 V
4	Lightning Impulse Current (10/350 μsec) between R, Y,	≥125 KA
	B & N, I <sub>imp</sub>	
5	Voltage Protection Level, U <sub>p</sub>	≤ 1.3 KV
6	Main Follow –up current quenching capacity at Uc	≥ 100 Arms
7	Max. Series fuse	NIL
9	Response Time	≤ 100 nano seconds
10	Operating temperature range	-40°C to + 85°C
11	Mounting on	Din Rail
12	Degree of Protection	IP 20
13	Mode number	MCD 125 – B/NPE or
		Equivalent

 $<sup>\</sup>rightarrow$  For Single Phase  $\rightarrow$  1 number of MCD 50 – B

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- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
- $\rightarrow$  For Three Phase  $\rightarrow$  3 number of MCD 50 B
- iii. A pluggable type surge arrester (Class C / Class 2 type) with free potential contact, Thermal disconnector & provision of inbuilt common remote visual indication for defective arrester.

For the connection between Phase and Neutral with the following ratings:

Sr. No.	Parameters	Specifications
1	Туре	Single MOV
2	Nominal Voltage, U <sub>n</sub>	230V, 50/60 Hz
3	Max continuous operating voltage Uc	320 V
4	Nominal discharge current 8/20 usec between phase &	20 kA
	neutral	
5	Maximum discharge current 8/20 usec between phase &	40kA
	neutral	
6	Voltage Protection Level, U <sub>p</sub>	1.6 KV
7	Response Time	25 nano seconds
8	Operating temperature range	$-40^{\circ}$ C to $+85^{\circ}$ C
9	Mounting on	Din Rail
10	Degree of Protection	IP 20
11	Back up fuse	125AgL/gG
12	Mode number	V20-C or Equivalent

*iv.* Class C / Class 2: (Neutral to Earth): for the connection between Neutral & Earth with the following ratings:

Sr. No.	Parameters	Specifications
1	Туре	Spark Gap
2	Nominal Voltage, Un	230V, 50/60 Hz
3	Max continuous operating voltage Uc	255/ 440 V
4	Nominal Discharge current	50 KA
5	Voltage Protection Level, U <sub>p</sub>	1.2 KV
6	Follow current quenching capacity without fuse at Uc	100 nenosecs & 100 Arms
7	Max. Series fuse	NIL
9	Response Time	≤ 100 nano seconds
10	Operating temperature range	-40°C to + 85°C
11	Mounting on	Din Rail
12	Degree of Protection	IP 20
13	Mode number	V20-C/NPE or Equivalent

# k. Inspection and Testing

Contractor

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
- i. The L. V. Switchgears shall be subjected to factory inspection and testing by Client's representative before packing and dispatch. The material shall be dispatched only after shipping release by the Client.
- ii. The following tests are to be carried out and necessary certificates submitted. The testing shall be witnessed by Client's representative: -
  - Routine certificate for ACB's and MCCB's from manufacturer.
  - HV test at 2.5 kV for one minute.
  - Insulation resistance test with 1000V meggar with all switchgear in closed position.
  - Secondary wiring and apparatus should withstand 2000V for one minute.
  - Meters and relay calibrated and tested through secondary injection tests.
  - Continuity test
  - Operation test
- iii. TECHNICAL DATA SHEET

The Bidder shall submit the following Technical Data Sheet in the provided format

Contractor

# General for all panels. (To be filled by the bidders)

Sr.	Description	Recommended Specification	Confirmation
No.		by WTESL	by the Bidders
1	Type of Panel	Main L.T. Panel - compartmentalized.	
2	Type of Mounting	Main LT panel - Free standing Floor Mounted.	
3	Fault kA	25 kA -1 Sec for Main LT panel	
4	Thickness of CRCA sheets		
A	Structural members	2mm	
В	Covers and doors	1.6mm	
C	Base channel	ISMC 75	
D	Gland plate	3mm	
Е	Load bearing plate	2mm	
5	Painting/ Process	Powder coating with seven-tank pretreatmen	
A		process.	
В	Paint shade;	RAL 7032 i.e. Siemens Grey	
	a. Inside & Outside		
6	Busbars	Pre-fabricated assembly with E91E grade	
		Aluminum of specified rating.	
7	Cable/Busduct Entry and	Entry: Main L.T. Panel: TOP.	
	Exit	Exit: Main L.T. Panel: BOTTOM.	
8	Enclosure Protection/	IP -52 with louvers covered with brass / S.S. wire	
	Ventilation	mesh for Ventilation.	
9	Control Wiring/	Insulated 660/1100Volts Cu wire. /	
	Power Wiring	Insulated 1100Volts Cu wire.	
Α	Voltage Circuit (P.T.)	Minimum 1.5 sq mm	
В	Current Circuit (C.T.)	Minimum 2.5 sq mm	
C	Minimum size of	4 sq mm	
	Power wiring Ckt.		
10	Cable Lugs / Cable	Tinned copper lugs and brass glands	
11	Glands & termination	2000	
11	Operating Height	2000 max.	
12	Mounting height of	Minimum 300mm & maximum 1900mm	
	Relays/Meters		
10	Control Switches	G . P	
13	Type of CTs	Cast Resin	
14	Design Ambient Temp	45 Deg. C.	
15	Specifications/ BOQ	As per enclosed	
16	Makes of the components	(Indicate the make on which your offer is based)	
	to be used		

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**Chief Executive Officer** 

Document No.: MAH-NAS--053-RFP

Sr.	Description	Recommended Specification	Confirmation
No.		by WTESL	by the Bidders
A	ACBs	As per approved list.	
В	MCCB	As per approved list.	
С	Meters	As per approved list.	
D	Ammeter/	As per approved list.	
	Voltmeter selector		
	switches		
Е	Wires	As per approved list.	
f	CTs	As per approved list.	
G	Control Fuses	As per approved list.	
17	Components rating	Required rating for continuous operation, as per	
		BOQ & SLD. (necessary derating, if required	
		as per manufacturer's recommendations, are	
		required to be considered by bidder)	

## 1. Installation

- Installation of all LT panels shall include but not limited to the following to complete the installation, testing and commissioning:
- Transporting materials from stores to exact location of installation.
- Supply and installation of required base frame made of MS angle or channel sections and duly painted with black paint.
- Positioning, aligning, fixing, assembling, and installation of LT panel issued free of cost by Client after carrying out proper cleaning and inspection.
- Site supervision, testing for proper functioning / operation, and pre-commissioning tests.

## m. Commissioning and Testing

- All switchboards shall be tested for dielectric test with 1000V megger.
- All earth connections shall be checked for continuity.
- All busbar connections shall be checked and tightened properly.
- All cable terminations and terminal shrouding shall be checked if they are properly done.
- The operation of protective devices shall be tested by secondary injection test.
- The operation of circuit breaker shall be tested for all interlocks.
- Functional test shall be done for all ACBs, MCCBs and other components.
- Indicating lamps and meters shall be checked for proper working.

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## 15. LT Cables

## a. Scope

The scope under this section covers the following: -

- Power Cables.
- Control Cables.

#### b. Standards

The following standards shall be applicable amended up to date.

- IS:7098-1988 XLPE insulated electric cables (heavy type)
- IS: 1753-1967 Aluminum conductors for insulated cables.

#### c. Power Cables

The cables shall comply the following: -

- 650/1100V grade with stranded aluminum conductors above 6 mm2 and stranded copper conductors up to 6 mm2.
- Colour coded XLPE insulation applied over conductor by extrusion.
- PVC inner sheath by wrapping and outer sheathed applied by extrusion.
- Steel armouring between inner and outer sheathed.
- Size of cables to suit the duty and load section.

#### d. Control Cables

Control cables shall be 1.1 KV grade multi core copper conductors with PVC insulation and armouring.

#### e. Installations

- i. Power cable installation shall be carried out as per IS: 1255 and shall comply with requirements as under:-
  - In full length for each route without joints or splices.
  - Mark the routing on drawings and at site and got approved if the routes are not available on drawings.
  - Cable ladders or perforated cable trays to be used for cables laid indoors except for number of cables up to 3.
  - Spacing of cable support for self-supported cables on wall, ceiling or trenches shall be as follows: -

Horizontal		Vertical	
run		run	
- Upto 10 mm2	350 mm.	450 mn	n.
- 16 to 95 mm2	450 mm.	500 mn	n.
- 120 to 400 mm2	700 mm	900 mn	n.

- Plastic identification marks or every 15 m. for cables laid in doors.
- Cables laid underground shall generally be in line with requirements of IS: 1255. These shall be laid at depth not less than 750 mm. with 100mm river sand bedding, 25mm covering followed by width wise protective bricks or tiles continuous without any gap and extending 75 mm. on either side along with two runs of 8 SWG GI ground wire earthed at both ends or each cable route and

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non-corroding cable identifications at 20 m. spacing in addition to route markers above ground at regular intervals, bends, and crossing.

- Provide hume pipes, trenches or tunnels at built-up areas and road crossings.
- Provide loops of minimum 500 mm. radius at each ends.
- Cable should be bent to a radius of 15-20 times the diameter of the cables with a minimum of 8 diameters at space restrictions.
- ii. The power cable termination shall have the necessary brass glands and lugs as under:-
  - Pressure clamp insertion type upto 4 mm2.
  - Tinned copper crimping lugs for higher ratings of power cables.
- iii. Control cables shall be laid away from the power cables and shall be on suitable trays.
- iv. Control cables termination shall be through crimping lugs.

## f. Testing

Power cables shall be tested after installation using 500V insulation resistance tester and the following readings recorded. It shall not be less than 2 M-ohms: -

- Continuity on all conductors.
- Insulation resistance
  - o Between Conductors
  - o All conductors and ground.

## 16. Distribution Boards

- a. The distribution boards shall be complete with:-
  - Sheet steel enclosure suitable for recessed, semi-recessed or surface mounting on wall / structure as required.
  - Busbars, incoming and outgoing feeders.
  - Earthing terminals.

Circuit diagram indicating load distribution.

Hinged door with self-locking facility will be provided.

- b. Enclosure and fabrication: The fabrication of the enclosure shall comply the following: -
  - 16 SWG, sheet steel enclosure with separate compartment for incoming and outgoing feeders, double door construction with IP-54 protection suitable for indoor installation.
  - Wire race for individual phases.
  - Phase barriers of insulating materials for LDB's
  - 2 Nos. Earthing terminals.
- c. Busbars: The busbars shall be as follows: -
  - The electrical high conductivity electrolytic grade insulated tinned **Aluminum** busbars suitable for incoming feeder with minimum 100A rating with maximum current density of 1 A / sq.mm.
  - Neutral busbar 100% of phase busbar
  - earth busbar 50% of phase busbar

- Individual phase and neutral bars located in respective phase cubicle for LDB's.
- d. Miniature Circuit Breakers: The MCB's shall have the following features and shall comply with requirements of IS: 8828:-
  - Short circuit capacity of 10 KA as mentioned in BOQ.
  - Quick make, quick break non welding silver alloy contacts suitable for manual and automatic operation.
  - Inverse time over load and instantaneous short circuit tripping mechanism with trip free operation.
  - Common operating handle and integral tripping for multiple MCB.
  - Pressure clamp terminals for users upto 4 mm2.
  - Phenol formaldehyde moulded enclosure.
- e. Installation and Testing
  - The distribution boards shall be mounted on wall in the electrical rooms. In guestrooms, the boards shall be concealed in the wall.
  - HV test at 2.5 kV for 1 minute.
  - Insulation resistance shall be tested with 1000V megger and the minimum values shall be as shown below:
    - o Between phases: 2.5 M-ohms
    - Between phases & neutral: 1.5 M-ohms

## 17. Internal Wiring

a. Scope

The scope under this section covers conduit wiring for the following: -

- Lighting circuits
- Power circuits
- Telephones & other low voltage systems.
- b. Standard

The following standards and rules shall be applicable: -

- IS: 732 1989: Code of practice for Electrical Wiring installation (System Voltage not exceeding 650V).
- IS: 1646-1961: Code of practice for fire safety of Buildings (General) Electrical Installation.
- IS: 1554: PVC insulated cables.
- c. Conduit Wiring

The conduit wiring shall be from LDB and USDB and shall be complete with:

- Conduits and accessories
- Wires & Interconnection
- Control switches and sockets.

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• Outlet box with earthing & terminal connector.

#### d. Conduits

All conduits and accessories shall comply following features: -

- All conduits and accessories shall be of G.I conforming to IS: 9537 as per BOQ.
- Wall thickness of 16 SWG upto 32 mm. dia. and 14 SWG above 32 mm. dia.
- Conduit accessories of similar wall thickness and include bends, elbows, junction boxes, reducers, cheese nipple, splitter couplings, plugs etc.
- Junction boxes shall be with the required number of outlets and cover.
- Flexible conduits made out of continuous length of spirally wound, interlocked strip steel with fired zinc coating on both sides.

#### e. Wiring

- i. Wires shall conform to IS: 694 and comply the following features: -
- PVC insulated stranded copper conductors.
- 1100V grade wires for single phase and 3 phase circuits.
- Colour coded as below:

Phase-R - Red

Phase-Y - Yellow

Phase-B - Blue

Neutral - Black

Earth - Bare or Green if insulated.

- ii. In non-plant area, Circuit Wiring from panel to first point or switchboard shall be carried out with 3(three) wires of 2.5 sq.mm. copper conductor PVC wires of 1100V grade. Light /fan point wiring from switch board or from first point, in case of direct control from panel, shall be carried out with 3(three) wires of 1.5 sq.mm. copper PVC wires of 1100V grade along with earth continuity conductor of same size with junction box, 5A / 6A piano switch or bell push and other accessories on best quality PVC board. Heat resistant sheet shall be installed for fan regulator when PVC board is used.
- iii. Three core flexible wires of required length shall be provided from ceiling JB to the fittings. Wiring shall be made from required DB with separate and same size as phase of PVC insulated green colour copper earth continuity conductor. Similarly it shall be laid along with wires for sockets (5A / 6A & 5A/6A/15A combined). Cost of earth wire shall be included in the rate for point wiring.
- iv. In case of group control, point wiring for group of points max. up to 8 shall be controlled by 5/6A SP piano type switch and group above 8 points shall be controlled by 15A SP piano type switch and wiring from switch shall be carried out with 3 (three) wires of 1.5 sq.mm (1/1.4mm) copper conductor, PVC wires for P+N+E. The rate of point wiring shall be taken accordingly.

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- v. All surface conduits shall be fixed using GI saddle and spacer 1000mm apart with screws, tees, bends, coupling, junction box of 16 SWG only.
- vi. Power point wiring shall be carried out with 3 (three) wires of PVC insulated stranded copper conductor of 4 sq.mm. size, 1100V grade with earth conductor of 2.5sq.mm. size ( green insulation), complete for set of combined 5/6A & 15A socket with 1 no. 15A SP switch on suitable size MS / PVC board. The charges for copper earth conductor shall be included in the point-wiring rate.
- vii. Length of light / fan / independent plug point and power point wiring shall be as per site condition and requirements. No average length of the point shall be fixed. No separate charges shall be paid for long or short length of point.

viii. The wiring in conduit shall comply the following:

• Minimum Wire sizes:-

o From lighting panel to switch board & switch board looping: 2.5 mm<sup>2</sup>

Light point : 1.5 mm2
Power points : 4 mm2
Staircase point : 1.5 mm2

- Maximum 3 circuits (of same phase) per conduit.
- No jointing of cables, only looping from points to points.
- Control switches to be connected to phase conductor only.
- All terminations of stranded wires shall be through crimped lugs.

#### f. Control switches and sockets

The control switches and sockets shall be with ISI marking and of rated capacity and shall comply with the following features: -

Control switches

- Silver contacts with shrouded current carrying terminate.
- Moulded area formaldehyde casing and cover plates.

#### Socket outlets

- Brass or copper female outlets enclosed in urea formaldehyde or porcelain casing.
- Control switches / MCB.
- Urea formaldehyde cover plate or sheet steel cover plate matching to wall finish.

# g. Outlet Boxes

The surface mounted outlet boxes shall be plastic type where as concealed boxes shall be fabricated out of machine pressed sheet steel and shall comply the following: -

- Terminal strip connectors & earthing terminals.
- Fixing holes.

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# h. Laying of conduits

The size of conduit shall be selected on the following basis: -

Wire (mm2)	CONDUIT SIZE MM. DIA.							
whe (min2)	20	25	32	40	50	63		
1.0	5	10	14	X	X	Х		
1.5	5	10	14	X	X	X		
2.5	5	8	12	X	X	X		
4.0	3	6	10	X	X	X		
6.0	2	5	8	X	X	X		
10.0	X	4	7	6	X	X		
16.0	X	X	3	6	X	X		
25.0	X	X	2	4	6	7		
35.0	X	X	X	3	5	6		
50.0	X	X	X	X	4	5		

Note: (x) indicates not acceptable.

The conduit laying shall be as follows: -

- As per the routes indicated on the Contractor's approved shop drawing.
- Supported on saddles spaced at 750 mm. For horizontal run and 1000 mm for vertical run.
- Conduit junction boxes/pull through boxes to be installed at spaces not more than 12 m. or two 90 Deg. C. The junction boxes shall be finish with ceiling or wall in case of concealed conduits.
- Conduits to be kept at 100 mm. minimum distance from pipes and non-electrical services.
- Fixing screws to be rust proof round or cheese head screws.
- Conduit buried in concrete to be fastened to the reinforcement and approved before casting the slab.
- Conduits embedded in wall to be fixed by staples at 500 mm. intervals.
- Surface conduits shall be GI and Conduits embedded in floor screed /slab etc. shall be of heavy gauge electrical grade PVC type.
- Conduits to be rendered continuous before pulling the wires.
- Conduits to be free from sharp edges and burrs and necessary bushings to be provided at each junction box and out boxes.
- Outlet boxes to have minimum size of 50 x 50 x 32 mm.

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• Flexible conduits are acceptable only at machine end and for short extension to (outlets) (not exceeding 500 mm.) in false ceiling.

# 18. <u>Lighting Fittings and Accessories</u>

## a. Scope of Specification

This specification covers installation & commissioning of lighting fittings and their associated accessories.

#### b. Codes and Standards

- IS 3646 (1960): Code of practice for interior illuminator.
- IS 1913(1969): General and Safety requirements for electric lighting fittings.
- Indian Electricity Act and Rules issued here under.

# c. Technical Requirements

# i. General Requirements

- All fixtures shall be complete with accessories and fixings necessary for installation whether so detailed under fixture description or not.
- Fixture housing, frame or canopy shall provide a suitable cover for the fixture outlet box of fixture opening.
- Fixture shall be installed at mounting heights as detailed on the drawings or instructed on site by the client's representative.
- Fixtures and/or fixture outlet boxes shall be provided with hangers to adequately support the
  complete weight of the fixture. Design of hangers and method of fastening other than shown
  on the drawings or herein specified shall be submitted to the client's representative for approval.
- Fixture shall be completely wired and constructed to comply with the regulations and standards for Electric Lighting Fixtures, unless otherwise specified. Fixtures shall bear manufacturer's name and the factory inspection label unless otherwise approved.
- Wiring within the fixture and for connection to the branch circuit wiring shall be not less than 1.5 sq.mm. copper for 250 Volt application. Wire insulation shall suit the temperature conditions inside the fixture and wires bypassing the choke shall be heat protected with a heat resistant sleeve.
- Metal used in lighting fixtures shall be not less than 22 SWG or heavier if so required to comply
  with specifications or standards. Sheet steel reflectors shall have a thickness of not less than 20
  SWG. The metal parts of the fixtures shall be completely free from burrs and tool marks. Solder
  shall not be used as mechanical fastening device on any parts of the fixture.
- Ferrous metal shall be bonderized and given a corrosion resistant phosphate treatment or other approved rust inhibiting prim coat to provide a rust-proof base before application of finish.
- Non-reflecting surfaces such as fixture frames and trim shall be Aluminum die cast.
- All the fixtures are as per the IP 54 insulation class.
- Vendor shall be responsible for measuring the level of illumination after installation.

- Lighting fixtures shall be designed for minimum glare and for continuous operation under specified atmospheric condition.
- All fixtures shall be complete with accessories like power factor improvement capacitors, ballast, ignitor etc.
- Flourescent fixture shall be of sheet steel casing with corrosion resistance finish. It shall be provided with separate wiring channel with cover plate and an earth terminal. All screw shall be chromium brass only. Lamp and starter holders shall be of tough moulded plastic with spring loaded rotor type connector. Condensers shall be low loss paper impregnated hermatically sealed. Internal wiring shall be neatly clipped and where by passing the ballast, a suitable heat resistance barrier or sleeve shall be provided.

#### ii. Reflector

- Light reflecting surface shall be mirror finished having the reflection factor of not less than 80%. All parts of reflector shall be completely covered by finish and free from irregularities. It shall be capable of withstanding a 6 mm. radius bend without showing sign of cracking, peeling or loosening from the base metal. Finish shall be capable of withstanding 72 hours exposure to ultra violet sun lamp placed 10 cm. from the surface without discoloration, hardening or warping and retain the same reflection factor after exposure. Test result shall be furnished for each lot of fixtures.
- Lighting fixture reflectors shall generally be manufactured from sheet steel of aluminum of not less than 20 SWG. They shall be readily removable from the housing for cleaning and maintenance without disturbing the lamps and without the use of tools. They shall be security mounted to the housing by means of positive fastening devices of a capative type.
- Polystyrene egg-box type louvers shall be provided whenever specified. Appropriate captive type fixing devices shall be incorporated for securing these.

#### iii. Ballast

- Lighting fixtures ballasts shall be designed manufactured and supplied in accordance with the relevant standard IS 6616 and shall function satisfactorily under site conditions specified. Electronic ballast with low loss shall be used. Ballast shall be compatible with sensor operation.
- Ballasts shall be mounted using self-licking, anti-vibration fixings and shall be easy to remove without removing the fittings.
- Ballast shall contain a thermosetting type compound not subject to softening or liquefying
  under any operating conditions or upon ballast failure. The ballasts shall be of the inductive
  and heavy duty type Filled with polyester of equivalent. They shall be free from hum and
  protected from the atmospheres. Ballasts which produce a humming sound shall be replaced
  free of cost by the supplier. HPMV lamp ballasts shall be provided with suitable tapings.

#### iv. Starters

• Lighting fixtures starters shall be of the safety type (i.e. if the lamps fails to ignite at the first start, no further starting must be possible without attending to the tube light. Starters shall have bimetal electrodes and high mechanical strength.

• Starters shall be replaceable without disturbing the reflector or lamps and without the use of any tool. Starters shall have brass contacts and radio interference capacitor.

## v. Capacitors

- Lighting fixture capacitors shall have a constant value of capacitors and shall be connected across the supply of individual lamp circuits.
- Each capacitor shall be suitable for operation at 240 volts  $\pm$  5% single phase 50 Hz with a suitable value of capacitorance so as to correct the power factor of lists corresponding lamp circuit to the extent of 0.98 lag.
- The capacitors shall be harmatically sealed preferably in metal container to prevent seepage of impregnating material and ingress of moisture.

#### vi. Lamp Holder

- Lamp holders for fluorescent tubes shall be of the spring loaded, low contact resistance, bi-pin rotor type, resistant to wear and suitable for operation at the specified temperature, without deterioration in insulation valve, contact resistance of lamp holding quality. It shall hold the lamp in position under normal condition of shock and vibration.
- Lamp-holders for incandescent and HPSV lamps shall be of G.L.S. type manufactured in accordance with relevant standards and designed to give long and satisfactory service.

#### vii. Lamps

- Lamps shall be supplied and installed in all lighting fixtures furnished under this contract.
- Energy efficient lamp shall be used such as T5, CFL or LED.
- Lamps used for temporary lighting service shall not be used in the final lamping of fixture units.
- Lamps shall be of wattage and type as shown on the drawings and schedules. Where not shown, the details shall be ascertained from the client before procurement.
- Lamps for permanent installation shall not be placed in the fixtures until so directed by the Client's representative, and this shall be accomplished directly before the respective portions are ready for occupation.

# d. LED

# i. Specifications for LED

- Approved make sare: Philips, Wipro, Lumileds, Osram, Nichia, and Cree. High lumen efficacy LEDs suitable for the application along with following features shall be used:
- LED Efficacy at the chip level shall be >120 lumen /watt (For High power LED)
- The efficiency of the LED lamp sat 85 Degree C junction temperatures shall be more than 85%.
- The luminous efficacy of LED luminaire' shall be at least 90 lumen / Watt for low wattage luminaires (<45W system including driver losses) and at least 95 lumen/watt for high wattage luminaires (>45W system including driver losses) at about 350 miliamps or so. On higher

driving current higher output is expected without compromising the life of LEDs. The products showing more duration of L70 would be preferred.

