



MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY

e-TENDER FOR


**DESIGN AND CONSTRUCTION OF SEWRI TO WORLI  
ELEVATED CONNECTOR (2<sup>nd</sup> Call)****VOLUME - I**MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY  
ENGINEERING DIVISIONMMRDA NEW OFFICE BUILDING, 2<sup>nd</sup> FLOOR,

BANDRA - KURLA COMPLEX,

BANDRA (EAST), MUMBAI - 400 051



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Chief Engineer,  
Engineering Division  
D.A.

**TENDER DOCUMENTS**

VOLUME	SECTION	DESCRIPTION
VOLUME - I		INVITATION FOR BIDS UNITS & ABBREVIATIONS
	SECTION-I	INSTRUCTIONS TO BIDDERS
	SECTION-II	BID DATA SHEET
	SECTION-III	QUALIFICATION CRITERIA
	SECTION-IV	BIDDING FORMS
	SECTION-V	GENERAL CONDITIONS
	SECTION-VI	PARTICULAR CONDITIONS
	SECTION-VII	EMPLOYER'S REQUIREMENTS
	SECTION-VIII	DOCUMENT /REPORTING REQUIREMENTS
	SECTION-IX	APPENDIX TO TENDER
SECTION-X	CONTRACT FORMS	
VOLUME - II	SECTION-XI	BILLING SCHEDULE & SCHEDULES OF VARIATIONS
VOLUME - III	SECTION-XII	TECHNICAL STANDARDS & SPECIFICATIONS
VOLUME-IV	SECTION-XIII	DRAWINGS



No MMRDA/ED/SWEC/TN1790/Work Order/ 0003 /2021

Engineering Division  
Date: 13 January 2021

To,  
**M/s. J. Kumar Infraprojects Ltd.**  
16-A, Andheri Industrial Estate,  
Veera Desai Road,  
Andheri (W) Mumbai-400053

**WORK ORDER**

**Sub.: Design and construction of Sewri Worli Elevated connector**

- Ref.:**
1. E-Tender No MMRDA/ENG-1/0001790 dated 03<sup>rd</sup> August 2019
  2. 145<sup>th</sup> Meeting of MCZMA held on 7<sup>th</sup> July 2020 for CRZ clearance
  3. 205<sup>th</sup> Meeting of SEIAA held on 8<sup>th</sup> September 2020 for CRZ clearance
  4. Letter of Acceptance letter No. MMRDA/ED/SWEC/TN1790/LOA/445/2020 dated 2<sup>nd</sup> November 2020 issued to you
  5. MMRDA Letter No. MMRDA/ED/SWEC/LOA/452/2020 24<sup>th</sup> November 2020.
  6. Your letter no. JKIL/MMRDA/TENDER/174/2020 dated 15<sup>th</sup> December 2020 submitting BG & further amendment vide letter JKIL/MMRDA/TENDER/002/2021 dated 5<sup>th</sup> January 2021
  7. Contract Agreement signed between M/s. J. Kumar Infraprojects Ltd & Mumbai Metropolitan Region Development Authority dated 13<sup>th</sup> January 2021.

Sir,

1. Pursuant to your submission of the requisite Bank Guarantee against Performance Security issued by Indian Bank, Large Corporate Branch, Mumbai bearing Bank Guarantee No0156120IPGO48003 dated 15.12.2020 amounting to Rs 31,55,59,500/- valid up to 11<sup>th</sup> January 2029, as per Clause 42 of Instruction to Bidders of the Bid document and signing of the Contract Agreement for the work of "**Design and construction of Sewri Worli Elevated Connector**" at your quoted price of Rs. 1051,86,39,690/- (i.e. Rs. One Thousand Fifty One Crore Eighty Six Lakh Thirty Nine Thousand Six Hundred & Ninety only) including GST, you are hereby requested to proceed with the execution of the said work in accordance with the Contract Agreement.
2. The date of starting of work shall be reckoned from the date of issue of this Notice to Proceed with the work. The time limit to complete this work is Thirty Six calendar months including monsoon. It is hereby requested to furnish the detailed programme of the work in the form of CPM/PERT and Environment Management Plan (EMP) pursuant to clause 27 of Contract data Section of the tender.



**Mumbai Metropolitan Region Development Authority**

Bandra-Kurla Complex, Bandra East, Mumbai 400 051

Tel: +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 1112 / 1264

<https://mmrda.maharashtra.gov.in>

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Chief Engineer,  
Engineering Division,  
M.M.R.D.A.

3. A copy of the CRZ clearance accorded to Sewri Worli Elevated Connector shall deem to be part of the Contract Agreement. The copy of the CRZ clearance is enclosed herewith.

Thanking you,

Yours faithfully

Encl.: CRZ clearance

  
(Dr. D.T. Thube) 13/11/2021  
Chief Engineer, MMRDA



RECEIVED

  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

No. MMRDA/ED/SWEC/TN-1790/LOA/ 445 /2020

Engineering Division  
Date: 02 November 2020

To,  
M/s. J. Kumar Infraprojects Ltd.  
16-A, Andheri Industrial Estate,  
Veera Desai Road,  
Andheri (W) Mumbai-400053

### Letter of Acceptance

**Sub.: Design and construction of Sewri-Worli elevated connector**

- Ref:**
1. MMRDA's e-tender notice No. MMRDA/ENG-1/0001790 published on 03.08.2019
  2. Your offer dated 15.10.2019
  3. Your Modified offer letter JKIL/MMRDA/TENDER/009/2020 dated 15.01.2020

Sir,

This is to notify you that, your Bid dated 15.10.2019 for **Design and construction of Sewri Worli elevated connector** containing lump-sum offer of Rs. 1057,00,00,000/- (Rupees. One Thousand Fifty Seven Crore Only) as negotiated to **Rs. 1051,86,39,690/- (Rupees One Thousand Fifty One Crore Eighty Six Lakh Thirty Nine Thousand Six Hundred Ninety Only)** submitted in accordance with the Instructions to Bidders vide letter referred at Sr. No. 3 above is hereby accepted by the Mumbai Metropolitan Region Development Authority.

You are hereby requested to furnish the Performance Security in the form detailed in clause 4.2 of GCC and as modified in PCC of Rs. 52,59,31,985/- (Rupees Fifty Two Crore Fifty Nine Lakh Thirty One Thousand Nine Hundred Eighty Five Only) valid up to 28 days from the date of expiry of Defects Liability Period in the form detailed in Para 42 of ITB within 28 days from the receipt of this Letter of Acceptance and sign the Contract, failing which action as stated in clause 42 of ITB will be taken.

Thanking you,

Yours faithfully,



(Dr. D.T. Thube)  
Chief Engineer, MMRDA

Mumbai Metropolitan Region Development Authority

Bandra-Kurla Complex, Bandra East, Mumbai 400 051  
T +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 1112 / 1264  
<https://mmrda.maharashtra.gov.in>

Chief Engineer,  
Engineering Division  
M.M.R.D.A.

Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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No. MMRDA/ED/SWEC/LOA/ 452 /2020

Engineering Division  
Date: 24 November 2020

To,  
**M/s. J. Kumar Infraprojects Ltd.**  
16-A, Andheri Industrial Estate,  
Veera Desai Road,  
Andheri (W) Mumbai-400053

**Sub.: Design and construction of Sewri-Worli elevated connector**

- Ref:**
1. MMRDA's e-tender notice No. MMRDA/ENG-1/0001790 published on 03.08.2019
  2. Your offer dated 15.10.2019
  3. Your Modified offer letter JKIL/MMRDA/TENDER/009/2020 dated 15.01.2020
  4. MMRDA Letter No. MMRDA/ED/SWEC/TN-1790/LOA/ 445 /2020 dated 02 November 2020

Sir,

MMRDA has issued the Letter of Acceptance dated 02 November 2020 for the work of **"Design and Construction of Sewri-Worli elevated connector"** to you for your lump-sum offer of Rs. 1057,00,00,000/- (Rupees. One Thousand Fifty Seven Crore Only) as negotiated to **Rs. 1051,86,39,690/- (Rupees One Thousand Fifty One Crore Eighty Six Lakh Thirty Nine Thousand Six Hundred Ninety Only).**

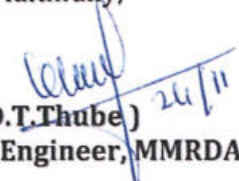
This is to inform you that the accepted offer of **Rs. 1051,86,39,690/- (Rupees One Thousand Fifty One Cr ore Eighty Six Lakh Thirty Nine Thousand Six Hundred Ninety Only)** shall be inclusive of the applicable Goods and Services Tax (GST).

This letter shall be read along with the Letter of Acceptance issued to you and shall form part of the Contract to be signed with you.

Thanking you,

Yours faithfully,



  
(Dr. D.T. Thube)  
Chief Engineer, MMRDA

**Mumbai Metropolitan Region Development Authority**

Bandra-Kurla Complex, Bandra East, Mumbai 400 051  
T +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 1112 / 1264  
<https://mmrda.maharashtra.gov.in>

  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.



M.M.R.D.A.  
Engineering Division  
Government of India

8 10000





महाराष्ट्र MAHARASHTRA

2020

BA 608194

प्रधान मुद्रांक कार्यालय, मुंबई  
प.मु.वि.क. ८००००९५  
15 DEC 2020  
सक्षम अधिकारी

**CONTRACT AGREEMENT**

**MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY**

THESE ARTICLES OF AGREEMENT made at Mumbai this 13<sup>th</sup> day of January Two Thousand Twenty One between the "Mumbai Metropolitan Region Development Authority" constituted and established under section 3 of the "Mumbai Metropolitan Region Development Act, 1974" and having its principal office on 2<sup>nd</sup> floor, New Administrative office building MMRDA, Plot Nos.C-14/15, Near Drive-in theatre, "E" Block, of BKC, Bandra (East), Mumbai – 400 051 hereinafter called "The Authority" (which expression shall unless the context does not admit, include its successor or successors and assign or assigns) of the one part and Shri Qamar Azam Choudhary Manager Contracts, Indian inhabitant and being Power of attorney holder of the public limited company carrying on business of Civil works in the name and style of **M/s J. Kumar Infraprojects Limited** and having their office at 16-A, Andheri Industrial Estate, Veera Desai Road, Andheri (W) Mumbai - 400 053, hereinafter called collectively "the Contractor" (which expression shall unless that context does not admit, included their respective heirs, administrators, executors and surviving partner or partners) of the other part.

Page 1 of 3

Chief Engineer,  
Engineering Division  
M.M.R.D.A.

ऑर्डर नं. 12-1 DEC 2020

# AGREEMENT

दस्ताचा प्रकार	ES/NO
दस्त नोंदणी क्रमांक	J.KUMAR INFRAPROJECTS LTD.
मिळवणीचा प्रकार	16-A, Andheri Industrial Estate,
गुहाचे पत्ता	Veera Desai Road, Andheri (W),
	Mumbai - 400058.
	M.M.R.O.A
	Ashok
	7
पारमाणात्मक क्र. 00000994	
सुधारण विभागाचे ठिकाण: अंधेरी पूर्व वल अलोशिएशन	
एन. एम. ऑफ. ऑफिस: अंधेरी पूर्व, अंधेरी (पूर्व), मुंबई - १.	
ज्या कायद्यात ही कायदा सुधारण करीत असतो त्याची प्रत आपल्याकडे	
सुधारण करीत असतो त्याची प्रत आपल्याकडे	

12-1 DEC 2020

12-1 DEC 2020

WHEREAS the Authority invited by its public advertisement MMRDA/ENG-1/0001790 dated 03.08.2019 published in News paper Times of India, Economics Times, Nav Bharat Times & Maharashtra Times dated 03/08/20219 & also published in E- tender portal of MMRDA (with their corrigendum's complete) for the execution of works referred to there in and more particularly described in the tender documents constituted in the Tender Notice, General Tender Notice, Instructions to the Tenders, General Conditions of contract, Specifications, Technical Report, Schedule of Quantities of work and other allied documents.

AND WHEREAS the contractor submitted their tender dated 15.10.2019 for a lump sum of Rs. 1057,00,00,000/- (Rupees One Thousand Fifty Seven Crore Only) as negotiated to **Rs. 1051,86,39,690/- (Rupees One Thousand Fifty One Crore Eighty Six Lakhs Thirty Nine Thousand Six Hundred Ninety Only)** and whereas in exercise of its power under clause-IV of Sub-section (2) Section 6 of the Mumbai Metropolitan Region Development Authority Act, 1974, as amended up to-date. The Executive Committee of the Authority approved of the said tender of the contractor being accepted subject to the following terms and conditions in the executive committee 265<sup>th</sup> meeting of the Executive Committee held on 30.04.2020 vide resolution no. 1389.

AND WHEREAS the parties hereto are desirous of recording the agreement so concluded between them which they do hereinafter.

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of the Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as a part of this Agreement, and the priority of the documents shall be as follows:
  1. The Contract Agreement
  2. Notice to proceed with works (Work-Order)
  3. The letter of Acceptance
  4. Correspondence post bid and letter of bid
  5. Addendum/ CSD issued by MMRDA
  6. Particular Conditions of contract
  7. Special Conditions of Contract
  8. The General Conditions of Contract
  9. Employer's Requirements
  10. Additional Technical Specifications
  11. Technical Specifications



Handwritten signature  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

WHEREAS the Authority invited by its public advertisement MMRDA/ENG-1/2007/199 dated 03.08.2019 published in News paper Times of India, Economic Times, New India Times & Maharashtra Times dated 03.08.2019 & also posted in E-tender portal of MMRDA (with their company's computer) for the execution of work related to them in and near particularly described in the tender documents contained in the Tender Notice, General Tender Notice, Instructions to the Tenderers, General Conditions of Contract, Specifications, Technical Report, Schedule of Quantities of work and other allied documents.

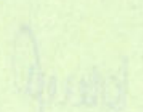
AND WHEREAS the contractor submitted their tender dated 14.08.2019 for a lump sum of Rs. 1057,00,000.00/- (Rupees One Thousand Fifty Seven Crore Only) as detailed in Rs. 1081,88,38,800/- (Rupees One Thousand Fifty One Crore Eighty Six Lakh Thirty Nine Thousand Six Hundred Ninety Only) and whereas it appears to exercise its power under clause IV of Sub-section (2) Section 9 of the Municipal Corporation Region Government Act, 1974, as amended up-to-date. The Executive Committee of the Authority approved the said tender of the contractor being accepted subject to the following terms and conditions in the resolution committee 357, meeting of the Executive Committee held on 05.04.2020 vide resolution no. 1389.

AND WHEREAS the parties hereto are desirous of recording the agreement so concluded between them which they do herewith.

1. In this Agreement, words and expressions shall have the same meaning as are respectively assigned to them in the Conditions of the Contract hereafter referred to.

2. The following documents shall be deemed to form and be read and construed as a part of this Agreement, and the priority of the documents shall be as follows:

1. The Contract Agreement
2. Notice to proceed with work (Work Order)
3. The letter of Acceptance
4. Correspondence post bid and pre bid
5. Advertisement issued by MMRDA
6. Particular Conditions of Contract
7. Special Conditions of Contract
8. The General Conditions of Contract
9. Employer's Requirements
10. Technical, Technical Specifications
11. Technical Specifications

  
Engineer  
Engineering Division  
M.M.R.D.A.

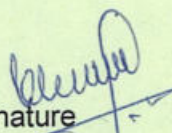


12. Employer's Drawings.
  13. Schedules and
  14. Other documents forming part of the Contract including contractor's technical proposal.
3. In consideration of the payments to be made by the Employer to the Contractor as herein after mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy and defects therein conformity in all respects with the provisions of the Contract.
  4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying of defects therein the Contract Price of such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed the day and year first before written:

SIGNED AND DELIVERED FOR AND ON )  
 BEHALF OF **MUMBAI METROPOLITAN** )  
**REGION DEVELOPMENT AUTHORITY** )

By Engineer pursuant to approval dated 30.04.2020)  
 of the 265 Executive Committee. )

  
 Signature  
 Designation  
**(Dr. D. T. Thube)**  
**Chief Engineer**

In the presence of:

(1) Shri Yatin Sakhalkar  
 Superintending Engineer

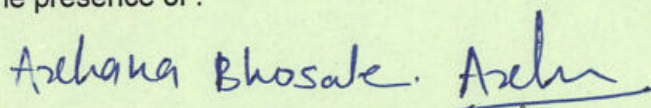
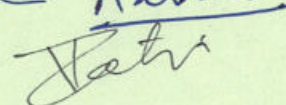


(2) Shri A R Bhisikar  
 Executive Engineer



SIGNED AND DELIVERED FOR AND ON )  
 BEHALF OF THE CONTRACTOR )  
**M/s. J. KUMAR INFRAPROJECTS LIMITED** )  
 pursuant to authority as per POA dated )  
 16.08.2017 )

In the presence of :

(1)  Arhana Bhosale  
 (2)  Vimal V Patel

For J. KUMAR INFRAPROJECTS LTD.  
  
  
 Authorized Signatory  
 Signature  
**(Qamar Azam Choudhary)**  
**Manager Contracts**

12. Employer's Drawings

13. Schedules and

14. Other documents forming part of the Contract including contractor's technical proposal.

4. In consideration of the payments to be made by the Employer to the Contractor as herein after mentioned, the Contractor hereby covenants with the Employer to execute and complete the Work and remedy and detect therein -contingent in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the work and the remedying of defects therein the Contract Price of such other sum as may become payable under the provisions of the Contract at the times and in the manner provided by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed this day and year first before written

SIGNED AND DELIVERED FOR AND ON

BEHALF OF MUMBAI METROPOLITAN

REGION DEVELOPMENT AUTHORITY

By Engineer authorized to sign (dated 20.04.2017)

of the 198 Executive Committee

*[Signature]*

Signature

Designation

(Or. D. T. Trust)

Chief Engineer

In the presence of

(1) Shri Yash Sankar

Supervising Engineer

*[Signature]*

(2) Shri A. Shinde

Executive Engineer

*[Signature]*

SIGNED AND DELIVERED FOR AND ON

BEHALF OF THE CONTRACTOR

Mrs. J. KUMAR INFRASTRUCTURE LIMITED

Contract to authority as per PWD dated

18.08.2017

In the presence of:

(1) Arshana Bhosale

(2) [Signature]



Signature

(Or. Arshana Bhosale)

Manager Contracts

महाराष्ट्र शासन  
GOVERNMENT OF MAHARASHTRA

ई-सुरक्षित बँक व कोषागार पावती  
e-SECURED BANK & TREASURY RECEIPT (e-SBTR)

Bank/Branch: PNB/PEDDAR ROAD (1274)  
Pmt Txn id : 060321M135431  
Pmt DtTime : 06-03-2021@10:51:32  
ChallanIdNo: 03006172021022650487  
District : 7101/MUMBAI

Stationery No: 16265754109570  
Print DtTime: 06-03-2021@13:20:21  
GRAS GRN : MH012749125202021S  
Office Name : IGR186/BDR1\_JT SUB REGIST

StDuty Schm: 0030045501-75/Sale of Other NonJudicial Stamps SoS  
StDuty Amt : R 25,00,000/- (Rs Two Five, Zero Zero, Zero Zero Zero only)

RgnFee Schm:  
RgnFee Amt :

Article : 63/Work Contract

Prop Mvblty: Immovable

Consideration: R 25,00,000/-

Prop Descr : STAMP DUTY FOR, CONTRACT, AGREEMENT FOR, SEWRI WORLIPROJECT, MMRDAMaha  
rashtra

Duty Payer: (PAN-AAACJ9161C) J KUMAR INFRAPROJECTS LTD

Other Party: (TAN-MUMM16747B) MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY

Bank official1 Name & Signature



Bank official2 Name & Signature

--- --- Space for customer/office use --- --- Please write below this line --- ---





Minutes of the 145<sup>th</sup> meeting of the Maharashtra Coastal Zone Management Authority (MCZMA) held on 07 July, 2020

**Item No. 6:** Proposed construction of elevated connector from Sewri to Worli (East - West Corridor) for Mumbai Trans Harbour Link (MTHL) Dispersal by MMRDA

The officials of MMRDA presented the matter before the Authority. The Authority noted the proposal for construction of elevated connector from Sewri to Worli (East - West Corridor) for Mumbai Trans Harbour Link (MTHL) Dispersal.

The proposal was earlier considered in 87<sup>th</sup>, 92<sup>nd</sup>, 103<sup>rd</sup> & 140<sup>th</sup> meeting of MCZMA held on 20<sup>th</sup> to 21<sup>st</sup> January 2014, 19<sup>th</sup> July, 2014, 20<sup>th</sup> August, 2015 and 26<sup>th</sup> November, 2019 respectively. In the 140<sup>th</sup> meeting, the Authority directed MMRDA to submit the public consultation for residents of Worli sea face area, as requested by the MCZMA.

The PP presented that, Elevated viaduct having 2 + 2 lanes and having length of 4.5 km (excluding ramps) is proposed. Alignment connects Sewri Interchange of MTHL at east side of Sewri Railway Station to Narayan Hardikar Road leading to Worli Sea Face providing direct connectivity of MTHL to the Bandra-Worli Sea Link. Project alignment crosses over Eastern Freeway, Proposed CSTM-Panvel Elevated Corridor, Monorail on Acharya Donde Road and Flyovers at Dr. Babasaheb Ambedkar Road and Senapati Bapat Road. Includes construction of 2 ROB's at Sewri and Elphinston Road (Prabhadevi) Railway station. It provides connectivity to MTHL, Rafi Ahmed Kidwai Marg, Acharya Donde Marg and Narayan Hardikar Marg for to and fro movement of traffic. Small lengths at Sewri side & Worli sides of the project fall under the Coastal Regulation Zone-II.

Out of length of 4.5 km of alignment, 265.5 m at Sewri Side and 183.124 m at Worli Side falls in CRZ-II area. Ramp at Sewri side of 588.225 m also falls in CRZ-II area as per approved CZMP of Greater Mumbai of 2011.


The PP presented that, MMRDA has explored the feasibility of providing alternatives/additional ramps along the link. MMRDA has carried out the ambient air quality studies along the project alignment.

  
Member Secretary



Page 25 of 47

  
Chairman

  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

M.A.R.D.A.  
Engineering Division  
Civil Engineer,



**Minutes of the 145<sup>th</sup> meeting of the Maharashtra Coastal Zone Management Authority (MCZMA) held on 07 July, 2020**

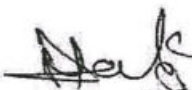
The PP further presented that, public consultation conducted on 7<sup>th</sup> Jan, 2020 and was attended by around 26 participants. There are comments from CAT, BEAG, Zoru Bathena and Rohit Katre. MMRDA presented that they provided answers to queries raised during public consultation.

The Authority also noted representation dated 10.2.2020 received from Mr. Mahesh Saran, which mainly states about the engineering aspects of the issue which is beyond the scope of CRZ Authority.

The Authority noted that, the part of the project falls in CRZ-II area. The Authority further noted that as per amended CRZ Notification dated 28<sup>th</sup> November, 2014 published by MoEF, For the projects specified under 4(i) (except with respect to item (d) thereof relating to building projects with less than 20,000 sqm of built up area) and for the projects not attracting EIA Notification, 2006, clearance from SEIAA is required based on the recommendation from MCZMA



The Authority after deliberation decided to recommend the proposal from CRZ point of view to SEIAA subject to following conditions:

1. The proposed construction should be carried out strictly as per the provisions of CRZ Notification, 2011 (as amended from time to time) and guidelines/ clarifications given by MoEF from time to time.
1. This CRZ recommendation for elevated connector from Sewri to Worli (East - West Corridor) in CRZ II portion for MTHL only. No construction is allowed in CRZ I area.
2. During construction phase of the project, construction debris should not be dumped in the creeklet and mangroves.
3. Mitigation measures proposed in the EIA report should be implemented in order to lessen the adverse impact of the project on surrounding environment.
4. All other required permission from different statutory authorities should be obtained.

  
Member Secretary



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Chairman  
  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

Chief Engineer  
Engineering Division  
M.M.R.D.A.

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**Minutes of  
205<sup>th</sup> meeting of  
State Environment Impact Assessment Authority  
(SEIAA)  
held on  
08.09.2020  
Via  
Video Conferencing**



  
Member Secretary

1

  
Chairman

  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

M.M.R.D.A.  
Engineering Division  
Chief Engineer.

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**Item no.31**

Proposal No.:-NA

**Type of Project:** CRZ Clearance

**Subject-** Construction of elevated connector from Sewri to Worli (East – West Corridor) for Mumbai Trans Harbour Link (MTHL) Dispersal by MMRDA

**Project Details-**

The brief information of the project is as below-

**MCZMA Deliberation –**

The officials of MMRDA presented the matter before the Authority. The Authority noted the proposal for construction of elevated connector from Sewri to Worli (East – West Corridor) for Mumbai Trans Harbour Link (MTHL) Dispersal.


The proposal was earlier considered in 87th, 92nd, 103rd & 140th meeting of MCZMA held on 20th to 21st January 2014, 19th July, 2014, 20th August, 2015 and 26th November, 2019 respectively. In the 140th meeting, the Authority directed MMRDA to submit the public consultation for residents of Worli sea face area, as requested by the MCZMA.

The PP presented that, Elevated viaduct having 2 + 2 lanes and having length of 4.5 km (excluding ramps) is proposed. Alignment connects Sewri Interchange of MTHL at east side of Sewri Railway Station to Narayan Hardikar Road leading to Worli Sea Face providing direct connectivity of MTHL to the Bandra-Worli Sea Link. Project alignment crosses over Eastern Freeway, Proposed CSTM–Panvel Elevated Corridor, Monorail on Acharya Donde Road and Flyovers at Dr. Babasaheb Ambedkar Road and Senapati Bapat Road. Includes construction of 2 ROBs at Sewri and Elphinston Road (Prabhadevi) Railway station. It provides connectivity to MTHL, Rafi Ahmed Kidwai Marg, Acharya Donde Marg and Narayan Hardikar Marg for to and fro movement of traffic. Small lengths at Sewri side & Worli sides of the project fall under the Coastal Regulation Zone-II.

Out of length of 4.5 km of alignment, 265.5 m at Sewri Side and 183.124 m at Worli Side falls in CRZ-II area. Ramp at Sewri side of 588.225 m also falls in CRZ-II area as per approved CZMP of Greater Mumbai of 2011.

The PP presented that, MMRDA has explored the feasibility of providing alternatives/additional ramps along the link. MMRDA has carried out the ambient air quality studies along the project alignment.


The PP further presented that, public consultation conducted on 7th Jan, 2020 and was attended by around 26 participants. There are comments from CAT, BEAG, Zoru Bathena and Rohit Katre. MMRDA presented that they provided answers to queries raised during public consultation.

  
Member Secretary

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Chairman



  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

Chief Engineer,  
Engineering Division  
M.A.R.D.A.

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The Authority also noted representation dated 10.2.2020 received from Mr. Mahesh Saran, which mainly states about the engineering aspects of the issue which is beyond the scope of CRZ Authority.

The Authority noted that, the part of the project falls in CRZ-II area. The Authority further noted that as per amended CRZ Notification dated 28th November, 2014 published by MoEF, For the projects specified under 4(i) (except with respect to item (d) thereof relating to building projects with less than 20,000 sqm of built up area) and for the projects not attracting EIA Notification, 2006, clearance from SEIAA is required based on the recommendation from MCZMA

**Recommendations of MCZMA-**

The Authority after deliberation decided to recommend the proposal from CRZ point of view to SEIAA subject to following conditions:

1. The proposed construction should be carried out strictly as per the provisions of CRZ Notification, 2011 (as amended from time to time) and guidelines/clarifications given by MoEF from time to time.
2. This CRZ recommendation for elevated connector from Sewri to Worli (East – West Corridor) in CRZ II portion for MTHL only. No construction is allowed in CRZ I area.
3. During construction phase of the project, construction debris should not be dumped in the creeklet and mangroves.
4. Mitigation measures proposed in the EIA report should be implemented in order to lessen the adverse impact of the project on surrounding environment.
5. All other required permission from different statutory authorities should be obtained.

**Deliberation in SEIAA-**

Proposal is for CRZ Clearance for construction of elevated connector from Sewri to Worli (East – West Corridor) for Mumbai Trans Harbour Link (MTHL) Dispersal.

Proposal was considered by MCZMA in its 145<sup>th</sup> meeting and referred to SEIAA from CRZ point of view.

SEIAA after deliberation decided to grant CRZ clearance.

**SEIAA Decision-**

SEIAA after deliberation decided to grant CRZ clearance subject to following conditions-

  
Member Secretary



124

  
Chairman

  
Chief Engineer;  
Engineering Division  
M.M.R.D.A.

M.M.R.D.A.  
Engineering Division  
Chief Engineer

26




1. The proposed construction should be carried out strictly as per the provisions of CRZ Notification, 2011 (as amended from time to time) and guidelines/ clarifications given by MoEF from time to time.
2. This CRZ recommendation for elevated connector from Sewri to Worli (East – West Corridor) in CRZ II portion for MTHL only. No construction is allowed in CRZ I area.
3. During construction phase of the project, construction debris should not be dumped in the creeklet and mangroves.
4. Mitigation measures proposed in the EIA report should be implemented in order to lessen the adverse impact of the project on surrounding environment.
5. All other required permission from different statutory authorities should be obtained.
6. This is CRZ Clearance only.

  
Member Secretary



125

  
Chairman

  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

08092020 27

Chief Engineer,  
Engineering Division,  
M. S. R. D. A.

28



No. MMRDA/ED/SWEC/J.Kumar/PS/457 /2020

Engineering Division  
Date: 15<sup>th</sup> December 2020

To,  
**M/s. J. Kumar Infraprojects Ltd.**  
16-A, Andheri Industrial Estate,  
Veera Desai Road,  
Andheri (W) Mumbai-400053

**Sub: Design and Construction of Sewri to Worli Elevated connector**

- Regarding reduction in Performance Security as per the OM issued by Ministry of Finance, GoI dated 12.11.2020 & extension in submission of Performance Security

- Ref**
1. Letter of Acceptance letter no MMRDA/ED/SWEC/TN-1790/LOA/445/2020 dated 2<sup>nd</sup> November 2020 and 24<sup>th</sup> November 2020.
  2. Office Memorandum no.F.9/4/2020-PPD dated 12.11.2020 by Govt. of India, Ministry of Finance, Department of Expenditure, Procurement Policy Division.
  3. Your letter no. JKIL/SWEC/TENDER/152/2020 dated 20<sup>th</sup> November 2020
  4. Your letter no. JKIL/SWEC/TENDER/166/2020 dated 25<sup>th</sup> November 2020

Sir,

1. MMRDA vide letter referred at Sr.No.1 has issued Letter of Acceptance to you for your lump sum offer amounting to Rs 1051,86,39,690/- including GST & requested to submit the performance security @ 5% of accepted contract cost i.e. amounting to Rs. 52,59,31,985/-.
2. As per your request received vide letter referred at Sr.No. 3 & 4 above & the Office Memorandum issued by Govt. of India, Ministry of Finance, dated 12.11.2020 referred above, your request to reduce the performance security from 5 % to 3% is hereby accepted by Competent Authority of MMRDA. Also, extension of submission of performance security up to 21<sup>st</sup> December 2020 is also hereby accepted.
3. In view of above, it is requested to furnish the Performance Security in the form detailed in Para 42 of ITB amounting to Rs. 31,55,59,191/- (Rs. Thirty One Crore Fifty Five Lakh Fifty Nine Thousand One Hundred Ninety One Only) up to 21<sup>st</sup> December 2020.

Thanking you,

Yours faithfully,


  
(Dr. D.T. Thube)  
Chief Engineer, MMRDA

**Mumbai Metropolitan Region Development Authority**

Bandra-Kurla Complex, Bandra East, Mumbai 400 051

T +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 1112

<https://mmrda.maharashtra.gov.in>

  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.



Chief Engineer  
Engineering Division  
M.M.R.D.A.

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ALLA0211561

2ND FLOOR, ALLAHABAD BANK BLDG.37, MUMBAI  
SAMACHAR MARG, FORT, MUMBAI-40023,

Network Acknowledgement Report

Delivery		
Network :	SFMS	
Session Holder :		
Session :		
Sequence :		
Delivery Status :	Network Ack	
ACK Date (dd/mm/yy) :	05/01/21	
ACK Time (hh:mm) :	17:27	
MESSAGE HEADER		
Swift Input :	FIN 767COV Guarantee: Amendment	
Sender Bank :	ALLA0211561 2ND FLOOR, ALLAHABAD BANK BLDG.37, MUMBAI SAMACHAR MARG, FORT, MUMBAI-40023,	
RECEIVER BANK :	MAHB0000164 MHADA BUILDING, OPP KALANAGAR, BANDRA EAST, MUMBAI - 400051.	
MESSAGE TEXT		
7020-- Transaction reference Number (Issuing Bank Guarantee Amendment Number)	Transaction Reference Number	0156120IPG048003
7021-- Related Reference (Original Bank Gurantee Number)	Related Reference (Original Bank Gurantee Number)	0156120IPG048003
7055-- Further Identification	Further Identification	NONE
7056-- Amendment Date	Amendment Date (YYYYMMDD)	20210105
7057-- Number of Amendment	Number of Amendment	1
7058-- Date of Issue or Request to Issue	Date of Issue or Request to Issue (YYYYMMDD)	20201215
7059-- Amendment Details	Amendment Details	AMENDED ON 05.01.2021 UP TO EXPIRY 11.01.2029 WITH CLAIM PERIOD 11.01.2030 AND AMEND NOTWITHSTANDING
7031-- Issuing Branch IFSC	Issuing Branch IFSC	<b>BIC CODE: ALLA0211561</b>
7032-- Issuing branch name and address	Issuing branch name and address	ALLAHABAD BANK LCB MUMBAI
7033-- Name of applicant and his details	Name of applicant and his details	M/s. J KUMAR INFRAPROJECTS LTD 16-A, ANDHERI INDUSTRIAL ESTATE, VEERA DESAI ROAD, ANDHERI WEST MUMBAI
7034-- Name of Beneficiary and his details	Name of Beneficiary and his details	MMRDA Bandra Kurla Complex, BandraE Mumbai 400051
7035-- Beneficiary IFSC	Beneficiary IFSC	<b>BIC CODE: MAHB0000164</b>

<http://10.3.25.51:8080/XMM/WEB/AckNakReport.jsp?Transno=174364&MsgType=767> 05/01/2021



Chief Engineer,  
 Engineering Division  
 M.M.R.D.A

Chief Engineer,  
Engineering Division  
M.M.B.D.A.

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7036-- Beneficiary branch name and address	Beneficiary branch name and address	BANDRA EAST BR MHADA BLDG, KALANAGAR, BANDRA E, MU MBAI 400 051
--	-------------------------------------	--



*[Handwritten Signature]*  
**Chief Engineer;**  
**Engineering Division**  
**M.M.R.D.A.**

M.A.R.D.A.  
Engineering Division  
Chief Engineer



# J. Kumar Infraprojects Ltd.

We dream ... So we achieve...

Regd. Off.: 16-A, Andheri Industrial Estate, Veera Desai Road, Andheri (W), Mumbai - 400053. INDIA  
Ph.: +91-22-6774 3555. Fax+91-22-2673 0814. E-mail : info@jkumar.com Website : www.jkumar.com  
CIN No. : L74210MH1999PLC122886



**J. Kumar**

ISO 9001:2015  
ISO 14001:2015  
OHSAS 18001:2007

Ref: JKIL/MMRDA/TENDER/009/ 2020

15<sup>th</sup> Jan, 2020

To,  
**The Chief Engineer,  
Engineering Division - MMRDA,  
MMRDA New Building,  
2<sup>nd</sup> floor, BKC, Bandra (E)  
Mumbai 400 051**

**Sub: Design & Construction of Sewri to Worli Elevated Connector (2<sup>nd</sup> Call).**

- Ref:** (i) Your Letter No. MMRDA/ED/SWEC/Justification/282/11-2019 dated 07.11.2019  
(ii) Our Letter No. JKIL/MMRDA/Tender/148/2019 dated 11.11.2019.  
(iii) Our Letter No. JKIL/MMRDA/Tender/153/2019 dated 26.11.2019  
(iv) Your Letter No. TN1790/SWEC/clarifications/307/01/2020 dated 03.01.2020  
(v) Our Letter No. JKIL/MMRDA/TENDER/002/ 2020 dated 07.01.2020  
(vi) 6<sup>th</sup> meeting of Tender committee held on 13.01.2020  
(vii) Your Letter No. TN1790/SWEC/rebate/308/01/2020 dated 14.01.2020

Dear Sir,

This has reference to the letters mentioned above and the tender committee meeting held on 13.01.2020 in the office of MMRDA. We are also in receipt of the letter referred above at sr. no (vii) in which MMRDA has requested us to reduce further our revised lumpsum offer submitted vide letter referred above at sr no (v).

In this regards, it is to inform you that the rebate amounting to Rs 5,13,60,310/- (Rupees Five Crores Thirteen Lakhs Sixty Thousand Three Hundred and Ten Only) submitted vide letter referred above at sr. no (v) is final and we are not in a position to reduce our offer further.

It is therefore requested you to please accept our revised lumpsum offer of Rs. 1051,86,39,690/- (Rupees One Thousand Fifty One Crores Eighty Six Lakhs Thirty Nine Thousand Six Hundred and Ninety Only) submitted vide letter referred above at sr. no (v) and issue us the Letter of Acceptance at the earliest please.

We look forward for acceptance of above offer.

Thanking you and assuring you our best services always.

Yours faithfully,

For **J. Kumar Infraprojects Limited**

**Qamar Choudhary**  
Manager Contracts



**Chief Engineer,  
Engineering Division  
M.M.R.D.A.**



Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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# J. Kumar Infraprojects Ltd.

We dream ... So we achieve...