- Adequate heatsink with proper thermal management shall be provided.
- Power factor of complete fitting shall be more than 0.90atfull load 220-240 V.
- LED shall be surface mounted type duly soldered to PCB by Reflow system. The Solder used shall be ROHS compatible for environment friendliness.
- Input frequency range shall be between  $50Hz \pm 3\%$ .
- Color rendering index (CRI) shall be at least 70 for both indoor and outdoor applications.
- Correlated color temperature shall ranged between 4000 to 6500 K.
- Minimum view angle of the LED shall not be less than 1200

#### ii. LED driver

- LED driver shall have following features:
- Input voltage range within 160V(RMS) to 270 V(RMS)
- Driver shall be designed to withstand surges of at least 1.5 KV.
- Operating input voltage220-240V (RMS)
- Output voltage of the driver shall be designed to meet the power requirements of the system.
- Input voltage ripple should be within 3%
- Output over voltage protection 125 VDC
- Power factor> 0.90
- Full Load Efficiency ≥ 85%
- Total Harmonic Distortion (THD) shall be< 25 %
- Current wave form should meet EN 61000-3-2
- LED Driver should possess overvoltage cut off protection for supply over 270V AC.
- The driver should comply to CISPR15 for limit sand methods of measurement of Radio Disturbance characteristics
- The equipment should comply to IEC 61547 for EMC immunity requirements
- The control gear should be compliant to IEC 61347-2-13, IEC 62031 and IEC 62384.

#### iii. General

- The lumen maintenance of the LED fixtures shall not be less than 70% after 50,000 hours (Unless specified otherwise in the detailed specifications).
- The supplier shall provide evidence that the LED chip set manufacturer has the patent right to produce the supplied LED chipset to avoid infringement of white LED patent. Warranty shall be provided by the supplier against all manufacturing defects for a period of 48 months from the date of supply or 24 months from the date of commissioning whichever is earlier. The warranty of replaced item shall re-start from date of attending defect / replaced.
- The lighting supplier shall be a manufacturer of at least two components from luminaire, lamps (conventional or LED) & control gear. At least two of the above mentioned components shall be from a single manufacturer to ensure continuity of spare supplies. The lighting supplier shall necessarily have been present in India for at least 10 years with an annual turnover of at least

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100 crores in each of the last 3 years to ensure adequate solvency. The lighting supplier shall also have necessarily supplied fixtures to Metro projects globally.

• Test reports from various parameters i.e. flux, power, efficacy, chromaticity, temperature, protection etc. Issued by certified agency shall be furnished. Estimation on product's life and performance shall also be furnished.

#### e. Drawings and Information

As per of the proposal the bidder furnish relevant descriptive and illustrative literature on lighting fixtures and accessories and following drawings/ data for the respective lighting fixtures:-

- Dimensional Drawings.
- Mounting details cable entry facilities and weights.
- Light distribution diagrams (Zonal)
- Light absorption and utilization factors.
- Lamp output V/S temp. curves.

# f. Inspection and Testing

- Each fixture shall be tested at 1500 volts rms. 50 Hz for one minute and no flashover of breakdown shall occur between current carrying parts and ground.
- Insulation resistance of each fixture shall be tested at 500 V.D.C. and the insulation resistances so measured shall not be less than 2 mega ohms between all current carrying parts and ground.
- Each fixture complete with its proper lamp/lamps shall be shown to operate satisfactorily at its normal voltage and frequency.
- Each fixture shall be examined visually to ensure that it is complete in all respects and satisfactorily finished.
- Type and routine test certificates shall be submitted for tests conducted as per relevant IS/BS for the fixture and accessories.

# g. Method of Measurement

Supply of the fixture including transport to site, loading and unloading etc. as specified will be treated as one unit for measurement and payment.

#### h. Transport, Delivery and Storage

The prices shall be F.O.R. site basis including packing & forwarding charges. The quoted price must include all the costs for necessary mode of transportation up to the final location of fixture or site store. The fixture should be supplied with required storage arrangements suitable for placing in open storage yard. All incidental expenses during transportation shall be part of quoted prices including transit insurance. The charges for loading and unloading of equipment's at site should form part of offer.

#### i. Guarantee and Warranty

The Bidder shall stand guarantee for the performance of entire fixtures and components for eighteen (18) months from the date of commissioning or twentyfour(24) months from the date of dispatch, whichever is earlier, as agreed up on and as reproduced in the purchase order within the tolerance specified or as permitted by the relevant standards for the equipment in his scope of supply. The Purchaser also reserves the right to use the rejected equipment or part thereof until the new equipment meeting the guaranteed performance is supplied by the Bidder.

# j. Spares

The bidder shall quote for minimum spares required for two years safe operation of light fixtures along with the offer separately.

# 19. Earthing

#### a. Scope

The scope under this section covers the following: -

- Providing Earthing Station.
- Providing Main Earth Grid
- Earthing of all panels, DB's and utilization equipment.

#### b. Standards

The product and the equipment covered by this specification shall, unless otherwise specified be in line with the requirement of any of the latest applicable standards and will apply in order of priority as listed below:-

- Indian Standards
- IEEE 80
- ANSI (American National Standards)
- IEC 62561-7
- Relevant BS (British Standards)

The earthing system includes Copper bonded electrode, ground enhancing material (GEM) and ground rod clamps detailed as follows:-

#### c. Copper Bonded Earth Rods

- The Earth Rods shall have a nominal (actual) dia mentioned in BOQ and length of 10 feet: (3M). The Rods shall have a steel core with molecular bonding of 250 micron of Copper
- The core used shall be 1035 steel cold drawn to ASTM A 1080 and AISI C 1017 standards with tensile strength min 90000 psi

- A nickel layer is applied to steel core (and subsequently copper) by an electrolytic process forming
  a metallurgical bond between the three. The copper used shall be type DHP alloy No. 122 CDR
  and rated at 99.95% copper. The thickness of copper layer shall be uniform 0.010" (250 micron)
- The Earth Rod shall be UL(Under Writers laboratory) listed and should have the UL mark, part number and control number assigned by UL.

# d. Ground Enhancement Material GEM

- Ground Enhancement Material shall be permanent and maintenance free (no re-charging with salts or any other chemicals) and shall maintain its earth resistance with time.
- It must set up firmly and not dissolve or decompose or otherwise pollute the soil or the local water table.
- It shall be suitable for use in dry form or slurry form.
- The Ground Enhancement Material shall not dependent on the continuous presence of water or moisture in the surrounding to maintain its conductivity.
- Ground Enhancement Material in its set form shall have a resistivity of not more than 0 08 ohm per m
- The material should conforms to IEC 62561 Part-7 Requirement of Earthing Enhancing Compound
- Material should pass leaching per EN 12457-2 method
- Material should pass Sulphur per ISO 14869-1 method
- Material should pass Corrosion as per ASTM G59-97 and G102-89 method.
- It shall not depend on the continuous presence of water to maintain its conductivity.
- It should be a little alkaline in nature with pH value >7 but <9, test certificate from NABL approved laboratory to be provided for the composition so designed.
- It should have better hygroscopic properties to absorb moisture. It should absorb and release the moisture in dry weather condition and help in maintaining the moisture around the earth electrode.
- It should have capacity to retain >10% moisture at 105°C. Test certificate from NABL approved lab to be submitted for the composition so designed.
- It should have water solubility < 5%. Test certificate from NABL approved lab be submitted for the composition so designed.
- It should be granular with granule size 0.1 mm to 3 mm
- It should be non-toxic, non-reactive, non-explosive & non corrosive
- It shall he thermally stable between -10 degree centigrade to \*60 degree centigrade ambient temperature.
- It shall not decompose or leach out with time
- It shall not pollute the soil or local water table and meets environmental friendly requirement for landfill
- It should expand & swell considerably and removes entrapped air to create strong connection between earth electrode and soil
- It should be diffuses into soil pores and creates conductive roots enlarging conductive zone at earth pit

- It shall be permanent & maintenance free and in its "set, form" maintains constant earth resistance with time
- It shall not require periodic charging treatment or replacement.
- It shall be suitable for any kind of electrode and all kinds of soils of different resistivity.
- It shall not cause burns, irritation to eye, skin etc.
- The Earth enhancement material shall be supplied in sealed, moisture proof bags. These bags shall be marked with Manufacturer's name or trade name, quantity, batch no & date of manufacture

# e. Marking:

The marking shall be clear, distinct and visible to the naked eye from a distance of about 1 meter: the size of marking shall be of minimum 25 mm, Following information shall be legibly and indelibly marked on the packed sets:

- Specification no.
- Name of the manufacturer
- Batch no. & Date of manufacturer
- Current carrying capacity

#### f. Tests

- i. Following tests shall be done on one sample-
  - **Testing** of copper coating shall be done as described below:-
  - The copper coating mentioned in clause 8.1 shall not be less than the prescribed thickness at any point and shall comply with the adherence requirement in para (b) & (c) below.
  - Length of the electrode with one end cut to a 45 degree point shall be driven between two steel clamping plates or the jaws of a vise set 0.04 in (1.02 mm) less than the diameter of the electrode, so as to shear off sufficient metal to expose the bond between the copper coating and electrode. Peeling of the coating by the steel plates or the jaws of the vise is acceptable, but there shall be no other evidence of separation of the coating from the metal core.
  - At room temperature, a length of the electrode is rigidly held in a clamp or vise and the free end is bent by applying a force normal to the electrode at a distance from the clamping device equal to 40 times the diameter. The magnitude of the force and the direction of application of force shall be such that the electrode is permanently bent through a 30-degree angle. While bending of the electrode there shall be no evidence of cracking of the copper coating.
  - Corrosion Test: As per IS.2119, salt spray test for analysis of effect of corrosion for the specific electrode shall be done through NABL approved testing lab, preferably for 500 hrs... or more.
- ii. Exothermic weld material shall be tested as per provisions of IEEE 837
- iii. Electrical properties test on conductive mixture
- iv. Physical, chemical & electrical properties test on earth enhancement material

- v. Toxic content tests for cadmium, lead, mercury, hexavalent chromium, polybrominated biphenyis (PBBs) & polybrominated diphenyl ethers (PBDEs) on conductive mixture & earth enhancement material. Certificates from NABL approved laboratories shall be submitted with test results of above tests. Test certificates shall not be more 'than three years old.
- vi. For dimension, weight and specific resistance average of 3 readings shall be taken. Average value shall be within specified limits and individual values shall not go beyond double of tolerances.

# g. Power conducting Apparatus

- i. Metallic conduit shall not be accepted as an earth continuity conductor. A separate bare earth continuity conductor size of 16 SWG GI wire shall be used.
- ii. The earth continuity conductor (ECC) shall be clamped to the conduit at one meter intervals using approved copper earth clamps.
- iii. Non-metallic conduit shall have an insulated earth continuity conductor. All metal junction and switch boxes shall have an inside earth stud to which the ECC shall be connected. The insulated ECC shall be distinctly coloured (green) for easy identification. The joint in the earth continuity conductor shall be done by welded lap joint with separate back plate of size larger than conductor it self.
- iv. Armoured cables shall be earthed by distinct earth connections to the armouring at both the ends and the size of connection being as for the metallic conduit.
- v. 3 ph. power panels and distribution boards shall have 2 distinct earth connections with brass studs of minimum 16mm dia.for two independent earth connections of the size shown or as co-related to the incoming cable size. Sizes of all earth connections shall be co-related to the incoming cables.
- vi. All G.I. strips shall be hot dip galvenised with minimum zink coating of 350 grams / sq.m.
- vii. 3 phase apparatus shall have two distinct earth connections. Minimum recommended size of conductors shall be generally as follows:
  - Motors up to 15 HP 8 SWG GI wire
  - Motors from 20 to 30 HP 4 SWG GI wire
  - Motors from 35 to 50 HP 4 SWG mm Cu wire.
  - Motors above 50 HP 25 x3 mm GI strip
  - MCB DBs for LDBs and USDBs 25x3 GI strip
  - PDBs and LT panels 50 x 6 GI strip.
  - Single phase sockets and JBs 14 SWG GI wire
  - Three phase sockets, JBs etc. 8 SWG GI wire

Contractor

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
- viii. For 1 Phase apparatus, the single earth connections shall be provided of the above size. For all light fittings and fans a single earth connections with 1.5 sq.mm. Copper shall be provided.
- ix. An equipment earthing grid is established. All earth connections to all panels, DB's and Equipment shall be connected to the nearest point of the earthing grid.
- x. The installation shall be complete in all respects for efficient and trouble free service. All work shall be carried out in a first class quality and neat workmanship. Grounding conductors shall be handled carefully to avoid kinking and cutting of the conductors during their installation. All exposed ground conductors run shall be taken in a neat manner horizontal, vertical and parallel to the building walls or columns and shall not be laid haphazardly. All connections to the grounding grid shall be made with GI strip welded to grid and bolted at equipment ends.
- xi. Earthing design impedance to ground shall not exceed 1 ohm.
- xii. For all connections made to equipment or to the structures, the grounding conductor, connectors and equipment enclosures shall have good clean contact surfaces. Grounding conductor connection to all electrical equipment, switchgear, transformers, motors, panels, tray/conduit systems, equipment enclosures, distribution boards, equipment frames, bases, steel structure etc. shall be by pressure type or bolting type connectors.
- xiii. All lap, cross and tee connections between two grounding conductors both below and above ground shall be made by thermo welding process for GI or compression type connector when copper conductor is used. The various joints shall have adequate mechanical strength as well as necessary electrical conductivity not less than that of the parent conductors of the joints. All accessories for grounding installation shall be of good quality and design approved by the Owner / Consultant. All welded joints laid underground shall be treated with bitumen paint and covered with hassien tape.
- xiv. Grounding conductors, when crossing underground trenches, directly laid underground pipe and equipment foundation, if any, shall be at least 600 mm below the bottom elevation of such trenches / pipes.

# h. Testing

The following earth resistance values shall be measured with an approved earth meggar and recorded: -

- Each Earthing Station
- Earthing System as a whole (shall be less than one ohm)
- Earth Continuity conductors.

# i. Acceptance Tests

Following shall constitute acceptance tests and shall be done on 100% sample basis for all the tests mentioned below except where otherwise indicated—

- Physical check for earth electrode for rod type electrode.
- Earth enhancement material
- Earth resistance measurements

# j. Rejection

In case the any component tested and inspected in accordance with this specification, fails to pass the tests or comply with the requirement of the specification, another two component from the same lot shall be inspected in accordance with the specification and if one of them also fail to pass the test, the whole lot of that component shall be rejected subject to the discretion of the purchaser or his nominee.

# k. Inspection

- All the gauges/ test & measuring instruments shall be under calibration control at the time of inspection and proof to this office shall be produced.
- Inspection and testing shall be carried out by the inspecting authority nominated by the purchaser to ensure that all the requirements of this specification are complied with for the acceptance of the materials offered by the supplier for inspection
- The client or his nominee shall have right of free access to the works of the manufacturer and to be present at all reasonable times and shall be given facilities by the manufacturer to inspect the manufacturing process at any stage of manufacture. He shall have the right to reject whole or part of any work or material that does not conform to the terms of this specification or any other specification or requirement applicable and may order the same to be removed / replaced or altered at the expense of the manufacturer. All reasonable/complete facilities considered necessary by inspecting authorities for the inspection shall be supplied by the manufacturer free of cost.

# 20. ELECTRICAL SAFETY

- The Electrical installation shall be provided with all necessary safety equipment including operating gloves, high voltage 11 KV insulating mat as per IS-15652-2006. Minimum number of CO2 portable fire extinguishers, fire buckets and other equipment shall be required. An Emergency first aid kit and safety procedure shall be provided in Electrical/control room. The contractor shall provide adequate safety labels for the safe operation and maintenance of all electrical equipment.
- A1 size laminated single line diagram shall be provided on each panel room wall.
- Any other safety equipment as required under Indian Electricity rules/Act shall be provided

# 21. <u>APPROVED MAKE OF MATER</u>IAL

SR.	MATERIAL	MANUFACTURER/
No.		SUPPLIER
1	Transformers	Kirlosker Electric / RaychemRPG/Crompton
2	Diesel generator	Cummins / Caterpillar/ Kirlosker/ Greves

Contractor Chief Executive Officer

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SR.	MATERIAL	MANUFACTURER/
No.		SUPPLIER
3	Alternator	Stamford / Leroy Somer
4	LT Panel	ABB / Siemens / Schneider/ L & T/Crompton
5	ACB	ABB / Siemens / Schneider/ L & T/Crompton
6	MCCB	ABB / Siemens / Schneider/ L & T/Crompton
7	SFU / Contactors	ABB / Siemens / Schneider/ L & T/Crompton
8	Ammeter & Voltmeter selector switch	Kaycee / Salzer / ABB / Siemens / Schneider / L&T
9	CT's/PT	ABB/Compton/
10	Digital Meters, Demand monitor/ Load manager/KWH meter	ABB / Siemens / Schneider / L&T
11	Indicating Lamps	Siemens / L&T / Schneider
12	Push button	L & T/Siemens/IEC
13	Terminal Block	Elmex/Wago/Connect well
14	Wires – Copper conductor	Finolex / RR Kabel/ Polycab / KEI
15	MCB	Legrand / L&T/Siemens/ Hager / Schneider
16	L.T Cables	Finolex/ RPG cables / KEI / Polycab
17	Cable Gland	Comet/Braco/3D
18	Lugs	Dowell/3D/BRACO
19	Lighting Fixtures	Philips / Crompton / Bajaj
20	Modular Switches/socket	Anchor /Legrand
21	G.I Conduit	Gupta / Bharat / BEC
22	Surge protector Device	Schneider/ ABB / Siemens
23	Distribution Board	Legrand / L&T/ Siemens / Hager/ Schneider
24	LT cable terminals / Glands	Comet/Braco/Dowells
25	PVC conduit	Precsion/Diamond/Finolex
26	Poly carbonate type Power Sockets	Schneider / Legrand / L&T
27	Any other	As directed by Engineer-in-charge

# 22. THIRD PARTY INSPECTION:

Third party inspection for all the Electrical equipment's will be carried out by the reputed third party finalized by the NMC in consultation with the PMC.

# 23. QUANTITIES

Quantities shown in enclosed BOQ are only tentative. The contractors should assess the actual quantities as per requirement of site before actual procurement. The payment will be made only for actual quantities supplied and installed as per site requirements.

# 24. ACIVITY CHART

Bidders to submit detail activity chart along with bids

Contractor

# APPENDIX XII: BILL OF QUANTITIES

(Refer Clause 1.1.4 of the RFP)

# Installation of automated mechanical pneumatic crest gates and related works at Nashik, Maharashtra

Item No	Item of work	Unit	Quantity	Rate	Amount
1	Preparation of detailed designs, drawings and reports for bridge cum bandhara structure i.e. ogee jacketing to existing piers, etc and pneumatically operated spillway gates for gate panels, embedment's, abutment plates, anchors, clamps web retainer, pneumatic hoist etc. including consultancy charges and vetting of same from The Central Design Organization / Mechanical Organization of Government of Maharashtra etc. complete. (Market Rate)				
A	Consultancy Charges (Civil + Mechanical Drawings and Design Note ) Including vetting from CDO	No	30.00	120000.00	36,00,000.00
2	Clearing grass and removal of rubbish up to a distance of 50 meters outside the periphery of the area (PWD SSR 2018-19,2.07)	Sqm	27750.00	3.20	88,800.00
3	Providing, constructing coffer dam in river basin / dam storages as per type design including excavation, filling the middle portion with B. C. soil (in gunny bags if required). Providing impervious / semi pervious materials on both side of B.C. soil (in gunny bags if required) including ramming, compacting to the satisfaction of Engineer-in-charge, till the completion of work including dismantling coffer dam after completion of works and disposing off the material as directed by the Engineer-in-charge. Basic rate as per MJP DSR 2018-19,Section - I(XXI) on page (69.08.14)  Note: Pay line maximum - Top width payable shall be 2 mtr. and	Cum	5996.25	536.60	32,17,587.75

Contractor Chief Executive Officer

Nashik Municipal Smart City Development Corporation Limited

Item No	Item of work	Unit	Quantity	Rate	Amount
	maximum payable side slopes shall be 1.5 Horizontal to 1 Vertical, if the constructed top width of the side slopes are less, then the measurements at actual are payable. Extra top width or flatter slopes are not payable. Contractor is free to use bellies, plastic sheets, piles, pipes, C.G.I. sheets for supporting hearting materials instead of impervious/ semipervious hearting materials for which no extra payments shall be payable. 30% payment shall be withheld for dismantling of coffer dam. this foot note shall appear in tender condition. (Type section is shown on last page of type design section of CSR.)				
4	Dewatering on BHP basis by using water pump including diversion of stream, providing cofferdams, earthen bunds etc. as may be necessary for foundation and other parts of the works and pumping out water during and after excavation as may be required by using 10.00 to 19.00 BHP pump etc. complete. (prior approval of Superintending Engineer will be necessary). (PWD SSR 2018-19,12.24)	Hour	24000.00	186.90	44,85,600.00
5	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete. (PWD SSR 2018-19,46.29)	Cum	1350.00	1082.50	14,61,375.00
6	Conveying materials obtained from road cutting including all lifts, laying in layers of 20cm to 30cm. breaking clods, dressing to the required lines, curves, grades and section, watering and compacting to not less than 97% of standard Proctor density for a lead of over 50m. to 300m. inclusive from the site of excavation to the site of deposition as directed. (PWD SSR 2018-19, Lead Charges)	Cum	1350.00	216.20	2,91,870.00

Contractor

Item No	Item of work	Unit	Quantity	Rate	Amount
7	Providing steel anchor dowel bars of 32 mm diameter and 4 m length at the base of the well including drilling holes of 60 mm diameter up to 2.5 m depth in rock, placing the dowels in position and effectively grouting the holes with 1:1 etc. complete (PWD SSR 2018-19,12.47)	No\	480.00	5190.10	24,91,248.00
8	Excavation for foundation in hard rock by chiseling and wedging or line drilling including shoring and strutting as necessary and disposing off excavated stuff as directed etc. complete. All Type of Rock.(excluding dewatering). (PWD SSR 2018-19,12.11)	Cum	1039.50	1377.60	14,32,015.20
9	Providing and laying cast in situ/Ready Mix cement concrete M-20 of trap / granite/quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawings or as directed including centering, formwork, cover blocks ,laying/pumping, compacting finishing the formed surface with cement motor 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete, (Excluding reinforcement and structural steel). with fully automatic microprocessor based PLC with scads enabled reversible Drum Type mixer ?concrete Batch Mix Plant (pan Mixer) etc. Completed. with natural sand /V.S.I Quality Artificial sand(PWD SSR 2087-19,25.31)	Cum	1674.42	11473.70	1,92,11,792.75

Contractor

Item No	Item of work	Unit	Quantity	Rate	Amount
10	Providing and Fixing in position HCRM/CRS (Corrosion Resistant Steel) bar reinforcement of various diameters for R.C.C. piles caps,footings,foundation,slabs,beams columns,canopies,staircase, newels,chajjas,lintels paradis, copings, fins, arches etc. as per detailed designs, drawings with wires or track welding and supporting as required complete.  Basic rate as per PWD SSR 2018-19,26.34	MT	167.44	70005.60	1,17,21,877.68
11	Gate				
A	Supplying, fabrication, erection, testing and commissioning of pneumatically operated spillway gates consists of anchors, embedment's, steel gate panel, iron clamp castings hinge retainer, web retainers, splitters, restraining strap clamps rubber seals etc. with all accessories including cost all material, machinery, labor, seal fixing, welding, finishing with leads and lifts etc complete. (Market Rate)	Sqm	302.13	351,333.30	10,61,48,983.41
В	Providing and supplying polyester, reinforced inflatable gate actuator (5.00 m width) air bladders complete with air bladder connection hardware for connecting air bladders in to supplied air piping including cost of all materials, machinery, labors all leads, lifts, import / excise duty, errection, testing and commissioning etc complete.				

Contractor

Item No	Item of work	Unit	Quantity	Rate	Amount
С	Providing and supplying control system for operation of pneumatically operated spillway gates including one dual control zone mechanical cabinet complete with automatic mechanical upstream water level control system. System includes inflate and deflate solenoids for each of two independent gate zones, check valves for isolating adjacent air bladders, and all other required mechanical hardware such as manual by-pass valves, pressure gages, pressure relief valves, pressure regulators, pressure transducers (for air bladder pressure feedback), etc. Automatic mechanical backup system (backup to P L C control system) to be integrated into control cabinet. All control system equipment to be packaged in a white Nema 12 electrical enclosure or equivalent. All electrical terminations shall be at a clearly marked terminal block. Package shall also include an OHI model TSM-005 or equivalent gate position sensor with submersible cable. OHI to also supply fully programmed Square D P L C with water level sensor, gate position sensors, and touch screen interface.				