Regd. Off.: 16-A, Andheri Industrial Estate, Veera Desai Road, Andheri (W), Mumbai - 400053. INDIA  
Ph.: +91-22-6774 3555. Fax+91-22-2673 0814. E-mail : info@jkumar.com Website : www.jkumar.com  
CIN No. : L74210MH1999PLC122886



**J. Kumar**

ISO 9001:2015  
ISO 14001:2015  
OHSAS 18001:2007

Ref: JKIL/MMRDA/TENDER/002/ 2020

07<sup>th</sup> Jan, 2020

To,  
**The Chief Engineer,  
Engineering Division - MMRDA,**  
MMRDA New Building,  
2<sup>nd</sup> floor, BKC, Bandra (E)  
Mumbai 400 051

**Sub: Design & Construction of Sewri to Worli Elevated Connector (2<sup>nd</sup> Call).**

Ref: (i) Your Letter No. MMRDA/ED/SWEC/Justification/282/11-2019 dated 07.11.2019  
(ii) Our Letter No. JKIL/MMRDA/Tender/148/2019 dated 11.11.2019.  
(iii) Our Letter No. JKIL/MMRDA/Tender/153/2019 dated 26.11.2019  
(iv) Tender Committee Meeting held in MMRDA office dated 06.01.2020

Dear Sir,

This has reference to the letters mentioned above and the tender committee meeting held in the chamber of Additional Metropolitan Commissioner MMRDA on 06.01.2020 for the above cited subject.

In view of the points discussed in the above tender committee meeting and as directed by the Additional Metropolitan Commissioner MMRDA and Chairman of tender committee meeting, we have reviewed our quoted lumpsum offer of Rs. 1057,00,00,000/- i.e 20.31% above the estimated cost put to tender. Considering the utilization of our existing manpower, plant and machineries and other available resources, we hereby offer a rebate of Rs. 5,13,60,310/- (Rupees Five Crores Thirteen Lakhs Sixty Thousand Three Hundred and Ten Only) on our quoted price of Rs. 1057,00,00,000/- (Rupees One Thousand Fifty Seven Crores Only). Thus our revised offer is Rs. 1051,86,39,690/- (Rupees One Thousand Fifty One Crores Eighty Six Lakhs Thirty Nine Thousand Six Hundred and Ninety Only).

We look forward for acceptance of above offer.

Thanking you and assuring you our best services always.

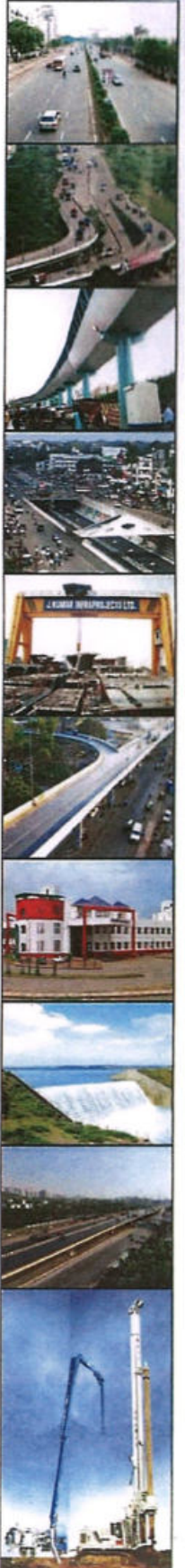
Yours faithfully,  
For **J. Kumar Infraprojects Limited**

**Qamar Choudhary**  
Manager Contracts



  
**Chief Engineer,**  
**Engineering Division**  
**M.M.R.D.A.**

37



Chief Engineer,  
Highways Division,  
M.A.R.D.A.

38



No/ TN 1790/SWEC/clarifications/307/01/2020

Engineering Division  
Date: 03/01/2020

To,  
M/s. J.Kumar Infraprojects Ltd.  
16-A, Andheri Industrial Estate,  
Veera Desai Road,  
Andheri (W) Mumbai-400053

**Sub :- Design and construction of Sewri Worli Elevated connector (second call)**  
- Calling bidder for Tender Committee meeting

**Ref :** 1. Tender No : MMRDA/ENG-1/0001790 published 03.08.2019  
2. Your Bid submission on date 15.10.2019  
3. MMRDA letter No MMRDA/ED/SWEC/justification/282/11-2019 dtd 7<sup>th</sup> November 2019  
4. Letter from you No JKIL/MMRDA/tender 148/2019 dtd 11<sup>th</sup> November 2019.  
5. Letter from you No JKIL/MMRDA/tender /153/2019 dtd 26<sup>th</sup> November 2019


Sir

1. Mumbai Metropolitan Region Development Authority is in receipt of your bid for the subject work on 15<sup>th</sup> October 2019
2. The Envelop "c" containing the financial bid was opened on 6<sup>th</sup> November 2019. As per this, Your financial offer amounting to Rs 1057 Cr ( Including GST ) is lowest offer against cost put tender Rs 878.53 Cr which is 20.31% above the cost put to tender.
3. MMRDA vide letter under reference at Sr No 3 requested you to submit justification along with detail price analysis for quoted financial offer .
4. You have submitted detailed calculations and clarifications to justify your quoted offer vide their letter under reference at Sr No 4 & 5 referred above.
5. In this regard, Tender Committee Meeting is scheduled on 6<sup>th</sup> January 2019 at 3.00 PM in the Chamber of Additional Metropolitan Commissioner to discuss the clarifications towards quoted price amounting to Rs 1057 Cr ( Including GST ).

It is requested to kindly make it convenient to attend the above meeting.

Thanking you,

Yours Faithfully

  
(Dr. D. T. Thube)  
Chief Engineer  
MMRDA

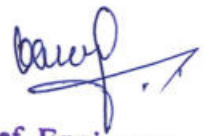


Mumbai Metropolitan Region Development Authority

Bandra-Kurla Complex, Bandra East, Mumbai 400 051

T +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 112 / 1264

<https://mmrda.maharashtra.gov.in>

  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

Chief Engineer  
Engineering Division  
M.M.R.D.A.





# **VOLUME-01**





एमएमआरडीए  
MMRDA

**MUMBAI METROPOLITAN REGION  
DEVELOPMENT AUTHORITY**

(A Govt. of Maharashtra Undertaking)

2<sup>nd</sup> Floor, Engineering Bandra-Kurla Complex, Bandra (East), Mumbai - 400 051.

Tel: 022-26594000 Fax : 022-26594179 Website: <https://mmrda.maharashtra.gov.in>

**e- TENDER NOTICE (2<sup>nd</sup> Call)**

Mumbai Metropolitan Region Development Authority (MMRDA) invites bids from eligible Bidders through E-Tendering as details are below:

Sr. No.	Parameters	Details	
1.	Division	Engineering	
2.	Name of Tender/Bid	Design and Construction of Sewri-Worli Elevated Connector	
3.	Estimated Cost put to Tender	Rs. 864.37 Crore (Including GST)	
4.	Contact Details	Executive Engineer, MMRDA. Tel: 022-26594076 Fax: 022-26594179 Email : <a href="mailto:chlefengineer1@mailmmrda.maharashtra.gov.in">chlefengineer1@mailmmrda.maharashtra.gov.in</a>	
5.	Important dates	From date/time	To date/time
	Bid document download	05/08/2019 (17.00 hrs)	27/08/2019 (17.00 hrs)
	Pre-bid meeting	Date : 13/08/2019 at 15.00 hrs. Meeting Room , 4 <sup>th</sup> floor, MMRDA New Office Building, BKC, Mumbai- 400051	
6	Last date of bid submission	28/08/2019 (up to 10.00 hrs)	

The Bid documents and Corrigendum can be downloaded from <https://etendermmrda.maharashtra.gov.in>. Any additional information & help for uploading & downloading the e-tender, may be availed by contacting MMRDA's e-tendering service desk at the following id : [etendersupport@mailmmrda.maharashtra.gov.in](mailto:etendersupport@mailmmrda.maharashtra.gov.in) or call on 022 - 2659 7445

No: ED/SWEC //E-Tender Notice/2<sup>nd</sup> call /08-2019

Date : 03/08/2019

Place : Mumbai

Sd/-  
Chief Engineer

Fulrani




*[Signature]*  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

M.M.R.D.A.  
Engineering Division  
Chief Engineer




# महाराष्ट्र टाईम्स, मुंबई शनिवार, ३ ऑगस्ट २०१९

 <b>एम एम आर डी ए</b> <b>MMRDA</b>		<b>मुंबई महानगर प्रदेश विकास प्राधिकरण</b> (महाराष्ट्र शासन अंगिकृत)	
२ रा मजला, अभियांत्रिकी विभाग, प्लॉट क्र. आर-५, आर-६, आर-१२, वांद्रे-कुर्ला संकुल, वांद्रे (पूर्व), मुंबई - ४०० ०५१. दूरध्वनी : ०२२-२६५९४००० फॅक्स : ०२२-२६५९४१७९ वेबसाईट : <a href="https://mmrda.maharashtra.gov.in">https://mmrda.maharashtra.gov.in</a>			
<b>ई-निविदा सूचना (द्वितीय मागणी)</b>			
मुंबई महानगर प्रदेश विकास प्राधिकरण, पात्र निविदाकारांकडून पुढील प्रमाणे ई-निविदा मागवित आहे.			
अनु.क्र.	घटक	माहिती	
१	कक्ष	अभियांत्रिकी विभाग	
२	निविदेचे शिर्षक	शिबडी-वरळी या उन्नतमार्गाचे संकल्पचित्र व बांधकाम करणे.	
३	अंदाजित रक्कम	रु. ८६४.३७ कोटी (वस्तु व सेवाकरासह)	
४	संपर्कासाठी माहिती	कार्यकारी अभियंता, अभियांत्रिकी विभाग, मुं.म.प्र.वि.प्रा. दूरध्वनी : ०२२-२६५९४०७६ फॅक्स : ०२२-२६५९४१७९ ई-मेल : <a href="mailto:chiefengineer1@mailmmrda.maharashtra.gov.in">chiefengineer1@mailmmrda.maharashtra.gov.in</a>	
५	महत्वाचे दिनांक	तारीख / वेळापत्र	तारीख / वेळापत्र
	निविदा प्रस्ताव डाउनलोड कालावधी	०५/०८/२०१९ (१७.००)	२७/०८/२०१९ (१७.००)
	निविदा पूर्व बैठक	दि. १३/०८/२०१९ दुपारी १५.०० वा. (समिती कक्ष ४ था मजला, मुं.म.प्र.वि. प्राधिकरणाच्या वांद्रे येथील नवीन कार्यालय, वांद्रे-कुर्ला कॉम्प्लेक्स, मुंबई - ४०० ०५१.)	
६	निविदा स्विकारण्याचा सुरुवातीचा व शेवटचा दिनांक	२८/०८/२०१९ (१०.०० वाजेपर्यंत)	
ई-निविदा प्रपत्रे ई-टेंडर पोर्टल <a href="https://etendermmrda.maharashtra.gov.in">https://etendermmrda.maharashtra.gov.in</a> या संकेतस्थळावरून डाउनलोड करता येईल. ई-निविदे संबंधित सविस्तर माहिती आणि मदतीसाठी <a href="https://www.etendersupport@mailmmrda.maharashtra.gov.in">https://www.etendersupport@mailmmrda.maharashtra.gov.in</a> या ई-मेल किंवा दूरध्वनी क्र. ०२२-२६५९४०४५ शी संपर्क साधावा.			
जा.क्र. अवि/शिबडी ते वरळी/ई-निविदा द्वितीय सूचना/०८-२०१९ दिनांक : ०३/०८/२०१९ स्थळ : मुंबई		सही/- मुख्य अभियंता	

The Economic Times, Mumbai, Saturday, 3 August 2019

 <b>एम एम आर डी ए</b> <b>MMRDA</b>		<b>MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY</b> (A Govt. of Maharashtra Undertaking)	
2 <sup>nd</sup> Floor, Engineering Bandra-Kurla Complex, Bandra (East), Mumbai - 400 051. Tel: 022-26594000 Fax : 022-26594179 Website: <a href="https://mmrda.maharashtra.gov.in">https://mmrda.maharashtra.gov.in</a>			
<b>e-TENDER NOTICE (2<sup>nd</sup> Call)</b>			
Mumbai Metropolitan Region Development Authority (MMRDA) invites bids from eligible Bidders through E-Tendering as details are below:			
Sr. No.	Parameters	Details	
1.	Division	Engineering	
2.	Name of Tender/Bid	Design and Construction of Sewri-Worli Elevated Connector	
3.	Estimated Cost put to Tender	Rs. 864.37 Crore (Including GST)	
4.	Contact Details	Executive Engineer, MMRDA Tel: 022-26594076 Fax: 022-26594179 Email : <a href="mailto:chiefengineer1@mailmmrda.maharashtra.gov.in">chiefengineer1@mailmmrda.maharashtra.gov.in</a>	
5.	Important dates	From date/time	To date/time
	Bid document download	05/08/2019 (17.00 hrs)	27/08/2019 (17.00 hrs)
	Pre-bid meeting	Date : 13/08/2019 at 15.00 hrs. Meeting Room , 4 <sup>th</sup> floor, MMRDA New Office Building, BKC, Mumbai- 400051	
6	Last date of bid submission	28/08/2019 (up to 10.00 hrs)	
The Bid documents and Corrigendum can be downloaded from <a href="https://etendermmrda.maharashtra.gov.in">https://etendermmrda.maharashtra.gov.in</a> . Any additional information & help for uploading & downloading the e-tender, may be availed by contacting MMRDA's e-tendering service desk at the following id : <a href="mailto:etendersupport@mailmmrda.maharashtra.gov.in">etendersupport@mailmmrda.maharashtra.gov.in</a> or call on 022 - 2659 7445 No: ED/SWEC //E-Tender Notice/2 <sup>nd</sup> call /08-2019 Date : 03/08/2019 Place : Mumbai			
			Sd/- Chief Engineer



  
 Chief Engineer,  
 Engineering Division  
 M.M.R.D.A.

M.M.R.D.A.  
Engineering Division  
Chief Engineer

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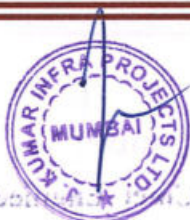


# VOLUME - I



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**MUMBAI METROPOLITAN REGION  
DEVELOPMENT AUTHORITY****(A Government of Maharashtra Undertaking)**Plot Nos. R-5, R-6 & R-12, Bandra-Kurla Complex, Bandra (E),  
Mumbai – 400 051

Tel: 26590001-04, Fax: 26591264.

Website: <https://mmrda.maharashtra.gov.in>E-mail : [ce1@mailmmrda.maharashtra.gov.in](mailto:ce1@mailmmrda.maharashtra.gov.in)**DETAILED E-TENDER NOTICE ( 2<sup>nd</sup> Call)**MMRDA e-Tendering Portal: <https://etendermmrda.maharashtra.gov.in>

Digitally Signed & unconditional online bids (National & International) for “**DESIGN & CONSTRUCTION OF SEWRI TO WORLI ELEVATED CONNECTOR**”(2<sup>nd</sup> Call) are invited by the Chief Engineer, Mumbai Metropolitan Region Development Authority, Bandra (East), Mumbai-400 051, from contractors having adequate experience to carryout similar nature of works & fulfill the criteria as mentioned in detailed tender notice.

The tender documents can be downloaded from the above mentioned portal from 5<sup>th</sup> August 2019 (from 1700 Hrs.) to 27<sup>th</sup> August 2019 (up to 1700Hrs) and Pre-bid meeting will be held on 13<sup>th</sup> August 2019 at 15:00 Hrs in the office of the undersigned. The Bid Due Date is 28<sup>th</sup> August 2019 (Up to 1200 Hrs)

Name of Work	Estimated Cost of Work (Including GST) (Rs. in Crore)	Bid Security (Rs. in Crore)	Period of Completion in Months
Design & Construction of Sewri to Worli elevated connector (2 <sup>nd</sup> call)	864.37	8.64	36 (Thirty Six) (including monsoon)

Bidders who are participating in e-Tendering for the first time shall have to obtain digital ID & Password from the above mentioned portal.

Bidders have to upload tender document in e-Envelopes ‘C’ that they downloaded from the <http://etendermmrda.maharashtra.gov.in>.

All information regarding e-Tendering is available on the MMRDA web portal.

**Note :**The site inspection with all prospective & intending bidders is scheduled at date and time as above, details of it is as under:



- i. Pre-bid Meeting Venue: Meeting Room 4th floor, M.M.R.D.A. New Office Building, Bandra-Kurla Complex, R-5, R-6 & R-12, E Block Bandra (East), Mumbai - 400 051 Tel: 26590001-04/ 5957, Fax: 26591264/4179.
- ii. Contact official: Shri A.R.Bhisikar. Executive Engineer, MMRDA. Telephone No :- 022-26594076
- iii. All bidders are requested to communicate in writing or e-mail their queries in Word and PDF format prior to pre-bid meeting to chiefengineer1@mailmmrda.maharashtra.gov.in

#### 1. Tender Fee Payment:

Tender Document and Supporting documents can be downloaded for reference purpose from the e-Tendering Portal of MMRDA during the period mentioned in the e-tender notice. Interested Bidders have to make online payment (Non-refundable) for an amount mentioned in said e-tender notice as Cost of Blank e-Tender Form using online payment gateway during stipulated bid preparation time period using Debit Card/Credit Card/Net Banking. Tender Fee receipt can be system generated during bid preparation by the Bidder and same shall be uploaded during bid preparation by the bidder.

#### 2. Bid Security payment:

- i. Bid Security payment as mentioned above has to be made through online payment (Debit Card /Credit Card/Net Banking) or RTGS / NEFT mode using the System Generated Challan. Bidders should ensure that the amount of the Bid Security payment is made at least 5 working days prior to the last date of Bid Preparation and Hash Submission of the e-Tender Schedule to have seamless submission. Bidders need to upload scanned copy of EMD paid receipt in e-envelope 'A'.
- ii. Bidders failing to complete the Procedure of Bid Security payment using the above mentioned process through RTGS / NEFT, after downloading the system generated challans, may not be able to submit their bids. Bids with no such challan shall be summarily rejected.
- iii. The Bid Security payment of unsuccessful bidders will be refunded through RTGS, NEFT mode only after finalization of the tender. Bidders should mention the beneficiary details for said refund in the Bid Security payment Form. Bidders should also upload scanned copy of cancelled cheque along with request letter for refund of their Bid Security payment. MMRDA or e-Tendering Service Provider will not be liable for delays caused in Bid Security refund due to incorrect beneficiary details.
- iv. In case of successful bidder, amount of the Bid Security payment may be adjusted towards part of the security deposit to be paid after the award of the work, if he intends to do so in writing.
- v. Note: Kindly note that transfer of funds to MMRDA's account through NEFT / RTGS mode, from the Bidders' ICICI accounts is currently not possible. In case of funds transfer through NEFT / RTGS, Bidders are requested to transfer from any other Bank (excluding ICICI Bank)
- vi. Bid Security payment account shall remain active until tender is awarded.



- ii) If JV agreement does not provide such details, then credit shall be given in proportion of the percentage share of the firm in that JV.

In case a JV quoting for the tender has executed similar work specified in 3 (A) and construction experience in key activities specified under 3 (B) & (C), with the same constitution of JV, the requirement specified to be met under subclause 3(A), (B) & (C) shall be considered to have been met treating the JV as a single entity for this purpose

For Sub-clause 2 Average Annual Financial Turnover, the Bidder should submit actual financial turnover figures for the specified financial years. For Evaluation purposes the weightage for updating of costs will be done @ 10% p.a. to arrive at 2018-19 prices. While updating costs in this manner, the total cost of completion only will be updated based on the year in which the work is completed.

**Note:- In case of Bidder quoted under Joint Venture (JV), then Average Annual Turnover for last 3 years shall be considered as per their respective percentage contribution in the JV Agreement.**

5. For Sub-clause 3 (A) Specific Construction Experience, the Bidder should submit actual Value of Work completed. For Evaluation purposes the weightage for updating of costs will be done @ 10% P.A. to arrive at 2019-2020 values based on the year in which the work is completed.

Sr. No.	Financial Year	Updation Factor
1	2019-20	1.00
2	2018-19	1.10
3	2017-18	1.21
4	2016-17	1.33
5	2015-16	1.46
6	2014-15	1.61
7	2013-14	1.77

6. Similar work means substantially completed Elevated Metro / 4-lane Flyover in urban area as a prime contractor.
7. Contractor should upload scanned copy of solvency certificate to the extent of 20% of the estimated cost at the time of bid submission & PAN Card.
8. The tenders will be received online on above mentioned MMRDA's official e-tendering portal and will be opened by Chief Engineer or his authorized representative on scheduled date and time.

**9. Details of Tender :**

Name of Work	Estimated Cost of Work (Including GST) (Rs. in Crore)	Bid Security (Rs. in Crore)	Construction Period in Months
Design & Construction of Elevated Sewri-Worli connector. (2 <sup>nd</sup> call)	864.37	8.64	36 (Thirty Six) (including monsoon)



**Eligibility Criteria:**

For award of work, the following is required:

1. The Single Bidder should possess a valid registration certificate as a working Contractor under appropriate class with Government of Maharashtra or other State Governments / Government of India, CPWD / NHAI / All Government undertakings.

If the Single Bidder not registered with above said Authorities then, the successful Bidder should submit the Completion Certificate of the similar types of works from the Government organizations mentioned, however he should get registered with any of these Government Organizations within three months of issue of Letter of Intent.

2. Average Annual financial turnover during the last 3 years (2016-17, 2017-18 & 2018-19), ending 31<sup>st</sup> March 2019 (in all classes of Civil Engineering construction works only) of not less than Rs. 232.00 crore.
3. Experience of having successfully completion of following works during last 7 years ending last day of the month previous to the one in which bids are invited should be as follows -
4. Successful completion of construction of Elevated Metro / 4 lane flyover in urban area for which cost of completed work should as follows.
  - i. One similar successfully completed works costing not less than Rs. 617 Cr.  
Or
  - ii. Two similar successfully completed works each costing not less than Rs. 386.00 Cr.  
Or
  - iii. Three similar successfully completed work each costing not less than Rs. 309.00 Cr.  
And
  - A. Must have successfully completed Elevated Metro / 4 lane flyover with one span having structural steel superstructure of length not less than 40 meters in Urban Area.  
And
  - B. Must have successfully completed elevated metro / 4 lane flyover with precast segmental type having 1500m length in urban area as Prime contractor.
5. Joint ventures are not allowed.

**Note:-**

- A. For the purpose of value of work for the past experience of a firm in a JV in sub clause 3 (A) credit shall be given in proportion of the percentage share of the firm in that JV. For past experience of key activities in sub clause 3 (A) (B) & (C) credit shall be given for execution of the quantum of work of that specific activity executed by the firm as part of a JV duly certified by the Employer. If the Employer's Certificate does not indicate the specific quantities of key activity/activities executed by each partner, in such a case credit for quantity of each key activity shall be given as per following provisions in order of priority:
  - i) As per details given in JV agreement forming part of the relevant Contract Agreement.



  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

10. Online E-Tender Schedule:

Sr. No.	Tender Schedule	Bidder Schedule	Start Date & Time	End Date & Time
1.	Tender Authorization and Publishing	-----	03.08.2019 (12.40 Hrs)	05.08.2019 (17.00 Hrs)
2.	-----	Tender Document Download	05.08.2019 (17.01hrs.)	27.08.2019 (17.00hrs.)
		*Pre-bid meeting	13.08.2019 (15.00 hrs)	
3.	-----	Bid Preparation and Submission	05.08.2019 (17.01hrs.)	28.08.2019 (12.00 hrs.)
4.	Tender Closing	-----	28.08.2019 (12.01hrs.)	28.08.2019 (15.00hrs.)
5.	-----	Online Control Transfer of Bid	28.08.2019 (15.01hrs.)	29.08.2019 (18.00hrs.)
6.	Opening Envelope A- Tender Fees, EMD	-----	30.08.2019 (10.00hrs.)	30.08.2019 (18.00hrs.)
7.	Opening Envelope B - Technical Bid	-----	30.08.2019 (10.00hrs.)	05.09.2019 (18.00hrs.)
8.	Opening Envelope C - Financial Bid	-----	30.08.2019 (10.00hrs.)	05.09.2019 (18.00hrs.)

11. Bidders should have valid class 2 or 3 Digital Signature Certificate (DSC) having both Signing and Encryption Certificates obtained from any Certifying Authorities empanelled by Controller of Certifying Authorities India. In case of requirement of DSC, Bidders should go to <https://etendermmrda.maharashtra.gov.in/filesmmrda/misc/Digital%20Certificate.rar> and follow the procedure mentioned in the document procedure for Digital Certificate. Bidders who are participating in e-tendering for the first time shall have to obtain User ID & password from the above mentioned portal.
12. Tender Document and Supporting can be downloaded for reference purpose from the e-Tendering Portal of MMRDA during the period mentioned in the tender notice. Interested Bidders have to make online payment of Rs. 11,200/- (Rupees Eleven Thousand Two Hundred only ) inclusive of GST (non-refundable) as Tender Processing Fee using online payment gateway during bid preparation using Debit Card/Credit Card/Net-Banking. Tender Fee receipt will be system generated during bid preparation.
13. Tender Fee receipt must be uploaded during bid preparation by the bidder.



14. The Competent Authority reserves the right to reject any or all of the tender offers, without assigning any reasons thereof.
15. The bids shall be received online on above mentioned MMRDA's official e-Tendering portal.
16. Validity period of the offer of the bidder will be **180 days** from the submission date of the e-tender.
17. The Successful bidder will have to submit the rate analysis of all major items, if called for.
18. A statement showing names of partners, Directors, etc. of the firm with complete address of each should be uploaded to above mentioned MMRDA official e-Tendering portal and authorized person on the behalf of firm who will sign e-tender using Digital Signature Certificate.
19. The acceptance of bid will be intimated by email or otherwise by the Authority Competent to accept the tender or by the higher Authority of MMRDA, to the contractor, which shall be deemed to be an intimation of the tender given by the Authority Competent to accept the tender.
20. The Successful bidder shall be responsible for executing, completing the work as per specifications.
21. The successful Bidder shall have to submit **signed copy of tender manually** to the Department before signing the Agreement.
22. MMRDA reserves the right to verify financial transaction of contractor in his Bank / Financial Institutions. Contractor should give Authority to that effect along with his accounts number and Bank/ Financial institution name & address. Any changes / modification may be communicated to MMRDA immediately.
23. The bidder should visit the site prior to submission of tender and ascertain the local site condition, working restrictions, constraints, conditions in tender document regarding necessary approvals, NOC required for the work from the local Authorities and shall quote the offer inclusive of all such expenses likely to be incurred while execution of the work. No claim or compensation for any extra payments incurred by the bidders towards the approvals/ NOC's/ permissions will be entertained by MMRDA, which shall be noted.





### E-Tendering Guidelines

1. Bidders should do Online Control Transfer of Bid as per Schedule given in Tender Document any bidder failing to complete this Step will not be considered for Bid Opening.
2. Bidders who are participating in e-tendering for the first time will have to register and obtain User ID & Password from the above mentioned portal.
3. In case of any queries, Bidders may contact MMRDA's e-tendering service desk at [etendersupport@mailmmrda.maharashtra.gov.in](mailto:etendersupport@mailmmrda.maharashtra.gov.in) on any working day from 10am to 5.30pm.(Phone No. 022-26597445)
4. The tenders shall be received online on above mentioned MMRDA official E-Tendering portal and opened by the Chief Engineer on scheduled date and time.
5. If there is any amendment in the tender, the same shall be published on following MMRDA's official e-Tender portals / website :
6. MMRDA e-Tender Portal: <https://etendermmrda.maharashtra.gov.in>
7. MMRDA Website: <https://mmrda.maharashtra.gov.in>
8. The detailed e -Tender notice along with the subsequent corrigendum, addendum etc. shall form part of the tender document.
9. The acceptance of tender will be intimated by email or otherwise by the authority competent to accept the tender or by the higher Authority of MMRDA, to the contractor, which shall be deemed to be an intimation of the tender given by the Authority Competent to accept the tender.
10. Bid shall be submitted online on the e-tendering portal in 'three electronic envelopes system' within prescribed schedule.
  1. e-Envelope 'A'(Prequalification Criteria if any):  
Bidder should upload scanned copies of Payment Receipt
  2. e-Envelope 'B' (Technical bid):  
Bidder shall upload scanned copies of Technical Document as per RFP/Bid document.
  3. e-Envelope 'C' (Financial bid):

Bidder shall quote his offer on Lump Sum basis at the prescribed space in e-Envelope C.

- i) The amount quoted by the Bidder shall be calculated by the system.
- ii) Upload Quotation "**Form of Bid**" in company's Letter head under Price bid Cover Letter option

### Payment Procedure for Tender Fee and EMD

Tender Document and Supporting can be downloaded for reference purpose from the e-Tendering Portal of MMRDA during the period mentioned in the tender notice. Interested Bidders have to



  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

make online payment of Tender Fee using online payment gateway during bid preparation i.e. Debit Card/Credit Card/Net-Banking. Tender Fee receipt can be system generated during bid preparation by the Bidder.

**Earnest Money Deposit:****EMD can be paid by using two Mode of Payment:**

Online payment gateway (i.e. Debit Card/Credit Card/Net-Banking.) RTGS / NEFT mode using the System Generated Unique Challan (Account No for EMD transaction for this particular Tender is mentioned in the Challan)

**Payment procedure for NEFT/RTGS**

EMD Payment as mentioned above has to be made through RTGS / NEFT mode using the System Generated Challan. Bidders should ensure that the payment of the EMD is made at-least 5 working days prior to the last date of Bid Preparation and Submission of the Tender Schedule to have seamless submission.

Bidders need to upload scanned copy of EMD paid receipt during bid preparation.

Bidders failing to complete the payment of EMD using the above mentioned process of RTGS / NEFT or Online payment gateway after downloading the system generated challan will not be able to submit their bids.

**EMD Refund:**

Bidders should mention the beneficiary details for EMD refund in the Earnest Money Deposit Form for fields marked as details required for Refund. MMRDA or e-Tendering Service Provider will not be liable for delays caused in EMD refund due to incorrect beneficiary details.

The earnest money deposit of unsuccessful bidders will be refunded through RTGS, NEFT mode only after finalization of the tender for which the above refund details are required. Bidders should also upload scanned copy of cancelled cheque along with refund letter for refund of their EMD payment. In case of successful bidder, amount of the earnest money deposit may be transferred towards part of the security deposit to be paid after the award of the work, if he intends to do so in writing.


Bidders failing to complete the payment of EMD using the above mentioned process of RTGS / NEFT after downloading the system generated challans will not be able to submit their bids.

**Note:** Kindly note that transfer of funds to MMRDA's account through NEFT / RTGS mode, from the Bidders' ICICI accounts is currently not possible. In case of funds transfer through NEFT / RTGS, Bidders are requested to transfer from any other bank (excluding ICICI Bank).

EMD Refund Account should remain active until tender is awarded.

EMD Refund will happen only after Awarding or Cancellation of tenders.



  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

### Units & Abbreviations

Units of measurement, symbols and abbreviations expressed in the Bid Documents Bidder shall Comply with the Systeme Internationale d' Unites (SI Units).

#### Abbreviations

The following abbreviations shall be used in the Bid Document:

Chainage	CH
General Conditions of Contract	GCC
Government of Maharashtra	GOM
Indian National Rupees	INR
Interim Payment Certificate	IPC
Kilometer	km
Mumbai Metropolitan Region Development Authority	MMRDA
National Highway Authority of India	NHAI
Maharashtra State Electricity Transmission Co. Ltd.	MSETCL
Maharashtra State Electricity Distribution Co. Ltd.	MSEDCL
Mumbai Urban Infrastructure Project	MUIP
Public Works Department	PWD
Municipal Corporation of Greater Mumbai	MCGM
Maharashtra Maritime Board	MMB
Non Pressure	NP
Number	Nos.
Particular Conditions	PC
Provisional Sum	PS
Reinforced Cement Concrete	RCC
Safe Bearing Capacity	SBC
Project Management Consultancy	PMC
Bid Data Sheet	BDS
State Environmental Impact Assessment Authority	SEIAA
Maharashtra Coastal Zone Management Authority	MCZMA
Ministry of Environmental & Forest	MoE&F
Maharashtra Pollution Control Board	MPCB



**MMRDA E-Tendering Bidder's Process, Basic Requirement and Tutorial Links:**

Stage1: Bidder Registration

Stage2: Bid Document Download (Tender Document Downloaded)

Stage3: Bid Preparation and Submission (Bid Status: Bid Hash Prepared)

Stage4: Online Control Transfer (Bid Status: Bid Re-encrypted)

MMRDA e-Tender Basic Requirement

Latest Version of Java Run Time Environment (JRE)

PDF Reader

Use Browser Mozilla Firefox for best compatibility.

Always Allow pop-ups and Java Plug-in for MMRDA e-tendering site

Windows 7

Bidders are requested to read Tender Document Carefully.

Digital Certificate with both Signing Certificate &amp; Encryption Certificate.

Download Any desk (Free Software) for Monitoring / Screen Sharing for assistance purpose.

**Kindly use following link for Tutorials:****Bidder Registration Process:**<https://etendermmrda.maharashtra.gov.in/files/mmrda/misc/1%20Bidders%20Registration.pdf>**Bid Document Download:**<https://etendermmrda.maharashtra.gov.in/files/mmrda/misc/2%20Bid%20Document%20Download.pdf>**Bid Preparation & Submission:**<https://etendermmrda.maharashtra.gov.in/files/mmrda/misc/3%20Bid%20Preparation%20&%20Submission.pdf>**Online Control Transfer**<https://etendermmrda.maharashtra.gov.in/files/mmrda/misc/4%20Online%20Control%20Transfer.pdf>**Install NSEU Utility**<https://etendermmrda.maharashtra.gov.in/files/mmrda/misc/Utility%20and%20Java%20Installation%20for%20DSC.pdf>

S/d

Metropolitan Commissioner  
MMRDAChief Engineer,  
Engineering Division  
M.M.R.D.A.

# SECTION- I

## Instructions to Bidders



## Section I. Instructions to Bidders (ITB)

### A. General


1. **Scope of Bid**
  - 1.1 In connection with the Invitation for Bids specified in the Bid Data Sheet (BDS), the Mumbai Metropolitan Region Development Authority (MMRDA) the "**Employer**", as Specified in the BDS, issues these Bidding Documents for the procurement of Works as specified herein.
  - 1.2 Throughout these Bidding Documents:
    - (a) The term "in writing" means communicated in written form and delivered against receipt;
    - (b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and "day" means calendar day.
2. **Source of Funds**
  - 2.1 MMRDA has earmarked funds towards eligible payments under the contract(s) for which these Bidding Documents are issued.
3. **Corrupt and Fraudulent Practices**
  - 3.1 MMRDA requires strict compliance with the following in regard to corrupt and fraudulent practices.
    - (a) Defines, for the purposes of this provision, the terms set forth below as follows
      - i. "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and
      - ii. "fraudulent practice" means a misrepresentation of facts in order to influence a procurement processor the execution of a contract to the detriment of the Employer,
    - (b) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
    - (c) will declare a firm in eligible, either indefinitely or for a stated period of time, to be awarded any MMRDA contract, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing MMRDA contracts.



**4. Eligible Bidders:**

- 4.1 A Bidder may be a firm that is a private entity, a Government-owned entity — subject to ITB 4.5.
- 4.2 "A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this bidding process, if the Bidder:
- (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
  - (b) receives or has received any direct or indirect subsidy from another Bidder; or
  - (c) has the same legal representative as another Bidder; or
  - (d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
  - (e) any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the bid; or
  - (f) any of its affiliates has been hired (or is proposed to be hired) by the Employer or as Engineer / PMC for the Contract implementation; or
  - (g) has a close business or family relationship with a professional staff of the Employer who: (i) are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and /or the bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Employer throughout the procurement process and execution of the contract."
- 4.3 This invitation to bid is open to any bidder meeting the following requirements:
- (a) A bidder shall not be affiliated with a Consultant.
    - i. that has provided consulting services related to the Works to either the Employer during the preparatory stages of the Works or of the Project of which the Works form a part, or
    - ii. that has been hired (or is proposed to be hired) by the Employer as Engineer for the contract.



  
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- (b) A bidder shall not be under a declaration of ineligibility for corrupt or fraudulent practices in accordance with ITB Clause 3.1
- (c) An entity, who has been prohibited/ blacklisted/ debarred for last one year from participating in any project/ Tender/bid by MMRDA shall not be eligible to submit a tender either by itself, through an associate/ affiliate or as member of Consortium.
- 4.4 A Bidder that has been sanctioned by the Employer in accordance with the above ITB 3.1 shall be ineligible to bid, or be awarded a contract or benefit from a contract, financially or otherwise, during such period of time as the Employer shall have determined.
- 4.5 In case of Post Qualification process, the Bidder shall fulfill the requirements of the Qualification Criteria stipulated in Section III.
- 4.6 A Bidder shall not be under suspension from bidding by the Employer as the result of the operation of a Bid-Securing Declaration.
- 4.7 A Bidder shall provide such evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.
5. **Eligible, Materials, Equipments and Services**
- 5.1 The materials, equipment and services to be supplied under the Contract may have their origin in any country. However their use and deployment shall be subject to the applicable laws and regulations in India.

**B. Contents of Bidding Documents**

**6. Bidding Documents**

- 6.1 The Bidding Documents consist of Vol. I (Invitation for bids), Vol. II (Financial Bid), Vol. III (Technical Specifications) and Vol. IV (Drawings), and any CSD or Addenda issued in accordance with ITB 8
- 6.2 Detailed E-Tender Notice issued by the Employer is not part of the Bidding Documents.
- 6.3 Unless obtained directly from the Employer through website, Employer is not responsible for the completeness of the Documents, responses to requests for clarification, the minutes of the Pre-Bid meeting (if any), or Addenda to the Bidding Documents in accordance with ITB 8. In





case of any contradiction, documents obtained directly from the Employer shall prevail.

- 6.4 The Bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents and to furnish with its bid all information and documentation as is required by the Bidding Documents.

**7. Clarification of Bidding Documents, Site Visit, Pre-Bid Meeting**

- 7.1 A Bidder requiring any clarification of the Bidding Documents shall upload queries at website of the Employer **specified in the BDS** or raise its enquiries during the Pre-Bid Meeting if provided for in accordance with ITB7.4. The Employer will respond in writing/upload on website to any request for clarification, provided that such request is received before the Pre-Bid Meeting. The Employer shall forward copies / upload on website of its response to all Bidders who have acquired the Bidding Documents in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so specified in the BDS, the Employer shall also promptly publish its response at the web page identified in the BDS. Should the clarification result in changes to the essential elements of the Bidding Documents, the Employer shall amend the Bidding Documents following the procedure under ITB 8 and ITB22.2.
- 7.2 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense. The Bidder is required to submit declaration to that effect in the format stipulated in **Section IV**.
- 7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
- 7.4 If so specified in the BDS, the Bidder's designated representative is invited to attend a Pre-Bid Meeting. The



  
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purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

- 7.5 The Bidder is requested to submit any questions in writing / upload / upload on website, to reach the Employer before the meeting.
- 7.6 Minutes of the pre-bid meeting, if applicable, including the text of the questions asked by Bidders, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Documents in accordance with ITB 6.3. Any modification to the Bidding Documents that may become necessary as a result of the pre- bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting. Non attendance at the pre- bid meeting will not be cause for disqualification of a Bidder and clarification, addendum issued / uploaded on website shall be binding to such Bidders.

**8. Amendment of Bidding Documents**

- 8.1 At any time prior to the deadline for submission of bids, The Employer may amend the Bidding Documents by issuing Addenda / CSD.
- 8.2 Any Addendum / Corrigendum / CSD shall be part of Bidding document and shall be uploaded on web site. The Addendum / Corrigendum / CSD issued shall be communicated to all who have obtained the Bidding documents from the Employer in accordance with ITB6.3.
- 8.3 To give Bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer will extend the deadline for the submission of bids, pursuant to ITB 22.2.



**C. Preparation of Bids****9. Cost of Bidding**

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

**10. Language of Bid**

10.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in the language **specified in the BDS**. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language **specified in the BDS**, in which case, for purposes of interpretation of the Bid, such translation shall govern.

**11. Documents  
Comprising the Bid**

11.1 The Bid to be submitted by the Bidder shall comprise documents listed in the Clause 6 above and shall *interalia* Comprise the following:

- Letter of Bid and Appendix to Bid, in accordance with ITB12;
- Form of Financial Bid and completed schedules as required, in accordance with ITB 12 and14;
- Bid Security in accordance with ITB19;
- Alternative bids, if permissible, in accordance with ITB 13;
- Written / digital signature confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB20.2;
- Documentary evidence in accordance with ITB 17 establishing the Bidder's continued qualified status in case of prequalification processor, if post - qualification applies, as specified in accordance with ITB 4.5, the Bidder's qualifications as per **Section III** to perform the contract if its Bid is accepted
- Technical Proposal of the Bidder to conform to the Employer's Requirements with adequate drawings in accordance with ITB16; and
- any other document **required in the BDS**.

12. Letter of Bid and Schedules
- 12.1 The Letter of Bid, form of Financial Bid and Schedules, included in the Financial Bid, shall be prepared using the relevant forms furnished in these Bid Documents. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 20.2.  
All blank spaces shall be filled in with the information requested.
13. Alternative Bids
- 13.1 **Unless otherwise specified in the BDS**, alternative bids shall not be considered.
14. Bid Prices and Discounts
- 14.1 The prices quoted by the Bidder in the form of Financial Bid and in the Schedules shall conform to the requirements specified below.
- 14.2 The Bidder shall fill in the price in the form of Financial Bid and rates / values for all items in the Billing Schedule in Vol. -II.
- 14.3 The price to be quoted in the form of Financial Bid, in accordance with ITB 12.1.
- 14.4 The Bidder shall quote rates for variation items and appropriate figures / values in the Schedule of Variation and Billing Schedule respectively for design & construction of Sewri to Worli elevated Connector
- 14.5 The price quoted by the Bidder in the form of Financial Bid is subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract. However, only form of Financial Bids shall be taken into account while evaluating the Bids.
- 14.6 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause during the entire period of Contract shall be included in the total Bid Price submitted by the Bidder. The Bid Price (and the rates in the Variation Schedule) shall be deemed to include payments for Royalty under Minor Minerals Act as may be payable to the Revenue Department directly; and these shall not be reimbursed by MMRDA. Further, expenses towards registration of the agreement/Stamp Duty shall be borne by the Contractor and such expenses shall be included in the Bid Price to be quoted by the Bidder.
15. Currencies of Bid Payment
- 15.1 The currency (ies) of the bid and the currency (ies) of **And** payments shall be **as specified in the BDS**.



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| 16. Documents<br>Comprising<br>The Technical<br>Proposal             | 16.1 | The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV- Bidding Forms, in sufficient detail to demonstrate the adequacy of the Bidder's proposal to meet the Employer's Requirements and the completion time.  |
| 17. Documents<br>Establishing<br>the Qualifications<br>of the Bidder | 17.1 | Prequalification of bidders will be done in accordance with Section III, Evaluation and Qualification Criteria), to establish that the Bidder continues to meet the criteria used at the time of Pre- Qualification, the Bidder shall provide in the corresponding information sheets included in Section IV, Bidding Forms, updated information on any assessed aspect that changed from that time, or if post-qualification applies as specified in ITB 4.5, the Bidder shall provide the information as per <b>BDS</b> towards the determination of qualification under Section III in the corresponding information sheets included in Section IV, Bidding Forms. |
| 18. Period of Validity<br>of Bids                                    | 18.1 | Bids shall remain valid for the period of 180 days ( <b>specified in the BDS</b> ) after the bid submission deadline date prescribed by the Employer in accordance with ITB 22.1. A bid valid for a shorter period shall be rejected by the Employer as non responsive.   |
|  | 18.2 | Prior to expiry of the original bid validity period, the Employer may request that the bidders extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing. A bidder may refuse the request without forfeiting its bid security. A bidder agreeing to the request will not be required or permitted to modify its bid, but will be required to extend the validity of its bid security for the period of the extension and in compliance with Clause 19 in all respects.  |
| 19. Bid Security   | 19.1 | Bidder shall furnish as part of its bid, a bid security in the amount as shown in the BDS. <b>Bidders have to make payment of Rs.1,00,000/- as Bid security by mode of Electronic Transfer.</b><br><b>The relevant details are as under -</b><br>Bid security Payment as mentioned above has to be made through RTGS / NEFT mode using the System Generated Challan. Bidders should ensure that the payment of the bid security is made as per online e-tender schedule.<br><b><i>And Balance amount of Rs. 8,63,00,000/- Security by providing Bank Guarantee.</i></b><br>Bidders need to upload scanned copy of bid security paid                                   |



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- receipt during bid preparation as well as scan copy of Bank Guarantee.
- 19.2 If a bid security is specified pursuant to ITB19.1, the bid security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the Contract and furnishing the performance security pursuant to ITB 42 without any interest.
- 19.3 The bid security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required performance security.
- 19.4 The bid security may be forfeited:
- (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid, or any extension thereto provided by the Bidder; or
- (b) if the successful Bidder fails to:
- (i) Sign the Contract in accordance with ITB 41; or
- (ii) Furnish a performance security in accordance with ITB42.
- 20. Format and Signing of Bid**
- 20.1 The Bidder shall upload on website the documents comprising the bid as described in ITB11.
- 20.2 The bid shall be digitally signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written / through website confirmation as specified in the BDS and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid where entries or amendments have been made shall be signed or initialed by the person signing the bid.

#### D. Submission and Opening of Bids

All documents mentioned under submission procedure shall be uploaded

- 21. Submission and Uploading of e-envelopes**
- 21.1 The bid shall be submitted in three envelopes marked as e-Envelope No. 'A', e-Envelope No. 'B' and e-Envelope No. 'C'.
- 21.2 **e-Envelope No. 'A'** shall contain the following documents subject to changes as indicated in BDS.
- a. Receipt of Bid Security and scan copy of Bank Guarantee. Original Bank Guarantee shall be submitted before opening of e-Envelope No. 'A' without which e-



  
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Envelope shall not open.

b. Receipt of Tender Fee.

21.3 The Second Envelope marked **e-Envelope No. 'B'** shall contain the Technical Proposal:-

a. Certificate of registration: valid Registration under appropriate class with the Government of Maharashtra or other State Governments/MCGM / Government of India, CPWD/NHAI.

b. Details of Average annual financial turn over as per Eligibility Criteria.

c. Details of works carried out by the bidders during last Seven years as mentioned in the Eligibility Criteria (Form of 'Qualification Information' in Section IV)

d. Contractor should upload scanned / PDF copies of solvency certificate to the extent of 20% of the estimated cost at the time of Bid submission and PAN card etc.

e. Details of other works in hand and proposed to be completed / ongoing during next three years (Form 'Qualification Information' in Section IV)

f. List of technical personnel employed by the bidder and who are likely to be available on this work (Form 'Qualification Information' in Section IV).

g. The documents for qualifying criteria including liquid assets, annual financial turnover and bid capacity as mentioned in BDS

h. The statement showing the information regarding Litigation / Arbitration during last Seven financial years in which the bidder is involved, parties concerned and disputed amount and the present status of the cases. ('Qualification Information' in Section IV)

i. The declaration of the contractor as stipulated in the format in Section IV.

j. Contractor's alternative designs, the necessary details of the Contractor's alternative proposals e.g. drawings, technical proposal note, bar charts and other relevant details to describe the proposal fully in line with Employers requirement & Bid Document for Design & Construction of Sewri- Worli elevated Connector for MTHL dispersal.

k. Letter of Tender (as stipulated in Section IV).



- l. Activities work schedule and proposed site organization (Form 'Qualification Information' in Section IV) to be filled by Bidders and proposed week wise target of work as per work plan and preliminary site organization chart, description of relationship between head office and sitemanagement.
- m. Bid documents and the clarifications, Common Set of Deviations /Addenda issued, if any, by MMRDA.
- n. The Bidder shall upload digitally signed entire document of Vol-I, Vol.II- Vol.III and Vol-IV.
- 21.4 The Third Envelope marked **e-Envelope No. 'C'** shall contain the Financial Proposal:-
- i) The Bidder shall quote his offer for Design & Construction of Sewri to Worli Connector on Design & Build Basis (Lump Sum)on the form of financial bid as prescribed in e-tendering system.
- ii) The Bidder shall upload digitally signed billing schedule, schedule of variation i.e. 'Vol.-II', in Envelope No"C".
22. **Dead line for Submission of Bids** 22.1 Bids must be received by the Employer on e-tender portal and no later than the date and time **specified in the BDS. When so specified in the BDS**, bidders shall submit their bids electronically. Bidders submitting bids electronically shall follow the electronic bid submission procedures as **specified in the ITB**.
- 22.2 The Employer may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall there after be subject to the deadline as extended.
23. **Late Bids** 23.1 The Employer shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any bid received by the Employer after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.
24. **Withdrawal, Substitution and Modification of Bids** 24.1 A Bidder may withdraw their bid after it has been submitted by way of not operating the online control transfer of bid and sending a written notice, duly signed by an authorized representative, and it shall include a copy of the authorization in accordance with ITB 20.2, (except that withdrawal notices do not require copies), before last date and time of online control transfer of Bid





- as mentioned in online e-tender schedule.
- 24.2 24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be unopened.
- 24.3 24.3 No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Letter of Bid or any extension thereof.
- 25. Bid Opening procedure**
- Contents of e-Envelope "A" will be scrutinized and only those Bidders who have fulfilled the requirements shall be eligible for opening of e-Envelope "B". Similarly, contents of e-Envelope "B" will be scrutinized and only those Bidders who have fulfilled the requirements shall be eligible for opening of e-Envelope "C".
- Bidder may remain present in the office of the tender opening Authority at the time of opening of financial bids. However, the results of the financial bids of all Bidders shall be available on the e-Tendering portal immediately and also e-system generated information will be mailed to respective email ids of Bidder after completion of the opening process.
- E. Evaluation and Comparison of Bids**
- 26. Confidentiality**
- 26.1 Information relating to the evaluation of bid and recommendation of contract award shall not be disclosed to Bidders or any other persons not officially concerned with the bidding process until information on Contract award is communicated to all Bidders in accordance with ITB 40.
- 26.2 Any attempt by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its bid.
- 26.3 Not with standing ITB 26.2, from the time of bid opening to the time of Contract award, if a Bidder wishes to contact the Employer on any matter related to the bidding process, it shall do so in writing.
- 27. Clarification of Bids**
- 27.1 To assist in the examination, evaluation, and comparison of the bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its bid, given a reasonable time for a response. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification

- and the response shall be in writing. No change, including any voluntary increase at its discretion, ask by any Bidder for a clarification of its bid, giving a reasonable time for a response. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids, in accordance with ITB31.
- 27.2 If a Bidder does not provide clarification by the date and time set in the Employer's request for clarification, its bid may be rejected.
- 28. Deviations, Reservations and Omissions**
- 28.1 During the evaluation of bids, the following definitions apply:
- (a) "Deviation" is a departure from the requirements Specified in the Bidding Documents;
  - (b) "Reservation" is the setting of limiting conditions or with holding from complete acceptance of the requirements specified in the Bidding Documents; and
  - (c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Documents.
- 29. Determination of Responsiveness**
- 29.1 The Employer's determination of a bid's responsiveness is to be based on the contents of the bid itself, as
- 29.2 A substantially responsive bid is one that meets the requirements of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,
- (a) if accepted, would:
    - (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
    - (ii) limit in any substantial way, inconsistent with the Bidding Documents, the Employer's rights or the Bidder's obligations under the proposed Contract; or
  - (b) if rectified, would unfairly affect the competitive position of other Bidders

- presenting substantially responsive bids.
- 29.2 The Employer shall examine the technical aspects of the bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section VII, Employer's Requirements have been met without any material deviation, reservation or omission for Design & Construction of Sewri-Worli elevated Connector.
- 29.3 If a bid is not substantially responsive to the requirements of the Bidding Documents, it shall be rejected by the Employer.
- 30. Non material Non conformities**
- 30.1 Provided that a bid is substantially responsive, the Employer may waive any non-conformities in the Bid
- 30.2 Provided that a bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial non conformities in the bid related to documentation requirements. Requesting information or documentation on such non conformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 31. Correction of Arithmetical Errors**
- 31.1 Provided that the bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:
- if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
  - if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
  - if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b)



- above.
- 31.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 31.1, shall result in the rejection of the Bid.
32. **Conversion to Single Currency as specified in the BDS.** 32.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted into a single currency
33. **Margin of Preference** 33.1 **Unless otherwise specified in the BDS**, a margin of preference for domestic Bidders shall not apply.
34. **Sub contractors** 34.1 **Unless otherwise stated in the BDS**, the Employer does not intend to execute any specific elements of the Works by sub- contractors selected in advance by the Employer.
- 34.2 Deleted
35. **Evaluation of Bids** 35.1 The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.
- 35.2 To evaluate a bid, the Employer shall consider the following:  
the bid price in the form of Financial Bid;  
price adjustment for correction of arithmetic errors in accordance with ITB31.1;  
converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITB32;
- 35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.
- 35.4 If the bid, which results in the lowest Evaluated Bid Price, is seriously unbalanced or front loaded in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analysis to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analysis, taking in to consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

35.5 *Additional Security Deposit (ASD):- Additional Security Deposit shall be calculated on estimated cost including 12% GST i.e. on Rs. 864.37 Crore.*

If the Bidder has quoted below to the estimated rates, an Additional Security Deposit (Performance Security) shall be paid additionally as mentioned below-

Rate quoted to estimated rate	Additional Security Deposit
Below 0 % to 9 %	Nil
Below 9 % to 10%	(i) 1% of Estimated Cost put to Tender+12% GST
Below than 10%	(ii) % Of ASD = (% rate quoted below 10%) +1% e.g. If 14% below is quoted the amount of Additional Security Deposit shall be (14- 10)+1=5% performance security of Estimated cost put to tender + 12% GST.
Below than 15%	If % rate quoted is 15 % below the additional security deposit shall be two times balance amount which shall be submitted in the form of Demand draft. e.g. If 19% below is quoted the amount of Additional Security Deposit shall be (19-15 i.e. 4% x 2 i.e. 8% performance security of Estimated cost put to tender + 12% GST

The ASD amount as calculated vide (i & ii) in the either in the form of demand draft drawn in favour of MMRD FUND or in the form of bank guarantee (BG) furnished by any Nationalized Bank or State Bank of India, or Banks promoted by all India Financial Institutions including HDFC (excluding Axis Bank), issued from any of its branches in Maharashtra State. Performance security shall be furnished within 28 days from the date of issue of



Letter of Acceptance failing which EMD shall be forfeited and the Bidder shall be disqualified for MMRDA bidding process for the period of one year from the date of submission of tender.

- i) The Additional Security Deposit paid by successful Bidder shall be refunded along with the final bill on satisfactory completion of work.
- ii) The Demand Draft (DD) / BG shall be valid up to 6 months from the last date of submission of Tender. It should bear the Bidder is not qualified for opening of Env.B his DD/BG shall be return within 7 working days. Also after opening Env. B except DD of first and second lowest the DD / BG of other Bidders shall be returned within 15 working days.

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| <b>36. Comparison of Bids</b>   | 36.1   | The Employer shall compare the evaluated prices of all substantially responsive bids established in accordance with ITB 35.2 to determine the lowest evaluated bid.  |
| <b>37. Disqualification of the Bidder</b>                                   | 37.1   | As a general rule, form of Financial Bid (Envelope No. C containing Volume-II) of only such Bidders who qualify as stipulated in ITB 21 shall be opened. Provided however that Bidders who otherwise qualify as aforesaid, shall be liable to be disqualified if they have;  |
|   | 37.1.1 | Made misleading or false representations or submission of wrong documents in any of the forms, statements and attachments submitted in proof of the qualification requirements; or   |
|   | 37.1.2 | a record of poor performance / black listing in last one year in respect of the works e.g .unsatisfactory completion of contracts, inordinate delays in completion, bad quality of work, litigation history or financial failures etc. with MMRDA.   |
| <b>38. Employer's Right To Accept any Bid and to Reject any or all Bids</b> | 38.1   | The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders. |

**F. Award of Contract**

- 39. Award Criteria** 39.1 Subject to ITB 38.1, the Employer shall award the Contract to the Bidder who is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily and whose Bid has been determined to be the lowest evaluated bid.
- 40. Notification of Award** 40.1 Prior to the expiration of the period of bid validity, the Employer shall notify the successful Bidder, in writing, that its bid has been accepted. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the sum that the Employer will pay the Contractor in consideration of the execution and completion of the Works (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price").
- 40.2 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.
- 41. Signing of Contract** 41.1 Promptly upon notification, and no later than twenty eight days of the receipt of the notification of award from the Employer, the successful Bidder shall sign and enter in to a Contract Agreement in the format stipulated after payment of Performance Security as per Clause 42 below.
- 42. Performance Security** 42.1 Within Twenty Eight (28) days of the receipt of notification of award from the Employer, the successful Bidder shall furnish the performance security in accordance with the General Conditions of Contract, subject to ITB35.5.
- 42.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contracts shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security. In that event the Employer may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily
- 42.3 Within 14 days of receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer the performance security of an amount equivalent to 5% of the contract price + additional security for unbalance Bid as per

Sub Cl. 35.5 & 35.6 in accordance with the conditions of Contract as given in Section IX of Vol. -I.





# SECTION-II

## Bid Data Sheet

## Section II. Bid Data Sheet

<b>A. General</b>	
ITB 1.1	The <b>Employer</b> is: <u>Mumbai Metropolitan Region Development Authority represented through its Metropolitan Commissioner</u>
ITB 2.1	The name of the Project is: Design & Construction of Sewri-Worli Elevated Connector
ITB 4.1	Joint Ventures (JV) is not allowed.
<b>B. Contents of Bidding Documents</b>	
ITB 7.1	For <u>clarification purposes only</u> , the Employer's address is: Chief Engineer, Mumbai Metropolitan Region Development Authority (MMRDA) 2 <sup>nd</sup> Floor, New MMRDA Building, Bandra Kurla Complex, Bandra (East), Mumbai-400 051. Telephone: 91 2226591239 Facsimile number: 91 2226594179 Electronic mail <u>address: chiefengineer1@mailmmrda.maharashtra.gov.in</u> e-tenderportal: <u>http://etendermmrda.maharashtra.gov.in</u>
ITB 7.1	Web page: <u>www.mmrda.maharashtra.gov.in</u>
ITB 7.4	Pre-Bid meeting will take place at the following date, time and place: <i>Date: 13.08.2019 Time: 15.00 Hrs IST.</i> Place: <b>Mumbai Metropolitan Region Development Authority (MMRDA) Meeting Room, 4th floor, New MMRDA Building, Bandra Kurla Complex, Bandra (East), Mumbai-400 051.</b>
<b>C. Preparation of Bids</b>	
ITB 10.1	The language of the bid is <b>English</b> All correspondence exchange shall be in English language.
ITB 11.1 (h)	The Bidder shall submit with its bid the following additional documents: <u>No additional documents are specified.</u>
ITB 13.1	Alternative bids are not permitted. Bids shall be based on Employer's Requirements and shall be Lump sum Bids on Bidder's designs for Design & Construction of Sewri-Worli elevated Connector
ITB 14.5	The prices quoted by the Bidder shall be adjustable in accordance with the provisions in Sub Clause 13.8 of GCC, Section 7, Part B; Particular Conditions of Contract.
ITB 15.1	The currency of the bid and the currency of payment shall be Indian Rupees (INR).

<b>ITB 17.1</b>	<p>(a) Copies of original documents defining the constitution or legal status, place of registration and principal place of business; written power of attorney of the signatory of the Bid to commit the bidder;</p> <p>(b) Total annual turnover in the civil works construction business expressed as total of payment certificates for work performed in each of the last three years and same shall be certified by Statutory Auditor; In jurisdictions that do not have Statutory Auditors the firm of Auditors which Audits the annual accounts of the Applicants may provide the certificates required.</p> <p>(c) Performance as prime contractor, management contractor, or proportionately as member of a joint venture or subcontractor, on works of a similar nature and complexity over the last Seven years, and details of other work in hand and contractual commitments, to be certified by not below the rank of Executive Engineer.</p> <p>(d) Major items of Contractor's Equipment proposed for carrying out the Contract;</p> <p>(e) The qualifications and experience of key personnel proposed for administration and execution of the Contract, both on and off site.</p> <p>(f) Reports on the financial standing of the bidder including profit and loss statements, balance sheets and auditor's reports for the past Seven years, and an estimated financial projection for the next two years;</p> <p>(g) Evidence of access to lines of credit and availability of other financial resources;</p> <p>(h) Authority to seek references from the bidder's bankers;</p> <p>(i) Information regarding any litigation or arbitration resulting from contracts executed by the bidder in the last Seven years or currently under execution. The information shall include the names of the parties concerned, the disputed amount, cause of litigation, and matter in dispute; and</p> <p>(j) The proposed methodology and program of construction, Environmental Management Plan (EMP), backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of work as per technical specifications within stipulated period of completion as per the target.</p>
<b>ITB 18.1</b>	The bid validity period shall be 180 (one hundred and eighty) days.
<b>ITB 19.1</b>	The Bid Security shall be for an amount of INR 8.63 Cr and shall be paid by mode of electronically transfer (1,00,000 by electronically transfer & balance Rs 8,63,00,000 through BG) The relevant details are as under – Account Title – Mumbai Metropolitan Region Development Fund Account No – 123105000435

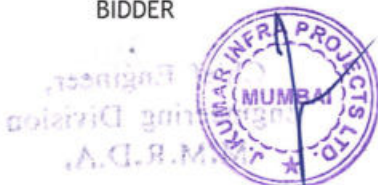


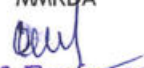
	IFSC code – ICIC0001231 Name of Bank – ICICI Bank, MIG Branch
ITB 20.1	In addition to the original of the bid, the number of copies is: None. And as per ITB 21.1
ITB 20.2	The written confirmation of authorization to sign on behalf of the Bidder shall consist of Valid Power of Attorney
ITB 21.1	In addition to electronic submission, Bidder who qualifies after opening of e- envelope “A” shall require to submit the sealed hard bound booklet of entire uploaded e-envelope “B” during the evaluation bids, if so asked for by the Employer. (In case of any discrepancy between the contents of uploaded and hard bound submission, the uploaded document shall prevail.)
<b>D.Submission and Opening of Bids</b>	
ITB 22.1	For <u>bid submission purposes</u> only, the Employer’s address is : Chief Engineer, Mumbai Metropolitan Region Development Authority (MMRDA) 2 <sup>nd</sup> Floor, New MMRDA Building, Bandra-Kurla Complex, Bandra (East), Mumbai-400 051. Telephone: 91 2226591239 Facsimile number: 91 2226594179 Electronic Mail address: <b>chiefengineer1@mailmmrda.maharashtra.gov.in</b> <b>The dead line for bid submission is:</b> <b>Date: 28.08.2019, Time:- up to 10.00Hrs.</b> Bidders have to submit their bids on website by e-tendering.
ITB 25.1	The bid opening shall take place at: Chief Engineer, Mumbai Metropolitan Region Development Authority (MMRDA) Second Floor, New MMRDA Building, Bandra Kurla Complex, Bandra (East), Mumbai-400 051. Telephone: 91 2226591239 Facsimile number: 91 2226594179 Electronic mail <a href="mailto:chiefengineer1@mailmmrda.maharashtra.gov.in">address:chiefengineer1@mailmmrda.maharashtra.gov.in</a> Date: <b>29.08.2019</b> Time: <b>18.01</b> Hrs IST onwards
<b>E. Evaluation, and Comparison of Bids</b>	
ITB 32.1	The currency for the bid shall be Indian Rupees (INR)
ITB 33.1	Not applicable.
ITB 34.1	No Nominated Subcontracting Allowed.



## SECTION- III

# Qualification Criteria



  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

**Section III.**  
**Evaluation and Qualification Criteria (Post Qualification)**

For award of work, the following is required:

1. The Single Bidder should possess a valid registration certificate as a working Contractor under appropriate class with Government of Maharashtra or other State Governments / Government of India, CPWD / NHAI / All Government undertakings.

If the Single Bidder not registered with above said Authorities then, the successful Bidder should submit the Completion Certificate of the similar types of works from the Government organizations mentioned, however he should get registered with any of these Government Organizations within three months of issue of Letter of Intent.

2. Average Annual financial turnover during the last 3 years (2016-17, 2017-18 & 2018-19), ending 31<sup>st</sup> March 2019 (in all classes of Civil Engineering construction works only) of not less than Rs. 232.00 Crore.
3. Experience of having successfully completion of following works during last 7 years ending last day of the month previous to the one in which bids are invited should be as follows –
  - A. Successful completion of construction of Elevated Metro / 4 lane flyover in urban area for which cost of completed work should as follows.
    - i. One similar successfully completed works costing not less than Rs.617.00 Cr.  
Or
    - ii. Two similar successfully completed works each costing not less than Rs. 386.00Cr.  
Or
    - iii. Three similar successfully completed work each costing not less than Rs. 309.00 Cr.  
And
  - B. Must have successfully completed Elevated Metro / 4 lane flyover with one span having structural steel superstructure of length not less than 40 meters in Urban Area.  
And
  - C. Must have successfully completed elevated metro / 4-lane flyover with precast segmental type having 1500m length in urban area as Prime contractor.
2. Joint ventures are not allowed.

**Note:-**

For the purpose of value of work for the past experience of a firm in a JV in sub clause 3 (A) credit shall be given in proportion of the percentage share of the firm in that JV. For past experience of key activities in sub clause 3 (A) (B) & (C) credit shall be given for execution of the quantum of work of that specific activity executed by the firm as part of a JV duly certified by the Employer. If the Employer's Certificate does not indicate the specific quantities of key activity/activities executed by each partner, in such a case credit for quantity of each key activity shall be given as per following provisions in order of priority:

- iii) As per details given in JV agreement forming part of the relevant Contract Agreement.



- iv) If JV agreement does not provide such details, then credit shall be given in proportion of the percentage share of the firm in that JV.

In case a JV quoting for the tender has executed similar work specified in 3 (A) and construction experience in key activities specified under 3 (B) & (C), with the same constitution of JV, the requirement specified to be met under subclause 3(A), (B) & (C) shall be considered to have been met treating the JV as a single entity for this purpose

For Sub-clause 2 Average Annual Financial Turnover, the Bidder should submit actual financial turnover figures for the specified financial years. For Evaluation purposes the weightage for updating of costs will be done @ 10% p.a. to arrive at 2018-19 prices. While updating costs in this manner, the total cost of completion only will be updated based on the year in which the work is completed.

**Note:- In case of Bidder quoted under Joint Venture (JV), then Average Annual Turnover for last 3 years shall be considered as per their respective percentage contribution in the JV Agreement.**

For Sub-clause 3 (A), (B) & (C) Specific Construction Experience, the Bidder should submit actual Value of Work completed. For Evaluation purposes the weightage for updating of costs will be done @ 10% p.a. to arrive at 2018-2019 based on the year in which the work is completed..

Similar work means the work ending with last day of the month previous to the one in which the bids are invited should be as follows –

Construction of bridge having 4 lane (2+2 lane), 3.5 KM length or more length Elevated Metro/ flyover in urban area completed as a prime contractor (Single entity or Lead Member) during last 7years.

- 1 **Bid Capacity** - The bidder should have bid capacity in excess of the estimated cost put to tender as per bid capacity formula indicated below.

**Available Bid Capacity= (A x N x 2.5) – B**

Where A= Maximum value of Civil Engineering works executed in any one year during the last 7 (Seven) years (updated to the current year by a factor of escalation of 5% per year) which will take into account the completed and ongoing works.

B = Value of existing commitments and works (Ongoing) to be completed in the period stipulated for completion of work in the present bid.

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

**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 counter signed by the respective Employer or his authorized representative not below the rank of Executive Engineer.



- 2 **Other Information-** The bidder shall also submit the following information to ascertain the Bidder's ability to take up and complete the Works under the current Bid.
- i) Report on the financial standing of the bidder, such as profit and loss account statements and auditor's reports signed by Chartered Accountant for the last Sevenyears.
  - ii) Evidence of adequacy of working capital for this contract (access to lines of credit and availability of other financial resources.)
  - iii) Authority to seek references from the bidders bankers.
  - iv) **Information to ascertain the Bidder's capability of completing the work as per milestones specified within the stipulated times of completion with the following documents.**
    - Proposed Work Plan including Design capacity and schedule of design submissions and approvals.
    - Methodology of construction including traffic diversion and management on existing roads.
    - Equipment, Planning and Personnel Deployment with broad calculations to assure their adequacy.
    - Quality Management Plan & Environment Protection Plan proposed to be adopted.
    - Location of casting yard proposed for the work.





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## Section- IV Bidding Forms

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**LETTER OF TENDER**

**NAME OF CONTRACT:** DESIGN AND CONSTRUCTION OF SEWRI TO WORLI ELEVATED CONNECTOR ( 2<sup>nd</sup> call)

To,  
**Chief Engineer,**  
Mumbai Metropolitan Region Development Authority (MMRDA)  
Fifth Floor, New MMRDA Building,  
Bandra Kurla Complex,  
Bandra (East), Mumbai-400 051.

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We have examined the Conditions of Contract, Employer's Requirements and Addenda / CSD Nos. for the above name Works. We have examined, understood and checked these documents and have ascertained that they contain no error or other defects. We accordingly offer to design, execute and complete the Works and remedy any defects there in, inconformity with such documents and our enclosed Tender (including this letter) for the prices set out in our Tender.

We agree to abide by this Tender until \_\_\_\_\_ and it shall remain binding upon us and may be accepted at any time before that date.

If this offer is accepted, we will provide the specified Performance Security, commence the Works as soon as is reasonably practicable after the Commencement Date, and complete the Works in accordance with the above named documents within the Time of Completion. We guarantee that the Works will then conform with the Performance Guarantees included in this Tender.

We understand that you are not bound to accept the lowest or any tender you may receive.

**ENCLOSED SEPERATELY**

Signature \_\_\_\_\_

in the capacity of \_\_\_\_\_

Duly authorized to sign tenders for and on behalf of \_\_\_\_\_

Address: \_\_\_\_\_

Date: \_\_\_\_\_



*Ray*  
**Chief Engineer,**  
**Engineering Division**  
**M.M.R.D.A.**

**Form of Sub-Contractors**

<i>Item</i>	<i>Element of work</i>	<i>Approximate value</i>	<i>Statement of similar Works executed</i>
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a.The bidder shall enter in this schedule a list of the specialized works and approximate value of the work for which he proposes to use specialist sub contractors.



Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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**FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF OVER DRAFT/ CREDIT FACILITIES BANK CERTIFICATE****A) For Single Bidder format as given below-**

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

If the contract for the works, namely \_\_\_\_\_ is awarded to the above firm, we shall be able to provide over draft/credit facilities to the extent of INR equivalent \_\_\_\_\_ to meet their capital requirements for executing the above contract.

Sd/-


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Name of Bank Manager

Senior Bank Manager

Address of the Bank



  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

**FORM OF QUALIFICATION INFORMATION**

The information to be filled in by the Bidder in the following pages will be used for purposes of post qualification as provided for in Clauses 21.3 of ITB. This information will not be incorporated in the Contract.

**For Individual Bidders**

1.1 Constitution or legal status of Bidder  
*[Attach copy]*

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Place of registration: \_\_\_\_\_

Principal place of business: \_\_\_\_\_

Power of attorney of signatory of Bid  
*[Attach copy]*

1.2 Total value of Civil Engineering construction  
Work executed and payments received in the last Seven years\* (in Rs.Cr.)

- 2011-2012 .....
- 2012-2013.....
- 2013-2014.....
- 2014-2015.....
- 2015-2016.....
- 2016-2017.....
- 2017-2018.....

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1.3 Work Details-

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1.3.1 Work performed as prime contractor (in the same name) on works of a similar nature over the last Seven years.\*\*

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MMRDA  
*[Signature]*  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

Work of Similar Nature	Project Name	Name Of the Employer*	Description of Work	Value of contract (Rs.Cr.)	Date of issue of work order	Stipulated Period of completion	Actual Date of completion*	Remarks explaining reasons for delay and work completed	Deckarea For Flyover/ viaduct/ Metro Work Bridge in sq. m
One similar successfully completed works costing not less than Rs. 617 Crore <b>OR</b>									
Two similar successfully completed works each costing not less than Rs. 386.00 Crore <b>OR</b>									
Three similar successfully completed work each costing not less than Rs. 309.00 Crore									
<b>and</b> Must have successfully completed Elevated Metro / 4 lane flyover with one span having structural steel superstructure of length not less than 40 meters in Urban Area.									



Work of Similar Nature	Project Name	Name Of the Employer*	Description of Work	Value of contract (Rs.Cr.)	Date of issue of work order	Stipulated Period of completion	Actual Date of completion*	Remarks explaining reasons for delay and work completed	Deckarea For Flyover/ viaduct/ Metro Work Bridge in sq. m
and Must have successfully completed elevated metro / 4-lane flyover with precast segmental type having 1500m length in urban area as Prime contractor.									

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Chief Engineer,  
Engineering Division  
M.M.R.D.A.

1.3.2 Quantities of work executed as prime contractor (in the same name and style) in last Seven years : \*\*

Year	Name of the work	Name of the Employer	Quantity of work performed			Remarks* (indicate contract Ref)
			Pile foundation of Bridge above 1200 MM dia in RMT	Structural steel work in MT	Cement Concrete Above M40 Grade bridge construction	
2011- 2012						
2012 - 2013						
2013 - 2014						
2014 - 2015			<b>ENCLOSED SEPERATELY</b>			
2015 - 2016						
2016 - 2017						
2017 - 2018						

- \* Attach certificate (s) from the Auditors
- \*\* immediately preceding the financial year in which bids are received.
- ☐ Attach certificate (s) from the Engineer(s)-in-Charge/Employer

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1.4 Add table for Plant & Equipment proposed to be deployed by the Bidder for use on the work

Sr. No.	Name of Equipment	Total Requirement of Project			Equipment in Hand			Equipment to be Procured			Remark	
		No. of Unit	Type & Make	Capacity	No. of units	Manufacture & present Condition Year of	Present Location	No. of units	Type & Make	Capacity		purchase/ lease Through
1	Piling Equipment Rotary Rig											
2	Fully Automatic and Computerized Batching plant-2 nos ( 1 of 60 Cum/h and other one of 30 Cum/h) minimum or equavalant capacity in different configuration at casting yard with RO of suitable capacity for proper quality of water											
3	Concrete Pumps with boom placers											
4	Stationary concrete pumps with sufficient pipes											
5	Cranes in casting yard of suitable											

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Sr. No.	Name of Equipment	Total Requirement of Project			Equipment in Hand			Equipment to be Procured			Remark
		No. of Unit	Type & Make	Capacity	No. of units	Manufacture & present Condition Year of	Present Location	No. of units	Type & Make	Capacity	
	capacity										
6	Gantry of suitable capacity in casting yard										
7	Minimum no of pre-casting beds(typical)										
8	Transit mixers										
9	Trailers for carrying Girders - 75T capacity										
10	Survey instruments (Total Stations)										
11	Lab Testing equipment -fully equipped for site tests										
12	2nd/3rd Generation Pick and carry Hydra										
13	Tyre mounted cranes of minimum 300tonne capacity for erection										


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Sr. No.	Name of Equipment	Total Requirement of Project			Equipment in Hand			Equipment to be Procured			Remark	
		No. of Unit	Type & Make	Capacity	No. of units	Manufacture & present Condition Year of	Present Location	No. of units	Type & Make	Capacity		purchase/ lease Through
14	Excavators											
15	Front End Loaders											
16	Vibratory Rollers											
17	Motor Grader											
18	Water Tankers											
19	Dumpers/Tippers											
20	Plate Compactors											
21	Paver Finisher with Electronic sensor device											
22	Bituminous Boiler & Sprayer											
23	Mechanical Sweeper											
24	Tandom Roller											
25	Pugmil/mixing plant for WMM											
26	Generators											
27	Trucks											
28	Air compressors											

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 Chief Engineer,  
 Engineering Division  
 M.M.R.D.A.