Contractor

Item No	Item of work	Unit	Quantity	Rate	Amount
D	Providing and supplying air supply and piping system for operation of pneumatically operated gates including dual Ingersoll Rand model UP6-50PEI-1 15/ or equivalent Indian zed complete air systems. Each system to include a 50-hp rotary screw air compressor complete with refrigerated air dryer and filtration system. Each machine shall supply prescribed cubic meters of air delivery at prescribe pressure. Dual prescribed capacity receiver tank shall be supplied to store clean and dry compressed air. An air compressor alternator panel shall be provided to automatically switch lead/lag air compressor operation during times of low air demand. With both air compressors operational inflate time shall be less than 90 to 120 minutes.				
12	Construction of control room at road level (i.e. above maximum flood level) for controlling unit i.e. compressor, dryer, automatic gate operation system generator etc.	No.	1.00		26,29,485.85
13.00	Providing electrical connection to the control room POSO gates for operation of compressor, air dryers, atomization instruments including illumination and necessary electrical works. The separate stand by diesel generator sets of required capacity of standard make shall be supplied.				
13.01	LT Panel				

Contractor

Item No	Item of work	Unit	Quantity	Rate	Amount
a	Providing & erecting 3 Pole MCCB of 200A,415V capacity with short circuit rating 25 kA (Ics=100% of Icu) adjustable thermal (overload) setting and fixed magnetic setting with provided leads, provision for installation of shunt/ UV/ trip alarm contact and MCCB should have phase barriers both sides, in provided enclosure on iron /GI frame as per specification no. SW-SWR/MCC CSR Nov. 2018-19 '5-5-2	Each	1	9009.00	9,009.00
b	Providing & erecting 3 Pole MCCB upto 100A, 415V, with short circuit rating 25 kA (Ics=100% of Icu ),adjustable thermal (overload) setting and fixed magnetic setting with provided leads, provision for installation of shunt/ UV/ trip alarm contact and MCCB should have phase barriers both sides, in provided enclosure on iron /GI frame as per specification no. SW-SWR/MCCB CSR Nov. 2018-19 '5-5-1	Each	2	4507.00	9,014.00
С	Supplying, erecting & marking TPMCB 6 A to 32A in provided distribution board as per specification no. SW-SWR/MCB CSR Nov. 2018-19 '5-3-14	Each	1	653.00	653.00
d	Providing & Fixing G.I. sheet 1.6mm (16 gauge) to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, rivetting etc. and painting with one coat of red lead paint and 2 coats of enamel paint. CSR Nov. 2018-19 '6-1-3	Sq. Mtr.	3	1799.00	5,397.00
e	Supplying and erecting Bus bar chamber triple pole with neutral with four aluminum bars, 500V 200A complete as per specification no. CP-BB CSR Nov. 2018-19 "6-2-2	Mtr	2	5395.00	10,790.00

Contractor

**Chief Executive Officer** 

Item No	Item of work	Unit	Quantity	Rate	Amount
f	Supplying and erecting LT CT multifunction DLMS compliance energy meter of accuracy of class 0.5, 3x240V,50 Hz with optical & RS 232 port, backlit LCD, measures & displays trivector energy, load survey, TOD, tamper detection & logging, power ON /OFF events, instantaneous parameters of rating 1/5 A with display in absence of power complete with zero adjustment & test certificate from manufacturer erected on provided M.S. box and connected to CTs.  CSR Nov. 2018-19 '6-3-5	Each	1	7733.00	7,733.00
g	Providing and erecting L.T. Current Transformer with bar primary 50/5 to 1000/5 ratio with 15VA burden erected in provided CRCA box duly secured with insulating materials connected to the meter with test certificates.  CSR Nov. 2018-19 '6-5-2	Each	1	834.00	834.00
h	Supplying & erecting LED type indicating pilot lamp with LED colors Red / Yellow / Green, 230 / 250V on provided box / panel with necessary material, wiring & connections etc.  CSR Nov. 2018-19 '6-5-6	Each	2	172.00	344.00
i	Supplying & erecting LED type indicating pilot lamp with LED color BLUE, 230 / 250 V on provided box / panel with necessary material, wiring & connections etc. CSR Nov. 2018-19 '6-5-7	Each	1	229.00	229.00
j	Supplying, installation & marking of surge arrestor / surge protection device at the main distribution board after the incoming breaker of type 1+2 tested for Imax 100 kA for three phase and neutral as per specification no. CP-SPD CSR Nov. 2018-19 '6-6-2	Each	1	16672.00	16,672.00

Contractor

**Chief Executive Officer** 

Item No	Item of work	Unit	Quantity	Rate	Amount
13.02	DG Set and AMF Panel				
a	Supplying, Erecting and Commissioning of Diesel generating set with alternator of 62.5 kVA output continuous rating, 3 Phase, 415 V, 50c/s 0.8 p. f. A.C a totally enclosed air cooled / liquid cooled multi-cylinder diesel engine developing suitable BHP at 1500 rpm with 10% overload for 1 hour in 12 hours, along with standard accessories, self-excited, self-regulated, screen protected alternator with static excitation system running at 1500 RPM as per IS 4722-2001 with voltage regulation +/- 5 %. Both the engine and alternator direct coupled on a common fabricated steel base frame and mounted on anti-vibrating pads with standard control panel comprising meters, switchgears, indicators connected with suitable wires/cables, the complete set enclosed in composite Acoustic enclosure as fully assembled integral unit made of 16 SWG CRCA Sheet, sound absorbing material to restrict sound level upto 75 dB at 1.0 m, provided with first filling of oil, diesel etc. as per specification no. GEN-DG CSR Nov. 2018-19 '11-1-10	No.	1	544878	5,44,878.00
b	Supplying, erecting, testing and commissioning of Microprocessor based AMF panel suitable for Diesel Generating Set of above 50 kVA upto 62.5 kVA capacity Single/Three phase, 230/415 Volts, 50Hz A.C. with all standard features, safeties etc as per specification no. GEN-AMF.  CSR Nov. 2018-19 '11-2-8	Each	1	79692	79,692.00
13.03	Power Cables and Terminations				

Contractor

Item No	Item of work	Unit	Quantity	Rate	Amount
a	Supplying, erecting & terminating XLPE armored cable 3½ core 120 sq. mm. aluminum conductor with continuous 12.97 sq. mm. (8 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL CSR Nov. 2018-19 '7-1-20	Mtr.	60	640	38,400.00
b	Supplying, erecting & terminating XLPE armored cable 4 core 6 sq. mm. copper conductor continuous 5.48 sq. mm. (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe as per specification no. CB-LT/CU CSR Nov. 2018-19 '7-2-32	Mtr.	10	336	3,360.00
13.04	Earthling				
a	Supply, Installation, Testing and commissioning of maintenance free earthling comprising of Electrode of 17.2 mm diameter Low Carbon Steel with 250 micron molecular copper bonded earthling rod of Length 3m along with 25 kg Carbon based environment friendly back fill ground enhancing compound required to fill up the excavated earth with required quantity complete. Specification no. EAMOBI CSR Nov. 2018-19 '9-1-5	Nos.	8	12173	97,384.00
b	Supplying and erecting GI strip of required size used for earthling on wall and/or any other purpose with necessary GI clamps fixed on wall painted with bituminous paint in an approved manner with joints required. As per specification No EA-EP. CSR Nov. 2018-19 '9-2-3	kg	90	191	17,190.00

Contractor

**Chief Executive Officer** 

Item No	Item of work	Unit	Quantity	Rate	Amount
13.05	Lamps and Fans				
a	Supplying & erecting LED 20W tube light fitting (4 feet) with aluminum housing, heat sink, integrated HF electronic driver complete.  CSR Nov. 2018-19 '2-1-23		6	878	5,268.00
b	Supplying and erecting regular/ standard model ceiling fan of 1400mm. sweep complete erected in position as per specification no. FG-FN/CF CSR Nov. 2018-19 '2-12-3	Each	4	1895	7,580.00
С	Supplying and erecting Fan hook of 10 mm. M.S. round bar grouted in RCC slab with making the site as original. CSR Nov. 2018-19 '2-13-4	Each	4	101	404.00
d	Supplying and erecting electronic type step regulator for ceiling fan 600/ 900/ 1200/ 1400 mm. sweep, complete erected on provided switch board. CSR Nov. 2018-19 '2-13-9	Each	4	203	812.00
13.06	Wiring Accessories				
a	Supplying and erecting Ceiling rose / Batten holder / Slanting holder / hanging cord switch / hanging bell push / pendent holder Bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box.	Each	10	32	320.00

Contractor

**Chief Executive Officer** 

Nashik Municipal Smart City Development Corporation Limited

Item No	Item of work	Unit	Quantity	Rate	Amount
	CSR Nov. 2018-19 '1-7-7				
b	Supplying and erecting ISI mark modular type 3 pin 6A multi sockets with safety shutter, duly erected on provided plate and box with wiring connections complete.  CSR Nov. 2018-19 '1-8-10	Each	5	106	530.00
С	Supplying and erecting ISI mark modular type blanking plate one module, duly erected on provided plate & box. CSR Nov. 2018-19 '1-8-24	Each	2	18	36.00
d	Point wiring for light/fan/bell in 20 mm metal conduit with 1.5 sq.mm (2+1E) FR grade copper wire, flush type switch, earthing and required accessories as per specification No: WG-PW/SW CSR Nov. 2018-19 '1-9-1	Point	10	680	6,800.00
e	Point wiring for independent plug in 20 mm metal conduit with 1.5 sq.mm (2+1E) FR grade copper wire, flush type switch, earthing and required accessaries as per specification No: WG-PW/SW CSR Nov. 2018-19 '1-9-3	Point	5	747	3,735.00
f	Supplying & erecting mains with 2x2.5 sq.mm. F.R. copper wire, in 16gauge 20 mm dia. rigid steel conduit, with continuous GI earth wire of 2.5sq.mm. as per specification No:WG-MA/MC. CSR Nov. 2018-19 '1-5-3	Mtr	100	208	20,800.00
13.07	Power Socket				

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Item No	Item of work	Unit	Quantity	Rate	Amount
a	Supplying and erecting ISI mark modular type switch 6A / 10A duly erected on provided plate and box with wiring connections complete.  CSR Nov. 2018-19 '1-8-1	Each	5	65	325.00
b	Supplying and erecting ISI mark modular type switch 16A duly erected on provided plate and box with wiring connections complete.  CSR Nov. 2018-19 '1-8-2	Each	5	88	440.00
С	Supplying and erecting PVC Surface modular switch box with double mounting plate for 3 modules duly erected. CSR Nov. 2018-19 '1-8-28	Each	5	141	705.00
d	Supplying & erecting mains with 2x4 sq.mm.F.R copper wire, in 16gauge 20 mm dia. Rigid Steel conduit, with continuous GI earth wire of 2.5sq.mm.as per specification No: WG-MA/MC CSR Nov. 2018-19 '1-5-5	Mtr	80	236	18,880.00
13.08	Lighting Distribution Board (LDB)				
a	Supplying, erecting & marking FPMCB 6A to 32A in provided distribution board as per specification No. SW-SWR/MCB CSR Nov. 2018-19'5-3-16	Each	1	905	905.00
b	Supplying, erecting & marking SPMCB 6A to 32A, C-series (for motor/power) in provided distribution board as per specification No. SW-SWR/MCB CSR Nov. 2018-19'5-3-2	Each	10	153	1,530.00
С	Supplying, erecting & marking SPMCB 6A to 32A, B-series (for lighting) in provided distribution board as per specification No. SW-SWR/MCB CSR Nov. 2018-19'5-3-3	Each	10	164	1,640.00

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**Chief Executive Officer** 

Item No	Item of work	Unit	Quantity	Rate	Amount
d	Supplying and erecting triple pole and neutral distribution board (TPNDB) surface/ flush mounted suitable for SPMCB of 12 ways on iron / GI frame (horizontal busbar type) as per specification no. SW-SWR/MCBDB CSR Nov. 2018-19'5-4-1	No.	1	1663	1,663.00
13.09	Air Conditioner Socket				
	Supplying & fixing suitable size GI box wih modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.  CPWD DSR 2016 '1.57	Each	1	533	533.00
13.10	Wires				
a	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. 2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire CPWD DSR 2016 '1.7.1	Meter	45	181	8,145.00
b	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required. 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire CPWD DSR 2016 '1.7.1	Meter	15	206	3,090.00

Contractor

Item No	Item of work	Unit	Quantity	Rate	Amount
13.11	DP Structure				
a	Supplying & erecting inline D. P. structure for 11/0.415 kV, 100 kVA transformer with R.S.J. pole 2 nos. of size 100 x 116 mm x 11 Mtr. long with suitable distribution box of C.R.C.A. sheet 16 SWG with 4 pole MCCB 200 amps as incomer & 6 nos. 100 amps kitkat/MCCB for outgoing circuits. Transformer D.P. structure includes the A. B. switch 200 amps, D.O. fuse set & L.A. set, 2 Nos. of top channel of size 100 mm x 50 mm for erection of A.B. switch & 2 nos. base channel of size 100 mm x 50 mm for erecting transformer channel of size 75 x 40 mm for erecting D.O. fuse set, L.A., A.B. switch handle etc. Angle of size 50 x 50 x6 mm for erecting distribution box, transformer belt etc.as per drawing (min. 124 Kg. iron work) with necessary clamps, nut-bolts, vee cross arm, top clip, insulators etc. complete with caution board & barbed wire. D.P. structure shall be erected in c.c. foundation complete. CSR Nov. 2018-19 '8-4-19	Each	1	116833	1,16,833.00
13.12	Transformer				
	Supplying, installing, testing & commissioning of 3 phase, 11/0.433 kV, 50 Hz., 100 kVA, oil immersed and naturally cooled outdoor type, copper wound transformer, delta/star connected with additional neutral brought out on load side, temperature rise should not exceed 40oC by thermometer in oil and 45oC by the resistance in winding at full load rating, with HV tapping (with off load tap changer) off load +5 to -10 in steps of 2.5%, with standard accessories complete with test certificate with losses below 475 Watts at 50% load, 1650 Watts at 100% load as per	Each	1	319155	3,19,155.00

Contractor

Item No	Item of work	Unit	Quantity	Rate	Amount
	IS:1180 - 2014 energy efficiency level II, with necessary permissions of Electrical Inspector, as per specification no SS-TR. CSR Nov. 2018-19 '10-1-3				
14	Operation and Maintains Period for 3 years				
	Operation cost for 1st Year (Rs. In Lacs)	Year	1		
	Operation cost for 2nd Year (Rs. In Lacs)	Year	1		24,93,000.00
	O & M Cost for 3rd Year with 10% Escalation (Rs. Lacs) (Rs. In Lacs)	Year	1		
				Total	16,06,35,343.64
	2,89,14,361.85				
				Royalty	12,89,373.42
			Total A	mount in Rs.	19,08,39,079.00

Note: Any new items to be included other than Bill of quantities and increase/ decrease in Quantities will be borne by the bidder.

Contractor

#### APPENDIX XIII: CONTRACT AGREEMENT

#### **CONTRACT AGREEMENT**

(To be executed on a non-judicial stamp paper of appropriate value)

**THIS CONTRACT AGREEMENT** ("Contract") is made on this [•] day of [•] 2018 at [•], India.

#### **BETWEEN**

1. Nashik Municipal Smart City Development Corporation Limited having its principal office at [●] India hereinafter referred to as "NMSCDCL", which expression shall, unless repugnant to the context or meaning thereof, include its permitted successors and assigns) of One Part;

# **AND**

2. {[•], a [•] incorporated under the {•}¹, having its registered office at [•] (hereinafter referred to as {"Contractor"}²which expression shall, unless repugnant to the context otherwise requires, include its permitted successors and assigns) of Second Part.

# OR

A consortium consisting of {Insert name of the Lead Member}, a [•] incorporated under the [•] ("Lead Member"), [•], {Insert name of the consortium member} an incorporated under the [•] ("Consortium Member") (hereinafter collectively referred to as "Contractor") ³which expression shall repugnant to, unless the context otherwise requires, include its permitted successors and assigns) of Second Part.}

Each of the parties mentioned above are collectively referred to as the 'Parties' and individually as a 'Party'.

# A. WHEREAS:

A. NMSCDCL has selected the Contractor through a competitive bidding process pursuant to a Request for Proposal dated [•] for implementing the Project (RFP).

(i) The provisions in curly brackets are to be retained in the Agreement and shall be suitably modified after the issue of LOA to reflect bid specific particulars in relation to the Selected Bidder

Document No.: MAH-NAS--053-RFP

Contractor

<sup>&</sup>lt;sup>1</sup>Notes:

<sup>(</sup>ii) The provisions in square brackets and/or blank spaces shall be suitably filled after the issue of LOA in order to reflect bid specific particulars in the Agreement.

<sup>&</sup>lt;sup>2</sup>Applicable in case of a single bidder

<sup>&</sup>lt;sup>3</sup>Applicable in case of a consortium

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
  - B. After evaluation of the bids received from the bidders, NMSCDCL accepted the Bid of the Selected Bidder and issued its Letter of Award No. [●] dated [●] ("LOA") to the Selected Bidder, requiring the Selected Bidder, *inter alia*, to execute this Contract within the time period prescribed in the RFP.
- C. The Selected Bidder has requested the NMSCDCL to accept it as the Contractor which shall undertake and perform the obligations and exercise the rights of the Selected Bidder under the LOA, including the obligation to enter into this Contract Agreement pursuant to the LOA for implementing this Project in accordance with the terms and conditions as set out in this Contract.
- D. NMSCDCL is desirous that the Contractor execute \_\_\_\_\_ (name and identification number of Contract) (hereinafter called "the Works") and NMSCDCL has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein, at a cost of INR. [●] (Rupees [•] Only).

**NOW THEREFORE**, in consideration of the mutual covenants, promises, assurances, representations and provisions set forth herein, the Parties hereto agree as follows:

- 1. In this Contract Agreement, words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract as set out in Annexure A of Appendix XIII which shall be deemed to form an integral part of this Contract Agreement and is to be read as a part and parcel of this Contract Agreement.
- In consideration of the payments to be made by NMSCDCL to the Contractor as hereinafter mentioned, the Contractor hereby covenants with NMSCDCL to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.
- 3. NMSCDCL hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein 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.
- 4. The following documents shall be deemed to form and be ready and construed as part of this Contract Agreement viz.
  - 1. Conditions of Contract as set out in Appendix XIII of this RFP:
    - A. General Conditions of Contract
    - B. Special Conditions of Contract.
  - 2. Scope of work for the Contractor as set out in Appendix X of the RFP;
  - 3. Technical Specifications as set out in Appendix XI of the RFP;
  - 4. Bill of Quantities of the Contractor as set out in Appendix XII of the RFP;

- 5. Drawings as set out in Appendix XV of the RFP.
- 6. Any other document (s), as specified.

# IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS CONTRACT AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED SIGNED, SEALED AND DELIVERED

For and on behalf of NMSCDCL by: For and on behalf of the Contractor<sup>4</sup> by:

(Signature) (Signature)

(Name)

(Designation) (Designation)

(Address) (Address)
(Fax No.) (Fax No.)

OR

SIGNED, SEALED AND DELIVERED

SIGNED, SEALED AND DELIVERED For and on behalf of the Lead Member<sup>5</sup> by:

For and on behalf of NMSCDCL by: (Signature)

(Signature) (Name)

(Name) (Designation)

(Designation) (Address)
(Address) (Fax No.)

(Fax No.) SIGNED, SEALED AND DELIVERED

For and on behalf of the Consortium Member

1 by:

(Signature)

(Name)

(Designation)

(Address)

(Fax No.)

SIGNED, SEALED AND DELIVERED

Contractor Chief Executive Officer

<sup>&</sup>lt;sup>4</sup>Applicable in case of a single bidder

<sup>&</sup>lt;sup>5</sup>Applicable in case of a consortium

atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra

For and on behalf of the Consortium Member 2 by:

(Signature)

(Name)

(Designation)

(Address)

(Fax No.)

RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates

Contractor

#### ANNEXURE A: GENERAL CONDITIONS OF CONTRACT

### **Security Deposit**

**Clause 1: -** The Selected Bidder (herein-after called the Contractor, which expression shall unless excluded by or repugnant to the context include his hires, executors, administrators and assigns) shall:

- a) within 7days (which may be extended by the Engineer to 15 days) of the receipt by him of the LOA deposit with the NMSCDCL an unconditional and irrevocable bank guarantee of an amount as set out in Clause 2.28.2 of the RFP ("Performance Security").
- b) Permit NMSCDCL at the time of making any payment to him for work done under the contract to retain 5% (five percent) of compensation payable as deductions to be held by NMSCDCL by way of security deposit under Clause 2.28.3 of the RFP.

The Contractor acknowledges and agrees that Performance Security shall be held by NMSCDCL as security for the satisfactory completion of the obligations of the Contractor in accordance with this Contract, including recovery of any amounts due to NMSCDCL from the Contractor till the issuance of the Take Over Certificate. NMSCDCL shall have the unconditional option under the Performance Security to invoke the same and shall be entitled to recover from Performance Security, liquidated damages and any other amounts which may become due to NMSCDCL from the Contractor.

In the event of invocation of Performance Security by NMSCDCL, on account of the Contractor's failure to discharge any of its contractual obligations, warranting the NMSCDCL, in its assessment to do so, the NMSCDCL would intimate the Contractor of the reasons/circumstances for the invocation of Performance Security within 7 (seven) days after invocation of the same. In the event of any encashment and appropriation from the Performance Security, the Contractor shall, within 15 (fifteen) days thereof, replenish, in case of partial appropriation, to its original level, and in case of appropriation of the entire Performance Security, provide a fresh Performance Security within 30 (thirty) days, failing which NMSCDCL shall be entitled to terminate this Contract in accordance with clause 33 of the SCC.

# Compensation for delay/Penalty.

**Penalty: -** The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be to reckoned from the date on which the order to commence work is given to the contractor. The work shall throughout the stipulated period of the contract be proceeded with all due diligence (time being deemed to be on the essence of the contract on the part of the contractor) and the contractor shall pay as compensation an amount equal to one percent or such small as the Commissioner, Nashik Municipal Corporation (whose decision in writing shall be final) may decide, of the amount of the estimated cost of the whole work as shown by the tender for every day of that the work remains uncommented or unfinished, after the proper date. And further to ensure good progress during the

Contractor

execution of the work, the contractor shall be bound in all cases in which the time allowed for any work exceeds one month to complete and abide by the program.

- 1/8 of the work in ½ of the time
- 3/8 of the work in  $\frac{1}{2}$  of the time
- 3/4 of the work in 3/4 of the time

Of detailed progress laid down by the Engineer-in-Chief.

The following proportions will usually be found suitable.

- In 1/10, ½, ¾, of the time reasonable progress of the earth work should be 1/6, ½, ¾ of the total value of the work should be done.
- In 1/10, ½, ¾ of the time reasonable progress of masonry work should be 1/6, ½, ¾ of the total value of the work should be done.

Similar procedure should be followed in other items also.

In the event of contractor failing to comply with this condition he shall be liable to pay as compensation an amount equal to one percent or such small amount as the Commissioner, Nashik Municipal Corporation (whose decision in writing shall be final) may decide of the said estimated cost of the whole work or for incomplete work provided that the total amount of compensation to be paid under the provision of this clause shall not exceed 10 percent of the estimated cost of the work as shown in the tender.

Contractor

# Action when whole Security Deposit is Forfeited

**Clause 3:** - In any case in which under any clause of this Contract the Contractor shall have rendered himself liable to pay compensation in accordance with Clause 2 above; or in the case of abandonment of the work owing to serious illness or death of the Contractor or any other cause, the CEO, NMSCDCL shall have power to adopt any of following course, as he may deem best suited to the interests of the NMSCDCL.

- a) To rescind the contract, by providing a notice in writing to the Contractor under the hand of the Engineer, which shall be a conclusive evidence and in that case the security deposit of the Contractor shall stand forfeited and be absolutely at the disposal of NMSCDCL.
- b) To carry out the work or any part of the work departmentally debiting the Contractor with the cost of work expenditure incurred on tools and plant and charges on additional supervisory staff including the cost of work charged establishment employed for getting the unexecuted part of work completed and crediting him with the value of the work done departmentally in all respects in the same manner and at the same rates if it had been carried out by the Contractor under the terms & conditions of his contract the certificate of the Engineer as to the costs and other allied expenses, so incurred and as the value of the work so done departmentally shall be final and concessive evidence against the Contractor.
- c) To order that work of the Contractor be measured up and to take such part there of as shall be unexecuted out of his hands and to give it to another Contractor to be completed, in which case all expenses incurred on advertisement for fixing a new contracting agency, additional supervisory staff including the cost of Work Charged Establishment and cost of the work charge Agency will be debited to the Contractor and the value of the work done or executed through the new Contractor shall be credited to the Contractor in all respects and in the same manner and at the same rates as if it has been carried out by the Contractor under the terms of his contract. The certificate of the Engineer as to all the cost of the work and other expenses incurred as aforesaid for or in getting the unexecuted work so done shall be final and conclusive against Contractor.

In case the contract shall be rescinded under clause (a) above the Contractor shall not be entitled to recover or be paid any sum for work therefore actually performed by him under this contract unless and until the Engineer shall have certified in writing the performance of the works and the amounts payable to him in respect and he shall only be entitled to be paid the amounts so certified. In the event of either of the course referred to in clauses (b) or (c) being adopted and the cost of the work executed departmentally or through the new Contractor and other allied expenses exceeding the value if such work credited to the Contractors the amount to excess shall be deducted from balance due to the Contractor by NMSCDCL under the contract or otherwise howsoever or from the Security Deposit or the Sale Proceeds thereof provided, however, that the work/ contract shall have no claim against NMSCDCL even if the certified value of the work done departmentally or through a new Contractor exceeds the certified cost of such work and allied expenses provided always the whichever of the three course mentioned in clause (a), (b) or (c) is adopted by the Engineer, the Contractor shall have no claim to compensation for any loss sustained by him reason of him having purchased & produced materials or entered into any engagements, or made any advances on account of or with a view to the execution of the work or the performance of the contract.