# 00000 97

1.5 Information on Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

(A) Existing commitments and on-going works:

Description of Work	Place & State	Contract No. & Date	Name and Address of Employer	Value of Contract (Rs. Cr.)	Stipulated Period of completion	Value of works* remaining to be Completed (Rs. Cr.)	Anticipated date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>ENCLOSED SEPERATELY</b>							

(B) Works for which bids already submitted: (Note below table)

Description of Work	Place & State	Name and Address of Employer	Estimated Value of works (Rs. Cr.)	Stipulated period of completion	Date when decision is expected	Remarks if any.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>ENCLOSED SEPERATELY</b>						

Attach certificate (s) from the Engineer(s)-in-Charge/Employer OR Chartered Accountant.

1.6 Qualifications and experience of key personnel proposed for administration and execution of the Contract-

Attach CV for the following personals as per the table mentioned in cl.4.3.1 of Particular Conditions on pg.no 81.

Position	Name	Qualifications	Years of relevant experience	Total Years of experience
Team Leader				
Project Manager				
Bridge Engineer	<b>ENCLOSED SEPERATELY</b>			
Structural Engineer				
Geo-Tech Engineer				
Electrical Engineer				
Material Engineer				



- 1.7 Financial reports for the last Seven years: balance sheets, profit and loss statements, auditors' reports (in case of companies/corporation), etc. List them below and attach copies.

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- 1.8 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List them below and attach copies of support documents

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- 1.9 Name, address, and telephone, telex, and fax numbers of the Bidders bankers who may provide references if contacted by the Employer.

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- 1.10 Information on litigation history in which the Bidder is involved.

Other Party (ies)	Employer	Name of Work	Cause of dispute	Amount involved	Present Status	Remarks
<b>ENCLOSED SEPERATELY</b>						

- 1.11 Proposed work method and schedule. The Bidder should attach descriptions, drawings and charts as necessary to comply with the requirements of the Bidding documents /Bidding Data [Refer ITB Clause 21.3].

2. Additional Requirements **ENCLOSED SEPERATELY**

- 2.1 Bidders should provide any additional information required to fulfill the requirements of Clause 21.3 of the Instructions to the Bidders, if applicable.

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**FORM OF DECLARATION BY THE BIDDER**

I/ We hereby declare that I / We have made myself / ourselves thoroughly conversant with the local conditions regarding all materials and labour of which I /We have based on my / our rates for this bid. The specification and leads on this work have been carefully studied and understood before submitting this bid. I / We undertake to use only the best materials approved by Engineer or his representative or his duly authorized representative during execution of the work and to abide by the decision.

I/ We hereby declare that I / We have made myself / ourselves made site visit and are thoroughly conversant with Site of proposed project and the status, quantum & quality of work executed earlier.

1. We acknowledge that the Annexures to Tender forms part of our Bid.
2. We undertake, if our Bid is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Employer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Appendix to Tender.
3. We agree to abide by this Tender until 180 days and further extension of validity period and it shall remain binding upon us and may be accepted at any time before that date.
4. Unless and until a formal Agreement is prepared and executed, this Bid together with your written acceptance thereof shall constitute a binding Contract between us.
5. We undertake that in competing for (and if the award is made to us in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".
6. We understand that you are not bound to accept the lowest or any bid you may receive.
7. We certify/confirm that we comply with the eligibility requirements as per ITB Clause 3 of the bidding documents.
8. We attach herewith our current income tax clearance certificate\*.

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Name and address of agent	Amount and currency	Purpose of commission or gratuity
---------------------------	---------------------	-----------------------------------

**ENCLOSED SEPERATELY**



Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

Signature \_\_\_\_\_ in the capacity of \_\_\_\_\_  
duly authorized to sign bids for and on behalf of \_\_\_\_\_*[in block capitals or typed]*

Address: \_\_\_\_\_

Witness: \_\_\_\_\_

Address: \_\_\_\_\_

**ENCLOSED SEPERATELY**

Occupation \_\_\_\_\_

**SIGNATURE OF CONTRACTOR**

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**QUALITY ASSURANCE REQUIREMENTS ELEMENT OF  
QUALITY SYSTEM (ISO-9001-2008)**

The applicant(s) are required to provide details of their Quality Assurance Systems for criteria stipulated below, preferably in the form of their Quality Manual to be enclosed separately, in case the system is not finished in total, the extent to which it is completed and documented may be submitted.

1. Management
  - 1.1 Quality Policy Responsibility
  - 1.2 Organization
    - a) Responsibility and Authority
    - b) Resources
    - c) Management Representative
  - 1.3 Management Review
2. Quality System
  - 2.1 General Quality Manual (ISO:10013)
  - 2.2 Quality System Procedure
  - 2.3 Review
3. Contract Review
  - 3.1 General document procedure
  - 3.2 Review
  - 3.3 Amendment to a contract
  - 3.4 Records
4. Design control
  - 4.1 General Document procedure to DC
  - 4.2 Design & Development planning
  - 4.3 Organization & technical Interfaces
  - 4.4 Design Input
  - 4.5 Design output
  - 4.6 Design Review
  - 4.7 Design Verification
  - 4.8 Design validation
  - 4.9 Design Charges
5. Document & Data control
  - 5.1 General (Documented Procedures to control Documents & Data)
  - 5.2 Document & Data Approval and Issue
  - 5.3 Documents & Data changes
6. Purchasing
  - 6.1 General (Documented Procedures to control product)
  - 6.2 Evaluation of Sub-Contractors.
  - 6.3 Purchasing Data
  - 6.4 verification of purchased Product





## QUALITY ASSURANCE REQUIREMENTS

### GENERAL REQUIREMENTS

#### 1.1. APPLICABLE REGULATIONS AND STANDARDS-

The Contractor shall maintain and implement a Quality Management System that shall remain in effect during the execution of the Works. The Contractor's quality management system shall be in accordance with ISO 9001 - Quality Management System, the latest edition of the International Standard ISO 9001, and shall submit its quality management system documentation for Engineer's review as specified in this section.

#### 1.2. QUALITY MANAGEMENT SYSTEM-

The Quality Management System documentation shall include, but shall not be limited to the following:

- 1) project quality plan;
- 2) quality procedures, work instructions and standard forms;
- 3) design quality plan, site quality management plan and manufacturing quality plan; and
- 4) inspection and test plan

#### 2. QUALITY CONTROL-

The Contractor shall plan, perform and record all quality control activities to ensure that all work is performed in accordance with the requirements of the Contract and is detailed in the quality plans that are required under this section. Such activities shall include, without limitation, the inspections and/or test expressly or implicitly required by the Contract.

#### 2.1 QUALITY AUDITS-

Quality audits will be conducted by the Engineer to verify the Contractor's implementation and compliance with the quality management system as specified herein.

#### 3. SUBMISSION OF QUALITY DOCUMENTATION-

##### 3.1 QUALITY SYSTEM DOCUMENTS-

Quality system documents to be submitted shall embrace all activities of the Contractor and his Subcontractors of any tier, including his suppliers, Subcontractors and any consultants, for the execution of the Works.

##### 3.2 SUBMISSION-

Within 28 days after the Commencement Date, the Contractor shall submit the following documents for review by the Engineer:

- 1) project quality plan;



- 6.4.1 Supplier verification of Sub-Contracted product
- 6.4.2 Customer verification of Sub-Contracted product.
7. Control of customer supplied product.
8. Product Identification and Traceability
9. Process Control
  - a) Documented procedures
  - b) Suitable Equipment
  - c) Compliance of Quality Plan with respect to relevant codes.
  - d) Monitoring and control of Indicator properties.
  - e) Approval of process and Equipment
  - f) Workmanship
10. Inspection and Testing
  - 10.1 General Documented for procedures equipment for inspection and testing
  - 10.2 Receiving inspection and testing
  - 10.3 In-process inspection and testing
  - 10.4 Final inspection and testing
  - 10.5 Inspection and Test records
11. Control Inspection Measuring and Test
  - 11.1 General
  - 11.2 Control Procedure
12. Inspection Test Status
13. Control of non-conforming product
  - 13.1 General product
  - 13.2 Review and disposition of non-conforming product
14. Corrective and Preventive
  - 14.1 General Action
  - 14.2 Corrective and Preventive
  - 14.3 Preventive Action
15. Handling Storage
  - 15.1 General packing/preservation
  - 15.2 Handling and delivering
  - 15.3 Storage
  - 15.4 Packing
  - 15.5 Preservation
  - 15.6 Delivery
16. Control of Quality Records
17. Internal Quality Audit
18. Training
19. Servicing
20. Statistical Technique
  - 20.1 Identification of need
  - 20.2 Procedure

- 2) project quality procedures; and
- 3) design quality plan and any associated work instruction and/or standard forms that the Contractor proposes to be used for the Contract.

**3.3 DEVELOPMENT OF QUALITY MANAGEMENT SYSTEM-**

The Contractor shall note and install a Quality Management System for Construction of the Works.

**3.4 QUALITY MANAGEMENT PLAN AND MANUFACTURING QUALITY PLAN-**

The Contractor shall submit the separate Site Quality Management Plan and Manufacturing Quality Plans for managing and controlling the on-Site and manufacturing process for individual key items of the Works. These quality plans shall be submitted for review by the Engineer 28 days after the commencement date of the Works and manufacturing process covered by the plans respectively.

**3.5 INSPECTION AND TEST PLANS-**

The Contractor shall submit separate Inspection and test plans for managing and controlling the inspection and testing activities covering all key elements of the Works. These plans shall be submitted for review by Engineer one week prior to the date of commencement of the inspection and testing activities covered by the plans.

**3.6 AMENDMENT-**

The Contractor shall, and/or as requested by the Engineer, continuously review and update the quality system documents to meet the requirements and development of the Works throughout the duration of the Contract. For any amendment to the quality system documents, the Contractor shall as soon as practicable prepare and submit the proposed amendment for review by Engineer.

**4. CONTROLLED COPY OF QUALITY SYSTEM DOCUMENTATION-**

The Contractor shall promptly supply the Engineer with two (2) controlled copies of his quality system documents upon such documents being reviewed without objection by Engineer. The Contractor shall maintain such controlled documents throughout the duration of the Contract. In addition, the Engineer may request further copies of the quality system documents and these documents shall reach to Engineer office within fourteen (14) days of notification.

**5. FORMAT OF QUALITY SYSTEM-**

The quality system documents shall have a standardized format and show clearly on the document:

- 1) The document title, the document number (if any) and the page number on each page;
- 2) The approval signatures and the dated of such approval; and
- 3) The revision status, with the amendments identified within the revised documents.



**6. PROJECT QUALITY PLAN-**

The Project Quality Plan shall define the Contractor's management structure and the quality management system for the execution of the Works and shall, without limitation, define as follows:

- 1) The Contractor's organization-managerial staff, with particular reference to any member of a partnership, consortium or joint venture, and the main Subcontractors. Organization charts shall be produced to illustrate the subdivision of the Works into elements for effective technical and managerial control, the reporting structure and the relationship between all parties involved;
- 2) The appointment of a Quality Assurance Manager;
- 3) The specific allocations of responsibility and authority given to managerial and technical staff with particular reference to the design and Site supervision of the Works;
- 4) The hierarchy and structure of the overall quality system documents to be applied to the Contracts, and clearly indicating any particular documents to be followed by individual key members of the Contractor if applicable;
- 5) The Contract specific quality procedures, works instruction and/or standard forms, if applicable;
- 6) A full list of quality procedures, works instructions, and/or standard forms, including any contract specific documents, to be applied to the Contract. It shall be defined the specific ways to perform the related activities and the records to be generated as objective evidence of the activities performed or result achieved, and shall cover all the requirements of the International Standard ISO 9001 and the Contract including, but not limited to, the following activities:
  - a) The review, approval and updating of the quality system documents to ensure their continuing suitability and effectiveness;
  - b) Design control to all Works and/or Temporary Works, including design works carried out by Subcontractors and sub-consultants. The procedures shall clearly define the review, verification, Certificates as appropriate and validation processes of the design;
  - c) Drawing management in main office and Site office(s), including production, approval, updating, maintaining, storage and distribution;
  - d) Project document management, including registration, updating, indexing, filing, maintenance, storage and distribution;
  - e) Monitoring and control of Subcontractors with respect to program, submission and quality of works;
  - f) Monitoring of the submission and re-submission to the Engineer;
  - g) Monitoring of the ordering and delivery of materials, plant and equipment;
  - h) control of the Works;
  - i) Quality audits on the Contractor and Subcontractors of any tiers; and



- j) Establish and maintain a record in accordance with the Contract requirement provision.

**7. DESIGN QUALITY PLAN-**

The Contractor shall prepare a design quality plan for its design works. The design quality plan shall define the Contractor's and the Designer's policy for the design works.

- 1) The organization of the Contractor's and the Designer's design staff;
- 2) The specific allocations of responsibilities and authorities given to identified design staff or Subcontractors for particular design works;
- 3) The hierarchy of quality management system documentation for managing and controlling design works, including design works of Subcontractors of any tier; and
- 4) The list of procedures and instructions to be applied to manage and control the quality of the design works.

**8. SITE QUALITY PLAN-**

**8.1 PREPARATION**

The Contractor shall prepare a Site Quality Plan for its construction and installation works. The Site Quality Plan shall define, without limitation:

- 1) The organization of the Contractor's staff directly responsible for the day-to-day management of the construction and installation activities on the Site;
- 2) The specific allocations of responsibilities and authorities given to identified personnel or Subcontractors for particular construction and installation works;
- 3) The hierarchy of quality management system documentation for managing and controlling construction and installation works, including construction and installation works of Subcontractors of any tiers; and
- 4) The list of procedures and instructions to be applied to manage and control the construction and installation works together with the procedures and instructions that have not been previously submitted for review.

**9. MANUFACTURING QUALITY PLANS-**

**9.1 PREPARATIONS-**

Manufacturing quality plans shall define the Contractor's management structure and quality management system for the manufacture of the key items of the Works, and for the items as requested by the Engineer. Separate manufacturing quality plans shall be prepared for each item of the Works.

**9.2 SUBMISSIONS-**

The Contractor shall prepare and maintain a full list of all the manufacturing quality plans required for the Contract with submission status, and shall submit to the Engineer upon request.



**9.3 MANUFACTURING QUALITY PLAN STRUCTURE-**

- 1) Each manufacturing quality plan shall define, without limitation:
- 2) The scope of works and the item covered by the plan;
- 3) The organization of the Contractor and/or the Subcontractor responsible for the day-to-day management of the manufacture of the item;
- 4) The specific allocations of responsibility and authority given to personnel for the day to day management of the manufacturing activities with particular reference to the supervision, inspection and testing of works;
- 5) The specific methods of manufacture, including but not limited to the following:
  - 0 a) The particulars of the material to be incorporated into the items;
  - 1 b) The manufacturing process in compliance with drawings and specifications;
  - 2 c) The identification or referencing requirements for traceability of the manufactured items;
  - 3 d) The identification of the inspection and test status of the materials and final manufactured items;
  - 4 e) The disposition of nonconforming materials and manufactured items; and
  - 5 f) The handling, storage, packaging, preservation and delivery of the manufactured items.

**10. INSPECTION AND TEST PLAN-****10.1 GENERAL REQUIREMENT-**

Inspection and test plans shall be produced for all activities requiring inspection and/or test.

**10.2 SUBMISSION-**

The Contractor shall prepare and maintain a full list of all the inspection and test plans required for the Contract with submission status and review status, and shall submit to the Engineer upon request.

**10.3 INSPECTION AND TEST PLAN-**

Each inspection and test plan shall define, without limitation:

- 1) The scope of activity covered by the plan;
- 2) The sequence of work related to the activity covered by the plan;
- 3) The personnel responsible for undertaking the inspection and/or test;
- 4) The personnel responsible for certifying the inspection and test;
- 5) The inspection and/or test method or a reference to the relevant standard of inspection and/or test;
- 6) The frequency of the inspection and/or test;
- 7) The compliance criteria of the inspection and/or test;
- 8) The quality hold point and quality control points;



The documents to be used for reporting the results of the inspection and/or test, and with examples of such documents incorporated into the Inspection and Test Plan; and  
The storage locations and filing of the records of the inspection and/or test.

**11. QUALITY ASSURANCE MANAGER-**

**11.1 APPOINTMENT-**

The Contractor shall appoint a suitably qualified and experienced full-time person as the Quality Assurance Manager to be responsible for the task of establishing the documented quality management system and ensuring that the quality management system is implemented and maintained effectively.

**11.2 OBLIGATION**

The Quality Assurance Manager shall be directly responsible to the senior level of management and is able to discharge his duties without hindrance or constraint. In addition, the Contractor shall make available any such resources that are necessary to ensure the effective implementation of the quality management system.

**11.3 ENGINEER'S REVIEW-**

The Contractor shall submit for review by the Engineer details of qualifications, experience, authority and responsibility of the proposed Quality Assurance Manager, as part of the Project Quality Plan.

**12. QUALITY AUDITS-**

**12.1 REPORT PROGRESS-**

The Contractor shall carry out Quality Audits on the Works at regular intervals, or at such other intervals as the Engineer may require at his own cost, ensuring the continuing suitability and effectiveness of the quality management system. Reports of each such audit shall be submitted promptly to the Engineer for review.

**12.2 ENGINEER'S REVIEW-**

The Contractor shall submit for review by the Engineer details of the authority, qualifications and experience of personnel assigned to quality audit activities before carrying out quality audits.

**12.3. QUALITY AUDITS CARRIED OUT BY EMPLOYER'S PERSONNEL-**

The Engineer may require Quality Audits on the Contractor and his Subcontractors of any tier to be carried out by his representative or the Employer's staff. In such case, the Contractor shall afford to such auditors all necessary facilities and access to the activities and records to permit this function to be performed.



**12.4. CORRECTIVE AND PREVENTIVE ACTIONS-**

Upon receipt of Corrective Action Request (CAR) or similar document issued by the Engineer as a result of Quality Audits, the Contractor shall promptly investigate the matter and submit the proposed corrective and preventive actions within 14 days to the Engineer for review. The Contractor shall take timely corrective and preventive actions to rectify the matter and to prevent re-occurrence. Evidence to demonstrate effective implementation of corrective and preventive actions shall be submitted by the Contractor to the Engineer for review.

**13. NOTIFICATION OF NON-CONFORMITIES-****13.1 NOTIFICATION OF THE CONTRACTOR**

If, prior to issue of the Taking-Over Certificate for the Works or the relevant Section, the Contractor has used or proposes to use or repair any item of the Works that does not conform to the requirements of the Contract, the Contractor shall immediately submit for review by the Engineer of such proposal and supplying full particulars of the non-conformity and, if appropriate, the proposed means of repair.

**13.2 NOTIFICATION OF THE ENGINEER-**

If the Engineer issues nonconformity report or similar documents to notify the Contractor of any item of the Works which does not conform to the requirements of the Contract, the Contractor shall promptly investigate the matter and, within 14 days of notification by the Engineer, submit to the Engineer for review the remedial measures and necessary actions to be taken to rectify the item and to prevent re-occurrence.

**13.3 NON-CONFORMITY REGISTER-**

The Contractor shall maintain and update a Nonconformity Register to indicate the status of all nonconformities that are identified by the Engineer/ and or the Contractor. The Contractor shall submit the register for review upon request by the Engineer.

**14. MONTHLY PROGRESS REPORT ON QUALITY MANAGEMENT SYSTEM-**

The Contractor shall continuously monitor the performance of the quality management system and shall include in each Monthly Progress Report:

The submission status and review status of the quality system documents;

An up-to-date audit schedule and status;

An up-to-date nonconformity register providing the status of all nonconformity identified by the Engineer or the Contractor within the reporting period and those nonconformities not yet satisfactorily closed; and

A narrative appraisal of the performance of the quality management system, including any nonconformity, shortcomings or problem areas identified and the corrective and preventative action taken or proposed.



The Contractor shall provide and maintain at all stages of the Works a quality control register or registers to identify the status of inspections, sampling and testing of the work and all certificates. Such register shall be updated by the Contractor to show all activities in previous months.

Each register shall:

List the certificates received for each batch of goods and materials incorporated in the Works and compare this against the certification required by the Contractor and the Contractor's quality plans;

List the inspection and testing activities undertaken by the Contractor on each element of the Works and compare these activities against the amount of inspection and testing required by the Contract and the Contractor's quality plans;

Show the results of each report of inspection and/or test and any required analysis of these results and compare these results against the pass/fail criteria; and

Summaries any actions proposed by the Contractor to overcome any nonconformity identified in Clause 12.

15. **QUALITY RECORDS-**

The Contractor shall ensure that all the quality records as objective evidence of the implementation of the quality management system are properly indexed, filed, maintained, updated and stored in an acceptable software system. These records will be delivered to the Engineer in CD form upon completion of the Works.



# Section-V

## General Conditions



## Section V General Conditions (GC)

The Conditions of Contract comprise the 'General Conditions', which form part of the "Plant and Design-Build" First Edition 1999 published by the *Fédération Internationale des Ingénieurs- Conseils* (FIDIC). These Conditions are subject to the amendments and additions to such General Conditions as per Part II hereof entitled "Particular Conditions."

GC is deemed to be a part of contract.

Bidders are advised to purchase copies of the FIDIC Conditions of Contract from:

FIDIC Secretariat  
P.O. Box 86 1000 Lausanne 12  
Switzerland Facsimile: 41 21 653 5432  
Telephone: 41 21 653 5003



## Section - VI Particular Conditions

**CLAUSE 1****Sub Clause: 1.13 Compliance with Laws-**

Substitute (b) with

(b) the contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, such as Permission from Railways, Traffic Police, MCGM, MBPT, Utility Agencies and Environmental Agencies etc, Licenses and approvals, as required by the Laws in relation to the execution and completion of the works and the remedying of any defects : and the Contractor shall indemnify and hold the Employers harmless against and from the consequences of any failure to do so

**Sub Clause: 1.15 Inspection and Audit by Employer (New clause)-**

The Contractor shall permit the Employer or the persons appointed by the Employer to inspect the site and / or the Contractors accounts and records relating to the performance of the Contract and to have such accounts audited or the Employer or the Auditors appointed by the Employer if required by the Employer.

**Sub Clause: 1.16 Details to be confidential (New clause)-**

The Contractor shall treat the details of the Contract as private and confidential , except to the extent necessary to carry out obligations under it or as agreed with the Employer, The Contractor shall not publish ,permit to be published, or disclose any particular of the works in any trade or technical paper or elsewhere except with the written consent of the Engineer and subject to such conditions as he may prescribe.

**Delete 1.5 and Substitute-****Priority of Documents**

The documents forming the contract are to be taken as mutually explanatory of one another. For the purpose of interpretation the priority of document shall be as follows

1. The Contract Agreement
2. The letter of Acceptance
3. Letter of Tender
4. Particulars Conditions
5. General Conditions of Contract
6. Employers Requirement
7. Technical Specifications
8. Schedules
9. Contractor's Proposal and other documents forming part of Contract.

If an ambiguity or discrepancy is found in the documents, the Engineer shall issue any necessary clarification or instruction.

The Parties shall enter into a Contract Agreement within 28 days after the Contractor receives the Letter of Acceptance, unless they agree otherwise. The Contract Agreement shall be based upon the



**Section VI.****Particular Conditions (PC)**

The Conditions of Contract comprise the 'General Conditions', which form part of the "Plant and Design-Build" First Edition 1999 published by the Fédération Internationale des Ingénieurs-Conseils (FIDIC), and the following "Particular Conditions", which include amendments and additions to such General Conditions.



form annexed to the Particular Conditions. The Costs of stamp duties and similar charges (if Any) imposed by law in connection with entering into the Contract Agreement shall be borne by the Contractor.

**Add Sub Clause 1.8.1 as under-**

**As-Built Drawings-**

On the basis of all Drawings relating to the work, the Contractor, at his own expense, shall prepare. "As- Built Drawings" using the latest software Auto CAD to record the precise details of the work completed.

A copy of the Auto CAD Drawings shall be provided to the Engineer or his representative on a monthly basis for approval and to record all details relating to progress and developments. The final copy of the Auto CAD Drawings shall be provided on CD as well as 8 sets of hard copies (A1 size) at the time of issue of the Statement of Completion. Failure to provide within 60 days of completion project, the amount will be withheld as per Contract Data / Appendix to Tender.

**Add Sub Clause 1.8.2 as under-**

The Contractor shall also arrange to take photographs as directed by the Engineer or his representative, depicting various details and stages of progress of works and submit them in duplicate in proper albums for records.

All detailed working drawings, design calculations and fabrication drawings for temporary works (such as form work, staging, centering, scaffolding, specialized construction, handling and launching equipment and the like) as well as bar bending schedule for reinforcement, material list for structural fabrication as well as detailed drawings for templates and anchorage and temporary support details for pre-stressing cables etc. shall be prepared by the contractor at his own cost and forwarded to the Engineer or his representative at least 2 weeks in advance of actual constructional requirements. Within one week of receipt, the Engineer or his representative will check and return one copy of the same for the contractor's use with amendments if any, marked on them after due discussion and agreement with the contractor. Such approval shall not relieve the contractor of any of his responsibilities in connection with temporary works. The contractor will supply two copies of the approved drawings for the Engineer or his representative's use. The cost of preparing all such items of work shall be deemed to have been included in the respective rates or price quoted by the Contractor.

**CLAUSE 2**

**Sub Clause 2.1 Right of Access to the Site-**

Delete (b)

**Add Sub Clause 2.1 (c)**

The Contractor has to plan the completion of activities as per



availability of land in stages.

The Contractor shall have to make his own arrangements for land as required by him for casting yard & development of casting yard, borrow areas, quarries, site offices, crusher, batching plant, laboratory, labour camp, other camp etc.

No separate payment will be made for development of casting yard.

No land will be arranged/made available by MMRDA. However the actual expenses made by contractor towards rent of casting yard will be reimbursed on production of authentic proof for the same under the provision of Provision sum limiting to 40 Cr. The contractor has to bear charges towards Security deposit of casting yard (If any) and the same shall not be reimbursable.

**Delete Sub Clause 2.4 Employer's Financial Arrangements -**

### **CLAUSE 3**

#### **Sub-Clause 3.1- Engineer's Duties and Authority-**

Add the following:

The Engineer's duties and Authority will in principle comprise the following with approval of Employer:

- (i) Approving Contractor's design
- (ii) Payment to contractors bills
- (iii) Granting claims to the Contractor
- (iv) Granting extensions of time to the Contractor
- (v) Ordering suspension of Work
- (vi) Instructing additional work and / or varying quantities of work included in the contract under clause 13 of the conditions of Contract.
- (vii) Fixing rates for additional works.

Notwithstanding anything contained in this sub-clause, it, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibilities under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of the Employer, with any such instruction of the Engineer.

#### **Sub-Clause 3.1(a)- Engineer's Representative's Duties and Authority [New sub clause]-**

The Engineer's Representative's duties and authority will in principle comprise the following:

- I. Attending day-to-day work.
- II. To hold site review meetings (sub cl. 4.21.1).
- III. Discussion with Contractor's design Consultant. (sub cl. 5.1).
- IV. Approving contractor's Design. (sub cl.5.2)
- V. To object the Contractor's employees (sub cl.6.13)
- VI. To inspect the record of Contractor's personnel and equipment (sub cl.6.18).
- VII. Determination of cost of tests delayed by the Employer (sub cl.12.2).
- VIII. Certification, determination, instruction, opinion or evaluation of disputes (sub cl.20.2)





- IX. Superintendence of the work as directed by the Engineer from time to time till Final Bill is paid, Defect Liability period is over and all disputes are settled.

**Sub - Clause 3.2 Delegation by the Engineers -**

The Engineer shall obtain the specific approval of the Employer before taking action under the following Clause / sub -Clause of these Conditions:

- a) Clause 3.5 Determinations
- b) Sub- Clause 8.4 : Agreeing or determining an extension of time and / or additional cost .
- c) Sub - Clause 13.1: Instructing a Variation, except:
  - I. In an emergency situation as determined by the Engineer, or
  - II. If such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the Appendix to Tender.
- d) Sub-Clause 13.3 : Approving a proposal for Variation submitted by the Contractor in accordance with Sub Clause 13.1 or 13.2

**Sub- Clause 3.6 - Site Meetings (New Clause)-**

The Engineer shall summon all parties concerned to the first Site Meeting where he shall decide upon the future meetings.

It is the duty of the Contractor or his Representative to participate in the Site Meetings.

The purpose of the Site Meetings is to coordinate the various work components with the Contractor, to register the time in relation to the Program and to record agreements made.

**CLAUSE 4**

**Add the following sub-clauses after Sub Clause 4.1**

**Add Sub Clause 4.1.1 as under-**

**Number of Copies of Construction Documents-**

The Contractor shall supply to the Engineer or his representative printed paper copies (hard copies) of each of the Contractor's Documents. Additionally two 'soft' copies in Acrobat PDF format and two copies in editable format should be supplied. The number of copies to be submitted shall be as mentioned in the Designs Criteria below.

**Add Sub Clause 4.1.2 as under-**

The Contractor shall maintain all the records till the completion of defect liability period or till the claims and court matters, if any, pertaining to the work are settled whichever is later and handover the same to the Employer through the Engineer or his representative.

**Add Sub Clause 4.1.3 as under-**

**Permissions and Coordination with Authorities-**

The Contractor shall have to maintain liaison with the various authorities such as municipal authorities, traffic police, and revenue officials and secure the necessary clearances and



permissions as may be required for carrying out the construction activities. Engineer or his representative / MMRDA will provide the necessary assistance as may be required.

**Add Sub Clause 4.1.4 as under-  
Enabling Works-**

The Contractor shall supply, fix and maintain at his own cost during the execution of works, all the necessary centering and scaffolding, staging, planking, timbering, strutting, shoring, pumping, fencing, hoarding, barricading, watching and lighting by night, flagmen / traffic wardens as well as the necessary equipment for protection of public and safety of any adjacent roads and railway lines. The Contractor shall remove any or all such centering scaffolding, staging planking and equipment when ordered to do so by the Engineer and make good all matters and things disturbed during the execution of works to the satisfaction of the Engineer. Such works shall be deemed to be included in the lump-sum offer quoted by the Contractor and no additional / extra payments shall be made for such works.

**Sub Clause 4.2: Performance Security-**

**Add Sub Clause 4.2.1 as under-**

The performance security, amount as per Appendix to Tender submitted by the Contractor in accordance with Sub Clause 4.2, shall be either in the form of Demand Draft drawn in favour of MMRDA or in the form of bank guarantee furnished by any Nationalized Bank or State Bank of India, or Banks promoted by all India Financial Institutions including HDFC excluding Axis bank, issued from any of its branches in Maharashtra State. Performance security shall be furnished within 28 days from the date of issue of Letter of Acceptance, failing which the Contractor will be liable for action as per Sub Clause 4.2.2 of ITB and action as per Clause 15.1.1 of Particular Conditions Section II Part- II. The Performance Security submitted shall be valid up to 28 days from the date of issuance of Performance Certificate by the Employer and it shall carry no interest.

**Add Sub Clause 4.3.1-**

**Criteria for Contractor's Personnel-**

**Design Team:** The Contractor shall get the Project Designs prepared through an in house design team or outsource the designs to a specialist design consultant (the Contractor shall be solely responsible for the design of Structures). The contractor's in-house design team or the specialist design firm should have wide experience on similar projects and the dedicated team for the Project should have following personnel:

Sr. No.	Position	No. of Persons	Minimum Qualification by Number of years of Experience
1	Team Leader	1	M. Tech (Structures) 20 Years in Bridge / Flyover / Major Creek Bridge Designs.
2.	Bridge / Flyover Designs Engineer or his representative (Structural Engineer)	2	M.Tech (Structures) with 10 Years relevant experience
3.	Highway Design Engineer or his representative Traffic Engineer	1	M.E. (Transportation) with 10 Years relevant experience



	[Transportation]		
4.	Geotechnical Expert	1	M.E. / M. Tech. (Geotechnical) with 10 Years relevant experience.

**Project Management Team-**

The Contractor shall possess with him a team for Project Management comprising Chief Project Manager, Project Managers, Resident Engineer or his representatives, Quality Control Engineer or his representatives, Materials Engineer or his representatives, and Safety Engineer or his representatives with adequate expertise and experience. The Contractor shall supply to the Engineer or his representative the details of all the Supervisory and other staffs employed by the Contractor and notify changes when made and satisfy the Engineer or his representative regarding the quality and sufficiency of the staff thus employed. The Engineer or his representative will have the unquestionable right to ask for changes in the quality and number of Contractor's Supervisory staff. The Contractor shall comply with such orders and effect replacement to the satisfaction of the Engineer or his representative. The minimum requirements in respect of the Key personnel (full time) are as follows:

Sr. No.	Position	No. of Persons (min)	Minimum Qualification by number of years of Experience
1	Chief Project Manager	1	Graduate Civil Engineer with experience of 25 years in handling similar works/projects.
2	Project Managers or his representative	1	Graduate Civil Engineer with experience of 20 years in handling similar works/projects.
3	Sr. Construction Managers or his representative	1	Graduate Civil Engineer with experience of 15 years in handling similar works/projects.
4	Sr. Bridge Engineer	2	Graduate Civil Engineer with experience of 12 years in handling Bridges/Flyovers.
5	Site Engineer	6	Graduate/Diploma Civil Engineer with experience of 5 years in handling similar works/projects.
6	Sr. Surveyor	1	Graduate/Diploma Civil Engineer with experience of 10 years in handling similar works/projects.
7	Surveyor	2	Graduate/Diploma Civil Engineer with experience of 5 years in handling similar works/projects.
8	Materials Engineer or his representative	2	Graduate Civil Engineer with experience of 10 years in handling similar works/projects.
9	Quality Control Engineer or his representative	1	Graduate Civil Engineer with experience of 7 years in handling similar works/projects.
10	Lab Technician	2	Graduate/Diploma Civil Engineer with experience of 5 years in handling similar works / projects.
11	Safety Managers	1	Graduate Civil Engineer with experience of 10 years in handling similar works /projects and exp.



Sr. No.	Position	No. of Persons (min)	Minimum Qualification by number of years of Experience
			in safety audits at least 2 nos. flyover/bridge construction project.
12	Safety Engineer or his representative	1	Graduate Civil Engineer with experience of 7 years in handling similar works/projects and exp. in safety audits at least 2 nos. flyover / bridge construction project.
13	Contract Expert (part time)	1	Graduate Civil Engineer with experience of 10 years in handling similar works/projects.
14	Electrical Engineer	1	Graduate Electrical Engineer with experience of 7 years in handling similar works / projects.
15	Sr. Quantity Surveyor	1	Graduate Civil Engineer with experience of 12 years in handling Bridges / Flyovers.
16	Quantity Surveyors	1	Graduate/Diploma Civil Engineer with experience of 10 years in handling Bridges / Flyovers.
17	Planning Engineer (parttime)	1	Graduate Civil Engineer with experience of 10 years in handling similar works/projects.

**Add Sub Clause 4.4 Sub-Contractors-**

The Contractor shall ensure that the requirements imposed on the Contractor by Sub-Clause 1.12 [Confidential Details] apply equally to each Subcontractor.

Where practicable, the Contractor shall give fair and reasonable opportunity for Contractors from the Country to be appointed as Subcontractors.

**Add Sub Clause 4.6.1-**

**Opportunities and Facilities for Other Contractors Agencies Etc-**

The Contractor shall, in accordance with the requirements of the Engineer afford all reasonable opportunities for carrying out their work to any other Contractors employed by the Employer and their workmen and to the workmen of the Employer and of any other duly constituted authorities who may be employed in the execution on or near the site of any work not included in the Contract or of any contract which the Employer may enter into in connection with or ancillary to the works. If, however, the Contractor shall on the written request of the Engineer or Engineer make available to any such other Contractor or to the Employer or any such Authority any roads or ways for the maintenance of which the contract or is responsible or permit the use of by any such of the Contractor's scaffolding or any other plant on the site or provide any other service of whatsoever nature, for any such the Employer shall pay to the Contractor in respect of such use of service such sum or sums as shall in the opinion of the Engineer be reasonable.

**Substitute Sub Clause 4.7 by the following-**

Setting out

The Contractor shall be responsible for:



- a) the accurate setting- out of the Works in relation to original points, lines and levels of reference given by the Engineer or his representative in writing,
- b) the correctness, subject as above mentioned, of the position, levels, dimensions and alignment of all parts of the Works, and
- c) the provisions of all necessary instruments, appliances and labour in connection with the foregoing responsibilities.

If, at any time during the execution of the Works, any error appears in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required so to do by the Engineer or his representative, shall, at his own cost, rectify such error to the satisfaction of the Engineer or his representative, unless such error is based on incorrect data supplied in writing by the Engineer or his representative. In such case the Engineer or his representative shall determine an addition to the Contract Price in accordance with Clause 13.1 and shall notify the Contractor accordingly, with a copy to the Employer.

The checking of any setting- out or of any line or level by the Engineer or his representative shall not in any way relieve the Contractor of his responsibility for the accuracy thereof and the Contractor shall carefully protect and preserve all bench- marks, sight-rails, pegs and other materials used in setting- out the Works. In addition to above, the checking at all the setting out of the proposed works, relative to existing ground features shall be undertaken prior to the commencement of fabrication of structural steel works for substructure/foundation/superstructures etc., including providing the facility for the Engineer or his representative to undertake a timely check on this setting out and alerting the Engineer or his representative to any likely problems foreseen.

The Contractor shall give to the Engineer or his representative a notice not less than 48 hours in advance of his intention to set out or layout for any part of the works, so that timely assignment can be made for checking the same.

#### **Sub-Clause 4.8- Safety- Procedures-**

Add the following:

The Contractor shall have his own staff at the Site an officer dealing only with issues regarding the safety and protection against accidents of all staff and labour. This officer shall be qualified for this work and shall have the Authority to issue instructions and shall take protective measures to prevent accidents. The Engineer shall have the Authority to seek deployment of a suitably qualified officer for the above position or seek replacement of the officer already deployed by the Contractor in case the Engineer considers that the officer deployed is unsuitable for this work.

#### **Add Sub Clause 4.9.1 as under- Working methods-**

- a) The Contractor shall submit within the time stipulated by the Engineer or his representative in writing, the details of actual methods that would be adopted by the Contractor for the execution of any item as required by the Engineer or his representative at each of the locations, supported by necessary detailed drawings and sketches including those of the



equipment and machinery that would be used, their locations, arrangements for conveying and handling materials etc. and obtain prior approval of the Engineer or his representative well in advance of starting of such item of work. The Engineer or his representative reserves the right to suggest modifications or make complete changes in the methods proposed by the Contractor, whether accepted previously or not, at any stage of work with prior approval of the Employer to obtain the desired accuracy, quality, safety and progress of work which shall be binding on the Contractor and no claims on account of such change in methods of execution will be entertained by the Employer, so long as specifications of the items remains unaltered.

- b) The Contractor shall furnish sufficient plant, equipment and labour as may be necessary to maintain the progress schedule. The working and shift hours for operations to be done under the supervision shall be such as may be approved by the Engineer or his representative. They shall not be varied without prior approval of the Engineer or his representative. The Contractor shall provide necessary lighting arrangements etc. for night work, as directed by the Engineer or his representative with no extracost.
- c) A work order book shall be maintained on the site and it shall be the property of the Employer and the Contractor shall promptly sign orders given therein by the Engineer or his representative or his authorized representatives to comply with them. The compliance shall be reported by the Contractor to the Engineer or his representative in good time so that it can be checked. The blank work order book with machine numbered pages in quadruplicate with perforated sheet for three copies to be detached will be maintained by the Engineer or his representative for this purpose. Whenever any instructions are written in the work order book, the Contractor will be supplied the first carbon copy.

**Substitute Sub- Clause 4.10 by the following-  
Site Data**

The Contractor shall be deemed to have obtained all necessary information as to risks, Contingencies and other circumstances which may influence or affect the Tender or Works. The Contractor shall be deemed to have inspected and examined the Site, its surroundings, the data made available by the Employer and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):

- (a) *form and nature of the Site, including sub-surface conditions,*
- (b) *hydrological and climatic conditions,*
- (c) *extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,*
- (d) *Laws, procedures and labour practices of the Country and*
- (e) *Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and others services.*

The Contractor shall be responsible for his interpretation of the data without any liability there for on the Employer.



**Add Sub Clause 4.10.1 as under-**

The foundation strata indicated on the drawing supplied with the bid is indicative only. The cost of taking one bore at each of the foundation location as per technical proposal of the Contractor and at 50 meter interval along each retaining wall and one bore hole at 20 m beyond the end of retaining wall will be deemed to be included in the Bid. The boring shall extend minimum 5.00 meters below proposed foundation level if the geological formations suggest rapid changes in the strata. The Contractor shall be responsible for preserving the samples and testing the samples to justify the assumptions made in the design at his own costs.

**Substitute the Sub Clause 4.12 by the following-**  
**4.12 Unforeseeable Physical Conditions**

In this Sub-Clause, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.

If the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable, the Contractor shall give notice to the Engineer as soon as practicable.

This notice shall describe the physical conditions, so that they can be inspected by the Engineer, and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Engineer may give. If an instruction constitutes a Variation, Clause 13 [Variations and Adjustments] shall apply. If and to the extent that the Contractor encounters physical conditions which are unforeseeable, gives such a notice, and suffers delay due to these conditions, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion].
- (b) Deleted.

After receiving such notice and inspecting and/or investigating these physical conditions, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent these physical conditions were Unforeseeable, and (ii) the matters described above related to this extent.

However extension of time will be determined by the Engineer after review, whether other physical conditions in similar parts of the works (if any) were more favorable than could reasonably have been foreseen when the contractor submitted the Tender.

The Engineer may take account of any evidence of the physical conditions foreseen by the Contractor when submitting the Tender, which may be made available by the Contractor, but shall not be bound, by any such evidence.

**Add sub Clause 4.13.1 Quarries-**

The Contractor will have to make his own arrangement of acquiring land for quarries including all necessary permissions from Concern Authorities. The Contractor shall carry out all quarrying operations without endangering the environment and natural beauty of surrounding.

No land shall be made available by the Employer for dumping / stacking of all excess and un- useful excavated materials and the Contractor has to make his own arrangement for the same at his cost.

**Add Sub Clause 4.15 (f) as under-**

**Maintenance of existing roads / Flyovers / Bridges-**

During execution of work, the Contractor shall be responsible for the day to day maintenance & Ordinary repairs of existing road as well as diverted road, storm water drains, cross culverts/drain etc. including monsoon season of the complete length of the road right from the date of the work order till handing over of road to concern authority, even though he proposes to take up the length for improvement in phases. His offer / rates shall be deemed to be inclusive of the cost of such repairs and no separate payment towards these maintenance would be payable to him. In case the Contractor neglects or fails to carry out maintenance to the satisfaction of the Engineer or his representative, the Engineer or his representative shall have the Authority to get the same carried out through any other agency at the risk and cost of the Contractor.

**Add Sub Clause 4.15 (g) as under-**

**Temporary Diversions, Maintenance of Same and Traffic Management-**

Traffic management shall be undertaken by the Contractor during scheduled and non-scheduled construction activities including any emergency situation, whereas the Employer will be responsible for the traffic management after Taking-Over of the Works including the Defects Notification Period. Extent of the traffic management to be undertaken by the Contractor shall be assessed and determined to suit the site condition.

The Contractor shall provide, erect, maintain, cover, uncover and remove traffic signs as required during construction of the Works. An adequate level of safety shall be ensured during night time by providing mobile emergency lighting units with electrically flashing and/or illuminated warning signs at important locations and reinstated upon completion of the Works. A prior approval on the proposed provisions shall be obtained from the Engineer.

The basic principles to be followed for the traffic management during construction shall be as follows:

- Construction schedules shall be prepared such that traffic diversions are minimized; and an overall traffic management plan and programme for a planned, scheduled construction activity shall be prepared in advance of commencement of the activity and an approval thereon obtained from the Concern traffic department.
- The plan shall be based on the following minimum operational parameters:
- At major intersections, all turning traffic movements as usual will be allowed at all times;





- Lane closure adopted for diverting the main traffic during construction of the Works shall be compatible with the approved construction programme;
- Speed of traffic through the construction zone shall be reduced by speed-breakers/humps and warning signs;
- For the safety of construction workers, as well as the road users, physical separation of 1.5 m between the work area boundary and the traffic shall be maintained;
- All construction vehicles shall enter and exit the construction site at designated and manually controlled entrances that must be provided with adequate signage and safety precautions;
- All short and long term temporary road detours (diversions) proposed shall be approved by the Engineer in advance; and
- Provision of adequate advance/preliminary warning and information signs shall be incorporated in the traffic management plan in accordance with the applicable IRC/MoRTH standards and specification.
- Providing Fixing & Maintaining Solar Blinkers or Warning Lights on either side of the portion of the carriageway close to traffic etc.complete as directed by engineer/traffic department
- Providing Fixing & Maintaining Safety Cones and studs of 1000 MM Height on either side of the portion of the carriageway close to traffic etc.complete as directed by engineer.
- Positioning of a smart flagman with a yellow vest and a yellow cap and a red flag, 600X600mm securely fastened to a staff 1m in length for guiding the traffic as directed by Engineer / traffic department

In addition to provisions made in the technical specifications, it is stipulated that the Contractor shall construct, maintain and carryout the traffic management by providing all safety features like safety barricading etc as per latest version of IRC specification. Contractors offer / rates shall be deemed to be inclusive of the cost of traffic management and no separate payment towards these maintenance would be payable to him.

#### **Add Sub Clause 4.18.1 Environmental Constraints-**

The Contractor shall prepare an Environmental Management Plan and get it approved from the Engineer or his representative and ensure that he adheres to the stipulations of various environmental laws and regulations in force.

The Environment Protection Act 1986: this provides for protection and improvements of environment and for matters connected there with, and the prevention of hazards to human beings, other living creatures, plants and properties. Environment includes water, air & land and inter relationship which exists among and between water, air, land and human beings, other living



creatures, plants, micro-organism and property.

Under the section 6 & 25 of this Act, the waste generated through construction / demolition is to be disposed strictly as per the rule and MCGM norms also informed to Client regarding the action.

**Add Sub Clause 4.18.2 Environmental Safeguards-**

The Contractor shall take action of following points and note the stipulations as under as regards environmental safeguards as stipulated by the Ministry of Environment and Forests and by the SEIAA and by local Competent Authority.

- i) Appropriate measures shall be undertaken while undertaking digging activities to avoid degradation of water quality.
- ii) Borrow pits and other scars created during the road construction shall be properly leveled and treated.
- iii) Adequate provision for infrastructures facilities, i.e. water supply, fuel, sanitation, etc. shall be ensured for labourers during construction period in order to avoid damage to the environment.
- iv) No excavation from or dumping of waste materials into any water body / wetlands shall be done.
- v) Borrow sites for earth, quarry sites for road construction and dump site shall be identified keeping in view:
  - a. No excavation or dumping on private property is carried out without written consent of the owner.
  - b. No excavation or dumping shall be allowed on wetlands, forests or other ecologically valuable or sensitive locations.
  - c. The excavation work shall be done in consultation with soil conservation and watershed development agencies working in the area:
  - d. Construction spoil including bituminous material and other hazardous material must not be allowed to contaminate water course and the dump sites. For such materials site must be identified well in advance before construction and lined properly so that they do not leach into the groundwater.

**Substitute Clause 4.19 by the following-**

**4.19 Electricity, Water and Gas-**

The Contractor shall be responsible to make his own arrangement at his own cost and to pay all charges for connections, consumptions, deposits etc., for supplies of electricity, water, gas and other services at his sites, camps, and other locations of his activities related to the Works. However, the Employer will assist the Contractor in obtaining necessary permissions from the Concerned Authorities by way of recommending/certifying the requirement for the Works.

**Delete Clause 4.20 and substitute as under-**

**4.20 Employer's Equipment-**

The Contractor shall arrange his own machinery, equipment and material required for



the work. Employer shall not provide Contractor any machinery, equipment & material.

**Add Sub Clause 4.21.1 as under -**

The Contractor shall depute his representatives not below the rank of project Manager to attend periodic review meetings notified by the Engineer .The Engineer shall record business of meetings and provide copies of same to the Contractor and to the Employer.

**Progress schedules-**

- a) The Contractor shall submit the progress of work in prescribed forms and statements at periodical intervals in the form of progress charts, forms, statements and / or reports as may be approved by the Engineer or his representative.
- b) The Contractor shall maintain pro-forma, charts, details regarding machinery, equipment, labour, materials, and periodical returns thereof as may be specified by the Engineer or his representative.

**4.21.2 Contractor's Documents -**

The Contractor's Documents shall comprise the technical documents specified in the Employer's Requirements, documents requires to satisfy all regulatory approvals ,and the documents described in Sub - Clause 5.6 [As-Built Documents ] and Sub Clause 5.7 [ Operation and Maintenance Manuals ].

Unless otherwise stated in the Employer's Requirements, the Contractor's documents shall be written in the language for communications defined in Sub - Clause 1.4 [Law and Language ] .

The Contractor shall prepare all Contractor's Documents and shall also prepare any other documents necessary to instruct the Contractor's Personnel. The Employer's Personnel shall have the right to inspect the preparation of all these documents, wherever they are being prepared.

If the Employer's Requirements describe the Contractor's documents which are to be submitted to the Engineer's Representative for review and / or for approval, they shall be submitted accordingly, together with a notice as described below. In the followings provisions of this Sub-clause, (i) " review period "means the period required by the Engineer's Representative for review and (if so specified) for approval, and (ii) "Contractor's Documents " exclude any documents which are not specified as being required to be submitted for review and / or for approval.

Unless otherwise stated in the Employer's Requirements, each review period shall not exceed 21 days, calculated from the date on which the Engineer's Representative receives a Contractor's Documents and the Contractor's notice. This notice shall state that the Contractor's documents is considered ready, both for review (and approval, if so specified) in accordance with this sub-clause and for use.

The notice shall also state that the contractor's document complies with the Contract, or extent to which it does not comply.



The Engineer's Representative may within the review period, give notice to the Contractor's that a Contractor's Document fails (to the extent stated) to comply with the contract. If a Contractor's documents so fails to comply, it shall be rectified, resubmitted and reviewed (and, if specified, approved) in accordance with this Sub - Clause, at the Contractor's cost.

For each part of the works and except to the extent that the prior approval or consent of the Engineer's Representative shall have been obtained:

- a) In the case of Contractor's Documents which has (as specified) been submitted for Engineer's Representative's approval:
  - i. The Engineer's Representatives shall give notice to the Contractor that the Contractor's Documents is approved, with or without comments, or that it fails (to the extent stated) to comply with the contract'
  - ii. Execution of such part of the works shall not commence until the Engineer's Representative has approved the contractor's Document: and
  - iii. The Engineer's Representative shall be deemed to have approved the Contractor's Documents upon the expiry of the review periods for all the Contractor's Documents which are relevant to the design and execution of such part, unless the Engineer's Representative has previously notified otherwise in accordance with sub-paragraph (i)
- b) Execution of such part of the works shall not commence prior to the expiry of the review periods for all the Contractor's Documents which are relevant to its design and execution.
- c) Execution of such part of the works shall be in accordance with these revised (and, if specified, approved) Contractor's Documents : and
- d) If the Contractor wishes to modify any design or document which previously been submitted for review (and, if specified, approval ) the Contractors shall immediately give notice to the Engineer's Representative. Thereafter, the Contractors shall submit revised documents to the Engineer's Representative in accordance with the above procedure.

If the Engineer's Representatives instructs that further Contractor's Documents are required, contractor shall prepare them promptly.

Any such approval or consent, or any review (under this sub-clause or otherwise ) , shall relieve the Contractors from any obligations or responsibility.

#### 4.21.3 Contractor's Undertaking-

The design, the Contractor's documents, the execution and the completed works will be in accordance with :

- (a) The Employers Requirements and
- (b) The documents forming the Contract as altered or modified by Variations.

#### 4.22 Technical Standards and Regulations-

The design the Contractor's documents, the execution and the completed works shall comply with Employers Requirements, technical standard, building, construction and



environmental Laws, Laws applicable to the product being produced from the works, and other standards specified in the Employer's Requirements, applicable to the works, or defined by the applicable Laws.

All these Laws shall , in respect of the works and each section , be those prevailing when the works or section are taken over by the Employer under clause 10 {Employer's Taking Over } . Reference in the Contract to published standards shall be understood to be references to the edition applicable on the base date, unless stated otherwise.

If changed or new applicable standards come into force in the country after the Base Date the Contractor shall give notice to the Engineer's Representatives and (if appropriate) submit proposals for compliance .In the event that :

- (a) The Engineer's Representative determines that compliance is required,
- (b) The proposals for compliance constitute a variation.

Then the Engineer's Representative shall initiate a variation in accordance with Clause 13 (Variations and Adjustments).

#### **4.23 Contractor's operation on site -**

Add after third paragraph of Sub-Clause 4.23:

If the Contractor fails to remove within 84 days after the issue of the Talking-over Certificate, any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works, the Employer may sell or otherwise dispose of such items without any reference to the Contractor. The Employer shall be entitled to retain from the proceeds of such sale, a sum sufficient to meet the costs incurred in connection with the sale or disposal, and in restoring the Site. Any balance of the proceeds shall be paid to the Contractor. If the proceeds of the sale are insufficient to meet the Employer's costs, the outstanding balance shall be recoverable from the Contractor's dues by the Employer. However, the Contractor may retain on Site, during the Defects Notification Period, such goods as are required for the Contractor to fulfill the obligation under the Contract only on such portion and area of the Site as approved by the Engineer or his representative.

#### **CLAUSE 6**

**Add Sub Clause 6.1.1 as under-**

##### **Taxation**

The Contractor and his staff shall pay all taxes, duties, levies, outgoings etc. (present as well as future) of the Government of India and the Government of the State of Maharashtra or other competent Authorities as per the laws for the time being in force and applicable in India or in the said State in relation to the work.

##### **Sub Clause 6.1.2-**

Deduction of Income Tax and other taxes, if any, shall be made from each certificate of payment as per the relevant provision of the Income Tax Act or the rules framed there under and as per the prevailing Tax laws.



**Sub Clause 6.1.3-****Foreign Taxation-**

The Tendered Amount by the Contractor shall include all the duties and other charges (present as well as future) imposed outside the Employer's country on the production, manufacture, sale and transport of the Constructional Plant, Materials and Supplies to be used on or furnished under the Contract and on the service performed under the Contract. It shall be the exclusive responsibility of the Contractor to bear the same

**Sub Clause 6.1.4 Local Taxation-**

The Bid is deemed to include Royalties, toll charges GST and any other local direct / indirect taxes etc. that may be levied according to the laws and regulations for the time being in force, on the construction plants materials and supplies (both permanent, temporary and consumable) acquired for the purpose of the contract and on the services performed under the contract. Nothing in the contract shall relieve the Contractor from his responsibilities to pay any tax that may be levied in the Employer's country on profits made by him in respect of the contract.

**Sub Clause 6.1.5 Income Tax on Staff-**

The Contractor's staff, personnel and labour will be liable to pay personal income taxes in the Employer's country in respect of such of their salaries and wages as are chargeable under the laws and regulations in force and the Contractor shall perform such duties in regard to such laws and regulations.

**Sub-Clause 6.3- Employment of Persons in the Service of Others -**

Delete sub-clause 6.3 and replace by:

The Contractor shall not recruit or attempt to recruit his staff and labour from amongst persons in the service of the Employer, or the Engineer's Representative.

**Add Sub Clause 6.5 (d)-**

Contractor shall be required to observe the restrictions on working hours, if imposed by local authorities and police.

**Sub-Clause 6.6- Facilities for the Staff and Labour -**

Delete the first paragraph and replaced by :

Except as otherwise stated in the Employer's Requirements, the Contractor shall provide and maintain such accommodations and amenities as he may consider necessary for all his staff and labour employed for the purpose of or in connections with the Contract , including all fencing ,water supply (both for drinking and other purpose), electricity supply ,sanitation , cook houses , fire prevention and fire fighting equipment , air conditioning ,cookers ,refrigerator , furniture and other requirements in connections with such accommodations or amenities . On completion of the contract, unless otherwise agreed with the Employer, the temporary camps / housing provided by the Contractor's shall be removed and the site reinstated to its original conditions, all to the approval of the Engineer. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Employer's Requirements.



**Add Sub-Clause 6.7-Health and Safety-**

HIV-AIDS Prevention. The Contractor shall conduct an HIV-AIDS awareness programme via an approved service provider, and shall undertake such other measures as are specified in this Contract to reduce the risk of the transfer of the HIV virus between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals.

**Sub-Clause 6.8 -Contractor's Superintendence-**

The following shall be added to Clause 6.8

**The Contractor's key staff shall be approved by the Employer** before starting working on site. The Employer may require to interview and test the proposed staff before approval.

**Sub - Clause 6.9 - Contractor's Personnel-**

The Contractor shall maintain such records and make such reports concerning safety, health and welfare of persons and damage to property as the Engineer's Representative may from time to time prescribe .

The Contractor shall report to the Engineer/Engineer's Representative details of any accident as soon as possible after its occurrence .In the case of any fatality or serious accident, the Contractor shall, in addition, notify the Engineer's Representative immediately by the quickest available means.

The Contractor shall employ the key personnel named in the schedule of Key Personnel as referred to in the Qualification Information to carry out the functions or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the schedule .

If the Engineer's asks the Contractor's to remove a person who is a member of the Contractor's staff or his work force stating the reasons the Contractor shall ensure that the person leaves the Site within seven days and has no further connections with the work in the Contract.

**Sub-Clause 6.10 -Records of Contractor's Personnel and Equipment-**

Add the following:

The Contractor shall maintain such records and make such reports concerning safety, health and welfare of persons and damage to property as the Engineer or his representative may from time to time prescribe.

The Contractor shall report to the Engineer or his representative details of any accident as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition, notify the Engineer or his representative immediately by the quickest available means.



**Add Sub-Clause 6.12- Implementation of Labour Welfare Provisions to Contractor's Personnel (New Clause)-**

"During continuance of the contract, the Contractor and his sub-Contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of State or Central Government or local Authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local Authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the Competent Authority on account of contravention of any of the provisions of any Act or rules made the reunder, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non- observance of the provisions stipulated in the notifications/byelaws/acts/rules/regulations including amendments,if any,on the part of the Contractor,the Engineer/Employer shall also have right to recover from the contract or any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

**SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.****(i) Workmen Compensation Act 1923**

- (a) The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- (b) In case of any accident at site, penalty shall be imposed by MMRDA on the Contractor as follows:-

Sr. No.	Description	Penalty
1	Fatal Accidents	Rs. 5,00,000 for first fatality and Rs. 10,00,000 for every subsequent fatality.
2	Injury Accident	Rs. 10,00,000 for first grievously injured person and Rs. 2,00,000 for every subsequent grievously injured person ( Grievous injury as defined by Workman Compensation Act)
3	Abnormal delay in reporting accidents or willful suppression of information about any accident/dangerous occurrence	Rs. 1,00,000 for first violation and Rs. 2,00,000 for subsequent violation.





Sr. No.	Description	Penalty
4	Delay in informing about any accidents / dangerous incidents	Rs. 50,000 for first violation and Rs.1,00,000 for subsequent violation

**(ii) Payment Of Gratuity Act 1972**

Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more or on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.

**(iii) Employees PF and Miscellaneous Provision Act1952**

The Act provides for monthly contributions by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:

- Pension or family pension on retirement or death as the case may be.
- Deposit linked insurance on the death in harness of the worker.
- Payment of PF accumulation on retirement/death etc.

**(iv) Maternity Benefit Act1951**

The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

**(v) Contract Labour (Regulation and Abolition) Act 1970**

The Act provides for certain welfare measures to be provided by the contractor to contract labour and in case the contract or fails to provide, the same are required to be provided by the Principal Employer by Law. The principal employer is required to take Certificate of Registration and the Contractor is required to take a License from the designated Officer. The Act is applicable to the establishments or contractor of principle employer if they employ 20 or more contract labour.

**(vi) Minimum Wages Act 1948**

The employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.

**(vii) Payment of Wages Act 1936**

It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.

**(viii) Equal Remuneration Act 1979**

The Act provides for payment of equal wages for work of equal nature to Male and Female workers and not for making discrimination against Female employees in the matters of



transfers, training and promotions etc.

**(ix) Payment of Bonus Act 1965**

**(x) Industrial Disputes Act 1947**

The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.

**(xi) Industrial Employment (standing orders) Act 1946**

It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the employer on matters provided in the Act and get the same certified by the designated Authority.

**(xii) Trade Unions Act 1928**

The Act lays down the procedure for registration of trade unions of workmen and employers. The trade unions registered under the Act have been given certain immunities from civil and criminal liabilities.

**(xiii) Child Labour (Prohibition and Regulation) Act 1986**

The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of child labour is prohibited in Building and Construction Industry.

**(xiv) Inter-State Migrant Workmen's (Regulation of Employment and Conditions of Service) Act 1979**

The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The inter-state migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home upto the establishment and back, etc.

**(xv) The Building and other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act 1996**

All the establishments who carry on any building or other construction work and employ 10 or more workers are covered under this Act. All such establishments are required to pay cess at rate as may be notified by the Government. The Contractor (employer of the establishment) is required to provide safety measures at the Building or Construction work and other welfare measures, such as Canteens, First-aid facilities, Ambulance, Housing accommodation for Workers near the workplace etc. The employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the



**Add Sub Clause 8.3.1 Program Planning and Execution of the Works-**

The Contractor needs to regulate traffic and plan the work in such a fashion that minimum inconvenience is caused to the traffic. He may even have to work in restricted working hours. The Contractor shall plan and schedule the construction program accordingly. The Contractor should take care of all such eventualities while preparing the bid. The conditions mentioned above or any other such relevant condition not spelt out here shall not cause the reason for extension of contract period.

Consent of Traffic Police Dept. Shall be obtained to the traffic regulation and traffic diversion plan with method of construction to be adopted by the Contractor.

**Add Sub Clause 8.3.2-**

If MMRDA does not remove encroachment/acquire the land/obtain permission for environmental issues of this work then the corresponding work would be treated spilled over to next mile stone and construction program revised.

In case the removal / encroachment / acquisition of land has been impossible for one or other reason up to the contract period the corresponding work shall be withdrawn at the request of the Contractor. In such cases no compensation shall be payable on account of idling of machinery, manpower etc. however the Contractor if so desire may continue with the affected work for which proportionate extension may be granted. No claims shall be entertained by the Dept. on account of phasing of such work either on account of idling of equipment / machinery or men.

**Sub- Clause 8.4 -Extension of Time for Completion-**

Add the following at the end of clause:

Extension of Time for Completion shall not imply any additional costs except as stipulated in Cl.13.8.

**Sub Clause 8.7 Delay damages for the Works-**

As per Appendix to Tender.

**CLAUSE 10****Sub Clause 10.2 Taking over of Parts of the Works-**

Add as Second Para

Notwithstanding anything contained in the provisions of other clauses of the contract, Parts of the Works of the Sections when substantially completed shall be handed over by the Contractor for use of the Employer without any cost to the Employer arising out wear and tear, before carrying out "Tests after completion"

**Sub Clause 10.3 Interference with Tests on Completion-**

**10.3 para 3 sub para (b)-deleted**

**Add Sub Clause 10.3.1 as under: Prevention from Testing-**



If the Contractor is prevented from carrying out the tests on completion by a cause for which the Employer or the Engineer or his representative or other Contractors employed by the Employer are responsible, the Employer shall be deemed to have taken over the works on the date when the tests on completion would have been completed. But for such prevention, the Engineer or his representative shall issue a Taking over Certificate accordingly, provided always that the works shall not be deemed to have been taken over if they are not substantially completed in accordance with the contract.

If the works are taken over under this sub-clause the Contractor shall nevertheless carry out the tests on completion during the Defects Liability period. The Engineer or his representative shall require the tests to be carried out by giving 14 days-notice.

Any additional costs to which the Contractor may be put, in making the tests on completion during the Defects Liability Period shall be added to contract price.

#### **CLAUSE 11**

##### **Add Sub Clause 11.1.1-**

Visit of Contractor during Defect Notification Period

The Contractor shall carry out inspection once in every 3 months during the first year after completion of the work and carry minimum 2 inspections per year for the remaining years of Defect Liability Period. The inspection shall be in the company of the representative of Engineer and representative of Employer. The defects noticed during the inspections shall be recorded and signed by the Contractor and representative of Engineer and representative of Employer. The Contractor shall rectify the defects, if any, within 15 days or such period as may be notified by the Engineer or his representative. The defect notification period shall be 24 months for Bituminous Road works and 60 months for Viaduct Proper & Retaining wall.

#### **Clause 12**

**Delete Existing and replace with following-  
Tests after Completion:**

##### **12.1 Procedure for Tests after completion -**

If tests after completion are specified in the Contract, this clause shall apply .Unless otherwise stated in the particular Conditions, the Employer shall:

(a) Carry out the tests after completion in accordance with the manuals supplied by the contractor under sub-clause 5.7 {operations and Maintenance manual} and such guidance as the Contractor may be required to give during the course of these Tests; and in the presence of such Contractor's Personnel as either party may reasonably request.

The Tests after completion shall be carried out as soon as is reasonably practicable after the works or section have been taken over by the Employer. The Employer shall give to the Contractor 21 days notice of the date after which the Tests after completion will be carried out. Unless otherwise agreed, these tests shall be carried out within 14 days after this date, on the day determined by the Employer.



Government.

**(xvi) The Factories Act 1948**

The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

**(xvii) The public liability Insurance Act 1991**

this provides for Public Liability Insurance for the purpose of providing immediate relief to the persons affected by the accidents occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substances means any substance or preparations which is defined as hazardous substance under Environment Protection Act 1986, and exceeding such quantity as may be specified by notification by Central Government.

**Add Sub-Clause 6.13 - Objection to Contractor's Employees (New Clause)-**

If the proficiency in the English Language and capabilities required of the Contractor's key staff proves not to be acceptable, the Engineer may require the employee replaced by one acceptable to the Engineer.

**Add Sub-Clause 6.14 - Measures against Insect and Pest Nuisance (New Clause)-**

The Contractor shall at all times take the necessary precautions to protect all staff and labour employed on the site from insect nuisance, rats and other pests and reduce the dangers to health and the general nuisance occasioned by the same. The Contractor shall provide his staff and labour with suitable prophylactics for the prevention of malaria and take steps to prevent the formation of stagnant pools of water. He shall comply with all the regulations of the local health Authorities in these respects and shall in particular arrange to spray thoroughly with approved insecticide all buildings erected on the Site. Such treatment shall be carried out at least once a year or as instructed by the Engineer. The Contractor shall warn his staff and labour of the dangers of Bilharzia and wild animals.

**Add Sub-Clause 6.15 - Supply of Water and Other requirements (New Clause)-**

The Contractor shall, so far as is reasonably practicable, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of his staff and labour. The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.

**Add Sub-Clause 6.16 - Festivals and Religious Customs (New Clause)-**

The Contractor shall respect the Country's recognized festivals, days of rest and religious or other customs.

The Contractor shall in all dealings with his staff and labour have due regard to all recognized festivals, days of rest and religious or other customs.



**Add Sub-Clause 6.17 Prohibition of Child Labour (New Clause) -**

The Contractor shall not employ any child to perform any work.

**Add Sub-Clause 6.18 Employment Records of Workers (New Clause)-**

The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and shall be available for inspection by the Engineer during normal working hours. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment].

**CLAUSE 7****Clause 7.4 -**

Para 5 sub para (b) deleted

**Add Sub Clause 7.4.1 as under-  
Laboratory for Testing-**

The Contractor shall, for the purpose of testing the material, establish a field Laboratory of approximate 200 Sqm floor area as approved by the Engineer or his representative at the Contractor's cost. The Contractor shall provide all equipment's as per list attached elsewhere in this document. Minimum 20% of testing shall be carried out at approved NABL certified Lab. The Contractor's offer is deemed to have included the cost towards such tests.

**Add Sub Clause 7.4.2 as under-  
Out side Laboratory Testing-**

The material, for which tests cannot be carried out at the field laboratory, shall be tested at the laboratory approved by the Engineer or his representative and in presence of the Engineer or his representative. The Contractor's offer is deemed to have included the cost towards such tests.

**Sub Clause 7.9.5-****Sales Tax / GST-**

The Bid shall be deemed to be inclusive of the GST on all the materials that he will have to purchase for performance of this Contract.

- (a) The Bid shall also be inclusive of the tax leviable in respect of works contract under the provision of Maharashtra Sales Tax on transfer of property in goods involved in the deduction of Works Contract Act 1985.
- (b) If the Contractor is a GST Assesse, he should produce a valid GST Clearance Certificate before the payment of the final bill otherwise the final payment to the Contractor will be withheld. If the Contractor is not liable to GST Assessment, a certificate to this effect from the competent GST Authorities shall be produced before the final payment to the Contractor.

**CLAUSE 8****Add Sub Clause 8.2 Time for Completion-**

The Contractor shall complete the sections of the works and each section (with in the Mile – Stone given in sub-clause 8.7 below) so as to allow the use by the Traffic within the Time for completion.



If the Contractor fails to carry out the Tests After Completion the Employer may (at his option): Carryout the Tests himself or by others , in a reasonable manner and at the Contractor's shall subject to Sub Clause 2.5:Employer's Claims , pay to the Employer the costs reasonably incurred by the Employer in carrying out the Tests.

If the Contractor does not attend at the time and place agreed, the Employer may proceed with the tests after completion, which shall be deemed to have been made in the Contractor's presence, and the Contractor shall accept the regarding as accurate.

The result of the Tests after completion shall be complied and evaluate by both parties. Appropriate account shall be taken of the effect of the Employer's prior use of the works.

### 12.2 Delayed Tests-

If the Contractor incurs cost as a result of any unreasonable delay by the Employer to the Tests after completion , the Contractor shall (i) give notice to the Engineer/Engineer's Representative and (ii) be entitled subject to Sub – Clause 20.1 {Contractor's Claims} to payment of any such costs plus reasonable profit ,which shall be included in the Contract Price.

After receiving this notice, theEngineer/ Engineer's Representative shall proceed in accordance with sub-clause 3.5 {Determinations } to agree or determine this Costs and Profit .

If for reasons not attribute to the Contractor, a Test after completion on the works or any section cannot be completed during the Defects Notifications Period (or any other period agreed upon by both parties), then the works or sections shall be deemed to have passed this tests after completion.

### 12.3 Retesting-

If the works , or a section , fail to pass the Tests after completion .

- (a) Sub – Paragraph , (b) of sub – clauses 11.1 { Completion of Outstanding work and Remedying Defects } shall apply and
- (b) Either party may then require the failed Tests , and the Tests after Completion on any related work , to be repeated under the same terms and conditions .

If and to the extent that this failure and retesting are attribute to any of the matters listed in sub-paragraphs (a) to (d) of Sub – clause 11.2 { Cost of Remedying Defects } and cause the Employer to incur additional costs ,the Contractor shall subject to sub-clause 2.5 { Employer's Claim } pay these costs to the Employer.

### 12.4 Failure to Pass Tests after Completion -

If the following conditions apply, namely :

- (a) The works, or a sections, fail to pass any or all of the tests after Completion.
- (b) The relevant sum payable as non-performance damages for this failure is stated (or its method of calculation is defined) in the Contract and



- (c) The Contractor pays this relevant sum to the Employer during the Defects Notifications Period, then the works or Section shall be deemed to have passed these Tests after Completion.

If the works , or a section , fail to pass a test after completion and the Contractor proposes to make adjustments or modifications to the works or such sections , the Contractor may be instructed by ( or on behalf of ) the Employer that right of access to the works or section cannot be given until a time that is convenient to the Employer. The Contractor shall then remain liable to carry out the adjustments or modifications and to satisfy this test, within a reasonable period of receiving notice by ( or on behalf of ) the Employer of the time that is convenient to the Employer. However, if the contractor does not receive this notice during the relevant Defects Notifications Period, the Contractor shall be relieved of this obligations and the works or section (as the case may be) shall be deemed to have passed this Test after Completion.

If the Contractor fails to carry out the adjustments or modifications to pass a test after Completion to the works or such sections the Employer may ( at his option ):

**Carryout the adjustment or modifications himself or through some other agency , in a reasonable manner and at the Contractors Cost but the Contractor shall have no responsibility for this adjustments or modifications and the Contractor shall subject to Sub 2.5 ( Employer's Claims ) pay to the Employer the costs reasonably incurred by the Employer in carrying out the adjustments or modifications.**

### CLAUSE 13 VARIATIONS AND ADJUSTMENTS

Delete the last para of Clause 13.3 Add Sub-Clause 13.3.1 as under:

#### **13.3.1 Valuations of Variations-**

1. Extra or additional work likely to crop up is included in schedule of items (Schedule of Variation) for which applicable rates are mentioned in Schedule of Rates for Variation works in Vol - II.
2. Rates for all rebates arising out of deletion / reduction in scope of Design – Build & Turnkey Construction part of work shall be 100% of the rate of extra work, when a certain item /component is deleted /reduced.
3. Rebate in case of deletion of any item / component in full or part which is replaced or substituted by another item / component, due to requirements of the Employer shall be 100% of the rate extra work for the item deleted partially / fully.
4. Any item not covered by schedule of variation shall be paid as extra items and for such items no escalation will be paid. The rate for such items shall be worked out based on the current Schedule of rates. If rates are not available, it may be paid on the basis of actual expenses to be incurred on the basis of mutually acceptable for the item by preparing Rate Analysis (RA).
5. Rates for extra works for Controlled Concrete Mixes, for which the rates are not provided in schedule of variation, shall be derived from corresponding rates the nearest designated





mixes by linear interpolation.

Add Sub Clause 13.5(a) with terms under Provisional Sums include

- a) Utility shifting
- b) Shifting/fixing new traffic Signals
- c) Landscaping
- d) Tree Cutting & Transplantation
- e) Cross drainages
- f) Compound wall construction
- g) Retaining wall other than flyover work
- h) FOB dismantling
- i) Rental charges towards Land for casting yard.

The rate for such items shall be worked out based on the current Schedule of rates i.e. e- PWD SSR. In case the item is not available in this SSR then the rate for such items shall be worked on the basis of PWD SSR. If rates are not available in PWD SSR, it may be paid on the basis of actual and reasonable expenses to be incurred on the basis of mutually acceptable for the item by preparing Rate Analysis (RA). The work of utility shifting will be done by Contractor as directed by Engineer incharge.

#### Clause 13.5 (b) - Deleted

Substitute Sub Clause 13.7 as under-

#### 13.7 Adjustments for Changes in Legislation

The contract price shall be adjusted to take into account of any increase or decrease in cost resulting from a change in the Laws of the Country / State / Urban Local Body (including the introduction of new Laws and the repeal or modification of existing laws) or in the judicial or official government interpretation of such Laws, made after the Base Date (28 days prior to Bid Due Date), which affect the Contractor in the performance of obligations under the Contract. This increase or decrease in cost resulting from a change in the legislation shall be evaluated as follows-

- 13.7.1. If as a result of change in Law, the Contractor suffers any additional costs in the execution of the works or in relation to the performance of its other obligations under this Agreement, the Contractor shall notify the Authority of such additional cost due to Change in Law.
- 13.7.2. If a result of Change in Law, the Contractor benefits from any reduction in costs for the execution of this Agreement or in accordance with the provisions of this Agreement, either Party shall notify the other Party of such reduction in cost due to Change in Law.
- 13.7.3. The Authority's Engineer shall on receipt of the notice from the Contractor or the Authority determiner any addition or reduction to the Contract Price, as the case may be, due to the Change in Law.



Substitute Sub Clause 13.8 with the following-

**13.8 Adjustment for Changes in cost-**

Deleted

**Upper Limit of Price Adjustment -**

The Maximum amount due to price variation will be restricted to 5% of the accepted contract value, excluding the compensation payable for the material (Bitumen, Steel & Cement).

**General Variations in Price Index-**

The amount to be added to or deducted from the Interim Payment Certificates (IPC) for changes in cost shall be determined from the following formula:

$$V_n = V_1 + V_2 + V_3 + V_4 + V_5 + V_6 + V_7$$

Where,

- $V_n$  = Amount to be added to or deducted from interim payment certificate
- $V_1$  - Amount to be added to or deducted from IPC for changes in cost due to labour
- $V_2$  - Amount to be added to or deducted from IPC for changes in cost due to material
- $V_3$  - Amount to be added to or deducted from IPC for changes in cost due To POL
- $V_4$  - Amount to be added to or deducted from IPC for changes in cost due to Plant & Machinery.
- $V_5$  - Amount to be added to or deducted from IPC for changes in cost due To steel.
- $V_6$  - Amount to be added to or deducted from IPC for changes in cost due to Bitumen.
- $V_7$  - Amount to be added to or deducted from IPC for changes in cost due to Cement.