Action when the progress of any particular portions of the work is unsatisfactory

**Clause 4: -** If the progress of any particular portion of the work is unsatisfactory, the Engineer shall not withstanding that the general progress of the work is in accordance with the conditions mentioned in clause 2, be entitled to take action under clause 3 (b) of this GCC after giving the Contractor 10 days' notice in writing. The Contractor will have no claim for compensation, or any loss sustained by him owing to such action.

Contractor remains liable to pay compensation if action not taken under Clause 3 and 4 Clause 5: - In any case in which any of the powers conferred upon the Engineer by clauses 3 and 4 hereof shall have become exercisable and the same shall not have been exercised, the non-exercisable thereof shall not constitute a waiver of any of the conditions hereof and such powers shall not withstanding be exercisable in the event of any future case of default by the Contractor for which under any clause or clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the Contractor for past and future compensation shall remain unaffected.

Power to take possession of or require removal of/or sell Contractor's plant. In the event of Engineer taking action under sub-clause (a) or (c) of clause 3 of this Agreement he may if he so desires, take possession of all or any tools, plant, materials and stores, in or upon the works or the site thereof or belonging to the Contractor or procured by him and intended used for the execution of the work or any part thereof, paying or allowing for the same in account at the contract rates, or in the case of contract rates not being applicable at current market rates, to be certified by the Engineer whose certificate thereof shall be final. In the alternative

Contractor

the Engineer may, after giving notice in writing to the Contractor, clerk of the works, foreman or other authorized agent require him to remove such tools, plant, materials or stores from the premises within a time to be specified in such notice, and in the event of the Contractor failing to comply with any such requisition, the Engineer may remove them at the Contractor's expense or sell them by auction or private sale on account of the Contractor and his risk in all respect, and the certificate of the Engineer as to the expense of any such sale shall be final and conclusive against the Contractor.

# Extension of time

**Clause 6:** - If the Contractor shall desire an extension of the time for completion of work on account of his having been unavoidably hindered in its execution or on any other ground, he shall apply in writing to the Engineer before the expiration of the period stipulated in the tender or before the expiration of 30 days from the date on which he was hindered as aforesaid or on which the cause for asking for extension occurred, which is earlier ever and the Engineer may, if in his opinion there are reasonable grounds for granting an extension as he thinks necessary or proper. The decision of the Engineer in this matter shall be final.

The time limit for the Completion shall be extended in the proportion that the increase in its cost occasioned by alterations, or additions bears to the cost of the original contract work, and the certificate of the Engineer as to such proportion shall be conclusive.

# Final Certificate/ Completion Certificate

Clause 7: - On completion of the work, the Contractor shall be furnished with a certificate by the Engineer of such completion, but no such certificate shall be given nor shall the work be considered to be completed until the Contractor shall have removed from the premises on which the work shall have been executed all scaffolding, surplus materials and rubbish and shall have cleaned of the dirt from all wood work, doors, windows, walls, floor or other parts of any building in or upon which the work has been executed or of which he may have been possession for the purpose of executing the work, nor until the works shall have been measured by the Engineer or where the measurements have been taken by his subordinates until they have received the approval of the Engineer, the said measurements being binding and concessive against the Contractor. If the Contractor shall fail to comply with the requirements of this clause as to the removal of scaffolding, surplus materials and rubbish and cleaning off dirt on or before the date fixed for the completion of the work the Executive Engineer may, at the expense of the Contractor, remove such scaffolding, surplus materials and rubbish and dispose of the same as he thinks fit and clean of such dirt as aforesaid; and the Contractor shall forthwith pay the amount of all expenses as incurred, but shall have no claim in respect of any such scaffolding or surplus material as aforesaid except for any sum actually realized by the sale thereof.

The Contractor after Completion shall have to clean the Site of all debris and remove all unused materials other than those supplied by NMSCDCL and all plant

Contractor

## and machinery, equipment, tools etc. belonging to the Contractor within one month from the date of Completion, or otherwise the same shall be removed by NMSCDCL at the risk and cost of the Contractor. Clause 8: - No payment shall be made for any work estimated to cost less than Payment on Rupees one thousand till after the whole of work shall have been completed and a intermediate certificate of completion given. Payment of intermediate amount shall be regarded certificate to be as payments by way of advance against the final payment and not as payments for regarded as Work actually done and completed. advances. Intermediate payment shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or be considered as an admission of the due performance of the Contractor any part thereof, in any respect or the occurring of any claim. No payment shall be made for any Works, estimated to cost less than INR 1000/-(Rupees One Thousand only) till such Work has been approved by the Engineer. But in the case of Works estimated to cost more than INR 1000/- (Rupees One Thousand only) the Contractor shall on submitting a monthly bill therefore be entitled to receive payment proportionate to the part of the Work then approved and passed by the Engineer-in-Charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the Contractor. All such intermediate payments shall be regarded as payment by way of advance against the final payment only and not as payment for Work actually done and completed and shall not preclude the Engineer-in-Charge from requiring any bad, unsound imperfect or unskillful work to be removed or taken away and reconstructed, or re-erected nor shall any such payment be considered as an admission of the due performance of the Contract or any part thereof in any respect or the occurring of any claim nor shall it conclude, determine or effect in any other way powers of the Engineer-in-Charge as to the final settlement and adjustment of the accounts or otherwise, or in any other way vary or effect the Contract. The final bill shall be submitted by the Contractor within one month of the date fixed for the completion of the Work, otherwise the Engineer-in-Charge's certificate of the measurements and of the total amount payable for the Work shall be final and binding on all Parties. Clause 8A: - In the event of delay in intermediate payment, the Contractor/agency shall not delay /stop work; and the work shall be completed in the stipulated time period. Clause 9: - The rates for several items of work estimated to cost more than INR 1000 agreed to within shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In case where the items of work are not accepted as so completed, the Engineer may make payment on account of such items at reduced rates as he may consider

Contractor

**Chief Executive Officer** 

reasonable in the preparation of final or on account bills.

Bills to be submitted monthly.	Clause 10: - A bill shall be submitted by the Contractor each month on or before the date fixed by the Engineer for all work executed in the previous month, and the Engineer shall take or cause to be taken the requisite measurement for the purpose of having the same verified, & the claim, so far as it is admissible, shall be adjusted, if the Contractor does not submit the bill within the time fixed as aforesaid, the Engineer may depute a sub-ordinate to measure up the said work in the presence of the Contractor or his duly authorised agent whose counter signature to the measurement list shall be sufficient warrant and the Engineer may prepare a bill from such list which shall be binding on the Contractor in all respect.
Bills to be on printed form.	<b>Clause 11</b> : - The Contractor shall submit his bills on his own printed form/letterhead. The manner of preparation of bills should be according to the routine official procedure.
	Clause 12: - If the specification or estimate of the works provides for the use of any special description of materials to be supplied from the stores of the NMSCDCL or if it is required that, the Contractor shall use certain stores to be provided by the Engineer (such materials) and stores, and the prices to be charged therefor, being so far as practicable for convenience of the Contractor but not so as in any way to control the meaning or effect of this Contractor, the Contractor shall be supplied with such materials and stores as may be required from time to time to be used by him for the purpose of the contract only, and the value of the full quantity of the materials and stores so supplied shall be set off or deducted from any sums then due or thereafter to become due to the Contractor under the contract, or otherwise, from the Security Deposit.  All materials supplied to the Contractor shall remain the absolute property of NMSCDCL and shall on no account be removed from the site of the work, and shall at all-time be open to inspection by the Engineer.  Any such materials unused and in perfectly good condition at time of completion or determination of the contract shall be returned to the NMSCDCL store. If the Engineer requires by a notice in writing given under his hand by, the Contractor shall not be entitled to return any such materials except with consent of the Engineer and he shall have no claim for compensation on account of any such material supplied to him as aforesaid but remaining unused by him or for any wastage in or damage to any such materials.  Clause 12 (a): - At stores of Contractor materials such as cement, steel etc. supplied by NMSCDCL shall be kept by the Contractor under lock & key and they will be accessible to Contractor by the Engineer.
Works to be	Clause 13: - The Contractor shall execute the whole and every part of the work in
executed in accordance with	the most substantial and workman like manner, and both as regards materials and in every other respect in strict accordance with specifications. The Contractor shall also confirm exactly, fully and faithfully to the designs, drawings and instruction

specification drawings orders etc. Alteration in specifications and designs not to invalidate contract.	in writing relating to the work signed by the Engineer and lodged in his office and to which the Contractor shall be entitled to have access for the purpose of inspection at such office, or on the site of works during office hours.  10 Clause 13(a): - The Contractor will be entitled to receive three sets of contract drawings and working drawings as well as one certified copy of accepted tender along with work orders free of cost. Further copies of contract drawings and working drawings if required by him shall be supplied at the rate of INR 25 per set of contract drawings and INR 5/- per working drawing except where otherwise specified.
	Clause 14: - The Engineer shall have power to make any alterations in or additions to the original specifications, drawings, designs and instructions that may appear to him to be a necessary or advisable during the progress of the work, and the Contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by Engineer and such alterations should not invalidate the contract and any additional work which the Contractor may be directed to do in the manner above specified as part of the work shall be carried out by the Contractor on the same condition in all respects on which he agreed to do the main work and at the same rates as are specified in the tender of main work. And if the additional and altered work includes any class of work for which no rate is specified in this contract, such class of work shall be carried out at the sanctioned rates of the D.S.R.
Rates for works not entered for schedule of rates of the district.	If the additional or altered work, for which no rate is entered in the BOQs, is ordered to be carried out before the rates are agreed upon, then the Contractor shall, within 7 days of the date of receipt by him of the order to carry out the work, inform the Engineer of the rate which his intention to charge for such class of work and if the Engineer does not agree to this rate, he shall by notice in writing be at liberty to cancel his order to carry out such class of work, and arrange to carry out in such manner as he may consider advisable, provided always that the Contractor shall commence work or incur any expenditure in regard thereto before the rates shall have been mentioned as lastly herein before mentioned, then in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of the determination of the rate as aforesaid according to such rates or rate as shall be fixed by the Engineer. In the event of dispute, the decision of CEO, NMSCDCL will be final.
Extensions of time in consequence of additions or alterations.	Where, however the work is to be executed according to the designs, drawings and specification recommended by the Contractor and accepted by the competent authority the alterations above referred to shall be within the scope of such designs, drawings and specifications appended to the tender.

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	The time limit for the completion of the work shall be extended in the proportion that the increase in its cost occasioned by alteration or condition bears to the cost of the original contract work and the certificate of the Engineer as to such proportion shall be conclusive.
No Claim to any payments or compensation for alteration In/or restriction of work.	Clause 15:1)- If at any time after the execution of the contract documents the Engineer shall for any reason whatsoever (about default on the part of the Contractor for which he is entitled to rescind the contract) desire that the whole or any part of the work specified in the tender should be suspended for any period or that the whole or part of the work should not be carried out at all, he shall give to the Contractor a notice in writing of such desire and upon the receipt of such notice the Contractor shall forthwith, suspend or stop the work wholly or in part as required after having due regard to the appropriate stage at which the work should be stopped or suspended so as not to cause any damage or injury to the work already done or endanger the safety thereof provided that the decision of the Engineer as to the stage at which the work or any part of it could be or could have been safely stopped or suspended shall be final and conclusive against the Contractor. The Contractor shall have no claim or any payment or compensation what so ever by reason of or in pursuance of any notice as aforesaid on account of any suspension stoppage or curtailment expect to the extent specified hereinafter.
	2) Where the total suspension of work ordered as aforesaid for a continuous period exceeding 90 days the Contractor shall be at liberty to withdraw from the contractual obligations under the contract so far it pertains to the unexecuted part of the work by giving a 90 days prior notice in writing to Engineer, within 30 days of the expire of the said period of 90 days of such intention and requiring the Engineer to record the final measurements of the work already done and requiring the Engineer to record the final bill. Upon giving such notice the Contractor shall be deemed to have been discharged from his obligation to complete the remaining unexecuted work under this contract. On receipt of such notice the Engineer shall proceed to complete the measurement and such payment as may be finally due to the Contractor within a period of 90 days from the receipt of such notice in respect of the work already done by the Contractor, such payment shall not in any manner prejudice the right of the Contractor to any further compensation under the remaining provisions of this clause.
Contractor	3) Where the Engineer required the Contractor to suspend the work for a period in excess of 30 days at any time or 60 days in the aggregate, the Contractor shall be entitled to apply to the Engineer within 30 days of the resumption of work after such suspension for payment of compensation to the extent of pecuniary loss suffered by him, in respect of working machinery rendered idle on the site or on the account of his having had to pay the salary to wages of or labour engaged by him during the said period of suspension, provided always that the Contractor shall not be entitled to any claim in respect of any such working machinery, salary or wages for the first 30 days whether consecutive or in the aggregate of such

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No claim to compensation on account of loss due to delay in supply of materials by NMSCDCL	suspension or in whatever consecutive in the aggregate of such suspension or in whatever in the aggregate of such suspension or in respect of any suspension whatever occasioned by unsatisfactory work or any other default on his part. The decision of the Engineer in this regard shall be final and conclusive against the Contractor.  Clause 15: 4) - The Contractor shall not be entitled to claim any compensation from NMSCDCL for the loss suffered by him on account of delay by NMSCDCL in the supply of materials by NMSCDCL or from its stores, where such delay is caused by-  a) Difficulties relating to the supply of railway wagons.  b) Force majeure.  c) Act of God.  d) Act of enemies of the State or any other reasonable cause beyond the control of NMSCDCL.
	In case of such delay in the supply of materials NMSCDCL shall grant such extension of time for the completion of the works as shall appear to the Engineer to be reasonable in accordance with the circumstances of the case. The decision of the Engineer as to the extension of time shall be accepted as final by the Contractor.
Time limit for unforeseen claim.	Clause 16: - Under no circumstances whatever shall the Contractor be entitled to any compensation from NMSCDCL on any account unless the Contractor shall have submitted a claim in writing to the Engineer within one month of the cause of such claim occurring.
Action and compensation payable in case of bad work.	Clause 17: - If any time before security deposit or any part thereof is refunded to the Contractor it shall appear to the Engineer or his subordinate in charge of the work, that any work has been executed with unsound, imperfect or unskillful workmanship or with materials of inferior quality, or that any materials or article provided by him for the execution of the work are unsound, or of a quality inferior to that contracted for, or are otherwise not in accordance with the contract, it shall be lawful for the Engineer to intimate this fact in writing to the Contractor and then notwithstanding the fact that the work, materials or articles complained or may have been inadvertently passed, certified and paid for, the Contractor shall be bound forthwith to rectify, or remove any reconstruct the work so specified in whole or in part, as the case may require or if so required, shall remove the materials or articles so specified and provided other proper and suitable materials or articles at his own charges and cost. In the event of his failing to do so within a period to be specified by the Engineer - in - charge in the written intimation aforesaid, the Contractor shall be liable to pay compensation at the rate of one per cent on the amount of the estimate for everyday not exceeding 10 days, during which the failure so continues and in the case of any such failure the Engineer - in - charge may rectify or remove and re-execute the work or remove and replace the materials or articles complained of as the case may be at the risk and expense in

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Work to be open	all respects of the Contractor, should the Engineer- in- charge consider that any such inferior work or materials as described above may be accepted or made use of, it shall be within his desecration to accept the same at such reduced rates as he may fix therefore.  Clause 18: - All works under or in course of execution in pursuance of the contract
Work to be open to inspection.	shall at all-time be open to the inspection and supervision of NMSCDL, the Engineer and/or their appointed persons, and the Contractor shall at all times during the usual working hours, and at all other times at which responsible notice of the intention of the Engineer or his subordinate to visit the work shall have been given to the
Contractor or responsible agent to be present.	Contractor either himself be present to receive orders & instructions or have a responsible agent duly accredited in writing present for that purpose. Orders given to the Contractor's duly authorised agent shall be considered to have to same force and effect as if they had been given to the Contractor himself.
Notice to be given before works is covered up.	Clause 19: - The Contractor shall give not less than 5 (five) days' notice in writing to the Engineer or his subordinate in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up or place beyond the reach of measurement any work without the consent in writing of the Engineer or his subordinate in charge of the work and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained, the same shall be uncovered at the Contractor's expense and default thereof payments or allowance shall be made for such work or for the materials with which the same was executed.
Contractor liable for damage done and for imperfections	Clause 20: - If during the period of Defect Liability of 3 (three) years from the date of completion as certified by the Engineer pursuant to Clause - 7 of the GCC, the said work is defective in any manner, whatsoever, the Contractor shall forthwith on receipt of notice in that behalf from the Engineer, duly commence execution and completely carry out at his costs in every respect all the work that may be necessary for rectifying and setting right the defects specified therein including dismantling and reconstruction of unsafe portions strictly in accordance with and in the manner prescribed and under the supervision of the Engineer. In the event of the Contractor failing or neglecting to commence execution of the said rectification work within the period prescribed therefore in the said notice, and/or to complete the same as aforesaid as required by the said notice, the Engineer, shall get the same executed and carried out departmentally or by any other agency at the risk on account and at the cost of the Contractor shall forthwith on demand pay to the NMSCDCL the amount of such costs, charges and expenses sustained or incurred by the NMSCDCL of which the certificate of the Engineer shall be final and binding on the Contractor. Such costs, charges and expenses shall be deemed

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	to be arrears of property Tax, and in the event of the Contractor failing or neglecting to pay the same on demand as aforesaid without prejudice to any other rights and remedies of the NMSCDCL, the same may be recovered from the Contractor as arrears of Property Tax. The NMSCDCL shall also be entitled to deduct the same form any amount which may then be payable or which may thereafter become payable by the NMSCDCL to the Contractor either in respect of the said work or any other work whatsoever or from the amount of security deposit retained by the NMSCDCL.
Contractor to supply plant, ladders, scaffolding etc.	Clause 21: - The Contractor shall supply at his own cost all materials, (except such special material, if any as may in accordance with the contract, supplied from the NMSCDCL Stores), plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary work, requisite or proper for the proper execution of the work, whether in the original, altered or substituted form and whether included in the specifications or other documents forming part of the contract or referred or in these conditions or not and which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer as to any matter as to which under these conditions. He is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work.
Contractor is liable for damages arising from non-provisions of lights fencing etc.	The Contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works and counting, weighting and assisting in the measurement or examination at any time and from time to time of the work or the materials. Failing this the same may be provided by the Engineer at the expense of the Contractor and the expenses may be deducted from any money due to the Contractor under the contract or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The Contractor shall provide all necessary fencing and lights required to protect the public from accident, and shall also be bound to bear the expenses or defense of every suit action or other legal proceedings that may be brought by any person for injury sustained owing to neglect of the above precautions, and to pay any damages and costs which may be awarded in and such suit, action or proceeding by any such person, or which may with the consent of the Contractor be paid for compromising any claim by any such person.  Clause 21 A: - The Contractor shall provide suitable scaffolds and working
	platforms, gangways and stairways and shall comply with the following regulations in connection therewith.  Suitable scaffolds shall be provided for workmen for all works that cannot be safely done from a ladder or by other means.  1. A scaffold shall not be taken down or substantially altered except  1.1. Under the supervision of a competent and responsible person And

- 1.2. As far as possible by competent worker possessing adequate experience in this kind of work.
- 2. All scaffolds and appliances connected there with and all ladders shall -
  - 2.1. be of sound material;
  - 2.2. be of adequate strength having to the loads and strains to
  - 2.3. which they will be subjected, and
  - 2.4. be maintained in proper condition.
- 3. Scaffolds shall be so installed that no part thereof can be displaced in consequence of normal use.
- 4. Scaffolds shall not be overloaded and so far as practicable shall be taken on ensure the strength and stability of the scaffolds.
- 5. Before installing lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of the scaffolds.
- 6. Scaffolds shall be periodically inspected by a competent person.
- 7. Before allowing a scaffold to be used by his workmen the Contractor shall, whether the scaffold has been erected by his workmen or not, take steps to ensure that it complies fully with the regulation herein specified.
- 8. Working platforms, gangways and stairways shall
  - 8.1. be so constructed that no part thereof can sag unduly or unequally;
  - 8.2. be so constructed maintained, having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping; and
  - 8.3. be kept free from any unnecessary obstruction.
- 9. In the case of working platforms, gangways, working places and stairways at a height exceeding 4 meters (to be specified);
  - 9.1. every working platforms and every gangway shall be closely boarded unless other adequate measures are taken to ensure safety;
  - 9.2. every working platform and gangway shall have adequate width; and
  - 9.3. every working platform, gangway, working place & stairway shall suitably fenced.

- 10. Every opening in the floor of a building or in working platform shall, except for the time and to the extent required to allow the access or persons or the transport or shifting of materials be provided with suitable means to prevent the persons or materials.
- 11. When persons are employed on a roof where there is a danger of falling from a height exceeding 4 meters suitable, precautions shall be taken to prevent the fall of persons or material.
- 12. Suitable precautions shall be taken to prevent persons being struck by articles, which might fall from scaffolds or other working places.
- 13. Safe means of access shall be provided to all working platforms and other working places.

**Clause 21 B:** The Contractor shall comply with the following regulations as regards the Hoisting Appliances to be used by him.

- 1. Hoisting machines and tackle, including their attachments, anchorages and supports shall.
  - 1.1. be of good mechanical construction, sound materials and adequate strength and free patent defect; and
  - 1.2. be kept in good repair and in good working order.
- 2. Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.
- 3. Hosting machines and tackle shall be examined and adequately tested after erection on the site and before use and be re-examined in position at intervals to be prescribed by the Engineer—in—charge.
- 4. Every chain ring, hook, shackle, swivel and pulley block used in hoisting or as a means of suspension shall be periodically examined.
- 5. Every crane driver or hoisting appliance operator shall be properly qualified.
- 6. No person who is below the age of Eighteen years shall be in control of any hoisting machine including any scaffold which or give signal to the operator.
- 7. In the case of every hoisting machine and of every chain ring, hook, shackle, swivel and pulley block used in hoisting or lowering or as a means

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of suspension, the safe working load shall be ascertained by adequate means.

- 8. Every hoisting machine and all gear referred to in preceding regulation shall be plainly marked with the safe working load.
- 9. In the case of a hoisting machine having variable safe working and each safe working load and the conditions under which it is applicable shall be clearly indicated.
- 10. No part of any hoisting machine or any gear referred to in regulation (7) above shall be loaded beyond the safe working load except for the purpose of testing.
- 11. Motors, gearing, transmissions, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safe guards.
- 12. Hoisting appliance shall be provided with such means as will reduce to a minimum the risk of the accidental descent of the load.
- 13. Adequate precaution shall be taken in reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.

# Measures for prevention of fire

**Clause 22:** - The Contractor shall not set fire to any standing jungle trees, brushwood or grass without a written permit from the Engineer.

When such permit is given and also in all cases when destroying cut or dug up trees, brushwood, grass, etc. by fire, the Contractor shall take necessary measure to prevent such fire spreading to or otherwise damaging surrounding property.

The Contractor shall make his own arrangements for drinking water for the labour employed by him

# Liability of Contractor for any damage done in or out side work area.

Clause 23: - Compensation for all damage done intentionally or unintentionally by Contractor's labour whether in or beyond the limits of Government property including any damage caused by the spreading of fire mentioned in clause 22 shall be estimated by the Engineer or such other officer as he may appoint and the estimate of the Engineer subject to the decision of the CEO, NMSCDCL on appeal shall be final and the Contractor shall be bound to pay the amount of the assessed compensation on demand failing which the same will be recovered from the Contractor as damage in the manner prescribed in clause for reduced by the Engineer from any sums that may be due or become due in Government to the Contractor under his contract court in or otherwise.

The Contractor shall bear the expenses of defending any action or other legal proceedings that may be brought by any person for injury sustained by him

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	owing to neglect of precautions to prevent the spread of fire and he shall pay any damages and cost that may be awarded by the court in consequence.
Employment of female labour	Clause 24: - The employment of female labourers on works in the neighborhood of soldier's barracks should avoided as far as possible.
Work not to be sublet.	<b>Clause 25:</b> - The contract shall not be assigned or sublet without the written approval of the Engineer.
	The Contractor may however, sub-contract a portion of the Scope of Project to any third party or entity, with the prior written permission of the Engineer, which permission may be granted at the sole discretion of the Engineer and subject to such terms and conditions as it deems fit. Notwithstanding any such subcontracting by the Contractor, the Contractor shall, at all times, be responsible and liable for all its obligations under this Contract notwithstanding anything contained in any other agreement that it enters into with any third party or entity, and no default under any agreement shall excuse the Contractor from its obligations or liability hereunder.
Contract may be rescinded and security deposit forfeited for subletting it without approval of for bribing a public officer or if Contractor becomes insolvent.	If the Contractor shall assign or sublet his contract or attempt to do so or become insolvent or commence any proceeding to get himself adjudicated and insolvent of make & composition with his creditors, or attempts so to do or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise shall either directly or indirectly be given, promised, offered by the Contractor or any of his servants or agents or agent to any public officer or person in the employment of NMSCDCL in any way for relating to his office or employment or if any such officer or person shall become in any way directly or indirectly interested in the contract the Engineer may thereupon by notice in writing rescind the contract and the security deposit of the Contractor shall there upon stand forfeited and be absolutely at the disposal of NMSCDCL and the same consequences shall ensure as if the contract had been rescinded under clause 3 hereof and in addition the Contractor shall not be entitled to recover or be paid for any work there for actually performed under the contract.
Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss.	Clause 26: - All sum payable by a Contractor by way of compensation under any of these conditions shall be considered as a reasonable compensation to be applied to the use of NMSCDCL without reference to the actual loss or damage sustained and whether any damage has or not been sustained.