**I. Formula for Labour Component ( $V_1$ )-**

$$V_1 = 0.85 \times (P) \times \frac{K_1}{100} \times \frac{L_1 - L_0}{L_0}$$

Where,

- $V_1$  = Amount of price variation in Rupees to be allowed for Labour Component.
- $P$  = Cost of work done during the quarter under Consideration minus The cost of Cement, HYSD/TMT, Structural Steel, HTS, bitumen calculated at the basic base rates as applicable for the tender, consumed during the quarter under consideration.
- $K_1$  = Percentage of Labour component as indicated above.
- $L_0$  = Basic consumer price index for Mumbai shall be average consumer



*[Signature]*  
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 Engineering Division  
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price index for the quarter preceding the month in which the last date prescribed for receipt of tender, falls.

$L_1 =$  Average consumer price index for Mumbai for the quarter under consideration.

**Formula for Material Component ( $V_2$ )-**

$$V_2 = 0.85 \times (P) \times \frac{K_2}{100} \times \frac{M_1 - M_0}{M_0}$$

Where,

$V_2 =$  Amount of price variation in Rupees to be allowed for Materials component.

$P =$  Same as worked out for labour component.

$K_2 =$  Percentage of material component as indicated above.

$M_0 =$  Basic Wholesale price index shall be average wholesale price index for the quarter preceding the month in which to the last date prescribed for receipt of tender, falls

$M_1 =$  Average Wholesale price index during the quarter under consideration.

**Formula for Petrol, Oil & Lubricant Component ( $V_3$ )**

$$V_3 = 0.85 \times (P) \times \frac{K_3}{100} \times \frac{P_1 - P_0}{P_0}$$

Where,

$V_3 =$  Amount of price variation in Rupees to be allowed for POL component.

$P =$  Same as worked out for labour component.

$K_3 =$  Percentage of Petrol, Oil & Lubricant Component.

$P_0 =$  Average price of HSD at Mumbai during the quarter preceding the month in which the last date prescribed for receipt of tender, falls

$P_1 =$  Average price of HSD at Mumbai during the quarter under consideration.

**Formula for Plant & Machinery Component ( $V_4$ )**

$$V_4 = 0.85 \times (P) \times \frac{K_4}{100} \times \frac{P_1 - P_0}{P_0}$$

Where,

$V_4 =$  Amount of price variation in Rupees to be allowed for Plant & machinery component.

$P =$  Same as worked out for Plant & machinery component.

$K_4 =$  Percentage of Plant & machinery component.



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- $P_0$  = The all India wholesale price Index for heavy machinery and parts on 28 days preceding the date of opening of Bids as published by the Ministry of Industrial Development, Govt. of India, New Delhi
- $P_1$  = The all India average wholesale price Index for heavy machinery and parts for the month under consideration as published by Ministry of Industrial Development, Govt. of India, New Delhi.

**Formula for HYSD/TMT, Structural Steel, and High Tensile strands Component( $V_5$ )**

$$V_5 = \frac{S_0 \times (SI_1 - SI_0)}{SI_0} \times T$$

Where,

- $V_5$  = Amount of price variation in Rupees to be allowed for HYSD / TMT, Structural Steel and High Tensile Strands component.
- $S_0$  = Basic rate of HYSD / TMT, Structural Steel and High Tensile Strands in rupees per metric tonne as considered for working out value of P.
- $SI_1$  = Average Steel Index as per RBI Bulletin during the quarter under consideration.
- $SI_0$  = Average of Steel Index as per RBI Bulletin for the quarter preceding the month in which the last date for receipt of tender, falls.
- $T$  = Quantity of steel (HYSD/TMT ) Structural Steel, stay Cables & HT Strands consumed during the period under consideration.

**IV Formula for Bitumen component:**

$$V_6 = Q_B \times (B_1 - B_0)$$

Where,

- $V_6$  = Amount of price variation in Rupees to be allowed for Bitumen component.
- $Q_B$  = Quantity of Bitumen (Grade VG30) in metric tonnes used in the permanent works and approved enabling works during the period under consideration.
- $B_1$  = Current, average ex-refinery (at Mumbai landed cost) rate/price per metric tonne of Bitumen (Grade VG 30) under consideration including all taxes (octroi, excise, sales tax, / GST etc.) during the period under consideration.
- $B_0$  = Basic rate of Bitumen (Grade VG 30) (at Mumbai) in rupees per metric tonne as considered for working out value of P for the grade of bitumen under consideration.

**Formula for Cement Component ( $V_7$ )**

$$V_7 = \frac{C_{0X} (CI_1 - CI_0)}{CI_0}$$



XT

Where,

- $V_7$  = Amount of price variation in Rupees to be allowed for cement component.  
 $C_0$  = Basic rate of Cement in rupees per metric tonne as considered for working out value of P.  
 $CI_1$  = Average Cement Index published in the RBI Bulletin for the quarter under consideration.  
 $CI_0$  = Average of 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.  
 $T$  = Quantity of cement used in the permanent works for the quarter under consideration.

The following percentages and Base rates for materials will govern the price adjustment for the entire contract:

1.	Labour	25%
2.	Materials	45%
3.	POL	15%
4.	Plant & machinery	15%
Total		100%
Consumer Price Index for Industrial workers		Mumbai
Sr. No.	Material	Basic rate for 2018-19(Excluding GST)
a)	Cement /PPC	Rs. 4,700/- Per M. T.
b)	PSC	Rs. 4,600/- Per M. T.
c)	GGBS (IS-16714)	Rs. 3800/- Per M. T.
d)	TMT-FE-500 reinforcement	Rs. 45,785/- Per M. T.
e)	HCRM/ CRS reinforcement	Rs. 48,000/- Per M. T.
f)	Structural Steel	Rs. 46,000/- Per M. T.
g)	Corrosion Resistant Steel Reinforcement	Rs. 48,000/- Per M. T.
h)	Bitumen VG-30 (Packed)	Rs. 31,140/- Per M. T. Ex. Refinery Mumbai



i)	Bitumen (Packed)	VG-10	Rs. 30,340/- Per M. T. Ex. Refinery Mumbai
j)	Bitumen (Bulk)	VG-40	Rs. 29,210/- Per M. T. Ex. Refinery Mumbai
k)	Bitumen (Bulk)	VG-30	Rs. 28,040/- Per M. T. Ex. Refinery Mumbai
l)	Bitumen (Bulk)	VG-10	Rs. 27,240/- Per M. T. Ex. Refinery Mumbai
m)	Bitumen (Packed)	VG-40	Rs. 33,210/- Per M. T. Ex. Refinery Mumbai
n)	Bitumen Emulsion		Rs. 23,500/- Per M. T. Ex. Refinery Mumbai
o)	CRMB - 55		Rs. 29,640/- Per M. T.
p)	CRMB - 60		Rs. 29,910/- Per M. T.

**For Extra Items Rates will be fixed every year.**

13.8.1 The following conditions shall prevail for adjustment of changes in cost:

- 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 into consideration the extension of time, if any, for completion of the work granted by the Engineer under the relevant clause of the Conditions of Contract incases other than those where such extension is necessitated on account of default of the Contractor, the decision of the Engineer as regards the operative period of the contract shall be final and binding on the Contractor. Where any liquidated damages is levied on the Contractor on account of delay incompletion or inadequate progress under the relevant contract provisions, the price adjustment amount for the balance of work from the date of levy of liquidated damages shall be worked out by pegging the respective indices to the levels corresponding to the date from which such liquidated damages are levied.
- ii) The price variation under this clause shall not be payable for any additional items required to be executed during the completion of the work.
- iii) This clause is operative both ways, i.e. if the price variation as calculated above is on the plus side, payment on account of the price variation shall be allowed to the Contractor and if it is on the negative side, the Employer shall be titled to recover the same from the Contractor and the amount shall be deductible from any amounts due and payable under the contract.

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 contract prices included in the contract shall be deemed to include amount to cover the contingency of such other actual rise or fall in costs.

- 13.8.2 If secured advance is paid to the Contractor on any of the above base materials as per Clause 14.2.1, which is likely to be consumed in reasonable time on the usual conditions, the escalation towards that supply can be paid based on the above formula by considering price indices in the month of supply for which the secured advance is paid.

#### **CLAUSE 14**

##### **Sub Clause 14.1- The Contract Price-**

Add at the end of sub clause 14.1:

The payment shall be made against the agreed schedule given in Volume II " Billing Schedule, and Variations"

##### **Sub Clause 14.2 Advance Payment [Mobilization]-**

Replace the entire clause with the following:

The Employer shall make an advance payment as an interest bearing carrying rate of interest of 12% per annum as Mobilization Advance, after the submission of Bank Guarantee by the Contractor in accordance with this sub-clause.

##### **Mobilization Advance -**

The Employer shall make an advance payment of 10% of the Contract amount as interest bearing loan after commencement of works for Mobilization, when the Contractor submits a Bank Guarantee, for value of advance in the prescribed format. The interest rate shall be 12% per annum. The Bank Guarantee shall be from any Scheduled Commercial bank/Nationalized bank in favor of "MMRD FUND" payable at Mumbai.

##### **14.2.2 Recovery of Advances-**

The mobilization advance and the accrued interest shall be repaid with percentage deductions from the interim payments certified by the Engineer or his representative under the Contract. Deductions shall commence in the next Interim Payment Certificate following that in which the total of all such payments to the Contractor has reached 15% of the Contract Price less Provisional Sums. Recovery of mobilization advance including interest there on shall be completed by the time 90% of the work is completed. Failing such repayment the outstanding advance shall be recovered by encashment of respective Bank Guarantees/guarantees mentioned above. The Contractor may, at his option, repay the advance earlier by increasing percentage rate of deduction indicated above. If the Contractor furnishes more than one Bank Guarantee, pursuant to the above provision, the Bank Guarantee will be released by the Employer one by one in such a manner that the total amount of Bank Guarantees left in the hand with the Employer will be sufficient to cover the outstanding amount of advance and likely interest thereon.



**Sub Clause 14.3 Application for Interim Payments Add at end of sub clause 14.3-**

The percentage of retention in each interim payment shall be **six percent (6%)** until a limit of Retention money equal to **five percent (5%)** of the Contract Price is reached. The Contractor will be allowed to convert 75% of Retention Money after issue of substantial completion certificate in the form of a Bank Guarantee. The balance retention money including the converted Bank Guarantee shall be released after the issuance of Performance Certificate by the Employer.

The first period of payment shall be up to the month end of the first full month from Commencement Date. The subsequent period of payment shall be monthly.

**Sub clause 14.4 Schedule of Payments-**

The Schedule of Payments is annexed to these Particular Conditions (Billing Schedule in Volume II).

**14.5 Plant & Machinery Intended for Works-**

Delete Sub-Clause 14.5

**Sub clause 14.7 Time of Payments-**

Delete (a)

Substitute (b) by the following:

- (b) The amount certified in each Interim Payment Certificate as far as possible within 56 days after the Engineer receives the Statement and supporting documents; and

Substitute (c) with the following:

- (c) The amount certified in Final Payment Certificate as far as possible within 90 days after the Employer receives this Payment Certificate.

Delete the text of last paragraph of Sub-Clause 14.7 and substitute:

Payment of the amount due in INR shall be made by RTGS in favour of the Contractor or into the bank account in India nominated by the Contractor. For which the contractor has to submit the bank details.

**Delete Sub Clause 14.8 -****Sub Clause 14.9-**

Replace the first two paragraphs of sub Clause 14.9 with the following:

When the Taking over Certificate has been issued for the Works, the Retention Money shall be paid to the Contractor if he provides to the Employer a guarantee, in a form and provided by an entity approved by the Employer, in amounts and currencies equal to the payment.

The Contractor shall ensure that the guarantee is valid and enforceable until the Contractor has executed and completed the works and remedied any defects, as specified for the Performance Security in sub-Clause 4.2, and shall be returned to the Contractor accordingly. Promptly after the





issuance of Performance Certificate by the Employer, any guarantee provided in place of the Retention Moneys, shall be released to the Contractor. Performance certificate will be issued by the employer after completion of defect liability period for the structure.

**Add the following to the third paragraph of Sub Clause 14.9-**

“or draw that estimated cost down under any guarantee provided by the Contractor”.

**Sub Clause 14.15 Currencies of Payment-**

The currency of account shall be the Local currency and all payments made in accordance with the contract shall be in Local Currency.

**Sub Clause 14.15(b)**

Indian National Rupee

**CLAUSE 15**

Termination by Employer

**Add Sub Clause 15.1.1 as under-**

If the Contractor fails to execute a Contract Agreement as required by Clause 1.6 within twenty Eight (28) days after being required to do so by the Employer in writing or to furnish a Performance Security in accordance with Clause 4.2 here of then the Employer shall be entitled by notice in writing to withdraw his acceptance of the Bid and such acceptance, if so withdrawn, shall there upon be void and shall be deemed to be as though it had never been given and the Contractor shall have no claim against the Employer, whether for damages, specific performance or otherwise in respect of such acceptance or withdrawal.

**Sub Clause 15.2 Termination by Employer-**

Sub paragraph (c) of sub Clause 15.2 is replaced with the following:

(c) without reasonable excuse fails to proceed with the Works in accordance with Clause 8 [Commencement, Delays and Suspension] and in the case of delay, incurs a delay in the completion of the works and such delay is not remedied by the Contractor within 30 days from receipt by the Contractor of a notice from the Employer of such delay. For purposes of this sub clause 15.2, the term “delay” shall mean a slippage of 10% or more in the program of the overall work evaluated against the schedule of Works.

**Clause 16**

**Clause 16.4 - Payment on Termination-**

**Add the following :**

The additional amount payable by the Employer on termination shall not exceed the difference between the amount calculated in accordance with clause 19.6 and the Contract Price.



The maximum payments on termination shall, however, not exceed the Contract price.

#### **CLAUSE 17**

##### **Add Sub Clause 17.2.1 as under-**

All operations necessary for the execution and completion of the works and the remedying of any defects therein shall, so far as compliance with their requirements of the contract permits, be carried on so as not to interfere unnecessarily or improperly with:

- (a) the convenience of the public, or
- (b) the access to use, and occupation of public or private roads or railway and any other right of way and footpaths to or of properties whether in the possession of the Employer or of any other person or any other departments.

The Contractor shall hold harmless and indemnify the Employer in respect of all claims, proceedings, damages, costs, charges and expenses what so ever arising out of, or in relation to, any such matters in so far as the Contractor is responsible therefore.

##### **Add Sub Clause 17.2.2 as under-**

In case any operation connected with traffic, Railways, MCGM, MRIDL, MONO RAIL necessitates diversion, obstruction or closure of any road, existing road or any other right of way, the approval of the Engineer or his representative and the concerned Authorities shall be obtained well in advance by the Contractor.

##### **Add Sub Clause 17.2.3 as under-**

If it is found necessary for the Contractor to move one or more loads of heavy constructional plant and equipment, materials of pre-constructed units or part of units of work over roads, highways, Flyovers on which such oversized and over-weight items are not normally allowed to be moved, the Contractor shall obtain prior permission from the relevant Authorities. Payments for complying with the requirements, if any, for protection of or strengthening of the roads, highway or Flyovers shall be made by the Contractor and such expenses shall be deemed to be included in his bid price.

#### **Sub clause 17.5 Intellectual and Industrial Property Rights-**

Sub Clause 17.5 is deleted in it's entirely and replaced with the following;

#### **Infringement**

- a) The Contractor agrees to defend or settle at its own expense all suits for infringement of any patent, copyright, trademark or other form of intellectual property right in any country of the works, for the use and operation of the Works as supplied by Contractor and for any component part thereof or material or equipment used therein (or the manufacture of any material or the normal use thereof) provided by the Contractor or on its behalf pursuant to this Contract and will hold the Employer harmless from all expense of defending any such suit and all payments for final judgment assessed on



account of such infringement, except such infringement or claim arising from:

- (i) the Contractor's adherence to the Employer's directions in the design and configuration of the Works or to use materials, parts or equipment of the Employer's selection;
  - (ii) such material, parts or equipment furnished to the contractor by the Employer, other than in each case, items of the Contractor's design or selection or the same as any of the Contractor's commercial merchandise or in processes or machines of the Contractor's design or selection used in the manufacture of such standard products or parts;
  - (iii) use of the Works or the materials, parts or equipment furnished by Contractor other than for the purposes indicated in, or reasonably to be inferred from, this Contractor
  - (iv) modification of the Works or the materials, parts or equipment furnished by the Contractor, or connection of the works to another system by any person or entity other than Contractor, without prior approval by Contractor.
- (b) The Employer will, at its own expense, defend all suits against the Contractor for such excepted infringement and hold the Contractor harmless from all expense of defending any such suit and from all payments by final judgment assessed against the Contractor on account of such excepted infringement.
- (c) The Parties agree to give each other prompt written notice of claims and suits for infringement, full opportunity and Authority to assume the sole defense, including appeals and, upon request and at its own expense, the other agrees to furnish all information and assistance available to it for such defense.
- (d) If all or any portion of the Work or any material, part or equipment provided by the Contractor or on its behalf is held to constitute an infringement (excluding such excepted infringements specified in sub Clause 17.5.1 (a)) and is subject to an injunction restraining its use or any order providing for its delivery up to or destruction, or it in respect of any such claim of infringement the Contractor deems it advisable to do so, the Contractor shall at its own expense either:
- (i) Procure for the Employer the right to retain and continue to use the Work, the affected portion thereof, or any such material, part or equipment without interruption for the Employer;
  - (ii) Replace or modify the Work, the affected portion thereof, or any material, part or equipment so that it becomes non-infringing while continuing to meet the Employer's Requirements or
  - (iii) If the remedies specified in Sub-Clause 17.5.1(d) (i) and 17.5.1(d) (ii) are not feasible, refund to the Employer the full purchase price paid for the Works, the affected portion thereof, or any material, part of equipment found to be infringing.



**Safeguarding of Information and Technology-**

- (a) In performance of this Contract, it may be mutually advantageous to the Parties hereto to share certain specifications, designs, plans, drawings, software, market research or operating data, prototypes, or other business, financial, and/or technical information related to products, services, or systems which are proprietary to the disclosing Party or its affiliates (and in the case of Contractor, Contractor's Parent company) (together with this Contract and related documents, "Information"). The parties recognize and agree that Information includes information that was supplied in contemplation here of prior to execution of this Contract, and further agree that information includes information in both tangible and intangible form.
- (b) Unless such Information was previously known to the Party receiving such Information free of any obligation to keep it confidential, or such Information has been or is subsequently made public through other than unauthorized disclosure by the receiving Party or is independently developed by the receiving Party (as documented by there cords of the receiving Party), it shall be kept confidential by the party receiving such information, shall be disclosed only in the performance of this Contract, and may not be disclosed for any other purposes except up on such terms as may be agreed up on in writing by the Party owning such Information. The receiving Party may disclose such Information to other persons, upon the furnishing Party's prior written authorization, but solely to perform acts which this Sub Clause expressly authorizes the receiving Party to perform itself and further provided such other person agrees in writing (a copy of which writing will be provided to the furnishing Party at its request) to the same conditions respecting disclosure and use of Information contained in this Sub-Clause and to any other reasonable conditions requested by the furnishing Party. Nothing herein shall prevent a Party from disclosing Information
- (i) up on the order of any court or administrative agency, (ii) upon the request or demand of, or pursuant to any regulation of, any regulatory agency or Authority, (iii) to the extent reasonably required in connection with the exercise of any remedy here under and (iv) to a Party's legal counsel or independent auditors.

**Sub-Clause 17.6 – Limitation of Liability-**

Add the following paragraph at the end of this sub clause:

Not with standing anything stated elsewhere in this document, the following provision shall prevail: Employer at the recommendation of Engineer may withdraw / omit part of the contract work, for whatever reason and entrust this to another agency for execution at the risk and cost of the Contractor. In the event of Contractor going bankrupt, the Employer at the recommendation of Engineer may withdraw / omit part of the contract work, for whatever reason and entrust this to another agency for execution at the risk and cost of the Contractor. In the event of Contractor failing to achieve any milestone, at the recommendation of Engineer, the Employer may withdraw/omit part of the contract work, for whatever reason and give this to another agency for execution at the risk and cost of the Contractor.



**Sub-Clause 17.7 - Urgent Repairs (New Clause)-**

If, by reason of any accident, or failure, or other event occurring to or in connection with the Works, or any part thereof, either during the execution of the Works, or during the Defects Liability Period, any remedial or other work or repair shall, in the opinion of the Engineer, be urgently necessary for the safety of the Works and the Contractor is unable or unwilling at once to do such work or repair, the Employer may employ and pay any other Contractor to carry out such work or repair as the Engineer may consider necessary.

If the work or repair so done by the Employer is work which, in the opinion of the Engineer, the Contractor was liable to do at his own expense under the Contract, all expenses properly incurred by the Employer in so doing shall be recoverable from the Contractor by the Employer, or may be deducted by the Employer from any monies due or which may become due to the Contractor. Provided always that the Engineer shall, as soon after the occurrence of any such emergency as may be reasonably practicable, notify the Contractor thereof in writing.

**CLAUSE 18****Sub Clause 18.1 General Requirements for Insurances-**

Add the following to the end of sub Clause 18.1

Insurances (Contractor All Risk Policy) obtained by the Contractor under this Clause must meet the requirements of and be acceptable to the Employer. The Contract Price is inclusive of all costs related to these insurances.

18.1.1 The Contractor whose tender is accepted will be required to produce to satisfaction of the Concerned Authority valid and current license issued in his favour under the provision of the contract labour (Regulations and abolition) Act 1970 and in case of failure to do so the acceptance of the tender would be liable to be withdrawn and earnest money forfeited. Contractor shall 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-400051".

However, if the contractor desires to effect insurance with the local office of any insurance company, the Same should be under the co-insurance-cum-servicing arrangements (with G.I.F.'s share at 60% and insurance Company's share at 40%) approved by the Directorate of Insurance. If the policy taken out by the contractor is not on co-insurance basis the same will not be accepted and the amount of premium calculated by the Directorate of Insurance will be recovered directly from the amount payable to the contractors for the executed contract work.

**Sub Clause 18.5 Insurance for Automobile Liability (New clause)-**

Add the following Sub-Clause 18.5:

The Contractor shall effect and maintain comprehensive (or business) automobile liability insurance for all owned (if any), non-owned and hired vehicles written in an amount with



combined single limits not less than the amount required by Indian Laws.

**Sub Clause 18.6 Professional Indemnity Insurance (New clause)-**

Add the following Sub clause 18.6:

The Contractor shall effect and maintain professional indemnity insurance towards "Design part" of the project for coverage that remains inforce for a minimum of twenty (20) months reckoned from the date of the issue of the Taking Over Certificate or on the date the Contractor has become entitled to receive the Performance Certificate, which ever is earlier and in an amount not less than 20% of the Contract Price.

**CLAUSE 19**

**19.6 Optional Termination, Payment and Release-**

Delete the words "84 days" and substitute "182 days" in 2nd line of Sub-Clause 19.6. Delete the words "140 days" and substitute "252 days" in 4th line of Sub-Clause 19.6. Delete the words "7 days" and substitute "28 days" in 6th line of Sub-Clause 19.6.

**CLAUSE 20 – Claims, Disputes and Arbitration-**

Sub-Clause 20.1 is amended as follows :-

**20.1 Contractor's Claim-**

If the Contractor considers himself to be entitled to any extension of time for completion and / or any additional payment under any clause of these condition or otherwise in connection with the contract specifically entitling him to make such a claim, the Contractor shall give notice to Engineer-In-Charge / Engineer representative, describing the event or circumstances giving rise to claim. The notice shall be given as soon as practicable and not later than seven days, after the Contractor become aware, or should have become aware of the event or circumstance.

If the Contractor fails to give notice of a claim with in such period of seven days, the time for completion shall not be extended, the Contractor shall not be entitled to additional payment and the Employer shall be discharged from all liability in connection with claim. Otherwise the following provision of the sub clause shall apply.

The Contractor shall also submit any other notices which are require by Contract, and supporting particular for claim all as relevant to such event or circumstance.

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on site or at another location acceptable to the Engineer / Engineer representative without admitting the Employers liability, the Engineer -In-Charge / Engineer representative may after receiving any notice under this sub clause, monitor the record keeping and or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Employer, the Engineer-In-Charge / Engineer representative to inspect all these records and shall submit copies to Employer, Engineer-In-Charge / Engineer representative.



Within 15 days after the Contractor become aware (or should have become aware) of the event or circumstance giving rise to claim, or with in such other period as may be proposed by the Contractor and approved by Engineer-In-Charge / Engineer representative, Contractor shall send to Engineer-In-Charge / Engineer representative a fully detailed claim which includes full supporting particulars of the basis of the claims. If the event or circumstance giving rise to claim has continuing effect:

Within 15 days after receiving the claims or any further particulars supporting a previous claim the Engineer-In-Charge / Engineer representative shall respond with approval, or with disapproval and detailed comments.

The Engineer-In-Charge / Engineer representative shall proceed in accordance with sub clause 3.5 (Determinations) to determine

- i) The extension (if any) of time for completion (before or after its expiry) in accordance with sub clause 8.4 (extension of time for completion and or (ii) the additional payment if any to which the Contractor is entitled under the contract.
- ii) The requirement of this sub clause are in addition to those of other sub clause which may apply to claim. If the Contractor fails to comply with this or another sub clause in relation to any claim, any extension of time and / or additional payment shall take account of the extend (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim excluded under the second paragraph of this subclause.

Delete Sub-Clauses 20.2, 20.3, 20.4, 20.5

Sub-Clause 20.6 is amended as follows :-

#### 20.6 Arbitration-

Clause 20.6 and Clause 20 is amended as follows :-

Any dispute arising out of or in connection with this Contract including any question regarding its existence validity or termination, shall be referred to and finally resolved by Arbitration in accordance with the Arbitration rules of the Mumbai Circle for International Arbitration (MCIA rules), which rules are deemed to be incorporated by reference in this clause:-

Delete Sub-Clauses 20.7 and 20.8

#### Add 21.0 Clause :- Miscellaneous-

- 21.1 Except as otherwise provided by its item, the Contract may not be amended, waived or varied except by an agreement in writing expressed to amend the contract and signed by the parties.
- 21.2 No delay or forbearance by any party in exercising any right, power or remedy whether under the contract or otherwise shall impair or be construed as a waiver of such right,



power or remedy (provided that this shall not relieve party from complying with its obligations within any time limit stated in the contract). Any waiver by one party of the obligations of another party under the contract shall be in writing, sign by party giving the waiver and shall not affect the obligations of any other party not specified in such waiver nor preclude any other or further exercise thereof or the exercise of any other right, power or remedy.

- 21.3 The illegality, invalidity or unenforceability to any extend of any provision of the contract under law shall affect its legality, validity or enforceability in such jurisdiction to such extent only any shall not affect its legality, validity or enforceability under the law of any jurisdiction, nor the legality, validity or enforceability of any other provision which will remain in full force and effect. If for any reason, whatsoever, any provision of the contract is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or unenforceability of the remaining provisions shall not be affected in any manner and the parties shall negotiate in good faith with a view to agreeing upon one or more provision which may be substituted for such invalid, unenforceable or illegal provisions as nearly as practicable.
- 21.4 Neither the Employer nor the Contractor shall be deemed to be an agent of the other nor hold itself out as having authority or power to bind the other in any way. The Contractor shall be deemed at all times be an independent Contractor and nothing in contract shall be construed as creating any partnership or joint venture or any relationship of Employer and Employee as between the parties.
- 21.5 The Contract expressly excludes any condition implied at Law or by custom or otherwise arising out of any agreement between the parties. The parties hereby acknowledge and confirmed that it does not enter into the Contract in reliance on the any condition so excluded.

### Special Conditions Of Contract

#### 1.0 Planning and Execution of the works-

The proposed Sewri to Worli link will be 4 lane divided flyover. It will connect the proposed coastal road on the west at worli end to the MTHL on east at Sewri end. The alignment will generally follow Narayan Hardikar Marg, slum area along Drainage channel, jagannath Bhatankar Marg and Acharaya Donda Marg. In the process it will have to cross major North south roads such as Dr. Anni Besant Road, Gokhale Road (south ) Senapati bapat Marg , Western railway and central railway tracks, Dr.Ambedkar Road, Dr. Ernest Borges Road , Dr.S.S.Rao Marg, G.D.Ambekar Marg, Tokashi Jivaraj Road , Zakaria Bundar Road (R.A.Kidwai Marg ) , Comred Rambhau Devji Patil Road , Harbour Line Tracks ,and Eastern Freeway. including ramps at R A Kidwai marg on south and north side and up and down ramps at Acharya Donda Marg The contractor shall plan and schedule the construction program accordingly. The contractor should take care of all such eventualities while preparing the bid . The contractor shall ensure a minimum road width of 5.50 m on either side / one side as the case may be , of barricaded area for movement of vehicular traffic .

The contractor shall obtain necessary permissions for planning and execution from traffic





police, MCGM and other authorities. The conditions mentioned above or any other such relevant conditions not spelt out here shall not cause the reason for extension of contract period.

#### 2.0 Land For Temporary Use-

Land for labour camps, storage yards temporary site sheds etc, will be arranged by the contractor at his own cost.

#### 3.0 Temporary Diversion, Maintenance of same and traffic Management-

Addition to provisions made in the technical specifications, it is stipulated that the contractor shall act, maintain and carryout the traffic management including safety features, for all temporary diversion at no extra cost of the Employer. .

#### 4.0 Removal / Diversion of Utility Service-

Where the Outline Drawings indicate the locations of existing utilities, these are for general information only and are assumed to be approximate. It is the Contractor's responsibility to ascertain the precise nature and location of all existing utilities prior to undertaking any related design and Execution of the Works in the vicinity or any diversion of the existing utilities.

As far as possible the Contractors proposal shall be such that the minimum shifting of utility required. However, if the over ground / under ground utility services like electric poles, water supply pipe lines, sewer lines, oil pipe lines, cables, gas ducts etc. Authority including Public Undertaking and local authorized encountered during condition diverted by the Contractor. The work shall be carried out under the supervision necessary certificates department. In case in the opinion of the Engineer it is not possible to divert the utilities shall make necessary modifications in the structure at no extra cost of the Employer.

#### Work Specific

- a) The work has to be done on the road with busy traffic and hence suitable traffic diversion measures will have to be adopted in consultation with Engineer's Representative, local authority and traffic police. To ensure traffic safety proper and adequate signboards, barricades, lighting at night shall be displayed during day and night to ensure that no accidents take place. The existing road surface and road surface on which the traffic has been diverted as approved by the concerned authority shall be maintained by the Contractor at his cost.
- b) Suitable phasing of construction and temporary traffic arrangement shall be got approved from the Engineers. No compensation for any delay in intended date of completion shall be payable to the contractor.
- c) No excavated material (including the material to be reused after checking the conformity to required standards for any purpose and with prior permission of the Engineers) shall be stacked on road footpaths. The same shall be immediately disposed off as directed by Engineer.
- d) Ancillary work such as reinstating road surface including paver blocks, kerbs, medians, storm water drain setc. when disturb during the construction shall be reinstated as per the direction of the Engineer with no extra cost to the Employer.
- e) Scope of maintenance during construction and defect liability period including maintenance of



electrical items shall be carried out as per the directions of the Engineer

### Variations

- (a) Likely variations have been included in volume II, however any unforeseen variations and restrictions due to change in Codal Practices shall be executed by the contractor with in the price quoted.

### Shifting of utilities

- (a) Contractor is require to liaise with concerned department for identifying exact location of the utility services. Any damages by the contractor while carrying out work to the utilities shall be repair at his own cost.
- a. Charges / deposits / payments made by the contractor for the purpose of shifting of utilities (Under provisional sums). To the utility owner agencies shall be reimbursable after due assessment, verification and scrutiny except for street light poles, set of signal posts, road signs/sign boards and consumer connection for water connections (domestic / commercial).



## Section-VII

# EMPLOYERS REQUIREMENTS



## EMPLOYERS REQUIREMENTS

### Preamble

Data provided here is tentative. It is provided in 2 parts .Physical data available from the site and obligatory data to be consider by the bidder for preparation of his proposal. Bidder is advised to ascertain accurate facts and details from his own due diligence. Obligatory requirements given herein shall be followed scrupulously in design of the Highway and Structures.

### 1. Functional Requirement

#### 1.1 FUNCTION OF THE CONTRACT:

The purpose and function of the Contract is to design, supply, construct, complete and test the Works in the manner and time as required under the Contract and to achieve the standards, performances and functionalities specified therein. In full recognition of this purpose, and with full acceptance of the obligations, liabilities and risks that may be involved, the Contractor has entered into the Contract and shall undertake, under the Contract, the design and Execution of the Works and hand-over the completed Works to the Employer in a condition in which the Employer can immediately use the Works for the intended purpose, and/or to make them available to a Related Works Contractor who can commence and carry out its work without delay or disruption.

#### 1.2. COMPLIANCE WITH THE EMPLOYER'S REQUIREMENTS:

The design and performance of the completed Works shall comply with the specific requirements contained in these Employer's Requirements.

#### 1.3. DESIGN OF THE WORKS:

The design of the Works shall be developed in accordance with the Employer's Requirements, the Contractor's Technical Proposals and other requirements of the Contract.

#### 1.4. COMPLIANCE WITH THE WORKS SPECIFICATIONS:

The Works shall be designed and constructed to the highest standards available using proven up-to-date good industry practice.

The Works Specification shall in any case not specify standards which, in the Engineer's opinion, are less than or inferior to those described in the Outline Specifications, the Outline Drawings and other requirements set forth in the Contract.

#### 1.5. CONSTRUCTION METHOD STATEMENTS AND PROCEDURES:

Execution of the Works shall be carried out in strict accordance with the Method Statements and procedures established by the Contractor in his Quality Assurance Plan Health plan, Safety plan and Environmental Management Plan, and other requirements contained in the Employer's Requirements.

The Method Statements, the Quality Assurance Plan, Health plan, Safety plan and



Environmental Management Plan to be prepared by the Contractor for review by the Engineer shall be in strict compliance with not only the Employer's Requirements but also the relevant Laws.

The Contractor shall prepare the Method Statements, the Quality Assurance Plan, Health plan, Safety plan and Environmental Management Plan based on those outlines submitted by the Contractor and accepted by the Employer at the time of bidding.

## 2. The Alignment

The proposed Sewri to Worli link will be 4 lane divided flyover. It will connect the proposed coastal road on the west at worli end to the MTHL on east at Sewri end. The alignment will generally follow Narayan Hardikar Marg, slum area along Drainage channel, jagannath Bhatankar Marg and Acharaya Donde Marg. In the process it will have to cross major North south roads such as Dr. Anni Besant Road, Gokhale Road (south ) Senapati bapat Marg , Western railway and central railway tracks, Dr.Ambedkar Road, Dr. Ernest Borges Road , Dr.S.S.Rao Marg, G.D.Ambekar Marg, Tokashi Jivaraj Road , Zakaria Bundar Road (R.A.Kidwai Marg ) , Comred Rambhau Devji Patil Road , Harbour Line Tracks ,and Eastern Freeway. including ramps at R A Kidwai marg on south and north side and up and down ramps at Acharya Donde Marg.

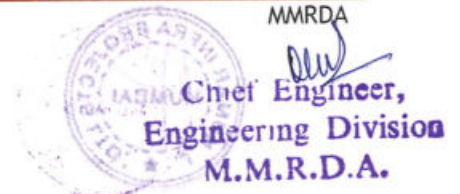
### 2.1 **The existing roads along which the alignments is proposed has following configurations in general:**

- (a) Narayan Hardikar Marg
- (b) Drainage Channel Road
- (c) Bhatankar Marg : from Gokhle Road up to Senapati Bapat Flyover.
- (d) Senapati Bapat Marg up to Elphistone ROB.
- (e) Elphistone ROB up to Ambedkar Road flyover
- (f) Acharya Donde Marg

### 2.2 **Verticle Obstacles / structure in the Alignment:**

The proposed alignment is generally crossing following verticle structures existing in the alignment.

- (i) The N-S flyover along Senapati.Bapat.Marg
- (ii) The existing R.O.B at Elphinston Station (Prabhadevi Station) (In W-E directions)
- (iii) Existing N-S. Flyover along Dr.Ambedkar Road
- (iv) The Mono rail alignment along with mono rail station running along part of Acharya Donde Marg.
- (v) Sewri Station Of Harbour Line railway
- (vi) Upcomming CST panvel fast corridor
- (vii) Eastern Freeway
- (viii) Sewri Interchange ramps of MTHL.



### 2.3 The Proposed profile of Sewri -Worli Link:

(ix) The proposed Sewri -Worli link road will start on sewri New Prabhadevi Road at Surface level, will cross over Dr. Anni Besant Road with a flyover , travel at 1st floor level along Drainage channel road and Bhatankar Marg, will cross S.B. Marg Flyover at 2nd level Elphinston Bridge and Ambedkar road flyover at second level then cross Mono Rail track at Third Level and cross elevated Sewri station and Eastern Free Way at 2nd level .

### 2.4 The Structural Configuration for vertical support:

The Alignment of Sewri- Worli Elevated connector is generally passes along the existing roads and it is required to be at height range from 8 m to 22 meter to cross existing flyovers, ROB's and Mono rail. In addition to this, the widths of the existing roads is narrow. Therefore for major part of the alignment is proposed at piers at centre to support the 4 Elevated connector. However, some of the sections (length portal arrangements is recommended with piers at and along either side of the existing road. Such as drain in the stretch between 3+300 to 4+100KM at Drainage Channel road two major drainage carrying pipe lines are running along existing road.