Charges in the constitution of firm to be notified.  Works to under direction of the CEO, NMSCDCL of NMC	Clause 27: - In the case of tender by partners any changes in the constitution of a firm shall be forthwith notified by the Contractor to the Engineer for his information. The power of attorney shall vest in the name of the same person until the work is completed.  Clause 28: - All work to the executed under the contract shall be executed under the direction and subject to the approval in all respects of the CEO, NMSCDCL for the time being, who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.
Decision of the CEO, NMSCDCL of NMSCDCL to be final.	Clause 29: - Except where otherwise specified in the contract and subject to the powers delegated to him by NMSCDCL under the code rules have in force, the decision of the CEO, NMSCDCL of NMSCDCL for the time being shall be final, conclusive, and binding on all parties to the contract upon all question relating to the meaning of the specifications, designs, drawings and instructions herein before mentioned and as to the quality of workmanship or materials used on the work, or as to any other question, claim, right matter or thing whatsoever, if any way arising out of, or relating to the contract, designs drawings, specifications estimates, instructions, orders or these conditions, or otherwise concerning the work or the execution, or failure to execute the same whether arising, during the progress of the work, or after the completion or abandonment thereof.
Stores of European or American manufacture to be obtained from NMSCDCL	Clause 30: - The Contractor shall not obtain from the NMSCDCL stores and articles of European or American manufacture which may be required for the work, or any part thereof or in making up any article required therefore or in connection therewith, unless he has obtained permission in writing from the Engineer to obtain such stores and articles elsewhere. The value of such store and article as may be supplied to the Contractor by the Engineer will be debited to the Contractor in his account at the rates shown in Schedule I attached to the contract and if they are not entered in the said schedule they shall be debited to him at cost price which for the purpose of this contract shall include the cost of carriage and all other expenses, whatsoever, which shall have been incurred in obtaining delivery of the same at the stores aforesaid.
Lump sums in estimates.	Clause 31: - When the estimate on which a tender is made includes lump sums in respect of parts of the work, the Contractor shall be entitled to payment in respect of their items of works in evolved or the part of the work in question at the same rates as are payable under this contract for each items, or if the part of work in question is not in the opinion of the Engineer capable of measurement,

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	the Engineer may at his discretion determine the lump sum amount entered in the estimate and the certificate in writing of the Engineer shall be final and conclusive against the Contractor with regard to any sum or sums payable to him under the provision of this clause.
Action where no specification.	Clause 32: - In the case of any work for which there is no such specification as is mentioned in Appendix X, such work shall be carried out in accordance with directions of the Engineer, authorised in writing by the CEO, NMSCDL
Definition of work.	Clause 33: - The expression "Work" or "Works" where used in these conditions shall unless there be something in the subject or context repugnant to such construction, be construed to mean the work or works contracted to be executed under or in virtue of the contract, whether temporary or permanent and whether original, altered, substituted or additional.
Contractor's percentage whether applied to net or gross amounts of bill.	Clause 34: - The percentage referred to in the tender shall be deducted from or added to the gross amount of the bill before deduction the value of any stock issued.
Quarry fees and royalties.	Clause 35: - All quarry fees, royalties and ground rent for stocking materials, if any, should be paid by the Contractor. No claim will be entertained by NMSCDCL
Compensation under the workmen's Compensation Act.	Clause 36: - The Contractor shall be responsible for and shall pay any compensation to his workmen payable under the Workmen's Compensation Act, 1923 (VIII of 1923), (hereinafter called the said Act) for injuries caused to the Workmen. If compensation is payable/ paid by NMSCDCL as principal under subsection (1) of section 12 of the said Act on behalf of the Contractor, it shall be recoverable by NMSCDCL from the Contractor under sub section (2) of the said section. Such compensation shall be recovered in the manner laid down in Clause 1 above.
Safety and Medical Aid to workmen	Clause 37 A: - The Contractor shall be responsible for and shall pay the expenses of providing medical aid to any workman who may suffer a bodily injury as a result of an accident, if such expenses are incurred by NMSCDCL the same shall be recoverable from the Contractor forthwith and deducted without prejudice to any other remedy of NMSCDCL from any amount due or that may become due to the Contractor.
	Clause 37 B: - The Contractor shall provide all necessary personal safety equipment and first aid apparatus available for the use of the persons employed

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	on the site shall maintain the same condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith.  The workers shall be required to use the equipment so provided by the Contractor and the Contractor shall take adequate steps to ensure proper use of the equipment by those concerned.  When work is carried out in proximity to any place where there is a risk of drowning, all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of nay person in danger.  Adequate provision shall be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.
	Clause 38: Excess quantity of any items shall be executed by prior permissions of the Engineer. The quantities shall be payable at accepted tender rates only
Employment or famine labour etc.	Clause 39: - The Contractor shall employ any famine, convict or other labour of a particular kind or class if ordered in writing to do so by the Engineer in charge.
Claims for compensation for delay in starting the work.	Clause 40: - No Compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or in the case of clearance works, on account of any delay in according sanction to estimates.
Claims for compensation for delay in execution of work.	Clause 41: - No compensation shall be allowed for any delay in the execution of the work on account of water standing in borrow pits or compartments. The rates are inclusive of hard or cracked soil, excavation in mud, sub-soil water or water standing in borrow pits and no claim for an extra rate shall be entertained unless otherwise expressly specified.
Entering upon or commencing any portion of work.	Clause 42: - The Contractor shall not enter upon or commence any portion of work except with the written authority and instructions of the Engineer or his subordinate in charge of the works. Failing such authority the Contractor shall have no claim to ask for measurements of work or payment of work.
Minimum age of person employed the employment of donkey and/ or other animals	a) The contractor shall provide supply of pure and wholesome water for the use of labour. This provision shall be at the rate of not less than 50 liters per head. No provision may be made where there is suitable flowing nalla, river or well within 500 meters of the camp.

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and the payment of fair wages.	<ul> <li>b) The contractor shall construct trench of semi-permanent latrines for the use of the labours. Such latrines shall be on the scale of not less than five per hundred persons in the camp. Separate latrines shall be provided for men and women.</li> <li>c) The Contractor shall not employ any person who is under age of 18 years.</li> <li>d) The Contractor shall not employ donkey or other animals with breaching or string or thin rope. The breaching must be of least three inches wide and should be tape (Nawar)</li> <li>e) No animal suffering from stores, lameness or emaciation or which is immature shall be employed on the work.</li> <li>f) The Engineer or his authorised person may remove from work any person or animal found working which does not satisfy these conditions and no responsibility shall be accepted by NMSCDCL for any delay caused in the work by such removal.</li> <li>g) The Contractor shall pay fair and reasonable wages to the workmen employed by him in the contract undertaken by him.</li> <li>h) In the event of any dispute arising between the Contractor and his workmen on the grounds that the wages paid are not fair and reasonable the dispute shall be referred without delay to the Engineer who shall decide the same. The decision of the Engineer shall be conclusive and binding on the Contractor but such decision shall not in any way affect the condition of the contract regarding the payments to be made by NMSCDCL at the sanctioned tender rates.</li> </ul>
Method of payment.	Clause 44: - Payment to Contractors shall be made by electronic payments or cheque drawn on any treasury provided the amount exceeds INR 10/-
Acceptance of conditions compulsory before tendering for work.	Clause 45: - Any Contractor who does not accept these conditions shall not be granted the Works under this RFP.
	Clause 46: - The price quoted by the Contractor shall not in any case exceed the control price if any fixed by Government or reasonable price which is permissible for him to charge a private purchaser for the same class and description, the controlled price or the price permissible under Hoarding and Profiteering Ordinance, 1943 as amended from time to time. If the price quoted

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	exceeds the controlled price or the price permissible under Hoarding and Profiteering Prevention Ordinance, the Contractor will specifically mention this fact in his tender along with the reason for quoting such higher prices.  NMSCDCL at its discretion will in such case exercise the right of revising the price at any stage so as to confirm with the controlled price on the permissible under the Hoarding and Profiteering Prevention Ordinance. This discretion will be exercised without prejudice to any other action that may be taken against the Contractor.
Payment of GST	Clause 47: - The rates to be quoted by the Contractor must be inclusive of GST.  No extra payment on this account will be made to the Contractor.  Responsibility of payment of GST lies with the Contractor at its sole cost and
	expense.
	Clause 48: - In case of materials that may remain surplus with the Contractor, from those issued for the work contracted for, the date of ascertainment of the materials being surplus will be taken as the date of sale for the purpose of GST and the GST be recovered on such sale.
	Clause 49: - In view of the difficult position regarding the availability of the Foreign exchanges, on foreign exchange will be released by the Dept. for the purpose of the Plant and Machinery required for the execution of the work Contractor for.
	Clause 50: - "Out of the skilled and unskilled labour to be employed by Contractor on the work, at least eight per cent of labour shall consist of persons ordinarily residing in the district in which the site of the work is located. In case sufficient labour from the district as aforesaid is not available, the Contractor shall obtain written consent of the Engineer and the Collector of the District before employing any person or persons ordinarily residing outside the district."
	Clause 51: - The Contractors are bound to pay the labours according to the Minimum Wages Act. 1948, applicable to their zone in accordance to the order issued in Government P.W.D. Circular No. NW 4-10, dated December 5, 1958. Any differentiation in the types of zone shall not entitle the Contractor any claims.
	Clause 52: - Where the workers are required to work near machinery and are liable to such accident they should not be allowed to wear loose clothes like Dhoti, Zabba etc.
	<b>Clause 53: -</b> "A Contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued the reminder from time to time. If he

	fails to do so his failure will be a breach of the contract and the Executive Engineer (P) may in his discretion, Cancel the contract. The Contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the Act."
Liquidated Damages	Liquidated Damages  The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated below). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages does not affect the Contractor's liabilities. If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. If the contractor fails to comply with the time for completion as stipulated in the tender, then the contractor shall pay to the employer 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.  The 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 or deduction of such damages shall not relieve the contractor from his obligation to complete the works on from any other of his obligations and liabilities under the contract. 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
Authorisation Letter from OEM	The bidder will submit authorization letter from OEM in the name of NMSCDCL that he will support and provide all necessary help/assistance/technical support in terms of material and manpower for the pneumatically operated gate from installation testing, commissioning and operation through the life of the product.

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#### ANNEXURE B: SPECIAL CONDITIONS OF CONTRACT

#### 1. **DEFINITIONS**:

The following terms is used in this Contract shall have the meanings hereunder unless the context otherwise requires:

"Contract" shall mean the Contract Agreement executed between NMSCDCL and the Contractor for execution of the Works.

"Construction Period" means, as the case may be, with respect to:

i. a period of 1 (one) year for installation of pneumatically operated automated mechanical gates and related works at Nashik, Maharashtra, as set out in Appendix X other RFP and/or

"Completion" means that the completion of the execution of work by the Contractor pursuant to the issuance of the Completion Certificate by NMSCDCL in accordance with Clause 7 of the GCC.

"Completion Certificate" means the certificate issued by NMSCDCL to the Contractor certifying the completion of the execution of work by the Contractor under Clause 7 of the GCC.

"Completion Date" means with respect to: 1 (one) year inclusive of monsoon from the date of issuance of Work Order;

"Contract Price" shall mean the total amount payable to the Contractor for the Project as set out in Clause 3 of the SCC along with Clause 3 excluding the cost for operation and maintenance of Part A quoted by the Bidder in the RFP.

"Contract Period" means with respect to: 1 (one) year from the date of issuance of Work Order; and/or

**Defect Liability Period** means the period of 3(three) year applicable for work in the manner as set forth in this Agreement

"Disputed Invoice" shall have the meaning as set forth in Clause 3.4 of this SCC.

"**Drawing**" means the engineering data, drawings and the likes thereof provided to the Contractor for executing Works duly approved by NMSCDCL (with the stamp "Good for Construction") and includes any modifications of such drawings approved in writing by the Engineer and such other drawings as may from time to time be furnished or approved in writing by NMSCDCL (with the stamp "Good for Construction").

"Engineer-in-Charge"/"Engineer" means the engineer appointed by NMSCDCL for the supervision and management of the Project.

**Force Majeure Event**" shall have the meaning as set forth in clause 35 of the SCC.

"GCC" means the General Conditions of the Contract entered upon between NMSCDCL and the Contractor in accordance with the PWD Manual in order to carry out the Works detailed under Appendix X of the RFP"

Contractor

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- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
  - "Implementation Plan" means the implementation plan, prepared by the Contractor, consisting of quality assurance plant, safety plan, traffic management plan and such other plan(s) as may be required by the Contractor for undertaking this Project and duly approved by NMSCDCL in accordance with Clause 2.22 of the RFP read along with Clause 13 of the SCC. Implementation Plan shall form an integral part of this Contract.
  - "NMSCDCL" mean the Nashik Municipal Smart City Development Corporation Limited.
  - "NMC" means Nashik Municipal Corporation.
  - "O&M Manual" shall have the meaning as set out in Clause 21.2(d) of the SCC
  - "O&M Period" shall have the meaning as set out in Clause 21.1 of the SCC.
  - "**Performance Security**" shall have the meaning as set forth in Clause 2.28 of the RFP read along with Clause 1 of the GCC.
  - "**Programme**" shall have the meaning as set forth in clause 36.1.
  - "Progress Report" shall have the meaning as set forth in clause 36.2.
  - "**Project**" means the infrastructure works comprising Installation of pneumatically operated automated mechanical gates with O&M Period;
  - "SCC" means the Special Conditions of Contract entered upon between NMSCDCL and the Contractor in order to carry out the Works detailed under Appendix X of the RFP"
  - "Scope of the Project" shall have the meaning as set forth in Appendix X of this RFP
  - "Site" means with respect to: Ahilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra;
  - "Take Over" means with respect to work, the successful handing over of the Project by the Contractor to NMSCDCL/ NMC after the expiry of the Defect Liability Period pursuant to the issuance of the Take Over Certificate in accordance with clause 22.5of the SCC.
  - "Take Over Certificate" means the certificate issued by NMSCDCL to the Contractor pursuant to Clause 22.5 of the SCC.
  - "Technical Specification" means the specifications as set out in Appendix XI of the RFP.
  - "Total Station" means an electronic/optical instrument used for surveying construction.
  - "Variation Order" has the meaning ascribed to such term under clause 39.4 of the SCC, the Variation Order shall form a part of this Contract and shall be provided by and is enforced in the terms thereof unless specifically provided otherwise in the Variation Order.
  - "Works" or "Work" means the scope of work as set out in Appendix X of the RFP, to be executed by the Contractor, in accordance with the Technical Specifications and the terms and conditions of this Contract.
  - "Work Order" shall mean the letter issued after 15 (fifteen) days from the execution of this Contract by NMSCDCL subject to the approval of the Implementation Plan for handover of the Site to the Contractor.

Contractor

#### 2. INTERPRETATIONS

In this Contract, unless the context requires otherwise:

- a) Words indicating one gender include all genders.
- b) Words indicating the singular also include the plural and vice versa.
- 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 damages payable by either Party to the other, as set forth in this Contract, whether 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 ("Damages").
- f) The rule of construction, if any, that a contract should be interpreted against the Party responsible for the drafting and preparation thereof, shall not apply.
- g) References to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;
- h) references to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted;
- references to a "person" and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;
- j) Whenever provision is made for the giving of notice, approval or consent by any Person, unless otherwise specified, such notice, approval or consent shall be in writing and the words "notify" and "approve" shall be construed accordingly; and
- k) The obligations which are binding on the Contractor under the Contract, shall be binding *mutatis mutandis* on any sub-contractor engaged by the Contractor during the Contract Period.

#### 3. CONTRACT PRICE AND PAYMENT

3.1 NMSCDCL hereby agrees to pay to the Contractor for satisfactory discharge of its obligations under this Contract, an amount of INR [●] ("Contract Price"). The Contract Price shall be the full and complete payment for the Contractor's performance of the obligations under this Contract and includes all costs necessary for execution of the Works. The Contract Price shall be paid in accordance with this Clause 8 of the GCC read along with the this Clause of the SCC and in the manner provided in

Contractor

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
- SCHEDULE 1 based on the measurements of the Works completed and certified by the Engineer-in-Charge (For the avoidance of doubt, all the taxes and duties levied by the state government/ central government/ local bodies at the prevailing rates applicable on the date of LOA shall be fully borne by the Contractor and shall not be reimbursed to it by NMSCDCL on any account. The Contract Price shall be inclusive of all taxes and levies under applicable laws.

#### 3.2 **Mobilization Advance**

- a. Mobilization Advance not exceeding 10% of the tendered value may be given, if requested by the contractor in writing within one month of the order to commence the work at an interest rate of 10%.
- b. The Contractor shall execute not more than 4 (four) unconditional Bank Guarantees, valid for full period of construction in accordance with Appendix VIII-B of the RFP. The Bank Guarantee furnished shall be from a Nashik branch of a Nationalised Bank.
- c. The Mobilization Advance shall be repaid with percentage deductions by NMSCDCL of 20% of the Running Account Bill amounts payable monthly to the Contractor. Such deductions shall commence from the next Running Account Bill which follows either the stage where total of all such payments to the Contractor has reached not less than 20% of the Contract Price or 6 (Six) months from the date of payment of first instalment of advance, whichever period concludes earlier and shall continue until such time as the loan has been repaid, always provided that the loan shall be completely repaid prior to the expiry of the original time for completion.
- d. If the Mobilization Advance is not recovered by means of Clause c above, NMSCDCL shall be authorised to encash the Bank Guarantee in order to recover such Mobilization Advance amount. The Bank shall be obligated to pay the amounts due and payable under the Bank Guarantee without any demur, merely on a demand from the NMSCDCL stating that the amount claimed is due.

#### 3.3 Final Payment

- a. The Contractor shall supply the Engineer-in-Charge with a detailed account of the total amount that the Contractor considers payable for works under the Contract within 21 (twenty one) days of issue of the Completion Certificate. If the account is not correct or complete, the Engineer-in-Charge shall issue within 45 (forty five) days a schedule that states the scope of the corrections or additions that are necessary. If the Account is still unsatisfactory after it has been resubmitted, the matter shall be referred to the CEO, NMSCDCL, who shall decide on the amount payable to the Contractor after hearing the Contractor and the Engineer in Charge.
- b. In case the account is not received within 21 (twenty one) days of issue of Certificate of Completion as provided in Clause 3.3 (a) above, the Engineer shall proceed to finalize the account and issue a final payment certificate within 28 (twenty eight) days of issue of Completion Certificate.
- c. It is clarified that the 5% (five percent) of each payment to be made to the Contractor retained by NMSCDCL as Performance Security payable by the Contractor shall be paid in accordance with Clause 1 of the GCC after the successful completion of Defect Liability Period.
- d. Invoices for payment shall be submitted in printed form according to the routine official procedure and accompanied by such supporting evidence and information as NMSCDCL may reasonably require. The Invoices shall be submitted by the contractor each month on or before the date fixed

by the Engineer-in-charge for all work executed in the previous month, and the Engineer-in-charge shall take or cause to be taken the requisite measurement for the purpose of having the same verified, and the claim, so far as it is admissible, shall be adjusted, if the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge may depute a sub-ordinate to measure up the said work in the presence of the contractor or his duly authorised agent whose counter signature to the measurement list shall be sufficient warrant and the Engineer-in-charge may prepare a bill from such list which shall be binding on the contractor in all respect.

- In the event there is any discrepancy in the invoice provided by the Contractor to NMSCDCL, NMSCDCL shall give a written notice to the Contractor of such discrepancy in the invoice within 7 (seven) days of the receipt of the invoice. Such invoices shall be treated as disputed invoice ("**Disputed Invoice**").
- 3.5 NMSCDCL shall not make payment of the amount set out in the Disputed Invoice, if the Contractor has notified any discrepancy with respect to certain entries in the Disputed Invoice till such time as the discrepancy is resolved by the Parties in accordance with Clause 3.4 above. In the event the discrepancy is resolved, NMSCDCL shall pay the outstanding disputed amounts without any interest being charged by the Contractor.
- 3.6 Upon receipt of a notice from the Contractor notifying any discrepancy in the Disputed Invoice, shall provide documentary evidence to NMSCDCL within 7 (seven) days if the Contractor wish to dispute the discrepancy. In the event that the discrepancy raised by NMSCDCL in relation to the Disputed Invoice is accepted by the Contractor, the Contractor shall provide a rectified invoice to NMSCDCL to the extent of such discrepancy. In the event that the Parties are unable to resolve the discrepancy arising out or in connection with the Disputed Invoice, the Parties shall use their best efforts to settle such dispute, amicably and in good faith within 15 (fifteen) days of occurrence of such dispute, failing which such dispute shall be settled in accordance with Clause 32 of this SCC.

#### 3.7 **Right to Withhold**

NMSCDCL may refuse to approve any payment because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously approved and paid to such extent as may be necessary in the opinion of the Engineer to protect NMSCDCL from loss because:

- (a) The Works are defective;
- (b) third party claims have been filed or there is reasonable evidence indicating probable filing of such claims;
- (c) of the Contractor's failure to make payment properly to sub-contractor or for labour, materials or equipment;
- (d) of damage to another Contractor, or to the property of other caused by the Contractor;
- (e) of reasonable doubt that the Works cannot be completed for the unpaid balance of the Contract Price:

Contractor

- (f) of reasonable indication that the Works will not be completed within the Completion Date;
- (g) of the Contractor's neglect or unsatisfactory execution of the Work including failure to clean up. Once the reasons that enable or require the Engineer to withhold such payments are removed, payment will be made for amounts withheld due to such reasons to the extent the Contractor is entitled to.

#### 4. **SCOPE OF THE PROJECT**

- 4.1 Under this Contract, the scope of the Project ("Scope of the Project") shall mean and include: construction, testing and commissioning including O&M Period for Installation of pneumatically operated automated mechanical gates and related works at Nashik, Maharashtra as set out in Appendix X
- 4.2 The Engineer-in-charge may at any time give directions as to the order and manner in which the several parts of work shall be carried out and the contractor shall at all times subject to the approval of the Engineer, strictly observe such directions.

#### 5. TIME FOR COMMENCEMENT AND TERM

5.1 This Contract shall become effective from the date of Work Order.

#### 5.2 Commencement

The Contractor shall commence the execution of the Works immediately after the issuance of Work Order in accordance with the terms and conditions of this Contract.

#### 6. **TERM**

- 6.1 Subject to provisions of the RFP, this Agreement shall be for a period of 3 (three) years [Construction plus plus O&M period)] years commencing on the date of issuance of the Work Order ("Term")
- 6.2 The time period for completion of work shall be strictly adhered to. No extension of time shall be considered unless specifically granted under Clause 6 of the GCC. The Contractor is free to deploy additional manpower/machinery jack up barges etc., at its own cost, to complete the work within stipulated time.

#### 7. TAXES AND DUTIES

Contractor

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
- 7.1 The rates shall be inclusive of all taxes duties payable by the Contractor including Goods and Service Tax. Income tax at prevailing rates and surcharge as applicable thereon shall be deducted at source by NMSCDCL in accordance with Income Tax Act, 1961.
- 7.2 The percentage referred to in the tender shall be deducted from or added to the gross amount of the bill before deduction the value of any stock issued.
- 7.3 All quarry fees, royalties and ground rent for stocking materials, if any, should be paid by the contractor. No claim will be entertained by NMSCDCL.

#### 8. **CONTRACTOR'S OBLIGATIONS**

- 8.1 The Contractor will prepare and submit the Implementation Plan to NMSCDCL for its review and comments within 15 days from the Effective Date.
- 8.2 The Contractor shall construct, install, fix, test and commission the Works in accordance with the Implementation Plan duly approved by NMSCDCL.
- 8.3 The Contractor will have to obtain all clearances necessary for deployment of any machinery at its expense. NMSCDCL will assist the Contractor in obtaining these clearances. However, NMSCDCL will not be responsible for any delays in obtaining such clearances. It shall be the responsibility of the Contractor to keep all the requisite clearances/permits/permissions by whatever name called, for operating the facility valid at all points of time during the Contract period.
- 8.4 The Contractor shall be deemed to have carefully studied the scope of work as set out in Appendix X and the Site conditions, Technical Specifications, various other data and shall be deemed to have visited the Site and to have fully informed itself regarding the local conditions. The Contractor shall be deemed to have carried out its own surveys and investigations and assessment of the Site conditions. For the avoidance of doubt, any data made available by NMSCDCL to the Contractor is for information only and NMSCDCL under no circumstances will entertain claims with respect to the authenticity and/or accuracy of the information provided.
- 8.5 The Contractor shall provide free of charge all labour and material required and equipment as may be required for lining out, surveying, inspection decided by the Engineer as considered necessary for the proper and systematic execution of the Work.
- 8.6 The Contractor shall at all times, be responsible for any damages, trespasses committed by his agent and works people in carrying out of work, unless such damage or trespasses is authorised by the Engineer-in-charge in writing.

#### 8.7 **Supervision and Superintendence**

The Contractor shall at all times till the Completion Date supervise and direct the execution of Works efficiently and with its best skill and attention in accordance with the Drawings. The Contractor shall be solely responsible for means, methods, techniques, procedures and sequences of the execution of Works. The Contractor shall co-ordinate all parts of the Works and shall be responsible to ensure that the Works are executed in accordance with the terms and conditions of

this Contract and such instructions as the Engineer-in-Charge may issue during the execution of the Works.

#### 8.8 **Contractor's Verification**

The Contractor shall establish at the Site, temporary benchmarks as directed by the Engineer-in-Charge and connect such temporary benchmarks to a permanent benchmark available in the area with known value. The Contractor will then carry out necessary surveys and leveling, covering its Works, in verification of the survey data on the working drawings furnished by the Engineer-in-Charge. The Contractor shall be responsible for establishing the correct lines and levels and verification of the lines and level furnished on the Drawings, as the case may be. If any error has erupted in the Works due to non-observance of this clause, the Contractor will be responsible for the error and bear the cost of the corrective Work.

#### 8.9 **Buried and Concealed Work**

The Contractor shall be responsible for recording the precise location of all piping, conduits, ducts cables and any other Work that is buried, embedded in earth or concrete or masonry, or concealed in wood or metal frame walls and structures at the time of the execution of the Works and prior to the concealment. If the Contractor covers or buries such Work before such recording takes place, it shall uncover the unrecorded Work to the extent required by the Engineer-in-Charge and shall satisfactorily restore and reconstruct the removed Work with no change in the Contract Price or the Contract Period without any extra cost to NMSCDCL.

#### 8.10 Warnings and Barricade

The Contractor shall provide and maintain G.I. sheet, barricades, guards, guard rails, temporary bridges and walkways, watchmen, headlights and danger signals illuminated from sunset to sunrise and all other necessary appliances such as blinkers, signals, red light and safeguards to protect the Works, life, property, the public, excavations, equipment and materials. For any accident arising out of the neglect of above instructions, the Contractor shall be bound to bear the expenses of defense of every suit, action or other legal proceedings, at law, that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay all damages and costs which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of the Contractor be paid in compromising any claim by any such person.

#### 8.11 **Overloading**

No part of the Scope of the Project or new and existing structures, scaffolding, shoring, sheeting, construction machinery and equipment, or other permanent and temporary facilities shall be loaded more than its capacity. The Contractor shall bear the cost of correcting damage caused by loading or abnormal stresses or pressures for the purpose of completing the Scope of the Project.

#### 8.12 Manufacturer's Instruction

The Contractor shall compare the requirements of the various manufacturers' instructions with requirements of the Contract, shall promptly notify to the Engineer in writing of any difference between such requirements and shall not proceed with any of the Works affected by such difference until an interpretation or clarification is issued by the Engineer. The Contractor shall bear all costs

for any error in the Work resulting from its failure to respond to the various requirements and notify NMSCDCL of any such difference.

### 8.13 **Supply for Project**

The Contractor shall procure and pay for, in its own name as an independent contractor and not as an agent of NMSCDCL, the equipment and machinery required during the Term for undertaking the Project.

#### 8.14 **Transfer of Title**

Notwithstanding anything to the contrary in the Contract, it is agreed by the Parties that the risk, ownership and title to the equipment procured for undertaking the Project shall transfer to the NMSCDCL as follows:

- a. The risk and title in respect of such equipment shall pass to NMSCDCL when the Completion Certificate has been issued by NMSCDCL; and
- b. The Contractor shall continue to be responsible for the operation and maintenance of the Project in accordance with this Agreement and the RFP.
- c. The Contractor shall be liable for liability during Defect Liability Period of 3 (three) years from completion date of the Project in accordance with this Agreement and the RFP.

#### 8.15 **Permits**

The Contractor shall at its own cost, in a timely manner, so as not to delay the progress of the Project and in any event before the time required by applicable laws, obtain all applicable permits required for the completion of the Project. The Contractor shall not be entitled to any extension of time for any delay in obtaining such applicable permits.

#### 8.16 Utilities and Sub-Structures

- a. The Contractor agrees and undertakes to carry out shifting of utilities and services as per the directions of the Engineer. If any utility of service is found not covered under the Bills of Quantities as set out in Appendix XII of the RFP, the Contractor shall carry out the Works as per the directions of the Engineer including necessary co-ordination with concerned services provider, payment for the same will be made as per provision in this Contract. NMSCDCL will assist it in the matter. Some of the utilities to be shifted are included in the Drawings. In case utilities are unknown, with the permission of NMSCDCL and user department, the Contractor may be asked to remove the services at accepted rate. The quantities of items pertaining to various known utilities may increase or decrease.
- b. It is also agreed that NMSCDCL shall not be liable in any manner on account of grant or otherwise, of any approval under this Contract and that such approval or denial thereof shall not in any manner absolve the Contractors from any liability or obligation under this Contract or under any Applicable Law

#### 8.17 Change in constitution of Contractor

In case of change in the constitution of the Contractor, the Contractor agrees and undertakes to forthwith approval of NMSCDCL notify the Engineer within 30 days of such change.

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
- 8.18 The Contractor shall not store any explosives on the Site and if the storage of explosives is required for the purpose of undertaking the Project, the Contractor shall only store explosives in accordance with the Applicable Laws.
- 8.17 The contractor shall abide by all proper and legal orders and directions given from time to time by any local or public authorities and shall pay money, fees or charges to which he may be liable.

#### 8.18 **Punch List Items**

- a. The Contractor shall, in conjunction with the Engineer, prepare and update on a continuing basis, up to the issuance of the Completion Certificate, lists of outstanding items of works, required to be supplied/executed under this Contract ("Punch List"). In the preparation and updating of such Punch List(s) and the schedules contained therein, the Parties shall use all reasonable endeavours to ensure and/or permit the rectification of Works and/or supply of outstanding items of works, without undue delay, while at all times ensuring safe operation.
- b. The Contractor shall rectify or supply in accordance with the, Drawings, Implementation Plan, and Technical Specifications, the standards specified in this Contract and in accordance with the Punch List(s), any outstanding items/execute such other Works, noted as requiring rectification or as incomplete.
- c. If the Contractor fails to complete the Punch List items within a period of 30 (thirty) days, NMSCDCL may, at its option, undertake, on its own, such outstanding Punch List items, at the risk and costs of the Contractor to be replaced/supplied.

#### 9. REPRESENTATIONS AND WARRANTIES OF THE CONTRACTOR

The Contractor represents and warrants to NMSCDCL that:

- 9.1 {Selected Bidder/Each of the Consortium member} is duly organized and validly existing under the laws of India, and has full power and authority to execute and perform its obligations under this Contract and other agreements and to carry out the transactions contemplated hereby;
- 9.2 {Selected Bidder/Each of the Consortium member} has taken all necessary corporate and other actions under laws applicable to its business to authorize the execution and delivery of this Contract and to validly exercise its rights and perform its obligations under this Contract;
- 9.3 {Selected Bidder/Each of the Consortium member} has the power and the authority that would be required to enter into this Contract and the requisite experience, the technical know-how and the financial wherewithal required to successfully execute the terms of this Contract and to provide services sought by NMSCDCL under this Contract.
- 9.4 {Selected Bidder/Each of the Consortium member} has the professional skills, personnel, infrastructure and resources/ authorizations that are necessary for providing all such services as are necessary to fulfil the scope of work stipulated in the Appendix X of this Contract;
- 9.5 this Contract has been duly executed by the {Selected Bidder/Each of the Consortium member} and constitutes a legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this Contract shall be legally valid, binding and enforceable against the {Selected Bidder/Each of the Consortium member} in accordance with the terms hereof;

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
- 9.6 the information furnished in the tender documents and as updated on or before the date of this Contract is to the best of its knowledge and belief true and accurate in all material respects as at the date of this Contract;
- 9.7 the execution, delivery and performance of this Contract shall not conflict with, result in the breach of, constitute a default by any of the terms of [its Memorandum and Articles of Association] or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- 9.8 there are no material actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the breach of this Contract or which individually or in the aggregate may result in any material impairment of its ability to perform any of its material obligations under this Contract;
- 9.9 it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any government instrumentality which may result in any adverse effect on its ability to perform its obligations under this Contract and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Contract;
- 9.10 it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have an adverse effect on the {Selected Bidder/Each of the Consortium member} ability to perform its obligations under this Contract;
- 9.11 no representation or warranty by it contained herein or in any other document furnished by the {Selected Bidder/Each of the Consortium member} to NMSCDCL in relation to this Contract contains or shall contain any untrue or misleading statement of material fact or omits or shall omit to state a material fact necessary to make such representation or warranty not misleading;
- 9.12 no sums, in cash or kind, have been paid or shall be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for entering into this Contract or for influencing or attempting to influence any officer or employee of Nodal Agency and/or Clients in connection therewith; and
- 9.13 {each of the Consortium members shall be jointly and severally liable throughout the Term of the Project.}

#### 10. **SITE**

10.1 NMSCDCL shall only make the Site available to the Contractor on the date of issuance of the Work Order. Possession of the Site confers on the Contractor a right to only such use and control as is necessary to enable the Contractor to complete the Scope of the Project in accordance with this Contract and shall exclude any purpose not connected with the Scope of the Project. The Contractor acknowledges that it may not be given exclusive access to and possession of the Site and it must

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
  - not create any encumbrances on the Site. The Contractor shall not demolish, remove or alter structures of other facilities on Site without the prior written approval of NMSCDCL.
- 10.2 The Contractor acknowledges and agree that no land is available with NMSCDCL to be given to Contractor for its establishment. The Contractor agrees and undertakes to make its own arrangements with regard to any land other than the Site. The Contractor shall obtain consent from property owners, make all arrangement and pay all costs for such land, areas of access and right of way without any liability to NMSCDCL. The Contractor will furnish and pay for the land, easements and right of way for the land required for completing the Scope of the Project.

#### 10.3 **Discoveries**

The Contractor agree and undertakes that all fossils, coins, articles of value of antiquity and structures or other remains or things of geological or archaeological interest or anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of NMSCDCL. The Contractor shall take reasonable precautions to prevent its workmen or any other person from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out the Engineer's instructions for dealing with them.

#### 11. DELETED

11.3 If the Contractor requires electric supply from existing electric point of NMSCDCL for domestic or construction purpose, meter must be provided to count the electric units and charges so far should be remitted according to the rule and regulations of the Maharashtra State Electricity Board towards NMSCDCL. M.C. Wiring and fitting from tapping point should be done by contractor at his own cost and risk. However, to give the electric supply to the Contractor is not binding on NMSCDCL, or Contractor may obtain electric supply directly from Maharashtra State Electricity Board at its sole cost and expense, the necessary letters only shall be issued by NMSCDCL, if required.

#### 12. PLANT

- 12.1 The contractor must at his own expenses procure & install sound plant for the whole of the work to perform the work within the time agreed into the contract and keep it in working condition. He must also at his own expenses extend or improve it, when required by written request of the Engineer-in-charge.
- 12.2 All unused material and all tents and implements not removed by the contractor within two months of the completion date shall become the property of NMSCDCL and the contractor shall respect thereof.

#### 13. **IMPLEMENTATION PLAN**

Contractor

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
- 13.1 The Implementation Plan shall be backed with equipment planning and deployment, materials and manpower planning and deployment, duly supported with broad calculations and quality control system/assurance procedures proposed to be adopted, testing and inspection timelines by an NABL accredited laboratory, justifying their capability of execution and completion of the work in accordance with the Technical Specifications as set out in Appendix XI within the stipulated period of completion as per defined milestones.
- 13.2 The Contractor will also submit a brief labour influx and worker's camp management plan ("Labour Management Plan") including the process for mitigating construction related impacts on local community within 30 days of signing the contract. The plan shall be updated and a revised plan shall be submitted, along with monthly progress.
- 13.3 Within 15 (fifteen) days of submission of the Implementation Plan and the Labour Management Plan, NMSCDCL shall either approve the Implementation Plan and Labour Management Plan or provide to the Contractor, any comments or suggested changes that NMSCDCL may have on the Implementation Plan and Labour Management Plan. If NMSCDCL provides any comments and/or suggestions to the Implementation Plan and Labour Management Plan, then, the Contractor shall within 15 (fifteen) days of receipt thereof, submit to NMSCDCL a revised Implementation Plan and Labour Management Plan by suitably incorporating such comments and/or changes suggested by NMSCDCL. However, in the event, NMSCDCL does not approve the Implementation Plan and Labour Management Plan or provide its comment and/or suggestions to the Implementation Plan and Labour Management Plan within the prescribed period, the Implementation Plan and Labour Management Plan shall be deemed to be approved by NMSCDCL. The Implementation Plan and Labour Management Plan shall accordingly be finalised by the Contractor and shall regulate the execution of the Works as may be required for successfully undertaking the Project.
- 13.4 The contractor shall furnish for the approval of the Engineer-in-charge a schedule giving the programme of the works giving details of the method of execution proposed to be adopted. No work shall be carried out by any other method except that approved by the Engineer-in-charge. The Engineer-in-charge may suggest suitable modifications in the programme and method prepared by the Contractor. Additional any such changes will not be entitled the contractor for claiming any extra rate.

#### 14. **DEPLOYMENT OF STAFF BY THE CONTRACTOR**

14.1 Subject to Clause 14.2 below, the Contractor, at its own cost and expense, shall deploy the following personnel's ("Key Personnel's") from the date of issuance of the Work Order up to the Completion at the Site for the purpose of execution of the Works:

RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra

Sr. No.	Staff Position	Minimum Qualification	Minimum Experience (in year)	Minimum No. of personnel's	Relevant Work Package/ Combined Experience (in year)
1	Project Manager	B.E. (Civil)	15	1	12
2	Resident Engineer	B.E. (Civil) /DCE	8/12	1	7
3	Planning Engineer	B.E. (Civil)	5	1	5
4	Quantity Surveyor	B.E. (Civil) / DCE	5-8	1	5
5	Quality Control Engineer	B.E. (Civil)	8	1	7
6	Lab Technician	B.E. (Civil) / DCE	3/6	1	3
7	Sr. Site Engineers	B.E. (Civil) / D.C.E.	5/7	2	3
8	Site Engineers	B.E. (Civil) / D.C.E.	3/5	4	2
9	Surveyors	Having Knowledge of Total Station	3	1	3
10	Supervisors	Min. 12 <sup>th</sup>	3/6	8	2

- 14.2 The Contractor shall provide NMSCDCL with the curriculum vitae of the Key Personnel's for its approval within 5 (five) days from the execution of this Contract, failing which the Contractor agrees and undertakes to pay damages of INR [5000] per day per Key Personnel. NMSCDCL shall approve the curriculum vitae of the Key Personnel within [15 (fifteen) days] from the submission of the curriculum vitae of the Key Personnel.
- 14.3 Except as NMSCDCL may otherwise agree, no changes shall be made in the Key Personnel by the Contractor. If, for any reason beyond the reasonable control of the Contractor, it becomes necessary to replace any of the Key Personnel, the Contractor shall forthwith provide as a replacement to a person of equivalent or better qualifications.

# 14.4 Workmen

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The Contractor shall at all times enforce strict discipline and good order among its employees/ workmen and shall not employ any unfit person or anyone not skilled and experienced in the assigned task for the purpose of the completing the Scope of the Project.

#### 14.5 Work during Night or on Sundays and Holidays

Unless otherwise provided, none of the permanent Works shall be carried out during night, Sunday or authorized holidays without permission in writing issued by NMSCDCL. However, under exceptional circumstances when execution of Works is unavoidable or necessary for the safety of life and/or priority of works, the Contractor may carry out the permanent Works with the prior approval of the Engineer.

# 14.6 Workmanship

The quality of workmanship produced by skilled knowledgeable and experienced workmen, machines and artisans shall be excellent. Particular attention shall be given to the strength, appearance and finish of exposed Work. All concrete work shall be form finished.

14.7 The Contractor acknowledges and agrees that the Project Manager who should be at least a B.E. (Civil) or equivalent qualification with minimum 15 years of experience shall be appointed as a part of the Key Personnel. The Project Manager shall be the Contractor's representative at the Site and shall have authority to act on behalf of the Contractor. All communications, instructions and directions given to the Project Manager shall be binding as if given to the Contractor by the Engineer not otherwise required to be in writing.

#### 15. CONTRACTOR'S RISKS

- 15.1 The Contractor agrees and undertakes that all risks of loss of or damage to physical property and/or of personal injury and death which may arise during and as a consequence of execution of Works shall solely be attributable to the Contractor.
- 15.2 The Contractor agrees and undertakes that all risks and consequences arising from the inaccuracies or falseness of the documents and/or information submitted by the Contractor shall be the responsibility of the Contractor alone, notwithstanding the fact that designs/ drawings or other documents have been approved by NMSCDCL.
- 15.3 It is also agreed that NMSCDCL shall not be liable in any manner on account of grant or otherwise, of any approval under this Contract and that such approval or denial thereof shall not in any manner absolve the Contractors from any liability or obligation under this Contract or under any Applicable Law.

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# 15.4 Night and Holiday Work

The Contractor shall be allowed to execute the work round the clock on all days as per the Implementation Plan except for declared public holidays and days closed by NMSCDCL, if any.

#### 15.5 **Qualified Personnel**

Fully qualified and experienced quality control Engineers shall be employed by the Contractor and shall be available on site at all times when important work is taking place. The operators and foreman in-charge shall be fully trained and experienced in their classes of work for undertaking any scope of work as set out in Appendix X.

#### **15.6 LABOUR**

The Contractor shall, unless otherwise provided in the Contract, make its own arrangements for the engagement of all staff and labour, local or other and for their payment, housing, feeding and transport.

- 15.7 The Contractor shall, if required by the Chief Executive Officer, NMSCDCL or his nominee, deliver to the Chief Executive Officer or his nominee a return in detail, in such form and at such intervals as the Chief Executive Officer or his nominee may prescribe, showing the staff and numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Chief Executive Officer or his nominee may require.
- 15.8 After award of contract, the Contractor shall provide a list of staff along with police verification deputed by the Contractor for the Project in Nashik to NMSCDCL in the following format for records within 7 (seven) days of deploying such labour at the Site. The Contractor will issue its own photo identity cards to its employees deployed in the Project for above contract purposes.
  - Expanded Name
  - Father's Name (Expanded)
  - Educational Qualifications
  - Ex-servicemen
  - Age with date of birth
  - Permanent Address (with authenticated proof)
  - Local Address (with authenticated)
- 15.9 To report unusual happening, if any to, NMSCDCL or any other authorized person, in writing by NMSCDCL being awarded with the Contract.

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- 15.10 NMSCDCL reserves the right to direct the Contractor to remove / replace any staff for unsatisfactory performance and to provide substitute during the Construction Period.
- 15.11 In case of loss or damage to biodiversity of the river / or in the premises covered under contract by the personnel deployed for the job, the Contractor shall be fully responsible for replacing such personnel(s). The decision of NMSCDCL in this regard shall be binding and final.
- 15.12 Nothing in this Contract will constitute or be deemed to constitute any agency, partnership, joint venture, unincorporated association, co-operative entity or other joint relationship between NMSCDCL and the Contractor for any purpose. In no event shall any of the employee/workman of the Contractor shall be considered to be the employee of NMSCDCL. It is expressly understood and agreed by the Parties that any personnel engaged by the Contractor in connection with the performance of the obligations under this Contract, shall at no time become or be deemed to have become the employees, agents, representatives or servants of NMSCDCL.
- 15.13 The Contractor will be responsible for preserving good order, discipline and decorum in and around the Project area, on day to day basis during their activities at site. The agency shall be responsible for providing uniform, boots and other safety apparels and appliances to the personnel deployed.
- 15.14 The Contractor, at all time during the Construction Period, shall be responsible to remove / take out the garbage and materials waste (if any) generated while undertaking the Scope of the Project to the designated site as may be prescribed by NMSCDCL.
- 15.15 The personnel should be properly turned out during duty hours. The staff deployed by the Contractor shall be provided proper uniform and requisite kit by the Contractor.
- 15.16 The Contractor shall be responsible for getting police verification of the employees/ labours deployed by him from time to time.
- 15.17 The Contractor, at its own cost and expense, shall procure and ensure adequate safety measure for ensuring the safety of the personnel(s) engaged for undertaking the Scope of the Project during the Construction Period and shall maintain at its own expenses, all lights, guards, and watching whether on shore or afloat when and where necessary or as may be required by any authority for the safety and convenience of the public or others.
- 15.18 For the purpose of measurement the method prescribed in the Indian Standards unless stated otherwise in this contract. In the case of any ambiguity the decision of NMSCDCL shall be final and binding on the Contractor.

#### 16. CONSTRUCTION OF SITE OFFICES

16.1 The Contractor shall procure and ensure that adequate Site offices are constructed at the Site to facilitate discharging of its obligations under this Contract. The Contractor agrees and undertakes to ensure that the Site offices shall have separated and adequate spaces with necessary utilities like water, electricity and sanitation for NMSCDCL employees/Engineers of PMC for the purpose of site visit and inspection.

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- 16.2 The time period for completion of work shall be strictly adhered to. No extension of time shall be granted. The Contractor is free to deploy additional manpower/machinery jack up barges etc. to complete the work within stipulated time.
- 16.3 Language of instructions or communication or documentation to be used for working out the tender shall be English only.
- 16.4 The Contractor may sub-contract any portion of the Scope of Project to any third party or entity, with the prior written permission of NMSCDCL, which permission may be granted at the sole discretion of NMSCDCL and subject to such terms and conditions as NMSCDCL deems fit. Notwithstanding any such subcontracting by the Contractor, the Contractor shall, at all times, be responsible and liable for all its obligations under this Contract notwithstanding anything contained in any other agreement that it enters into with any third party or entity, and no default under any agreement shall excuse the Contractor from its obligations or liability hereunder.
- 16.5 The Contractor agrees and undertakes to provide a four wheeler vehicle, in good working condition, to be exclusively used by NMSCDCL's employee/agents/representatives/PMC team for the purpose of site visit and inspection.

# 16.6 Water Charges

Water required for drinking, construction and testing of pipe line and Reservoir like Sump, GSR, and ESR etc. may be supplied by metered connection at the rate of Irrigation Department as per NMC / rules and regulation. from Nashik Municipal Corporation if pipe line is available near site. However, all arrangement for carrying water from Nashik Municipal Corporation's pipeline will have to be done by the contractor at his cost. If Corporation pipe line is not available then contractor has to make its own arrangement for water at its sole cost and expense.

# 16.7 **Electricity charges**

If the Contractor requires electric supply from existing electric point of NMSCDCL for domestic or construction purpose, meter must be provided to count the electric units and charges so far should be remitted according to the rule and regulations of the Maharashtra State Electricity Board towards NMSCDCL. M.C. Wiring and fitting from tapping point should be done by contractor at his own cost and risk. However, to give the electric supply to the Contractor is not binding on NMSCDCL, or Contractor may obtain electric supply directly from Maharashtra State Electricity Board at its sole cost and expense, the necessary letters only shall be issued by NMSCDCL, if required.

16.8 The price quoted by the contractor shall not in any case exceed the control price if any fixed by Government or reasonable price which is permissible for him to charge a private purchaser for the same class and description, the controlled price or the price permissible under Hoarding and Profiteering Ordinance, 1943 as amended from time to time. If the price quoted exceeds the controlled price or the price permissible under Hoarding and Profiteering Prevention Ordinance, the contractor will specifically mention this fact in his tender along with the reason for quoting such

higher prices. The Purchaser at his discretion will in such case exercise the right of revising the price at any stage so as to confirm with the controlled price on the permissible under the Hoarding and Profiteering Prevention Ordinance. This discretion will be exercised without prejudice to any other action that may be taken against the contractor.

#### 17. SAFETY AND PRECAUTION

In addition to Fire precautions under Clause 22 of the GCC, the Contractor shall take the following measures for safety at the Site.

17.1 The Contractor will be responsible for making all arrangements to ensure safety and security of all authorised persons and its machinery available at the Site. No unauthorized personnel shall be available on the Site. In case the Contractor fails to make such arrangements, NMSCDCL shall be entitled to cause them to be provided and to recover the cost thereof from the Contractor.