### 2.5 Contractor's General Engineering, Design & Procurement Obligations :

The Contractor shall be solely responsible for the, design and construction of the work and for the adequacy thereof. Contractor's responsibility shall not be in any way be diminished nor shall the Contractor's design approach be limited by the Employer's acceptance of the Contractor's guidance or recommendations as to engineering standards and design specifications, or by Employer's approval, suggestions or recommendations on any aspect of the engineering or design. The work shall be carried out as per the design prepared by the bidder and approved by the Employer. The work shall also include shifting of utilities, removal of electric poles, cutting/transplantation of trees etc. the details of which are given separately.

The successful bidder shall carry out detailed topographic survey along the alignment and carry out modification in geometric design of the elevated connector confirming to site requirement (if required) without any additional cost to the Employer

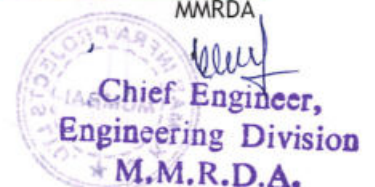
### 3.0 Design Data

Design data given hereunder, for Obligatory spans and viaduct is based on Employer's due diligence and Engineering:

Contractor shall use this data for preparing his proposal keeping in mind that he has to compulsorily follow Obligatory requirements for designing the obligatory spans (steel structure), structure and viaduct.

### 4.0 Obligatory Requirements

In the road construction obligatory requirements include- Demolition and reconstruction of existing pavement wherever required for construction of pier for viaduct.



1. Contractor shall handle missing link first, carry out ground improvement works and monitor the settlement over the period of time
2. Design, plan and execute rigid pavement wherever damages due to construction of piers, locations of poor pavement condition, slip roads in the stretch including restoring crust.
3. In the stretch from A.D Marg, Bhatankar Marg such as paver blocks in the footpath, rehabilitation of kerb and medians.
4. Road furniture, lighting, landscaping for the entire length
5. Removal, shifting and rehabilitation of underground and overhead utilities shall be carried out through the approved agencies of concerned authorities under provisional sums.

## II DESIGN CRITERIA FOR STRUCTURES

### 1. General Requirements:

The bidder's design shall generally satisfy the following requirements: -

- (i) It shall ensure soundness of the structure, its durability and aesthetics as a whole in harmony with the surroundings
- (ii) It shall ensure speedy construction leading to appreciable economy
- (iii) It shall be accompanied by preliminary but fairly detailed drawings and detailed description of work and specification of materials and items. If called upon, bidder shall furnish any additional information necessary for appreciation and comparison with alternative proposals received from other bidders.
- (iv) At the time of detail design the contractor shall not deviate from basic scheme and Employer's Requirements.
- (v) The superstructure shall have minimum number of expansion joints for better riding surface. It shall involve modern construction techniques which will cause minimum hindrance to the local traffic.
- (vi) The Viaduct shall have uniform aesthetical appearance to enhance the overall look and thereby the vicinity. Aesthetic finishes like grooves, embossed or surface textures to be provided for substructure and superstructure as per the detailed drawing approved by the competent authority.
- (vi) All the substructure shall be of uniform type except otherwise necessary.
- (vii) The Superstructure shall be designed for loading prescribed in relevant IRC codes

### 2. Restrictions on Type of Structures:

The following types of structural arrangements shall not be permitted:

- (i) Structures sensitive to unequal settlement of foundations, indeterminate structures like continuous, rigid frames, etc. on yielding type of foundations.
- (ii) Abutments resting on approach embankments.
- (iii) A design in which stability of one or more span is endangered due to failure of some other span or spans.
- (iv) Superstructure with joints at the tip of long cantilevers with hinges, gap slab and short suspended spans.



- (v) Structures with continuity only in deck slab, in transverse direction. (Wider Superstructure more than 4 lane resting on independent foundations should not be interconnected.)
- (vi) Piers in the form of multiple columns with isolated/separate footings resting on yielding type strata.
- (vii) Unprotected hollow piers for spans, which are susceptible for impact of vehicles.
- (viii) Any type RCC Superstructure.
- (ix) Foundation arrangement requiring shifting of drainage pipe line on drainage channel road (Ch 3+300 to Ch 4+100 )

**BORING DATA AND SOIL AT SITE :**

- 1) The details of the boreholes, their locations and indicative founding strata are shown on the drawing.
- 2) The contractor shall have to take borings by double tube boring machine at the final location of each pier and abutment prior to the commencement of the work to ascertain the rock levels/quality at the location of the foundations and this shall form part of the contract and no payments will be made by the Employer for boring, soil sampling and testing etc.
  - (a) During execution of the work, the samples from the bore taken at each foundation shall be tested and analyzed in the laboratory approved by the Engineer for establishing design parameters. Such as standard penetration test, undisturbed soil samples, UCS, water absorption on rock samples etc., shall be carried out in conformity with the specifications. The Contractor shall submit the entire data to the Engineer along with his own/aboratory recommendations and obtain approval to the design-parameters. Necessary interpretation of the result of tests shall be furnished to the Engineer for scrutiny of design of foundations.
  - (b) The cost of these test and interpretation of the test results shall be included in the tendered amount. No payment will be made separately for the testing of soil and or rock.

**Inspection, Quality Assurance and Quality Audit:**

The Contractor shall permit access to the Employer, Engineer's Representative, or any other person authorized by the Employer to the Contractor's premises where the works will be performed and will use reasonable endeavors to secure Rights of Access to the premises of its Subcontractors where the works will be performed and allow him to:

- a) audit the Contractor's quality assurance system and its application to the works, including manufacture, development and raw materials and components provision;
- b) inspect all parts of the works to the extent reasonably practicable to ensure that their quality meets the specifications; and





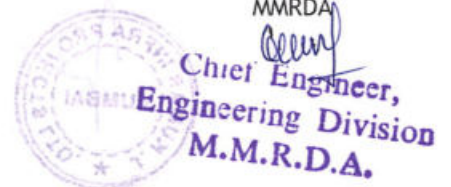
- c) perform activities with respect to civil works such as, but not limited to, survey, installation, commissioning, acceptance and other Design & Construction and/or operational activities. Each of the foregoing rights of access shall be conditional upon (i) Employer/Engineer giving Contractor reasonable notice, (ii) the Employer /Engineer accessing such premises in a manner that avoids disruption of the works that is being performed on such premises. The Employer shall provide the name(s) of each such visitor prior to the visit. Any right of access shall not be construed as creating any obligation requiring the Contractor or its Subcontractors to disclose trade secrets or proprietary information. Further, such right of access may be conditioned on the execution of a confidentiality and non-disclosure agreement and/or subject to routine building or security rules, regulations or procedures.

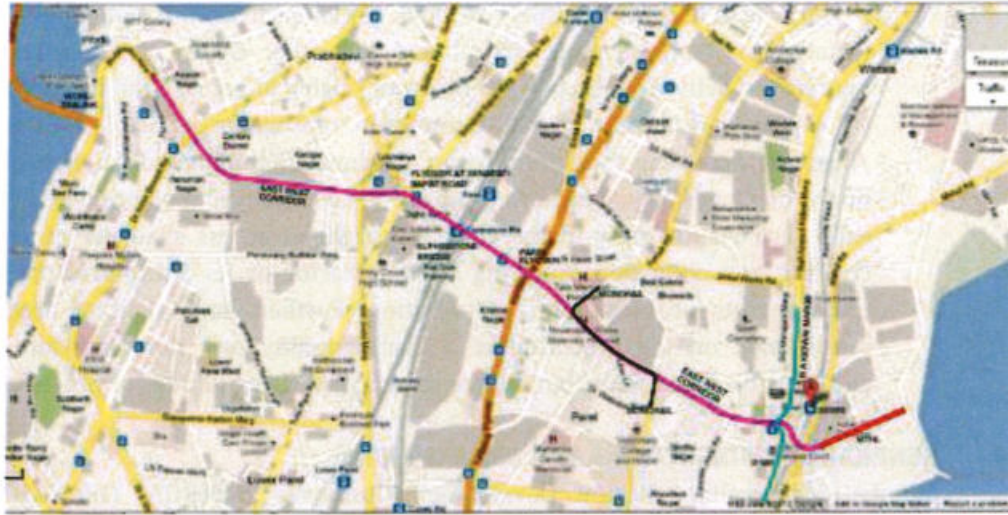
#### 1.0 GENERAL CONSIDERATIONS AND ASSUMPTIONS:

Mumbai Metropolitan Region Development Authority (MMRDA) (the "Authority") is engaged in the development of MMR Region and as part of this endeavour, the Authority has decided to undertake "Construction of Sewri Worli Elevated connector starting from MTHL ( at Ch . 0/00 ) and traversing up on existing Eastern freeway, Proposed Elevated CSTM – Panvel Rail Corridor, Ramp B of MTHL excluding construction of ROBs at Sewri Railway station & Elphinstone (New Prabhadevi Road) including dismantling of existing ROB approach Ramps, Service Road, Vehicular underpass, cross drain from waterspout of flyover to RCC Rectangular Drain including its reinstatement , RCC Utility Ducts near Sewri"(the "Project") through an Design & built lumpsum Contract, and has decided to carry out the bidding process for selection of a bidder to whom the Project may be awarded. A brief description of the project may be seen in the Information Memorandum of the Project at the Authority's website (<https://mmrda.maharashtra.gov.in>). Brief particulars of the Project are as follows:

#### 1.1 PROJECT LOCATION:

Location of proposed project to be designed & constructed is as shown in Location Map Given here under :




**1.2 ALIGNMENT PLAN:**

Alignment plan drawings are presented in VOL-IV

**1.3 SALIENT FEATURES OF THE BRIDGE ALIGNMENT:**

I	Start point of MTHL to Sewri ROB	0+000 to 0+168.29	168.29
II	Sewri ROB	0+168.29 to 0+264.29	96.00
III	Elevated connector	0+264.29 to 1+339.29	1075.00
IV	Down & Up RAMPs for Acharya donde Marg & RA Kidwai Marg	0+521.79 to 0+832.3	310.51
V	Obligatory span ( Steel Structure)	1+339.29 to 1+424.29	85.00
VI	Elevated connector	1+424.29 to 1+957.41	533.12
VII	Obligatory span ( Steel Structure) Crossing Hindamata Flyover	1+957.40 to 2+057.41	100.00
VIII	Elevated connector	2+057.41 to 2+406.2	348.79

IX	Design & construction of supporting piers for Reconstruction of existing Elphinstone ROB (98.1 approaches(168 M +137 M) at Level 1 and ROB for Sewri Worli Elevated Road at second level	2+238.1 to 2379.2	141.1
X	Additional spans at 1st level ROB for Vehicular Under pass and staircases on approach road	2+379.2 to 2+406.2	27.00
XI	Design & construction of supporting piers for Elphinstone ROB (first level & second level)	2+406.2 to 2+504.3	98.1
XII	Additional span at first level adjacent to Vehicular Under pass	2+504.3 to 2+530.24	25.94
XIII	Dismantling of existing approaches & reconstruction	2+530.24 to 2+702.4	172.16
XIV	Elevated connector	2+702.4 to 2+780.40	78.00
XV	Obligatory span	2+780.40 to 2+832.9	52.5
XVI	Elevated connector	2+832.9 to 3+060.4	227.5
XVI I	Obligatory span	3+060.4 to 3+160.4	100 ( 2 X 50)
XVI II	Elevated connector	3+160.4 to 4+095.4	935
XIV	Obligatory span	4+095.4 to 4+195.4	100 ( 2 X 50)
XV	Elevated connector	4+195.4 to 4+393.4	198.00
XVI	Approach Worli side	4+393.4 to 4+512	118.6



**1.4 General Scope of Work:**

1.4.1 The total length of project alignment from sewri to worli is 4.512 kilometer consists of following sections

- a) Total length of viaduct : 3360.13 m ( Excluding obligatory spans)
- b) ROB Total length : 194.1 m
- c) Total length of Obligatory Spans : 840 m
- d) Approaches on worli side total length : 118.60 m
- e) Additional Approaches for Elphiston ROB at 1 St level total length : 367.51m

1.4.2 Additional Six Ramps at Sewri total length :

- a) Ramp1 (MTHL To Nath Pai) =592.84m
- b) Ramp2&3 (MTHL To Donde viseversa)=309.30m
- c) Ramp4 (MTHL To Kidwai)=523.75m
- d) Ramp5 (Nath Pai to Donde)=532.15m
- e) Ramp6 (Donde to Kidwai )=553.98m

1.4.3 Provision of Velicular subway at both side approaches of Elphinstone ROB

The above details are tentative

1.4.4 Provision of staircase at Elphinstone ROB

1.5 Construction of ROBS at Sewri & Elphinstone (New prabhadevi) Rail station

MMRDA has entrusted the construction of the two ROBs along the Sewri-Worli elevated connector (at Elphinston and Sewri Station) above to the Maharashtra Rail Infrastructure Development Corporation Ltd. (MRIDC) which is a joint venture of Govt. of Maharashtra and Ministry of Railways.

The contractor shall work in coordination and under the supervision for ROB work with MRIDC

**1.6 Status of Approvals &Permissions:**

A) Permissions Will be obtained by MMRDA

Sr. No.	Nature of Approval /Permission	Name of Agency /Authority
1	CRZ Clearance	Maharashtra Coastal Zone Management Authority

B) Contractor shall obtain permissions from but not limited to the following agencies/Authorities

Sr. No.	Nature of Approval /Permission	Name of Agency /Authority
1	Permissions (if required) for working in ROW	Relevant Department of MCGM
2	Sewer Line Shifting	MCGM Sewer department
3	Storm water drain	Relevant Department of MCGM



4	Utility shifting	Various Utility providers
5	Traffic Diversion	State Traffic Police department
6	Tree Cutting	Tree Authority of MCGM

- C) The contractos shall obtain permissions required for the project not listed in the table above from the concerned agencies/Authorities.

**DESIGN DATA FOR VIADUCT:**

<b>A</b>		<b>Obligatory Provisions:</b>
(i)	Minimum Length of Bridge as measured between Centre of Pier towards Sewri Side (Ch 0.0) and inner faces of dirt wall on Worli Side and inner face of dirt wall for the down ramp at Acharya Donde Marg (Viaduct Length)	Generally as shown in the drawings in Vol. IV subject to the stipulations of the Bid Document and as specified in Table under Employers Requirements Cl. 1.2 of Vol.-I
(ii)	Obligatory Provisions, Horizontal and Vertical Clearances	Generally as shown in the drawings in Vol. IV subject to the stipulations of the Bid Document.
(iii)	Soffit R.L. /Finished Road Level at ch 0+000 as shown in the drawing	As shown in the tender drawing.
(iv)	Overall width of Elevated Road (between outer edges of deck slab)	2 X 7.5 m + 1.0 m (Median) + 2x0.5m (Anti-crash barrier)
(v)	Vertical Clearance for Obligatory span	As shown in the Drawing.
(vi)	View barrier and Noise barrier	Loading for future provision of View barriers and Noise barriers on both sides for entire length excluding ROB.
(vii)	Design speed	For structural design: Design speed of 80 kmph on straight portions of the Viaduct. For geometric design: Design speed of 80 kmph on straight portion and curves as per IRC provisions with available radius of curvature and maximum superelevation of 4%
<b>B</b>		<b>Design Loads</b>
	Loads due to :	
	Service lines on either	100 Kg / m

	side	
	Temperature effects :	As per relevant IRC code
	<b>Seismic Force:</b>	
	Seismic Zone	III
	Importance Factor	1.5
C	<b>Exposure:</b>	<b>Very Severe</b> for structural components other than foundation and <b>Extreme</b> for foundations.
D	Crash barrier For elevated road and approach road	As per tender drawing (minimum 1.5 height)
E	Type of provided: Anticorrosive Treatment	Irrespective of exposure condition, treatment for reinforcement (HYSD/TMT) of Foundation, & Substructure (Fusion Bonded Epoxy Coating (All PSC/RCC works) is mandatory. No treatment to precast superstructure with segmental construction is required. For Concrete super Structure - Anti carbonation treatment as per SP 10 of Vol.-III For Structural Steel as per SP 11 of Vol.- III. MS liner: 8mm thick For Concrete surface in contact with soil / below G.L.-Coal Tar Epoxy.
F	Type & Spacing of Expansion Joints :	Modular Strip Seal& Minimum spacing shall not be less than 200 m c/c (excluding Obligatory Span).
G	Wearing coat :	25 mm thick Mastic over 50 mm Dense Bituminous Macadam with 30/40 bitumen over 3 mm polymer waterproofing membrane.
H	Water Spouts	Sprinkler type water spout shall be provided.
I	Central median on Elevated Bridge :	The height central median on Elevated viaduct shall be 1.05 meter.
J	Road furniture	Traffic signs and pavement markings to be provided by the Contractor shall include roadside signs, overhead signs, on gantries, curb mounted signs and road markings along the Elevated viaduct. All other road furniture/traffic control devices/ road safety devices shall be provided by the Contractor as per IRC SP: 87-2010
K	Central median Opening	The Sewri-Worli elevated connector is a dual carriageway with a central median (in the form of continuous barrier separating its two carriageways). Openings at the central median shall be provided (at about 8 locations along the alignment) at the locations specified by the Engineer for cross-over from one



	carriageway to the other under special / emergency situation.
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### 3.0 DESIGNS CRITERIA AND REQUIREMENTS-

#### 3.1 GENERAL REQUIREMENTS-

In order that the Bidder's proposal qualifies for acceptance it shall generally full fill the following requirements:-

- 3.1.1 It shall ensure soundness of the structure and its durability during its service life.
- 3.1.2 It shall ensure speedy construction but with due importance to curing and durable strength of structure and lead to appreciable economy.
- 3.1.3 It shall be accompanied by preliminary but fairly detailed drawings and detailed description of work and specifications of materials and items. The detailed design assumptions and method statement shall also be given. If called upon, bidder shall furnish any additional information necessary for appreciation and comparison with other alternative proposals received from other bidders.
- 3.1.4 At the time of detailed design, after work order to the Contractor, the Contractor shall not deviate from the basic scheme proposed by him at the time of submission of tender.
- 3.1.5 Due importance shall be given to aesthetics of piers and superstructure. The shape of structure should be uniform throughout the length and architectural beauty as a whole in harmony with the surroundings. The aesthetics of pier and pier cap should be get approved before execution.
- 3.1.6 Splicing of reinforcement shall be formed by laps, welding and mechanical devices, wherever laps are required to be provided. The splices shall be suitably designed and conform to codal clauses of IRC:112. It shall not be located at the point of maximum moment / stresses and shall be symmetrical.
- 3.1.7 Laps shall be staggered and shall not be located in the areas of high stresses.
- 3.1.8 While using 43 grade cement conforming to IS:8112 and 53 grade cement conforming to IS:12269 utmost care shall be taken to minimize the effects of heat of hydration. The selection of type of cement from durability point of view viz. Sulphate Resistant Portland cement conforming to IS:12330 or Portland Pozzolona cement conforming to IS:1489 (part1) or any other type conforming to national or international standards shall be finalized with past experience in bridge Engineering construction field. The earlier communicated decision of competent higher authority in this regard shall be final and binding on the Contractor.
- 3.1.9 The chemical admixtures conforming to IS:9103 may be used to improve the properties of fresh concrete such as workability, setting time etc.
- 3.1.10 The procedure to be adopted for placing RMC conforming to IS:4926 shall be well defined so that the compaction of concrete is achieved. This shall be got approved from Project Management Consultancy (PMC) in advance. The provisions mentioned in IRC 112 to be



referred.

3.1.11 The minimum diameter of reinforcement for any structural member shall not be less than 10 mm. however, minimum diameter of main reinforcement in RCC abutments and piers shall be 16 mm and spacing shall not be more than 200 mm.

In deck slab with girders or box, maximum spacing of main steel shall not be more than 200 mm and secondary reinforcement (distribution) shall not be more than 250 mm.

3.1.12 Sudden changes in geometry of structure shall generally be avoided as such points are susceptible to stress concentration. However, if such sudden changes in geometry become unavoidable, rigorous analysis shall be provided such as push over, non linear analysis as applicable shall be carried out. Decision of Chief Engineer, MMRDA shall be final and binding in this regard.

3.1.13 The detailing of the structures as well as reinforcement shall be given utmost importance from the point of constructability, durability and ductility.

### 3.2 RESTRICTIONS ON TYPES OF STRUCTURES-

The following types of structural arrangements shall not be permitted:

3.2.1 Structures sensitive to unequal settlement of foundations, indeterminate structures like continuous beams, portal frames, etc. on yielding type of foundations.

3.2.2 Superstructures with joints at the tip of the long cantilevers with hinges, gap slab and short suspended spans, superstructure with articulation joint, superstructure with central hinge, balanced cantilever.

3.2.3 RCC Superstructure.

3.2.4 Annular piles, filled or empty.

3.2.5 Abutments / Piers resting on single row of piles.

3.2.6 Two girder system for superstructure.

### 3.3 SPECIFICATIONS FOR DESIGN AND CODES TO BE FOLLOWED-

3.3.1 The design of structural components shall conform to the criteria laid down in the latest editions of the following Codes of Practice and Standard Specifications published up to the last date of receipt of tender form.

(A) Standard Specifications and Codes of Practice for Road Bridges to be adopted:

Section- IRC:5- 2015	Standard Specifications and Code of Practice for Road Bridges, Section I – General Features of Design (Eight Revision)
Section – II IRC :6-2017	Standard Specifications and Code of Practice for Road Bridges, Section II – Load and Load Combinations (Seventh Revision)





Section - III IRC : 112-2011 (Reprint 2016)	Code of Practice for Concrete Road Bridges
Section - VI IRC:22-2015	Standard Specifications and Code of Practice for Road Bridges, Section VI - Composite Construction (Limit States Design) (Third Revision)
Section - V IRC :24-2010	Standard Specifications and Code of Practice for Road Bridges, Steel Road Bridges (Limit State Method) (Third Revision)
Section - VII IRC:78-2014	Standard Specifications and Code of Practice for Road Bridges, Section - VII- Foundations and Substructures (Revised Edition)
IRC : (Part-I) 83-2015	Standard Specifications and Code of Practice for Road Bridges, Section - IX- Bearings, part - I : Roller & Rocker Bearings (Second Revision)
IRC : (Part-II) 83-2018	Standard Specifications and Code of Practice for Road Bridges, Section - IX- Bearings, part - I : (Elastomeric Bearings) Part II (First Revision)
IRC : (Part III) 83-2018	Standard Specifications and Code of Practice for Road Bridges, Section - IX- Bearings, part - III : POT, POT-CUM-PTFE, PIN and Metallic Guide Bearings
IRC (Part IV) :83-2014	Standard Specifications and Code of Practice for Road Bridges, Section - IX- Bearings, (Spherical and Cylindrical)
IRC :38-1988	Guidelines for Highways and Design Design of Horizontal Curves for Tables. (First Revision September 1989)
IRC :86-2018	Geometric design standard for Urban Roads and Streets (First Revision)
IRC : 87 - 2011	Guidelines for Formwork, False work and Temporary Structures (First Revision)
IRC SP : 13-2004	Guidelines for the Design of small Bridges and Culvers (First Revision June - 2004)
IRC SP : 16-2004	Guidelines for surface evenness of Highway pavement (First Revision)
IRC SP : 23-1983	Vertical Curves for Highways (Reprint September - 1989)
IRC SP : 37-1991	Guidelines for Evaluation of Load carrying capacity of Bridges (Year -1991)
IRC SP : 51-2015	Guidelines for Load Testing of Bridges (First Revision)
IRC SP : 65-2018	Guidelines for Design and Construction of Segmental Bridge
IRC SP : 66-2016	Guidelines for Design of Continuous Bridges (First Revision)



IRC SP : 67-2005	Guidelines for Use of External and unbounded Pre-stressing Tendons in Bridge Structure
IRC SP : 69-2011	Guidelines and specification for Expansion Joint
IRC SP : 70- 2016	Guidelines for the Use of High Performance Concrete (Including self compacting concrete in Bridges) (First revision)
IRC SP : 71-2006	Guidelines for Design and Construction of Precast Pre-tensioned Girder for Bridges
IRC SP :84	Manual of specification of standards for four laneing of Highways
IRC SP : 90-2010	Manual for grade Separators and Elevated Structures
IRC SP : 102-2015	Guidelines for Design and Construction of Reinforced Soil Walls
IRC SP : 104-2015	Guidelines for Fabrication and Erection of Steel Bridges
IRC SP : 105-2015	Explanatory Handbook to IRC:112-20111; Code Practice for Concrete Roads Bridges
IRC : SP 114-2018	Guidelines for Seismic Design of Road Bridges
IS -1893- (Part I) -2016 (Part II) -2016 (Part III) -2014	Criteria for Earthquake Resistant Design of Structures.
IS - 2911-2010	Code of Practice for Design & Construction of Pile Foundations.
IS - 13920-2016	Ductile Detailing of Reinforced Concrete Structures subjected to Seismic Forces – Code of Practice.

- (B) Any IRC standard specifications and Codes of Practice or Criteria for Road Bridges other than 'A' above, but published to last date of submission of bid irrespective mentioned in any other place in the document.
- (C) For any item not covered by A and B above, specifications for Road and Bridge works published by IRC for Ministry of Road Transport & Highways.
- (D) For items not covered by any A, B & C above, Standards and Specifications Provisions of I S Codes of Practices.
- (E) For any item not covered by any of the above Codes and Specifications, the relevant provisions from Euro / AASHTO (L.R.F.D) / CE-FIB Model Codes 1990
- (F) For any item not covered by any of the above Codes and Specifications, the relevant provisions from Euro AASHTO (L.R.F.D) / CE-FIB Model Codes 1990
- (G) For items not covered by any of the above Standards and Specifications, sound Engineering Practice and Provisions of relevant Codes of other Nations shall be referred.
- (H) For any items for which if any dispute arises related to the consideration of the various design parameter, applicability of codes, applicability and choice of good sound engineering practice etc. the matter shall be referred to the Chief Engineer, MMRDA and in this regard, the decision of the Chief Engineer, MMRDA shall be final and binding to all the parties.

**3.4 OBLIGATORY PROVISIONS ON ROADWAY ON THE BRIDGE AND ALIGNMENT,**



Chief Engineer,  
Engineering Division  
M.M.R.D.A.

**GEOMETRYETC-****3.4.1 Tender GAD:**

For the guidance of the tenderers, GAD showing arrangement of the viaduct as contemplated by the employer is enclosed. However, the tender is to be awarded on the contractor's own design (Lump sum cost Basis on Bidders own designs) complying with various requirements indicated in Scope of work, Design data (Employers requirement Clause 2), Design Criteria (Employers requirement Clause 3) and other relevant provisions of the contract. For this purpose, details shown in Tender GAD enclosed are to be taken as indicative and may not be adopted in design, except for certain obligatory requirements which have been specified therein. These details specify obligatory span, vertical clearance at crossing / junction, minimum length & width of Viaduct, minimum acceptable mix, specifications and sizes for different components. The Contractor's design shall provide for comparable specifications and in any case not inferior to those corresponding components contemplated by the Employer.

At the time of detailed design, the Contractor shall not deviate from the basic scheme proposed by him in his bid

**3.4.2 Alignment and Location:**

The alignment and location shall be as shown on the Drawings in Vol. IV.

**3.4.3 Length of the Viaduct:**

The length of the Viaduct shall satisfy the following Criteria

- 3.4.3.1 The centre line of the viaduct shown on the GAD should not be changed, except under unavoidable circumstances with approval from Engineer.
- 3.4.3.2 Finished Road Level at abutment pier (chainage 0+000) location shall be as shown in drawings.
- 3.4.3.3 Longitudinal gradient shall not be steeper than those shown in drawings. The vertical and horizontal geometric shall be confirming to the IRC provision with available radius of curvature. The maximum shall be super elevation of 4%.
- 3.4.3.4 Any other criteria shown on the tender drawings / supplementary data.
- 3.4.3.5 Length of Viaduct (Structural Portion) shall not be less than the length shown in drawings.
- 3.4.3.6 The horizontal and vertical clearances at obligatory locations shall be as per drawings.
- 3.4.3.7 Location of obligatory spans shall be as shown in the tender drawings.

**3.4.4 Road Level on the Viaduct and Roadway Particulars:**

- 3.4.4.1 Roadway particulars and carriageway widths shall be as per relevant drawing.  
The vertical geometry of the finished surface of deck slab and wearing course shall be in the



form of a smooth curve where change in gradient occurs. The design of curves shall be got approved from the Engineer. Super-elevation, camber & widening on curves shall be suitably considered. The design of curves shall comply with relevant IRC Codes/ Guidelines. The design speed on curve shall be as stipulated in Design Data.

### 3.4.5 RCC and PCC: Concrete Grades:

Minimum grades of concrete for different components shall confirm to IRC provisions. Be as specified in the following table except for PCC:

Location	Minimum Grade, in MPa
Concrete for bored piles	45
Pile caps / Open Foundation	45
Piers, Pier / abutment caps, pedestal	55
Superstructure	55
Crash Barrier and median	55

The above grades of concrete shall be High performance concrete.

### 3.5 DESIGN LOADS:

#### 3.5.1 Live Loads:

3.5.1.1 The Viaduct shall be designed for loading as per IRC:6. While checking for Transient Design situation condition live load of IRC Class – A one lane per two lanes without impact shall be taken into account as a temporary superimposed load.. The bridge shall also be designed for one span off and no span condition. The bridge shall also be designed for loads due to service lines as specified in Design Data Cl. 2.0 of Design Criteria.

3.5.1.2 The design of components directly under moving loads shall also be checked for the effect of 40 T bogie load i.e. 20T axle load as per IRC.

3.5.1.3 The bridge shall be designed for the IRC class special class vehicle (SV) loading as proposed under clause 201 of IRC:6. The Special Vehicle (SV) IRC calcs SV loading special multi axel hydraulic trailer vehicle (prime mover with 20 Axel Tralier – GVW = 385 Tonnes) shall be considered.

3.5.1.4 Congestion factor shall be considered as per IRC-6 without any reduction as per codal provision in longitudinal moment.

3.5.1.5 For flyover and viaducts, vehicular collision load shall be considered on the pier / abutment as specified in IRC6

3.5.1.6 Inspection trolley shall be designed for live load of 100 kg/sqm of plan area, if to be provided as specified in Design Data Cl. 2.0 of Design Criteria.

3.5.1.7 Footpath/Maintenance walkway live load shall be 500kg/m<sup>2</sup> basic intensity be considered.

#### 3.5.2 Wind Forces:

Wind forces shall be considered as per IRC 6



**3.5.3 Temperature Forces:**

Relevant provisions of IRC 112, IRC 6, Clause No. 215 shall be followed.

**3.5.4 Earth Pressure:**

In absence of actual properties of the back fill, the abutments, returns shall be designed for a backfill with dry density of soil 1.8T/cum, saturated density 2.00T/cum and  $\phi = 30$  degree,  $C=0$  and  $\delta = 20$  degrees. The actual properties of earth fill shall be investigated by the consultant of Contractor and designs shall be submitted accordingly.

**3.5.5 Seismic Forces:**

The components of bridges for seismic shall be designed as per codal provision.

**3.5.6 Fatigue Load:**

The fatigue check shall be carried out under frequent combination of serviceability Limit State with load factors for fatigue load, taken as 1.0 for design for fatigue limit state.

**3.5.7 Centrifugal Force:**

Centrifugal forces shall be calculated as per IRC 6.

**3.6 LOAD COMBINATION:**

3.6.1 Load combination shall be as per codal provision.

**3.7 FOUNDATIONS:****3.7.1 Piers /Abutmen:**

3.7.1.1 Geological/subsoil investigation data including borehole logs obtained by the Employer will be provided to the Contractor. For design of the foundations at Technical Design stage, the Contractor is expected to carry out sufficient geotechnical investigations as stipulated in IRC codes /guidelines. The Contractor shall carry out geotechnical / subsoil investigations involving boreholes at least at every proposed pier and abutment location, to assess the nature and characteristic of founding strata to finalize the design of foundation. Additional boreholes and necessary tests shall also be taken as may be directed by the Engineer, at no additional cost to the Employer.

3.7.1.2 The contractor shall take bores by at least Double tube boring (and preferably by Double tube) machine at the final location of each pier and abutment prior to the commencement of the work to ascertain the type of strata and rock levels and quality at the location of the foundations. The contractor shall work out S.B.C/pile capacity. at proposed founding level and got approved from Chief Engineer, MMRDA / Engineer. The cost of these tests and interpretation of the test results shall be included in the tendered amount. No payment will be made separately for boring and testing of soil or rock. The confirmatory foundation level and SBC shall be reported to PMC immediately. Contractor shall submit the geotechnical report with bore details in standard format of IRC:112 duly certified by Engineer. The capacity of Geotechnical Consultant appointed by the Contractor should be



ascertained by Engineer.

- 3.7.1.3 During execution of the work, the samples from the bore holes taken at each foundation for pier and abutments shall be tested and analyzed in the laboratory approved by the department, for establishing the design parameters, Tests such as "standard penetration tests" etc. shall be carried out by the contractor and these tests shall confirm to the MMRDA specifications. The contractor shall submit the entire data to the Authority along with his own/ laboratory recommendations and obtain approval to the design parameters from PMC. Necessary interpretations of the results of tests shall be furnished to the PMC for scrutiny of design of foundation. All piles shall be checked for integrity tests and report shall be submitted. Initial pile load and routine pile load tests shall be as per IS : 2911 (Part IV)
- 3.7.1.4 The cost of these tests and interpretation of the tests results shall be includes in the tendered amount. No payments will be made by the MMRDA separately for testing of soil, rock etc.
- 3.7.1.5 While checking the stresses at the base of the foundations it shall be ensured that under the worst combinations of the forces there is no tension except where it is founded on rock. The maximum allowable tension shall be as per IRC : 78. In case of pile foundation, piles shall be checked for uplift capacity as per design factors given in IRC : 78 for computing uplift capacity The S.B.C at the foundation shall be verified during construction so as to ensure that the stresses imposed on the foundation strata are within permissible limit. However, if some additional borings are required by the Authority such requirement shall be specified in writing and shall be deemed to be an additional work. The contractor in his offer shall quote the rate for such boring, soil sampling and testing, separately along with the tender. The taking out of the samples and carrying out the required tests shall confirm to the specifications. The contractor shall then submit the entire data to the MMRDA along with his own/ laboratory recommendations and obtain approval to the designs parameters from PMC. In such cases, if required, the MMRDA may take the opinion of geotechnical expert/ appointed agency at own costs.
- 3.7.1.6 The temporary works such as, sheet pile for protection to Rail lines or any other building/existing structure, temporary bridges and centering etc. shall be completely removed immediately after completion of the relevant part of the work.
- 3.7.1.7 A reference line considered asfounding strata for bidding purpose is shown in the bid drawings.

During execution, theactual founding stratum shall be a stratum having minimum RQD of 40%.

The difference in the levels between the reference line considered as founding strata shown in the bid drawings and the actual founding stratum shall be the basis for variation as per the Contract.

The depth of embedment of foundations in the stratum having minimum RQD of 40% shall be as per relevant IRC codes.

- 3.7.1.8 At the time of execution, after taking confirmatory bores, if the Contractor reports any change in foundation design parameters, then it will be the responsibility of the contractor



to modify the designs accordingly as per the design requirements and to execute it at no extra cost.

- 3.7.1.9 Considering durability of the structure, all the measures shall be taken. In addition to this NDT like rebound hammer testing at appropriate location is to be carried out to work out the compressive strength of concrete.
- 3.7.1.10 (Deleted)
- 3.7.1.11 From the Aesthetic point of view, provide all the piers having similar shape. ✓

### 3.7.2 Returns / Wings / Retaining walls:

The lengths of returns/ wings of Bridge shall not be less than those worked out as follows:

- 3.7.2.1 If Road level and Ground Level are same as shown in Tender Drawing, the length of return shall be not less than that shown in Tender Drawing.
- 3.7.2.2 (Deleted)
- 3.7.2.3 The foundation of the independent returns shall be rested at least 2 m below the Ground Level subject to the provision that the S.B.C. at that level is adequate for the proposed design. However where rock is met at, or very close to ground surface the return must be rested at least 0.15m into that rock.
- In case of deep foundation the foundation level of returns may be suitably located as per site condition. It may be taken 0.15 m below the pile/ well cap.

The soil improvement shall be done by geo synthetic material or by any other conventional method to avoid the settlement of the structure. The cost of such improvement shall be borne by Contractor as per site condition and decision of competent field authority is final and binding.

### 3.7.3 Pile Foundations:

The minimum embedment of pile foundations into the stratum having minimum RQD of 40% shall be as follows:

SBC ( t/sqm)	Min. Embedment in rock of given SBC
More than 50 but less than or equal to 200	3.0 x dia. Of pile
More than 200	2.0 x dia. of pile

Factor of Safety (FOS) of 5 shall be adopted to compute Safe Bearing Capacity of rock from Unconfined Compressive Strength. In no case, the SBC considered in the design shall be more than 500 t/sqm. Minimum embedment is required to be provided despite this limitation of SBC.

- 3.7.3.1 The recommendation for depth of virtual fixity of pile shall be taken from geotechnical expert based on properties of constitutes material and standardized calculations and no extra payment is made from department for this.
- Only bored cast in situ piles, drilled with hydraulically operated rotary drilling machine will be accepted.
- 3.7.3.2 Only bored cast in situ piles, drilled with hydraulically operated rotary drilling machine /



RCD will be accepted.

The piles shall be design for allowable / Tolerances of tilt and shift as verticality of pile cannot be maintained.

- 3.7.3.3 If pile foundations are proposed, it will be obligatory to contractor to provide permanent liner as per Cl. 2 'Design Data' to all the piles from the pile top up to the top of rock/refusal level.
- 3.7.3.4 Non Destructive integrity testing directed by the Engineer-in-Charge for all piles shall be carried out by the Contractor with no cost to the MMRDA
- 3.7.3.5 Cost of the above tests along with the load tests shall be borne by the Contractor and no extra payment will be made to the Contractor.