# 17.2 The Contractor shall:

- a. comply with all applicable safety regulations,
- b. take care for the safety of all persons entitled to be on the Site,
- c. use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons,
- d. provide fencing, lighting, guarding and watching of the Works during the subsistence of this Contract, and
- e. provide any temporary works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.
- 17.3 The Contractor shall undertake all such precautions, furnish and maintain protection to prevent damage, injury or loss to other persons who may be affected thereby, all the Works and all materials and equipment to be incorporated therein whether in storage on or off the Site, under the care, custody or control of the Contractor or any of its sub-contractor and other improvements and property at the Site or where Work is to be performed including building, trees and plants, pole lines, fences, guard rails, guide posts, culvert and project markers, sign structures, conduits, pipelines and improvements within or adjacent to streets, right-of-way or easements, except those items required to be removed by the Contractor in the Contract.
- 17.4 The Contractor agrees and undertakes to include all the safety precautions and other necessary forms of protection and the notification of NMSCDCLs of utilities and adjacent property at the Site during the Contract Period.
- 17.5 The Contractor shall protect adjoining area against structural, decorative and other damages that could be caused by the execution of Works and make good at its cost any such damages that could

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  - be caused by the execution of Works and make good at its sole cost and expense any such damages within reasonable time.
- 17.6 The Contractor shall prepare and implement the after-flood restoration plan as per the guidelines and approval of NMSCDCL. In the event, NMSCDCL determines that the Contractor has failed to implement after flood restoration plan, NMSCDCL shall have the right to carry out works pertaining to after flood restoration as may be required at the sole cost and expense of the Contractor.

#### 17.7 Condition for Malaria Eradication

- a. Contractor shall carry out anti-malaria measures in the areas per guidelines directed by the joint director (Malaria and Filarial) of Health Services, Nashik.
- b. Contractor shall see that mosquitozenic conditions are not created so as to keep vector population to minimum level.
- c. In case of default in carrying out prescribed anti-malaria measures resulting increase in malaria incidence, Contractor shall be liable to pay Government on anti-malaria measures to control the situation in addition to fine.
- d. Relation with public authorities: the Contractor shall make sufficient arrangements for draining away the salvage water as well as water coming from the bathing and washing places and shall dispose of this water in such a way as not to cause any musicale. He shall also keep the premise clean by employing sufficient of sweepers. The Contractor shall comply with all rules, regulations, bye laws and direction given from time to time by any local or public authority connection with this work and shall pay fees or charges which are livable on him without any extra cost to Government.

#### 18. **POLICE PROTECTION:**

If special protection of his camp of workpeople is asked for by the contractor, the NMSCDCL will arrange for such protection as far as possible from the authorities concerned and the full cost of such protection shall be debited to the contractor and recovered from his bills.

# 19. MATERIALS AND EQUIPMENT

- 19.1 The Contractor shall ensure that all materials and equipment utilized for execution of the Works shall be new and of best quality. Materials and equipment not covered by detailed requirements in the Contract shall be of the best commercial quality suitable for the purpose intended and approved by NMSCDCL prior to use in the Works as set out in Clause 19.3 of the SCC below.
- 19.2 The Contractor shall ensure that only one brand, kind or make of material and equipment shall be used for each specific purpose through-out the Works, notwithstanding that similar material or equipment of two or more manufacturers or proprietary items may be specified for the same purpose.

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- 19.3 Except as otherwise specified in the Contract, the Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall promptly forward to the Engineer duly certified reports of the tests. When the specified tests have been passed, the Engineer shall endorse the Contractor's test certificate, or issue a certificate to the Contractor, to that effect.
- If, as a result of an examination, inspection, measurement or testing, any materials or equipment is found to be defective or otherwise not in accordance with the Contract, the Engineer may reject such materials or equipment by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract. If the Engineer requires any materials or equipment to be retested, the tests shall be repeated under the same terms and conditions.
- 19.5 Notwithstanding any previous test or certification, the Engineer may instruct the Contractor to:
  - a. remove from the Site and replace any materials or equipment which is not in accordance with the Contract,
  - b. remove and re-execute any other work which is not in accordance with the Contract, and
  - c. execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise.
- 19.6 The Contractor shall comply with such instructions within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under Clause 19.5 (c) above. If the Contractor fails to comply with the instruction, NMSCDCL shall be entitled to employ and pay other persons to carry out the work at the cost and expense of the Contractor.

#### 20. TEST AND INSPECTION

- 20.1 The Contractor shall conduct test for materials and works undertaken on a periodic basis or as may be instructed by NMSCDCL from a laboratory accredited by NABL and consented by the Engineer in Charge, pursuant to this Contract and shall submit such reports to NMSCDCL within 30 days of issuance of report by such laboratory.
- 20.2 The Contractor shall, at its own expense, carry out on the Site, all applicable Tests and/or inspections of the Works, in accordance with the Technical Specifications at regular intervals from an NABL accredited laboratory. The Contractor shall, at its own cost, provide all equipment and materials, assistance, documents and other information, equipments, consumables, instruments, permits and suitably qualified Contractor's personnel, as are necessary to carry out the said Tests and/or inspections efficiently to demonstrate that the Works are sound, complete and functioning in compliance with the Technical Specifications.
- 20.3 The Contractor shall in its Implementation Plan submit the intervals at which it shall carry out periodical testing of the materials and works and shall provide a 7 (seven) day prior notice to the Engineer in writing when any portion of the Work is ready for inspection, along with the dates of

inspection and details of the selected laboratory, to enable the Engineer to confirm the selected laboratory, attend the inspection and ensure smooth testing—without affecting the further progress of the Work. The Work shall not be considered to have been completed in accordance with the terms of the Contract until the accredited laboratory followed by the Engineer-in-Charge shall have certified in writing to that effect. No approval of materials or workmanship or approval of part of the Work during the progress of execution shall bind the Engineer or in any way affect the Engineer even to reject the Work which is alleged to be of inferior quality and to suspend the issue of the Completion Certificate until such alternations and modifications or reconstruction have been affected at the cost of the Contractor as shall enable the Engineer to certify that the Work has been completed to his satisfaction.

- In addition to the regular testing and inspection, the contractor shall inform, by writing in advance to the Engineer-in-charge, if he wants that work should be inspected, along with the details of the laboratory, or if he wants some decision, checking, clarification etc. from Engineer-in-charge.
- 20.5 The instructions on site given by Engineer-in-charge shall be recorded in appropriate visit register. The compliance along with the note shall be brought up in the office documents of the work.
- Notwithstanding anything contained in the article, the Engineer-in-charge is empowered to visit, inspect the work without giving notice to the contractor at any time (surprise visit or so) for which the contractor shall not take any objection. All the compliance, rectification, repair etc. shall be done by the contractor, as soon as they are brought to his notice, unless which the payment shall not be made (of the items concerned).
- Any report submitted by a third party or laboratory which has not been accredited by NABL shall be rejected. The Engineer may at its discretion reject the laboratory selected by the Contractor, as a result of which, the Contractor shall provide for another NABL accredited laboratory as an option to the Engineer for testing.

# 21. Comprehensive **OPERATION AND MAINTENANCE**

# 21.1 Comprehensive **O&M PERIOD**

The Contractor shall commence the operation and maintenance of projectfor a period of 3 (three) years post the issuance of Completion Certificate ("O&M Period").

# 21.2 Contractor's operation and maintenance obligations

- a. The Contractor shall operate, maintain and manage the Project on behalf of NMSCDCL and also perform the specific duties as set forth in this Agreement and/or identified under the Implementation Plan.
- b. The Contractor shall be responsible to operate and maintain the working such condition basis which NMSCDCL had issued the Completion Certificate for work duly conforming to the Technical Specifications as set out under Appendix XI.
- c. During the O&M Period, the Contractor shall exercise such degree of skill, diligence, prudence, foresight, and operating/maintenance practice generally followed internationally by highly qualified, prudent professionals for river cleaning purpose.

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  - d. The Contractor shall prepare a detailed plan ("O&M Manual") for carrying out the operation and maintenance of the work at the Site during the O& M Period in accordance with the Drawings, Technical Specifications which shall *inter alia* include the details regarding the operation and maintenance activities proposed to be carried out by the Contractor at the Site, proportional monthly break up of expenses incurred, mobilization of personnel(s) and such other details as may be required by NMSCDCL.
  - e. The Contractor shall submit the O&M Manual within 45 (forty five) days of the execution of this Agreement to NMSCDCL for its approval.
  - f. Within [30 (thirty)] days of the submission of the O&M Manual, NMSCDCL shall either approve the O&M Manual or provide to the Contractor, any comments or suggested changes that NMSCDCL may have on the O&M Manual. If NMSCDCL provides any comments and/or suggestions to the O&M Manual, then, the Contractor shall within 30 (thirty) days of receipt thereof, submit to NMSCDCL a revised O&M Manual by suitably incorporating such comments and/or changes suggested by NMSCDCL. However, in the event, NMSCDCL does not approve the O&M Plan or provide its comment and/or suggestions to the O&M Manual within the prescribed period, the O&M Plan shall be deemed to be approved by NMSCDCL. The O&M Manual shall accordingly be finalised by the Contractor for carrying out the operation and maintenance of work.
  - g. During the O&M Period, the Contractor shall be responsible to maintain the Site falling under work to the satisfaction of NMSCDCL and further undertakes to adhere to the instructions given by NMSCDCL, from time to time, for the purpose of maintaining the Site.

# 22. **DEFECT LIABILITY PERIOD**

- 22.1 The Defect Liability Period shall be applicable to Project including all civil works. It shall commence on the date of issuance of the Completion Certificate to the Contractor and shall continue till 3(three) years.
- During the Defect Liability Period, the Contractor shall remain liable for any technical or other defects in work. If post completion of the Construction Period and after issuance of the Completion Certificate, any defect is found in the construction, installation and workmanship of the works relating to work, the Contractor shall promptly and in any event no later than 15 (fifteen) Days from the receipt of the notice from NMSCDCL in terms of Clause 22.4 below or such extended period as may be agreed in consultation and agreement with NMSCDCL, correct any errors, omissions, defects or deficiencies in such works, re-perform any part of the works, or repair, replace or otherwise make good (as the Contractor shall, at its discretion, determine) such defect, in addition to any damage to the Site caused by such deficiency in work, at the sole risk and expense of the Contractor.
- 22.3 In the event of the Contractor failing or neglecting to commence execution of the said rectification work pertaining to work within the period prescribed thereof in the said notice and/or to complete the same as aforesaid as required by the said notice, NMSCDCL shall get the same executed and

carried out internally or by any other agency at the risk and cost of the Contractor. The Contractor shall forthwith on demand pay to NMSCDCL the amount of such cost, charges and expenses sustained or incurred by NMSCDCL of which the certificate of the Engineer in charge shall be final and binding on the Contractor. Such cost, charges and expenses shall be deemed to be Damages and shall be liable to be recovered from the Performance Security if not paid by the Contractor. NMSCDCL shall also be entitled to deduct the same from any amount, which may then be payable or may thereafter become payable by NMSCDCL to the Contractor either in respect of the said Work or any other work whatsoever.

# 22.4 **Notice of Defect**

NMSCDCL shall provide the Contractor a notice stating the nature of any defect in work, together with all available evidence, promptly following the discovery of such defect. NMSCDCL shall afford all reasonable opportunity to the Contractor to inspect any such defect. The Contractor shall, within 7 (seven) days of the notice from NMSCDCL in this regard, submit to NMSCDCL details of the proposed re-performance of the work and/or the repairs or replacements, which it proposes to make, the estimated duration of the repairs or the duration required to effect the replacement works, details or parts of the work and the proposed dates for such re-performance, repairs or replacements. All works and repairs and replacements under the Defect Liability Period shall be carried out at a time and for periods agreed with NMSCDCL.

- 22.5 Upon expiry of the Defect Liability Period, NMSCDCL shall issue a '**Take over Certificate**' to the Contractor certifying the **Take Over** of project provided that:
  - the Contractor has completed the outstanding works pertaining to work in accordance with the provisions of the Contract, to the satisfaction of NMSCDCL during the Defect Liability Period;
  - b. The Contractor has performed all of its obligations during the Defect Liability Period under this Contract to the satisfaction of NMSCDCL.

# 23. SUSPENSION

- 23.1 The Engineer may at any time instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage. The Engineer may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, then Clauses 23.2 shall not apply.
- 23.2 If the Contractor suffers delay and/or incurs any cost from complying with the Engineer's instructions under Clause 23.1 above and/or from resuming the work, the Contractor shall give notice to the Engineer and shall be entitled to an extension of time for any such delay, if the Completion is or will be delayed at the sole discretion of NMSCDCL.
- 23.3 The Contractor shall not be entitled to an extension of time for, or to payment of the Cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with Clause 23.1 above.

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- After the permission or instruction to proceed is given, the Contractor and the Engineer shall jointly examine the Works and the plant and materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works or plant or materials, which has occurred during the suspension after receiving from the Engineer an instruction to this effect.

# 24. **INSURANCE**

Contractor shall, at its own cost, take out necessary Insurance Policy/ Policies so as to provide adequate Insurance cover for execution of the awarded contract work from the "Directorate of Insurance, Maharashtra State, Mumbai" only. Its Postal address for correspondence is "264 MHADA, First Floor, Opp. Kalanagar, Bandra (East), Mumbai – 400 051". (Telephone Nos. 6438690/ 6438746, Fax No. 6438461). Insurance Policy/ Policies taken out from other Company will not be accepted. However, if the contractor desire to effect insurance with any local officer of any insurance Company, that should be under the coinsurance-cum-servicing arrangement approved by Directorate of Insurance. If the policy taken out by the contractor is not on coinsurance basis, i.e. G.I.F. 60% and Insurance Company 40%, the same will not be accepted and the amount of premium calculated by Directorate of Insurance will be recovered directly from the amount payable to The Contractor for the executed contract work which may please be noted.

#### 25. **INDEMNITY**

- 25.1 The contractor shall indemnify the NMSCDCL of all actions, suits, claims and demands brought or made against NMSCDCL in respect of any matter or thing done or omitted and being done by the Contractor and loss or damage to the NMSCDCL covering consequences of any action or suits being brought against the information of the works of this contract.
- 25.2 Compensation for all damage done intentionally or unintentionally by the Contractor's labour whether in or beyond the limits of government property including any damage caused during the Contract Period shall be estimated by the Engineer or such other officer as may be appointed by NMSCDCL and the estimate of the Engineer subject to the decision of the CEO, NMSCDCL on appeal shall be final and binding on the Contractor. For the avoidance of doubt, the Contractor shall be bound to pay the amount of the assessed compensation on demand failing which the same will be recovered from the Contractor as damages by NMSCDCL and shall be reduced by the Engineer from any sums that may be due or payable to the Contractor under this Contract.
- 25.3 The Contractor shall bear expenses of defending any action or other legal proceedings that may be brought by any person for injury sustained by such person owing to neglect of precautions by the Contractor during performance of its obligations under this Contract and shall solely pay any compensation in this regard as may be awarded by any court of law.

# 25.4 Liability for accidents to person

The Contractor agrees and undertakes to hold harmless and indemnify NMSCDCL, from and against any and all direct damages, losses, liabilities, obligations, claims or proceedings of any kind, interest, penalties, cost, fee, or expenses (including, without limitation, reasonable attorneys' fees and expenses) suffered, incurred or paid, directly, as a result of, in connection with or arising

from any breach of its covenants, obligations and responsibilities hereunder pursuant to the Scope of the Project or against all action, suits, claims, demands, costs etc. arising in connection with injuries suffered by any persons employed by the Contractor or its subcontractor for the Works whether under the applicable law force at the time of dealing with the question of the liability of employees/ workmen for the injuries suffered by employees/ workmen and to have taken steps properly to ensure against any claim thereunder.

- 25.5 The Contractor shall at all times keep NMSCDCL indemnified against any and all penalties and liability of every kind arising out or in connection with this Contract for breach of any applicable laws or applicable permits.
- 25.6 In the event of an accident in respect of which compensation may become payable by the Contractor, such sum of money as may, in the opinion of the Engineer, be sufficient to meet such liability will be kept in deposit either from any amount payable to the Contractor under this Contract or from the Performance Security. On the receipt of any award or ruling against the Contractor in regard to the quantum of compensation, the difference in the amount will be adjusted."
- 25.7 The contractor shall take all precautions against damages by Flood or from accidents. No compensation will be allowed to the contractor for his plant and materials, centering for R.C.C. works etc. lost or damaged by floods or from any other cause. The contractor shall be liable to make good any plant or materials belonging to NMSCDCL lost or damaged by floods or from any other cause while in charge of the contractor, correcting and repairing any damage which may be suffered from floods or any other natural calamity or accident at any part of the site during construction shall not be paid to the contractor.

#### 26. USE OF COMPLETED PORTIONS

NMSCDCL shall have the right, upon written notice to the Contractor to possession or occupancy of and use any completed or partially completed portions of the Work, notwithstanding that the time for completing the entire Work or such portions may not have expired but such taking possession or occupancy and use shall not deemed to waive of any requirement of the Contract or a waiver or acceptance of any Work not completed in accordance with the Contract.

# 27. CLEANING UP

The Contractor shall at all times during the execution of Works keep the Site, adjoining property and public property free from accumulations of waste materials, rubbish and other debris resulting from the Works and at the Completion shall remove all waste materials, rubbish and debris from and about the Site and adjoining property as well as all tools, construction equipment and machinery and surplus materials, and shall leave the Site and premises, clean, tidy and ready for occupancy by NMSCDCL. The Contractor shall restore to its original condition those portions of the Site not designated for alteration by the Contract paved ways, parking areas and roadways disturbed by the construction shall be redone by filling the excavation, if any, by sand compacted material and bringing it to its original shape as directed and approved by the Engineer. No waste material shall be buried or disposed-of on NMSCDCL's property unless so approved in writing by

Contractor

the Engineer. Before the Contractor applies for final inspection and acceptance of the Work, all items of work shall be complete, ready to operate and in a clean condition as determined by the Engineer. All slip roads and adjoining area must be kept free of metal/ sand and to that extent regular sweeping of the road/ adjoining area shall be done by the Contractor at its cost.

# 28. NMSCDCL RIGHT TO CLEAN UP

If the Contractor fails to satisfactorily keep the Site clean, the Contractor agrees and undertakes that the Engineer, at the sole cost and expense of the Contractor, shall have the right to get the Site cleaned up by a third party. For the avoidance of doubt, NMSDCDL shall deduct the amount paid to such third party from the next payment due to the Contractor.

#### 29. IMPORT LICENSE AND PROCUREMENT OF IMPORTED MATERIALS

The Contractor shall use the indigenous equipment only, as far as possible for the Work contracted. Foreign exchanges and import licenses, if any, required shall have to be arranged by the Contractor itself, independently. Delay in getting any material, will not be entertained for extension of time limit nor will the risk of foreign exchange variation be covered by NMSCDCL.

# 30. MACHINERY REQUIRED

- 30.1 All machinery required for erection/ execution purposes such as concrete batching plant, excavator with rock breaker unit, cranes, trucks, etc. shall be arranged by the Contractor at its own cost and expense. NMSCDCL will not take any responsibility for providing such machinery even on rental basis. Execution of any part of the Work will be allowed only after the required machinery as directed by the Engineer-in-Charge is made available in working condition.
- 30.2 The Contractor shall ensure the availability of the following machinery during the Construction Period either on ownership or hire-purchase:

Sr. No	Type of	Max. Age as	Capacity	Minimum
	<b>Equipment</b>	On 01/01/2018		Nos.
				Required
1	Excavators with	10	Min 1.25 m <sup>3</sup>	2
	Rock breaker			
2	Backhoe	5	Min 0.3 m <sup>3</sup>	2
	Loader/JCB			
3	Vibratory soil	5	Minimum 5 Tonn	4
	Compactor		operating wt.	
4	Mini Vibrator	5	4/6 Tonn	2
	Roller			

Contractor

5	Water Tanker/	-	-	2
	Sprinklers			
6	Dumper/	5	Minimum 6 cum	4
	Tippers/Tractor			
	Tippers			
7	RMC Batch Mix	10	30 cum/hr.	1
	Plant			
8	Transit Mixers	3	6 cum	8
9	Internal Concrete	5	-	6
	Vibrator			
10	Mechanical	-	-	1
	Broomer			
11	Air Compressor	5	Min capacity 250	2
			cum	
12	Survey Equipments			
	i) Total Station	3	-	1
	ii) Auto Level	3	-	2

# 31. DRAWINGS AND TECHNICAL SPECIFICATIONS

- 31.1 The Contractor shall, at its own cost and expense, conduct field surveys, geological and/or hydrological studies, and investigation for preparation of detailed Documents for the purpose of completing the Scope of the Project.
- 31.2 The Contractor shall not depart from the Drawings, unless consented to in advance by NMSCDCL.
- 31.3 Any Work that may be reasonably inferred from the Drawings as being required to produce the intended result shall be undertaken by the Contractor whether or not it is specifically called for. The Contractor shall furnish and pay for all labour, supervision, materials, transportation, construction, equipment and machinery tools, appliances, water, fuel, power, energy, light, heat, utilities, telephone, storage, protections, safety provisions, and all other facilities, services and incidentals of any nature whatsoever necessary for the satisfactory and acceptable execution, testing and Completion in accordance with the provisions of this Contract. The cost of all these arrangements shall be deemed to be included in the Contract Price and no separate payment shall be made by NMSCDCL in this regard.
- Written clarifications or interpretations necessary for the proper execution or progress of the Works, in the form of drawings or otherwise, will be issued with reasonable promptness by the Engineer and in accordance with any schedule agreed upon. Such clarifications or interpretations shall be consistent with or reasonably inferable from the intent of the Contract and shall become a part thereof. Where there is a discrepancy between the Drawings and the Technical Specifications,

Contractor

- RFP for Selection of Contractor for Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra
  - the Contractor shall obtain the interpretation of the Engineer, which shall be binding on the Contractor.
- 31.5 Figured dimensions on Drawings shall only be followed and detailed Drawings shall govern over general drawings. The Contractor shall keep an approved set of Drawings at the Site and copies of the approved Drawings shall be made available to Engineer or its representative for checking record etc.
- 31.6 The work, materials or equipment required in Works shall have a well-known trade or technical meaning shall be deemed to refer to such recognized meanings.
- 31.7 The Contractor shall be responsible for any discrepancies, errors or omissions in the drawings and other particulars, supplied by it, whether such drawings and particulars have been approved by the Engineer or not, provided that such discrepancies, errors or omissions be not due to inaccurate information or particulars furnished in writing to the Contractor by the Engineer.
- 31.8 The Work specified in this Contract shall include all general work, preparatory to river cleaning and any kind of work necessary for the due and satisfactory performance of the obligations of the Contractor in accordance with the Drawings, Implementation Plan and the Technical Specification.
- 31.9 The Contractor shall appoint an experienced structural engineer for preparing the design of centering and various formwork and getting it approved from Engineering in charge. The Contractor shall also prepare design of shoring and strutting etc. required for excavation work. The work of centering and formwork, shoring and strutting shall be done under supervision of the structural engineer of the Contractor and get it approved from the Engineer. The cost of such engineer is incidental to work and deemed to be included in the rate. No claim in this regard shall be paid by NMSCDCL.
- 31.10 The Contractor shall during the course of execution prepare and keep updated a complete set of 'as built' drawings to show each and every change from the contract drawings, changes recorded shall be countersigned by NMSCDCL/ Engineer and the Contractor. All costs incurred in this respect shall be borne by the Contractor.
- 31.11 The Drawings shall be considered as complimentary and explanatory, of each other and together shall form the technical requirements and stipulations under the Contract. Detailed drawings shall have preference over small-scale drawings. Similarly, detailed specifications shall have preference over general specifications. Should any discrepancy arise as to the meaning, intent or interpretation of any specification or drawing the decision of the Engineer shall be final and binding on the Contractor.

#### 32. **SETTLEMENT OF DISPUTE**

32.1 Disputes, if any, raised out of contract are subject to the jurisdiction of civil court of Nashik only.

Contractor

#### 33. **TERMINATION**

33.1 If the Contractor fails to carry out any obligation under the Contract, the Engineer-in-Charge/ NMSCDCL may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.

#### 33.2 NMSCDCL shall be entitled to terminate the Contract:

- a. if the Contractor persistently fails to execute this Contract in accordance with the provisions of this Contract or persistently neglects to carry out its obligations under this Contract, without just cause;
- b. the Contractor has insolvency, receivership, reorganisation, bankruptcy, or proceedings of a similar nature brought against it and the proceedings are not dismissed or effectively stayed within 30 (thirty) days of such commencement;
- c. if the Contractor without reasonable excuse fails to comply with the notice to correct a particular defect within a reasonable period of time;
- d. if the Contractor does not maintain a valid instrument of Performance Security (and additional performance security, if any), as prescribed;
- e. if the Contractor has delayed the Completion by such duration for which the maximum amount of liquidated damages is recoverable;
- f. if the Contractor fails to deploy machinery and equipment or personnel as specified in the Contract.
- g. if the Contractor, in the judgment of NMSCDCL has engaged in corrupt or fraudulent practices in competing for or in executing the Contract;
- h. if the Contractor fails to provide NMSCDCL with the Performance Security in terms of Clause 1 of the GCC or if, at any time prior to its respective expiry, the Performance Security ceases to be legal, valid or binding (unless such Performance Security is duly replaced in accordance with the terms of this Contract or is otherwise fully discharged in accordance with its terms);
- i. Any other breach as specified in the Contract.
- In any of these events or circumstances, NMSCDCL may, upon giving 14 (fourteen) days' written notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub clause (b), (g) or (i) of Clause 33.2 above, the Contract may be immediately terminated.
- Notwithstanding the above, NMSCDCL may terminate the Contract for convenience by giving 30 (thirty) days' written notice to the Contractor.

#### 34. **PAYMENT UPON TERMINATION**

34.1 If the Contract is terminated under Clause 33.2 of the SCC, the Engineer shall issue a certificate for value of the Work accepted on final measurements, less advance payments and liquidated

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  - damages as indicated in the Contract. The amount so arrived at shall be determined by the Engineer and shall be final and binding on both the Parties. The Contractor agrees and acknowledges that upon termination of this Contract as per Clause 33.2 of the SCC, NMSCDCL shall have the right to forfeit and encash the Performance Security of the Contractor.
- Payment on termination under Clause 33.4 of the SCC above, the Engineer shall issue a certificate for the value of the Work done, the reasonable cost of removal of equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the Contract and less taxes due to be deducted at source as per applicable law.

# 34.3 **Requirements after Termination**

- a. Upon Termination of this Contract in accordance with the terms of Clause 30 of the SCC, the Contractor shall comply with and conform to the following:
- b. deliver to NMSCDCL all plant and materials which shall have become the property of NMSCDCL under Clause 33 of the SCC;
- c. deliver all relevant records, reports and other licenses pertaining to the Works, other design documents and in case of termination under Clause 33 of the SCC, the "as built' Drawings for the Works;
- d. transfer and/or deliver all applicable permits to the extent permissible under applicable laws; and
- e. vacate the Site within 15 (fifteen) days.

#### 35. FORCE MAJEURE

- 35.1 "Force Majeure Event" means any act, event or circumstance, or combination of acts, events or circumstances, which may affect the affected Party's performance of its obligations pursuant to the terms of this Contract, but only if and to the extent that such acts, events or circumstances are not within the affected Party's reasonable control, were not reasonably foreseeable and could not have been prevented or overcome by the affected Party through the exercise of reasonable skill or care. Any act, event, circumstance or combination thereof meeting the description of Force Majeure that has the same effect upon the performance of the Contractor which directly, materially and adversely affects the performance by NMSCDCL or the Contractor of its obligations in whole or in part under this Contract shall constitute Force Majeure with respect to the NMSCDCL or the Contractor respectively.
- 35.2 The Force Majeure Event shall comprise the acts, events and circumstances, such as
  - act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot insurrection, civil commotion, act of terrorism or sabotage, in each case occurring inside or directly involving India;

Contractor

- b. strikes or lockouts occurring within India or at the Site as part of a nation-wide, industry-wide or state-wide strike or local strike, or lock out (excluding such events which are Site specific and attributable to the Contractor);
- c. radioactive contamination or ionizing radiation or chemical contamination specifically affecting the Facility or resulting from another Force Majeure Event;
- d. flood, cyclone, Tsunami, lightning, earthquake, drought, storm or any other extreme effect of the natural elements;
- e. any action by competent governmental instrumentality having jurisdiction over the Project, NMSCDCL or the Contractor resulting in a loss of access to the Site;
- f. an act of God; and
- g. any other act or event or circumstance of an analogous nature.

# 35.3 Exceptions to Force Majeure

Notwithstanding the foregoing, Force Majeure shall not include:

- a. weather or ground conditions reasonably expected for the climate in the geographic area of the Project or any Site condition or event arising therefrom;
- b. any delay, default or failure (direct or indirect) by the Contractor in any agreement entered into by it; and
- c. any act, event, or occurrence resulting in financial hardship, including any delay or rejection of an insurance claim, shall not constitute a Force Majeure Event.

#### 35.4 Excused Performance

If either Party is prevented from rendering performance of its obligations, whether wholly or partially under this Contract for reasons of a Force Majeure Event, then that Party will be excused from the performance so affected by the Force Majeure Event to the extent so affected provided that:

a. The affected Party gives the other Party written notice of the occurrence of the Force Majeure Event as soon as practicable and in any event within 15 (fifteen) Days from the date of occurrence of the Force Majeure Event, giving full particulars of such occurrence, including an estimation of its expected duration, impact on the performance of such Party's obligations hereunder, and thereafter continues to furnish thereto timely regular reports with respect to continuation of the Force Majeure Event and measures which the affected Party has taken or proposes to take to mitigate the impact of the Force Majeure Event and to resume performance of such of its obligations affected thereby and the Completion Date shall be suitably extended. If the effect of any events specified in Clause 35.2 above of the SCC lasts for a period of less than 10 (ten) days in the aggregate per year, such events shall not be construed to be Force Majeure Events.

Contractor

- b. The suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event.
- c. Upon the occurrence of any circumstances of Force Majeure Event, the Contractor shall use all reasonable endeavors to continue to perform its obligations under the Contract and to minimize the adverse effects of such circumstances. The Contractor shall also use all reasonable means and best endeavors to ensure that the loss caused by the Force Majeure Event is minimized as far as possible.
- d. An event of Force Majeure does not relieve a Party from liability for an obligation which arose before the occurrence of that event.

# 35.5 Effect of Force Majeure Event

Neither NMSCDCL nor the Contractor shall be considered in default or in contractual breach to the extent that performance of obligations is prevented by a Force Majeure Event, which arises after the Effective Date. An extension of time to the Construction Date shall be agreed upon by the Parties, provided the Contractor proves to NMSCDCL;

- a. The execution of Works is actually and necessarily delayed by an Force Majeure Event; and
- b. The effect of such Force Majeure Event could not have been prevented or avoided or removed despite exercise of reasonable due diligence whether before, after or during the Force Majeure Event.
- 35.6 The applicability of the Clause 35 of the SCC should be construed in a fair and reasonable manner and either Party shall not take any pretext on account of terms and conditions of the Force Majeure clause to escape from its respective liability.
- 35.7 Neither Party can claim any compensation from the other Party on account of Force Majeure Event.

# 36. PROGRAMME AND PROGRESS SCHEDULE

- 36.1 The Contractor shall submit to NMSCDCL an item-wise monthly programme ("**Programme**") as may be mutually agreed between the Contractor and NMSCDCL laying out the specifics for the purpose of executing and completing Works in accordance with the terms and conditions of this Contract including all or any incidental works that may be required to be undertaken by the Contractor for the purpose of restoration of any or all disturbed damaged asset, utilities forming part of the Works to the satisfaction of NMSCDCL. The Programme shall provide the information as to required approvals to the methodology, drawing, samples, materials, equipment and their time of submissions to Engineer-in-Charge. The Contractor shall ensure that the trial run period is incorporated in the Programme.
- 36.2 The Contractor agrees and undertakes to submit a monthly progress report to NMSCDCL against the Programme indicating the amount of Works completed ("**Progress Report**") in the format

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  - approved by NMSCDCL. In the event the amount of works pertaining to Scope of the Project completed as per the Progress Report fall below the milestone(s) set out in the Implementation Plan, the Contractor agrees and undertakes to increase its resources i.e. machinery and labour at the Site so as to achieve the milestone(s) as set out in Schedule 1 at no extra cost.
- 36.3 In case, where the updated and revised Programme is required, the Contractor shall submit such updated and revised Programme to the Engineer for its approval which shall indicate and provide details of the potential physical and financial implication(s) in relation to the Project including men, materials and machinery requirements.

# 37. **BOOKS OF REFERENCE:**

- 37.1 The work included in this contract shall be carried out in accordance with the specifications, rules and regulations laid down in the books mentioned below in order of the priority.
  - a. Specifications general and item wise and special to the tender.
  - b. Standard Specifications, 1965.
  - c. Indian Road Congress Std. Specification and codes of Practice for Road Bridges section I to IV (latest edition).
  - d. Indian Railway Std. and codes of practice for reinforced concrete constructions (latest edition).
- 37.2 If the reference books quoted above are short for the items quoted in the Schedule of this contract, reference shall be made to the higher authorities and decision of whom shall be final. It will be presumed that the contractor has tendered for the work full knowledge of the terms, conditions and specifications mentioned. The std. specifications, the plans and the special provision and all supplementary documents are essential parts of the contract.
- 37.3 The contractor should quote his rates taking into consideration the applicable taxes which are not refundable on any account.

#### 38. **HUTMENTS:**

- a. Contractor shall build a sufficient number of huts on suitable plot in land for the use of the labours according to the following specification-
- b. Huts of bamboo and grass may be constructed.
- c. A good site shall be selected on high ground removed from jungle, but well provided with trees. Whenever it is available the neighbourhood of jungle grass or weeds should be particularly avoided. Camps should not be established close to large cuttings or earthwork.
- d. The lines of huts shall have spaces of at least 10 yards between two rows. When a good natural site cannot be provided, particular attention should be given to the drainage.
- e. There should be no over-crowding, floor space at the rate of 30 Sq. ft. per head shall be provided. Care should be taken to see that huts are kept clean and in good order.

Contractor

- f. The contractor must find his own land and if he wants Municipal land, he should apply for and pay assessment for it.
- g. The contractor shall construct a sufficient number of bathing places. One unit per 20 persons shall be provided. Such bathing place should be suitably screened and separate places should be provided for the purpose of washing clothes.
- h. The contractor shall engage a medical officer with a mobile dispensary for a camp of 500 persons, if there is no municipal or other private dispensary situated within a Km from the camp.
- i. The contractor shall make sufficient arrangement for draining sewage water from the bathing or washing place, and shall dispose off wastewater in such a way as not to cause nuisance.
- j. The contractor shall provide the necessary staff for effecting satisfactory conservancy and cleanliness of the camp upto the satisfaction of the Corporation's Engineer. At least one sweeper per two hundred persons should be engaged.
- k. The CEO, NMSCDCL shall be consulted before opening a labour camp and as per his instructions on the matter such as the water supply, sanitary convenience at the campsite, accommodation and food supply to be followed by the contractor.

#### 39. **MISCELLANEOUS**

#### 39.1 TREASURE TROVE

In the event of the discovery by the contractor or by his employees during the progress of the work of any treasure minerals or other articles, or other things of interest, the Contractor shall give immediate notice thereof to the Engineer-in-charge and forthwith hand-over the Engineer-in-charge such treasure or other articles which shall be the property of the Corporation.

#### 39.2 OCCUPATION OF ADDITIONAL LANDS:

- a. In cases when it becomes necessary for the fulfillment of the contract for the contractor to occupy land within and outside the NMC limit, the contractor shall have to make his own arrangement with the landowners and to pay fees if any as may be mutually agreed between them.
- b. The NMSCDCL will provide the contractor all responsible assistance to enable him to obtain land for such purpose.

#### 39.3 **SEVERABILITY**

It is stated that each paragraph, clause, sub-clause, schedule or annexure of this Contract shall be deemed severable and in the event of the unenforceability of any paragraph, clause sub-clause, schedule or the remaining part of the paragraph, clause, sub-clause, schedule annexure and rest of the Contract shall continue to be in full force and effect. If any provision contained in this Contract is or becomes ineffective or invalid or is held to be ineffective or invalid by a court or tribunal

Contractor

having final jurisdiction thereon, all other provisions of this Contract shall remain in full force and effect and the Parties shall mutually discuss and substitute for the said provision such valid and effective provisions having an economic effect as similar as possible to said provision. The failure of the Parties to enforce at any time any of the provisions of this Contract, or any rights in respect thereof, shall not in any way affect the validity of this Contract or the obligations or responsibilities of the Parties there under. The exercise by one Party of any of its rights hereunder shall not preclude or prejudice the other Party from exercising its rights under this Contract.

# 39.4 **VARIATION**

- a. The Contractor acknowledges and agree that NMSCDCL shall have the right to issue a Variation Order during the performance of this Contract to change the scope of work as stipulated under this Contract.
- b. Any Variation Order by NMSCDCL which has the effect of addition or deletion of a significant scope of work as stipulated under this Contract and which results whether on its own or cumulatively with any other Variation Order issued by NMSCDCL under this Contract in the past in an increase or a reduction of the Contract Price not exceeding 25 % (twenty five percent) shall be acceptable to the Contractor on terms and conditions as may be stipulated by NMSCDCL in such Variation Order.
- c. This Price Adjustment clause shall be included in works having time limit of more than 1 year according to the PWD, Government of Maharashtra, Govt. Circular No. Sankirn-2017/C.R.121/Part II/Bldg.2. Please refer to Appendix XIV for Price Variation clause.

# 39.5 **QUALIFIED PERSONNEL**

Fully qualified and experienced quality control Engineers shall be employed by the Contractor and shall be available on site at all times when important work is taking place. The operators and foreman in-charge shall be fully trained and experienced in their classes of work for undertaking any scope of work as set out in Appendix X.

# 39.6 RIGHT AND REMEDIES UNDER THE CONTRACT ONLY FOR THE PARTIES

This Contract is not intended and shall not be construed to confer on any person other than NMSCDCL and the Contractor hereto, any rights and/or remedies herein.

#### 39.7 APPLICABLE LAW AND JURISDICTION

The Contract shall be interpreted in accordance with the laws of India and courts at Nashik shall have the exclusive jurisdiction in relation to this Contract.

#### 39.8 **CHECK MEASUREMENTS**

- a. NMSCDCL reserves to itself the right to prescribe a scale of check measurement of Work in general or specific scale for specific works or by other special orders.
- b. Checking of measurement by the Engineer shall supersede measurements by subordinate officer(s), and the former will become the basis of the payment.
- c. Any over/ excess payments detected, as a result of such check measurement or otherwise at any stage during the Term, shall be recoverable from the Contractor.

#### 39.9 LANGUAGE

- a. All notices required to be given by one Party to the other Party and all other communications, documents, drawings, instructions, design data, calculations, operation, maintenance and safety manuals, reports, labels and any other data which are in any way relevant to this Contract shall be in writing and in the English language.
- b. Language of instructions or communication or documentation to be used for working out the tender shall be English only.

#### 39.10 **COMMUNICATIONS**

- a. Any notice or other document which may be given by either Party under this Contract shall be given in writing in person or by pre-paid recorded delivery post, email or by facsimile transmission. The notice sent by facsimile (fax) or other electronic means (email) shall also be effective on confirmation of the transmission. The notice sent by registered post or speed post or in person shall be effective on delivery of the notice.
- b. In relation to a notice given under this Contract, any such notice or other document shall be addressed to the other Party's principal or registered office address as set out below:

# Engineer Tel: [•] Fax: [•] Email: [•] Contact: [•] With a copy to NMSCDCL: {Insert Address} Tel: [•] Fax: [•] Email: [•] Contact: [•] Contractor

Contractor

{Insert Address}
Tel: [•]
Fax: [•]
Email: [•]
Contact: [•]

For the avoidance of doubt, either Party to this Contract may change its address, telephone number, facsimile number and nominated contact for notification purposes by giving the other reasonable prior written notice of the new information and its effective date.

#### 39.11 LINE OUT OF THE WORK

The Contractor shall provide free of charge all labour and material required and equipment as may be required for lining out, surveying, inspection decided by the Engineer as considered necessary for the proper and systematic execution of the Work.

#### 39.12 **SET-OFF**

Either Party may set-off or deduct any amount that has become due from the other Party to it, as per the terms of this Contract against any amount owed by such other Party to it, subject to compliance with Applicable Laws.

#### 39.13 NO PARTNERSHIP OR AGENCY

Nothing in this Contract shall constitute or be deemed to constitute any agency, partnership, joint venture, unincorporated association, co-operative entity or other joint relationship between the Owner and the Contractor for any purpose.

# 39.14 **COUNTERPARTS**

This Contract may be executed in one or more counterparts, each of which shall be deemed an original and all of which collectively shall be deemed one and the same instrument.

#### 39.15 **SOVEREIGN IMMUNITY**

The Contractor hereby unconditionally and irrevocably agree that the execution, delivery and performance by it of the Contract constitutes private and commercial acts and not public or governmental acts.

Contractor

# **SCHEDULE 1**

- a) Item wise rate and the consolidated price for work.
- b) Performance Security for work.
- b) Milestones

[to be finalized at the time of execution of contract]

Contractor

# **SCHEDULE 2**

Installation of pneumatically operated automated mechanical gates and related works at Nashik,

Maharashtra

{Insert map of the Site for Part B}

Contractor

#### APPENDIX XIV: PRICE VARIATION CLAUSE

# **Price Adjustment**

Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants excluding bitumen, cement and steel in accordance with the following principles and procedures and as per formula given in the contract data. The price variation clause to be included shall be read as follows: (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 and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the contractor. (b) The price adjustment shall be determined during each month from the formula given in the contract data. (c) Following expressions and meanings are assigned to the work done during each month:

R = Total value of work done during the month. It would include the amount of secured advance granted, if any, during the month, less the amount of secured advance recovered, if any during the month. It will exclude value for works executed under variations for which price adjustment will be worked separately based on the terms mutually agreed.

To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.

#### The formula (e) for adjustment of prices are:

R = Value of work

# Adjustment for labour component

- (i) Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula:
- (ii)  $VL = 0.85 \times P1/100 \times R \times (LI-Lo)/Lo$
- (iii) VL= increase or decrease in the cost of work during the month under consideration due to changes in rates for local labour.
- (iv) Lo= the consumer price index for industrial workers for the

State on 28 days preceding the date of opening of Bids as published by Labour Bureau, Ministry of Labour, Government of India.

(v) LI= The consumer price index for industrial workers for the

State for the under consideration as published by Labour

Bureau, Ministry of Labour, Government of India.

(vi) PI= Percentage of labour component of the work.

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Adjustment of POL (fuel and lubricant) component

(v) Price adjustment for increase or decrease in cost of POL (fuel and lubricant) shall be paid in accordance with the following formula:

 $Vf = 0.85 \times P/100 \times R \times (F, -F)/Fo$ 

Vf = Increase or decrease in the cost of work during the month under consideration due to changes in rates for fuel and lubricants. Fo = The official retail price of High Speed Diesel (HSD) at the existing consumer pumps of lac at nearest center on the day 28 days prior to the date of opening of Bids. F, = The official retail price of HSD at the existing consumer pumps of IOC at nearest center for the 15th day of month of the under consideration.

P, = Percentage of fuel and lubricants component of the work. Note:

For the application of this clause, the price of High Speed Diesel oil has been chosen to represent fuel and lubricants group.

# Adjustment of Other materials Component (Excluding bitumen, steel and cement)

Price adjustment for increase or decrease in cost of local materials other than cement, steel, bitumen and POL procured by the contractor shall be paid in accordance with the following formula:

Vm = 0.85 x Pm / 100 x R x (MI - M0) / M0

Vm= Increase or decrease in the cost of work during the month under consideration due to changes in rates for local materials other than cement, steel, bitumen and POL.

M,= The all India wholesale price index (all commodities) on 28 days preceding the date of opening of Bids, as published by the Ministry of Industrial Development, Government of India, New Delhi.

M, = The all India wholesale price index (all commodities) for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi.

Pm= Percentage of local material component (other than cement, steel, bitumen and POL of the work.

#### RATE FOR BASIC MATERIALS

The basic rate (star rate) for cement, steel & bitumen is given below. Any increase or decrease in these basic rates during operative period of contract, the difference in the rate and prevailing market rate will paid to or recovered from the contractor. For determining cement, steel, bitumen, rate difference, for quantity as per work done, contractor shall produce sufficient proof of purchased cement, steel, bitumen in the form of manufacture's authorized challan / gate pass, Excise challan mentioning quantity and grade of cement, steel, bitumen with date & time of delivery, GST paid receipts etc. or refineries' authentic challan. Contractor will have to produce authentic purchase voucher of manufacturing company, supporting voucher of manufacturer of the said brand & of same date will have to be produced of the same lot. The decision of Engineer - In charge in this regard will be final and binding about lowest market operative prices of cement, steel, or rates mentioned in refinery challan for bitumen.

Contractor

# (I) Formula for Bitumen component.

$$V1 = QB (B1 - Bo)$$

V1 = Amount of cost variation in rupees to be allowed for Bitumen components

QB = Quantity of Bitumen (Grade) in metric tonnes used in the works during the period under consideration for working out the cost difference.

B1 = Current ex-refinery price per metric tonne of Bitumen (Grade) under consideration including taxes (GST, excise, sales tax) during period under consideration for working out the cost difference.

Bo = Star rate (Basic rate) of Bitumen in rupees per metric tonne given below

Star rate (Basic rate) for Bitumen for this work is INR28040/- per M.T. 60/70 of bitumen.

# (II) Formula for Cement component.

Where

V2= Amount of cost variation in Rupees to be allowed for component.

Co = INR**4700/- per Tonne** (Basic rate of in rupees per metric ton as considered for working out value)

CI1 = Average cement index published in the RBI bulletin for the quarter under consideration.

CIo= Average cement index published in the RBI bulletin for the quarter preceding the month in which to the last date prescribed for receipt of tender, falls

T= Tonnage of cement used in the permanent works for the quarter under consideration.

# (III) Formula for T.M.T Steel (Other Plant) component.

Where

V3= Amount of cost variation in Rupees to be allowed for T.M.T. steel component.

So = INR 45785/- per Tonne for T.M.T. steel (Other) per metric as considered for working out value.

Contractor

SI1 = Average steel index as per RBI bulletin for the quarter under consideration.

SIo= Average of Steel index as per RBI bulletin for the quarter preceding the month in which to the last date prescribed for receipt of tender, falls

T= Tonnage of steel used in the permanent works for the quarter under consideration.

# The following condition shall prevail:

- i. The operative period of the contract shall mean the period commencing from the date of work order issued to the contractor and ending on the date on which the time allowed for the completion of the works specified in the contract for work expires, taking in to consideration the extension of time, if any, for completion of the work granted by Engineer-in-Chief under the relevant clause of the conditions of contract in cases other than those where such extension is necessitated on account of default of the contract. The decision of the Engineer-in-Chief as regards the operative period of the contract shall be final and binding on the contractor. Where any compensation for liquidated damages is levied on the contractor on account of delay in completion or inadequate progress under the relevant contract provisions, the price adjustment amount for the balance of work from the date of levy of such compensation shall be worked out by pegging the insides, L1, M1, C1, P1, B1, S1, and C1 to the levels corresponding to the date from which such compensation is levied.
- ii. The cost variation shall be determined during each quarter as per formula given above in this clause.
- iii. The cost variation under this clause shall not be payable for the extra items required to be executed during the completion of the work.
- iv. This clause is operative both ways, i.e. if the variation as calculated above is on the plus side, payment on account of the cost variation shall be allowed to the contractor and if it is on the negative side the NMC shall be entitled to recover the same from the contractor and the amount shall be deductible from any amounts due and payable to the contractor under any contracts..
- v. To the extent that full compensation for any rise or fall in costs to the contractor is not entirely covered by the provision of this or other clauses in the contract, the unit rate and prices included in the contract shall be deemed to include amounts to cover the contingency of such other actual rise or fall in costs.

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# **APPENDIX XV: DRAWINGS**

(Refer Clause 1.1.4 of the RFP)

Sr.	Part Name	Filename	Description
1	Gate	WTE_2303_01_GT_1.01	Plan and Section
2	Control Room	WTE_2303_01_GT_1.02	Plan , Elevation and SLD

Contractor

# APPENDIX XVI: Authorisation Format by Technology Partner to provide services based on the specifications.

[On Technology Partner's Letterhead]

To CEO Nashik Municipal Smart City Development Corporation Limited Panchvati, Nashik, Maharasthtra-XXX

Date: DD/MM/YYYY

Sub: Authorization of <<Name of the Bidder >> to provide services based on our product(s)

Ref: Selection of Installation of pneumatically operated automated mechanical gates atAhilya Bai Holkar Bridge (Victoria Bridge) across river Godavari in Nashik, Maharashtra (RFP No: Dated: //)

#### Dear Sir,

Having read, examined, and understood the RFP, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to product and services as required and outlined in the RFP. I agree for unconditional acceptance of all the terms and conditions set out in the RFP document.

I endorse the terms and conditions specified in the RFP, contracting and licensing terms provided by <Name of the Bidder> to NMSCDCL. I declare that the proposed products shall not become "end of life or end of sale" for next 4 years beginning from the date of installation/date of completion which ever is later. Also the support including spares, patches for the quoted products shall be available for next 4 years beginning from the date of installation date of completion which ever is later.

I endorse to provide direct technical support to the NMSCDCL for the contract period even in absence of the <Name of the Bidder> providing services to the NMSCDCL. The warranty shall be onsite replaceable warranty of the products that are listed below. I also certify that the below mentioned product being supplied by the <Name of the Bidder> meets the minimum specifications given in the RFP.

#	Name of Product (s)	Remarks (if any)
1		
2		

Date

Signature of Authorised representative

Name Of SI: Full Address: Telephone No:

Contractor

**Chief Executive Officer** 

Document No.: MAH-NAS--053-RFP