### 3.8 SUBSTRUCTURE:

#### 3.8.1 Piers & Abutments:

- 3.8.1.1 For continuous spans, Pier with fixed Bearings shall be designed to take all the horizontal forces. For continuous spans, in seismic case, Pier with free bearings shall be **designed for longitudinal (LR) bearing forces.**
- 3.8.1.2 The thickness of main wall of counter-fort / Box type retaining / abutment wall shall not be less than 500 mm and that of any other element shall not be less than 300 mm.. Main wall should be concentric with the loads from superstructure.
- 3.8.1.3 Scope for accessibility for inspection and arrangement for lifting of the Superstructure for future replacement of Bearings shall be provided in the design of Substructure. The positions of jacks shall be distinctly shown on the drawing and also prominently marked on the structure.
- 3.8.1.4 The height of the pedestal shall not be more than 500 mm.
- 3.8.1.5 The substructure shall rest completely on foundation..
- 3.8.1.6 One span dislodged condition shall be considered as erection / Transient Design situation condition for the purpose of design.
- 3.8.1.7 Suitably designed seismic arrestors shall be provided as specified in the IRC:6-
- 3.8.1.8 Adequately designed RCC pier caps and abutment caps shall be provided over each piers and abutment respectively.
- 3.8.1.9 As the limited space is available on the proposed alignment, all piers shall be checked for simultaneous impact of vehicular live load as per Cl. 222 of IRC 6.
- 3.8.1.10 Special aesthetic finishes like grooves etc. shall be given to the structures to the satisfaction of the Chief Engineer, MMRDA / PMC. Aesthetic finishes shall not form the part of structural requirement of any member.
- 3.8.1.11 The width of clear space provided in between the two end diaphragms of adjacent spans over a pier shall be sufficient to erect and dismantle the centering-shuttering required for concreting of deck slab in replacement of expansion joint in future, and shall be not less than 500 mm.

#### 3.8.2 Ramps / Returns / Retaining wall / R E Walls:



- 3.8.2.1 The height of RE wall used for return and for retaining embankment shall not be more than 6.00 m measured above the finished ground level.
- 3.8.2.2 Suitably designed reinforced soil embankments can be provided where there is no water spread for the approaches. It shall be designed as per the IRCSP:102 For foundations of retaining structure(s) if design requires to increase the safe bearing capacity (SBC) of the strata at the foundation level by way of soil stabilization method or any type of soil SBC improvement technique, foundation arrangement, treatment etc. the same shall be considered as a part of Contractor's own design and the cost of these shall be included in the tendered amount. No extra payment will be made separately for the same.
- 3.8.2.3 M-30 PCC kerb stones having dimensions of 600x300x1200 (LxBxD) shall be provided at a spacing of 1200 mm c/c. The stones shall be buried below the road level by 600 mm shall be located at a distances of 500 mm from the face of retaining wall. including thickness of kerb stone.
- 3.8.2.4 Suitable corrosion protection to the reinforcing steel as specified in Design Data shall be provided for steel components in reinforced embankment.
- 3.8.2.5 Design temperature for the project shall be evaluated as per available guidelines but in no case shall be less than 30°C. Material reduction factors for creep and durability shall be with due consideration to design temperature.
- 3.8.2.6 Facia shall be panels with effective thickness not less than 160 mm (excluding any engraving for the aesthetic finish on the panel)
- 3.8.2.7 The Grade of Concrete for the Panel shall be at least M-45.

### 3.9 SUPER STRUCTURE:

- 3.9.1 Deck slab thickness shall not be less than 240 mm and not less than 200 mm at the tip of cantilever in transverse direction irrespective of the provisions elsewhere. The slab shall be checked for punching shear.
- 3.9.2 Minimum thickness of intermediate diaphragm where provided shall be 300 mm and that of end diaphragm shall be 500 mm for the cast-in-situ work. Opening shall be provided in the diaphragms for access inside the box.
- 3.9.3 In the absence of rigorous analysis for torsion and distortional moments and the forces due to warping at ends, the design live load moments and shear force in the longitudinal direction shall be increased by 20% and in the transverse direction by 5%.
- 3.9.4 For Pre-stressed Superstructure with box girders, the cross diaphragms shall be provided at each supports and at each abrupt change in soffit geometry.
- 3.9.5 The provision for imparting 20% of design pre-stress at a future date, shall be made in the deck. Suitable anchorages, bulkheads, deviator blocks etc. shall be constructed for this purpose. Arrangement for external pre-stressing shall be got approved from Engineer-in-charge/ PMC. Anchorage system proposed shall be clearly indicated. It is



- desirable to stress the cables from top of deck slab.
- 3.9.6 The combination of pre-cast and cast-in-situ construction shall be seriously dealt with, as the phenomena of differential creep & shrinkage and the forces at connection of pre-cast & cast-in-situ part pose lot of post construction problems. Adequacy of reinforcement at joints shall be ensured. Generally one element (say a girder) shall be either pre-cast or cast-in-situ and not the combination of pre-cast and cast-in-situ.
- 3.9.7 Deflection correction shall be worked out and provided in form of precamber to the shuttering supports during construction for R.C.C. superstructure. Precamber shall be provided for the sagging effect due to 5 times dead load.
- 3.9.8 The superstructure shall be designed for 25 mm differential lifting at bearing location and this shall be considered as an erection condition without live load.
- 3.9.9 Special aesthetic finishes like grooves, chamfers etc. shall be given to the sides and soffit of superstructure to the satisfaction of the Engineer. Aesthetic finishes shall not form the part of structural requirement.

### 3.10 BEARINGS:

- 3.10.1 POT/PTFE or Spherical Bearings shall only be permitted for all spans.
- 3.10.2 Cut/segmental roller Bearings shall not be permitted. Use of different metals setting electrolytic actions inducing corrosion shall not be permitted.
- 3.10.3 The Bearings shall be easily accessible for inspection. Suitable arrangements for access to the bearings for inspection shall be designed and provided as per railway specification off ROB.
- 3.10.4 Scope for lifting the Superstructure for future replacement of Bearings shall be provided for in the design and marked on the structure appropriately to avoid any mishandling.
- 3.10.5 End diaphragms shall be designed for lifting of superstructure by providing jack below it and 18R loading as per Annex A of IRC 6-2017 shall also be considered in addition to DL and SID during the lifting.
- 3.10.6 The installation of bearing on site under the supervision of manufacturer's representative shall be carried out.
- 3.10.7 The expected design of bearing shall be taken from manufacturer and accordingly the programming year of replacement of bearing shall be provided to the field officers.
- 3.10.8 The Drawing of bearing layout shall be in the custody of field office. For replacement of bearings the jack positions shall be marked on the structure with permanent marker/provision.

### 3.11 EXPANSION JOINTS:

- 3.11.1 The expansion joints shall conform to IRC. Specifications. The detailed working drawing for the joint shall be in conformity with overall geometry of deck. Geometrical profile shall be achieved by adjusting the dimensions of Superstructure. The joint shall be jerk free. Differential deflection in bearings shall be considered while designing.
- 3.11.2 The expansion joints shall be leak proof. The joint shall be provided for the full width of



the bridge i.e. including kerbs / Anti Crash Barrier. Proper detailing of expansion joints at the kerbs / Anti Crash Barrier shall be done. On completion of the deck joint assembly installation, the joint shall be subjected to a water test over its entire length as follows: shall be continuously ponded for a minimum period of two hours with a minimum depth of 25mm and with sufficient width to extend 50mm beyond the mortar bunds on both sides of the deck joint assembly. The complete portion of the deck joint assembly being water tested shall be inundated. At no time shall the measurement between the water level at the curb line and the high point of the preformed seal in the curb be less than 25mm. Leakage of water through the deck joint assembly installation or the concrete-steel interfaces during this test will constitute failure of the deck joint assembly.

3.11.3 Only strip seal / Modular Strip Seal / Finger Type of the expansion joints shall be adopted.

3.11.4 For better riding quality, spacing of movement joints shall not be less than 200 m for bridges/viaducts.

### 3.12 RAILINGS /PARAPETS:

3.12.1 Railing/Crash barrier shall be provided for High Level Bridges as indicated in the tenderdrawing.

3.12.2 (Deleted)

3.12.3 (Deleted)

### 3.13 WATER SPOUTS:

3.13.1 Normally the rain water shall be disposed from the carriageway by spinkler type of drain spout system, the design should be aesthetic and easy of cleaning and maintenance. The entire drainage plan shall be prepared by the contractor and shall be got approved from the Engineer-in-Charge /PMC.

### 3.14 WEARING COAT:

3.14.1 A wearing coat of uniform thickness shall be provided for riding surface. It shall be as specified in Design Data of design criteria.

### 3.15 DURABILITY ASPECTS:

3.15.1 The environment exposure condition shall be very severe for the concrete exposed to air borne chloride in marine/coastal environment.

3.15.2 Durability Recommendations for the required service life as per IRC for very severe exposure condition shall have minimum grade of concrete as specified in design criteria

3.15.3 All above four recommendations of clause 3.16.3 for very severe exposure condition shall be satisfied. The significance of construction techniques, methodology and quality assurance is very important for the durability of structure. The contractor shall abide



- to all durability measures under the directions of competent experience field officers.
- 3.15.4 When durability of concrete is the main reason for adopting high performance concrete or in other specific situations, Rapid Chloride Ion Permeability Test (RCPT) as per ASTM C1202 shall be carried out. Additional durability tests, such as Water Permeability Test as per DIN 1048 Part 5 or Initial Surface Absorption test as per BS 1881 part 5 can be specified.  
Suggested upper limits of values of RCPT for 56 days for various exposure conditions are
1. Extreme 800Coulombs
  2. Very Severe 1200Coulombs
  3. Severe 1500Coulombs
- 3.15.5 For aggregate size other than 20 mm, the minimum cement content shall be adjusted as per table no. 14.3 under clause 14.3.2.2 of IRC:112:2011.
- 3.15.6 The total acid soluble content in concrete mix shall not exceed the limits given in clause no. 14.3.2.3 of IRC:112. The total water soluble sulphate content of the concrete mix, expressed as SO<sub>3</sub>, shall not exceed 4 percent by mass of cement in the mix 14.3.2.4 of IRC:112
- 3.15.7 The alkali Silica reaction can be alleviated by use of aggregate which have been found to perform satisfactorily.

### 3.16 QUALITY CONTROL AND WORKMANSHIP:

- 3.16.1 The suitable/appropriate stipulated conditions shall be adopted based on experience and expert opinion of Quality Control authority. Section 18 of IRC:112: has stipulated some specifications of materials to be used in construction of new concrete bridges and relevant standards to which they should conform. The same shall be referred by contractor under the directions of competent filed authority.
- 3.16.2 The Provisions of IRC:112:2011 with relevant standards as mentioned in Annexure A-3 of IRC:112:2011 shall be adopted for construction durability, Quality and Workmanship.

### 3.17 ANTICORROSION TREATMENT TO CONCRETE AND REINFORCEMENT:

- 3.17.1 Entire structure shall be given anticorrosive protection, which shall be got tested from approved laboratory and shall be of approved quality, colour and shade.
- 3.18.2.1 The protection shall consist of mild steel liner to piles: One coat of Zinc-rich Epoxy primer and two coats of Coal Tar Epoxy.(or advanced chemical Zuolotic) (Total dry film thickness 50 + 80 + 80 = 210 microns) to outside surface. Aluminum based paints shall be prohibited as they have deleterious influence on the concrete surface.
- 3.18.2.2 Part of Substructure in contact with earth one coat of primer and two coats of Coal Tar Epoxy. (or advanced chemical Zuolotic)
- 3.18.3 Anti corrosion treatment for steel:
- 3.18.3.1 Anticorrosive treatment for HYSD Bars used for Foundation, Sub & Super



**Structure works:-**

**The measures for corrosion resistance of reinforcement steel bars shall be Fusion Bond Epoxy Treatment adopted conforming to IRC 112- provisions.**

- 3.18.4 Anti corrosion treatment for concrete: Anti carbonation treatment as per SP 10 of Vol.-III.
- 3.18.5 Crash Barrier: Oil / Enamel paint in two coats of approved quality and colour with one coat of primer. This coating needs periodic renewal.
- 3.18.6 Inside of R.C.C./ P.S.C. Box : Waterproof cement base paint in three coats of approved quality and colour.

**3.19 LOAD TEST :**

AS PER MORTH & IRC – SP :51

- 3.19.1 In case a structure or a component of structures proposed by the Contractor, in the opinion of the Engineer-in-Charge / PMC, is of unusual nature, then the Engineer-in-Charge / PMC shall have the right to call upon the Contractor to carryout model and /or load testing of the structure or component to prove its suitability. The cost of such test shall be borne by the Contractor.
- 3.19.2 Any defects noticed in the structure or any damages done to the Bridge at the time of testing which affects or is likely to affect the strength of the Bridge shall be rectified by Contractor at his own cost by remedial measures or replacement as approved by the Engineer-in-Charge /PMC.
- 3.19.3 The bridge NDT instrumentation such as strain gages, pressure meter etc shall be installed/ provide as instructed by Engineer-in-charge as per maintenance requirements of bridge. The decision in this regard is to be taken by competent field officers with discussion with bidder and their appropriate planning of instrumentation.

**3.20 DOCUMENTATION, INSTRUMENTATION:**

The following items are deemed to be included in the tender cost.

- 3.20.1 The following items shall be deemed to be covered under the scope of work:
- 3.20.2 "As Built" drawings and calculations in soft and hard copy shall be supplied by the Contractor free of cost
- 3.20.3 Five CDs of 80-minute duration covering the different phases of construction from start to finish of construction of viaduct shall be supplied by the Contractor free of cost. For this purpose a complete script for filming shall be prepared and got approved from the Engineer and filming shall be done accordingly.
- 3.20.4 "Maintenance Manual" describing access arrangements, important obligatory precautions from the point of view of structural safety, and procedure for minor and major repairs of each component of the bridge, renewals of finishes and treatments periodically shall be supplied by the Contractor at his cost.
- 3.20.5 A "Quality Assurance Manual" covering all aspects of designs and drawings, mix-designs,



- materials, testing, soil and rock properties, statistical quality control, etc. shall be prepared by the Contractor free of cost well before starting the work.
- 3.20.6 A "Construction Manual" covering various aspects of construction methods, difficulties faced and how they were overcome during execution etc. Shall be supplied by the contractor free of cost at the time of finalization of work.
- 3.20.7 Details of arrangement for street lighting and design calculations there of duly approved from Competent Authority is the responsibility of the Contractor.
- 3.20.8 Detailed design calculations and working drawings of all the component of the Viaduct including launching scheme and programme of launching shall be submitted well in advance of execution, in accordance with the above programme. Three sets of such detailed design calculations and drawings accompanied by complete information and sufficient data shall be submitted to the Engineer. The designs and drawings shall be submitted progressively. Only drawings will be approved and corrections to the designs shall be carried out as per requirement of approval for record. If computer is used for design or analysis, the Contractor shall submit with design and soft copy of design, the detailed description of method of analysis with explanatory notes and manually done sample calculations for adequate number of typical cases. The Computer Programme as submitted will be tested by comparison with solutions as worked examples.
- 3.20.9 Drawings and designs shall be in S.I. units. Calculations shall be neat and clear and supplemental by full explanatory notes and sketches wherever required. The drawing so initial submission and final approval shall be in Auto CAD and in A- size only.
- 3.20.10 If during the scrutiny of detailed design calculations and drawings, including temporary arrangements for launching, any changes there in are found necessary for compliance of specifications / design criteria in the opinion of Engineer, they shall be incorporated without altering the Lump-sum price quoted. It will be entirely the responsibility of the Contractor to submit properly prepared designs & drawings in reasonable time. The Competent Authority will approve them in 15 days time after receipt of all compliances.
- 3.20.11 Schedule of reinforcement and the rate of reinforcement per cum of concrete quantity (and also percentage with respect to gross cross sectional area of the component) should also be shown on each drawing.
- 3.20.12 Eight sets at approved working drawing including one set on reproduction tracing film and 8 sets of approved design calculations shall then be supplied by the Contractor which will be formally authenticated by the Engineer (8 copies of drawings and one set of design calculations for field officers, one set to be returned to the Contractor and three to be retained by Engineer). These drawings shall be submitted in approved plastic folders and calculations in approved plastic files free of cost.
- 3.20.13 After completion of each stage of work, 3 sets of record plans and one set of final design calculations based on the work actually executed including one soft copy on CD compatible to latest window software, & Auto CAD latest version, shall be supplied by the contractor to the Engineer as directed.
- 3.20.14 Approval to drawings and design calculation by the Engineer shall not in any way relieve the contractor of his responsibility for the correctness, soundness, structural stability and safety of the structure.

3.20.15 The Contractor's designer or consultant shall attend all their view meetings conducted by Competent Authority from time to time without any extra cost and shall also remain present as and when required during the checking of designs.

**3.21 PROCEDURE FOR CHECKING DETAILED CALCULATIONS AND WORKING DRAWINGS:**

3.21.1 Within one month of the receipt of the work order, contractor shall submit a program of submission of designs. It shall be submitted to Engineer In charge / PMC for submission to project management consultants. The program of submission of designs of various components should be consistent with the program of work submitted by the contractor and approved by the Department.

3.21.2 The Contractor shall prepare the Design Submission Programme that sets out fully the Contractor's anticipated programme for the preparation, submission and review of the issue of Notices for all stages of design. The Design Submission Programme shall cover all submissions during the Design Phase and the Construction Phase.

The Design Submission Programme shall:

- a) be consistent with and its principal features integrated into the Works Programme, and shall show all relevant Milestones and Key Dates;
- b) Identify dates and subjects by which the Engineer's decisions should be made however, designs shall not be submitted to near nor too far the time when design approval is required in accordance with the Construction Programme;
- c) Make adequate allowance for periods of time for review by the Engineer and other review bodies and sufficient time should be allowed in case resubmission is required;
- d) Make adequate allowance for the design and development of specialist works;

3.21.3 After issuing of work order, Engineer in charge shall submit the copy of work order, certified bore data and geological report certified tender document, common set of deviation, General Arrangement Drawing (after approval of competent authority), letter of appointment of consultant by contractor, name and designation of the authorized signatories of contractor, consultant, certified foundation level, rock level and SBC to Project Management consultants to take the work in hand.

3.21.4 To start with this, contractor shall submit the complete general layout of the structures along with the design assumptions and methodology statement to Project Management consultants to understand and appreciate and get it approved from it, before starting the actual design. It shall be submitted through Engineer In charge to PMC.

3.21.5 The Design Consultants appointed by the contractor shall have the official versions of the software being used for the design and same shall be made available for scrutiny of Design to the PMC if demanded.

3.21.6 Detailed design calculations and working drawings of all the components of the bridge shall be submitted well in advance of the execution, in accordance with design submission program and execution sequence. Two sets of such design calculations and there sets of drawings accompanied by complete information and sufficient data shall be submitted to the Project Management consultants. For checking the design calculations. Simultaneously the soft copy of the design calculations and drawings (only



in edible formats) shall also be submitted. The scrutiny will be carried out only after receipt of above data/details. The designs and Drawings for various components/parts shall be submitted progressively according to the design submission program and actual construction progress at site. The Dimensional drawing of superstructure and Bearing layout shall be got approved from Project Management consultants before commencement of design of foundation and substructure. All design and drawing shall be submitted through Engineer In charge to PMC.

3.21.7 If any in house or any software based program is by consultant for design or analysis, Contractor shall submit designs with the detailed description of method of analysis and explanatory notes and manually done sample calculations for adequate number of typical cases & soft copy. The computer program as submitted further tested by comparison with solutions of worked examples. If the contractor's consultant has used any special software for designing special components of the Bridge the consultant should submit one licensed copy of such software to the PMC.

In case the Engineering staff of project management consultant is not well acquainted with the software used by the consultant, a short training program for them shall be arranged by contractor without any extra cost.

The contractor should submit along with tender a note giving his design approach and construction scheme conforming to the basic requirements which shall be approved by authorities while awarding the work so as to avoid the possibility of major changes being required in the design at a later date.

3.21.8 Drawings and designs shall be in SI units. Calculations shall be neat and clear and supplemented by full explanatory notes and sketches wherever required. The drawings of the initial submission and Final approval shall be preferably stenciled and in 420mm\*297mm size only. It is entirely the responsibility of the contractor to submit the Design in time. No claims shall be granted on account of late approval to design and consequent delay in the execution. Schedule of reinforcement and rate of reinforcement per cum of concrete quantity (and also percentage with respect to gross sectional area of the component) should also be shown on each drawing.

3.21.9 The design calculations and generally prepared using worksheets, but it is found that the calculations are presented in the series of table and it becomes very difficult to trace out the formula used and the parameters supplied in the formula to calculate a particular value.

For Example.

BM	=	1.913tm
Depth required	=	87.22
depth provided	=	202 mm
Ast REQUIRED	=	452.648 sqmm
Min Steel	=	200 sqmm

The above calculations do not seem explanatory in hard copy, because only results and neither formula nor values of various parameters are shown in the following



*Leup*  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.



manner

BM = 1.913 TM

$$d_{req} = \sqrt{\frac{1.913 \times 1.00E + 07}{2.515 \times 1000}} = 87.220 \text{ mm}$$

$$D_{prov} = 250.00 - 40 - \frac{16}{2} = 202$$

$$Ast_{req} = \frac{1.913 \times 1.00E + 07}{0.87 \times 240.00 \times 202} = 452.648 \text{ sqmm}$$

$$\frac{0.12 \times 1000 \times 250.00}{100} = 300 \text{ sqmm}$$

Min steel =

Presentation of design calculations in the above manner will save the time of checking and avoid the correspondence done for clarifications.

- 3.21.10 After initial approval, ten sets of approved working drawings with the tracing along with the four sets of approved design calculations and one soft copy in Pen drive shall be supplied by the contractor which will be formally authenticated by project management Consultants .five copies of drawing and one set of design calculations for field officers, one set to the contractor and there to be retained by project management Consultants.  
These drawing shall be submitted in good quality and properly bound plastic folders and each set of calculations in files and bags, Only finally approved drawings shall be used for execution of the work.
- 3.21.11 The contractor design consultant shall ensure that the design calculations are as per the various codal provisions /design criteria. Delay occurring due to wrong/improper submission of designs/drawings shall be attributed to contractor and to the department.
- 3.21.12 After Completion of the each of the stage, there sets of record drawings based on the work as actually executed on site, shall be supplied by the contractor, to the Engineer Incharge.
- 3.21.13 Approval to the drawings and designs and design calculations by the PMC, shall not in any way relieve/absolve the contractor of his responsibility for the correctness, soundness and structural stability and safety of the structure.
- 3.21.14 The approved drawings and the design calculations of the Bridge shall be the property of the Department.
- 3.21.15 The contractor's designer or the consultant shall attend all the design Review meetings conducted by PMC / Authority from time to time, without any extra cost. At these



Engineer's review meetings, the Contractor shall present information, drawings and other documents to the Engineer in respect of all submissions programmed to occur during the following five-week period. The Contractor's presentations shall be in sufficient depth to enable the Engineer to obtain a clear understanding of the Contractor's proposals and to discuss the methodology and process used in reaching the proposed design solutions.

3.21.16 All design drawings and calculations shall reflect the signature, name and post of designers who prepare it, verify it and approve it from Contractor's organization of design consultant.

### 3.22 DISPUTE:

3.22.1 In case of disputes arising between the contractor and PMC the matter may be referred to the Chief Engineer In charge. The decision of Chief Engineer shall be final and binding on the contractor.

### 3.23 SPECIAL POINTS:

3.23.1 Deleted

3.23.2 It is obligatory to the contractor to have a unit highly qualified and well experienced expertise in Bridge design, it is supposed that contractor submit the detailed design and drawings after doing detailed soil exploration. Foundation proposed by contractor shall fulfill the requirement of all points given in design criteria. If there remains any discrepancy/lacuna in any part of the design and drawing, contractor will be totally responsible. Approval given to drawing and design calculations and foundations proposed by contractor, by project management consultant shall not in any way relieve the contractor of his responsibility. For the correctness, soundness and structural stability and safety of the structure shall be the contractor's responsibility.

3.23.3 During the Geological investigations, continuity of starts below foundation shall be at least 6 meter. Founding levels shall not be less than that shown in the Departmental GAD.

### 3.24 FACILITIES TO MMRDA:

The Contractor shall provide facilities to the Client (MMRDA) as indicated below-

- i) Office accommodation for employer/ Engineer admeasuring 1000 sqft. Fully furnished with three air conditioners and 300 sqft (minimum) for conference room fully furnished( Air conditioned)
- ii) Office boy / Attendant; 1(One) No.
- iii) Document controller : 1 No
- iv) Computer Operator cum Typist along with PCs (with required updated software) :1 No
- v) The contractor shall provide an inspection vehicle air-conditioned Innova with driver and fuel : 1 No

This shall be considered an incidental to the work and no additional payment whatsoever



made for the same. All the above facilities shall have to be provided till completion of entire work in all respect or till payment of final bill to the Contractor by the Employer whichever is later.

### 3.25 **CONTRACTOR'S DOCUMENTS:**

Contractor's documents envisaged under sub clause 5.2 to be submitted to the Employer required to satisfy all Regulatory Approvals and data, information, design calculations (classical and software generated / use) along with any criteria for patent registered design etc. shall comprise of:

- (i) information collected during engineering such as data, bore logs, levels, instrumentation for ground improvements, etc.,
- (ii) design assumptions, calculations, software used and drawings good for construction,
- (iii) test procedures followed during construction and
- (iv) test after completion
- (v) Quality Assurance Manual and Maintenance Manual

Documents shall be submitted to the Engineer for review together with a notice as envisaged in the Conditions of Contract.

Engineer reserves the right to discuss and correct the design/calculations as per the requirements of national/international code of practice. Such changes if required to be carried out shall be at the cost of Contractor and no separate payment shall be entertained.

### 4.0 **DETAILS OF UTILITIES:**

4.1 Details of utilities passing through the corridor have been mapped based on the information from the various sources and shown in Utility drawing however before finalising the foundation arrangement exact locations of utility shall be mapped by contractor in consultation of concern utility owners to ensure if any / some of the utilities are likely to cause hindrance to the foundations. These need to be relocated or diverted before taking up the piling / foundation work. These operations need to be done in consultation with the utility provider (owner). In case utility relocation / diversion is not feasible, the number of piles, size & shape of substructure shall be suitably adopted. For these design and construction, any additional / extra payment will not be made and it is deemed to be included in lump sum offer quoted by the Bidder in relevant item of billing schedule.

4.2 Contractor is advised to use to his own national / international practices of tracing out or locating these utilities below the ground at no cost to the Employer.

1. Sewer and WaterMains
2. Storm WaterDrains
3. Telecom and Optical Fiber Cable lines



4. Street Lighting Cables
5. HT / LT lines

- 4.3 Shifting of cables shall have to be done through approved/authorized sub- Contractors of utility providers/owners.
- 4.4 Contractor shall obtain necessary permits/approvals from the respective Utility Provider/Owner well in advance of starting the shifting work. The shifting works shall be carried out through the authorized subcontractor's of the Utility providers without causing any inconvenience to the utility users at large.

**5.0 PROJECT SPECIFIC REQUIREMENTS:**

**5.1 Work Specific:**

- 5.1.1 Extent use of crushed sand is allowed then percentage of crushed sand needs to be decided on the basis of design mix and test for flexural strength carried out conforming to the specification. Crush sand may be used, provided the finishing and workability etc. are not affected at any location and also provided that the gradation is maintained and is conforming to latest version of IS 383. No extra payment to be made to the Contractor for setting up of factory etc. for the manufacture of above said sand with all leads.

- 5.1.2 Contract to reconstruct damaged drains or shift drains if required for foundation. Whenever new drains are constructed the flow in the old drain will have to be suitably diverted to maintain the continuity off low. The item rate for demolition of drain & reconstruction of drain shall be deemed to contain the cost of such diversions & will not be paid separately.

- 5.1.3 Whenever embankment / widening is done it will be necessary to ensure the compactions of small width towards edge of widening shall be done by mobilizing 3 tonne power roller / static roller & percentage compaction as stipulated in the item shall be achieved. This will be necessary in the situation where the vibratory roller of 10 tonne cannot approach edges due to site condition.

- 5.1.4 Wherever kerbs / median kerbs are to be fixed on existing pavement (concrete / bituminous) necessary drilling, cutting and anchoring shall be carried out by the Contractor at his own cost. Providing and fixing of kerbs is to be carried out as per direction of Engineer.

- 5.1.5 Ancillary work such as Reinstating Road Surface including paver blocks, kerbs, medians etc. when disturbed during the construction shall be reinstated as per the direction of the Engineer.

**5.2 Material Specific:-**

**A) TMT / HYSD Bars Manufacturer**

- TMT / HYSD manufacture shall be having Iron Making Facility using Iron Ore as



basic raw material, along with the sponge iron plant & necessary refining facility shall be in- house.

Or

Billets used for the TMT / HYSD rolling shall be procured from the plant having Iron Making Facility using Iron Ore as basic raw material, along with the sponge iron plant & necessary refining facility shall be in-house.

- TMT bar manufacture shall be having the valid BIS license along with the Testing facility of Chemical & Mechanical properties.
- Un tensioned Steel reinforcement should satisfy the requirement of cl. 6.2 of IRC 112- 2011.
- For ROB Foundation and substructure at sewri and Elphostone ( New Prabhadevi) stainless steel reinforcement shall be used as per Government circular in Volume -IV ( Drawings)

#### **B) Pre-stressing steel**

- Pre-stressing steel should satisfy the requirement of cl. 6.3 of IRC112-2011.

#### **C) Corrosion resistance to reinforcement to be used in foundation, substructure & Superstructure**

- The measures for corrosion resistance of reinforcement steel bars shall be Fusion Bond Epoxy Treatment adopted conforming to IRC 112-2011 provisions.
- The treatment proposed to prevent corrosion of reinforcement shall conform to provisions of ASTM 109 and modified G109 tests.
- Any proposed measures for corrosion resistance of reinforcement steel bars shall be subject to final approval of Chief Engineer.

#### **NOISE BARRIER**

- Providing /installation noise and view barriers is not in the scope of this Contract. However the loading for noise barriers and view barriers shall be considered in the structural analysis and design of the bridge component.



## Section-VIII

# REPORTING REQUIREMENTS



## 1.0 MONTHLY PROGRESS REPORT

### 1 GENERAL

The Contractor shall submit to the Engineer, a Monthly Progress Report. This Report shall be submitted monthly thereafter, each within seven (7) days after the last day of the period to which it relates. It shall be submitted in a format to which the Engineer shall have given his consent and shall contain sections/sub-sections for, but not be limited to, the topics listed below.

### 2.0 EXECUTIVE SUMMARY

The Contractor shall provide an executive summary covering the major achievements made during the reporting period, the activities planned for the next month and any issues that are effecting or may affect future Project progress. These items are to be dealt with fully in the body of the report.

### 3.0 FINANCIAL STATUS

The Financial Status shall include:

A narrative review of all significant financial matters and actions proposed or taken in respect to any outstanding matters.

A spreadsheet summarizing each Cost Centre, the budget, costs incurred during the period, costs to date, costs to go, cost forecast (total of costs to date and costs to go) and variance (difference between cost forecast and budget) cost.

A spreadsheet indicating the status of all payments due and made.

A report on of the status of any outstanding claims. The report shall in particular provide interim updated accounts of continuing claims.

A report on the status of the Contractor's claims and potential claim - variations / potential variations

### 4.0 DESIGN STATUS



A report detailing the design progress made during the reporting period together with a progressed copy of the Design Submission Programme.

## 5.0 PHYSICAL PROGRESS

It shall describe the status of work performed, significant accomplishments, including critical items and problem areas, corrective actions taken or planned and other pertinent activities, and shall, in particular, address interface issues, problems and resolutions.

It shall include a simplified representation of progress measured in percentage terms compared with percentage planned as derived from the Works Programme.

## 6.0 PROGRAMME UPDATE

### 6.1. PROGRAMME UPDATE STRUCTURE

The monthly Programme Update that shall be prepared by recording actual activity completion dates and percentage of activities completed up to the end of the month together with estimates of remaining duration and expected activity completion based on current progress. The Programme update shall be accompanied by an activity report and a Narrative Statement. The narrative statement shall explain the basis of the Contractor's submittal:

1) Early Work and baseline submittals – explains determination of activity duration and describes the Contractor's approach for meeting required Key Dates as specified in the Contract.

Updated Programme Submittals – state in narrative the Works actually completed and reflected along Critical Path in terms of days ahead or behind allowable dates. Specific requirements of narrative are:

If the updated Work Programme indicates an actual or potential delay to Contract Completion Date or Key Dates, identify causes of delays and provide explanation of Work affected and proposed corrective action to meet Key Dates or mitigate potential delays. Identify deviation from previous month's critical path.

Identify by activity number and description, activities in progress and activities scheduled to be completed.

Discuss Variation Order Work Items, if any.

### 6.2. PROGRAMME STATUS

The Programme Status that shall:





1. show Works Programme status up to and including the current report period, display Cumulative progress to date and a forecast of remaining work.
2. be presented as a bar-chart size A3 or A4 and as a time-related logic network diagram on an A1 media, including activity listings;

### 6.3. **ACTIVITY VARIANCE ANALYSIS**

The activity variance analysis that shall analyze activities planned to start prior to or during the report period but not started at the end of the report period as well as activities started and/or completed in advance of the Works Programme.

### 7.0 **MILESTONES STATUS**

A report on the status of all Milestones due to have been achieved during the month and forecasts of achievement of any missed Milestones, and those due in the next month.

### 8.0 **PLANNING AND CO-ORDINATION**

The Contractor shall make a summary of all planning/co-ordination activities during the month and details of outstanding actions, and also make a schedule of all submissions and a list of consents/approvals obtained.

### 9.0 **DESIGN DELIVERABLE SCHEDULE**

The Contractor shall make a progress version of deliverable schedule indicating actual achievement dates and forecast dates for outstanding items.

### 10. **PRODUCTION AND TESTING**

The Contractor shall review of all production and manufacturing activities during the month and a make summary of all production and manufacturing outputs during the month together with forecasts for the next month.

Review of all testing activities (either at Site or at the manufacture's premises) during the month.

### 11. **SAFETY**

The Contractor shall review of all safety aspects during the month including reports on all accidents and actions proposed to prevent further occurrence.

### 12 **ENVIRONMENTAL**



*bu*  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

The Contractor shall review of all the environmental issues during the past month to include all monitoring reports, mitigation measures undertaken, and activities to control environmental impacts.

### 13. QUALITY ASSURANCE

The Contractor shall review of all quality assurance issues during the past month including all audits undertaken (internal and external) with a schedule detailing the status of outstanding actions.

### 14. HINDRANCES

The Contractor shall review of all hindrances during construction works including all monitoring reports and inform to the Engineer the reason of delay or obstruction concerning the progress of Works. After clarification of Hindrances the Contractor shall make an action plan considering with necessary additional machinery, material and manpower to catch up schedule of Works and make clear the result of progress achieved during passed one month. And continue this practice to be satisfied by the Engineer

### 15.0 PROGRESS PHOTOGRAPHS AND VIDEO RECORDS

- 1) The Contractor shall provide monthly progress photographs, which have been properly recorded to show the progress of the works to the Engineer. The photographs shall be taken on locations agreed with the Engineer to record the exact progress of the Works. Two sets of photographs shall be provided on CD-ROM format with two sets of color prints of 175 mm x 125 mm size. The Contractor shall, unless otherwise agreed in writing by the Engineer, arrange for six (6) of progress photographs to be aerial photographs taken at an agreed height with frequency of every quarter.
- 2) The Contractor shall mount each set of each month's progress photographs in a separate album of a type to which the Engineer has given his consent, and shall provide for each photograph two typed self-adhesive labels, one of which shall be mounted immediately below the photograph and one on the back of the photograph. Each label shall record the location, a brief description of the progress recorded and the date on which the photograph was taken.
- 3) All photographs shall be taken by a skilled person and processing shall be carried out by a competent processing firm to the satisfaction of the Engineer.
- 4) The Contractor shall ensure that no photography is permitted on the Site without the consent of the Engineer.
- 5) The Contractor shall take videos and supply two (2) No. copies of VCD of approx.30 minute's duration with suitable recorded commentary/subtitles taken by an approved experienced video camera operator before the start of the Works and at

monthly intervals thereafter to depict all the major construction activities, all to the  
direction of the Engineer



**Section-VIII**  
**Appendix to Tender**

Conditions	Ref. GCC	Data
Employer's name and address	1.1.2.2	Metropolitan Commissioner, Mumbai Metropolitan Region Development Authority, 9 <sup>th</sup> Floor, New MMRDA Building Bandra - Kurla Complex, Bandra (East), Mumbai - 400051. Tel : +91-22-226591239 / 26590001 Fax : +91-22-26591264 Email :
Engineer's name and address	1.1.2.4 & 3.1	PMC appointed by the MMRDA from time to time
Time for Completion	1.1.3.3	36 months
Defects Notification Period	1.1.3.7	24 months for Bituminous Road works, 60 months for Viaduct Proper & Retaining Wall, other structural work & Rigid pavement.
Electronic transmission systems	1.3	[FAX Email, Internet facility, transmission systems]
Governing Law	1.4	The Contract shall be governed by and construed in accordance with the governing law of India and also the laws in force in the State of Maharashtra and no suit or other legal proceeding relating to the contract shall be filed or taken by the Contractor in any Court of Law except in the High Court of Mumbai which shall have exclusive jurisdiction to hear and determine all action and proceedings in connection with and arising out of the Contract.
Ruling language	1.4	English
Language for communications	1.4	English
Submission of As-Built Drawings	1.8.1	Failure to provide As-Built Drawing within 60 days after completion of the project the amount will be withheld Rs. 50 .00lakhs.
Time for access to the site	2.1	Delete (B)
Performance Security	4.2	5% of contract price
Notice from Contractor to Engineer	5.1	Within one month from date of Contract Agreement
Normal working hours	6.5	9 AM - 6 PM
Delay damages for the Works	8.7 & 14.15(b)	As mentioned in Mile Stone vs Delay Damages table



Provisional Sum (including GST)	13.5	i. For items a) to h) as per CSD clause 13.5 (a) Rs. 86.00 Cr.  ii. For item i) clause 13.5 rental charges towards Land for casting yard limiting to Rs 40 Cr till the completion of project.  (The Cost put to tender does not include the provisional sum as above. The Contractor's offer shall not include the provisional sum)
Adjustments for Changes in Cost; Table(s) of Adjustment	13.8	As provided in the Particular Conditions
Currencies of Payment	14.15(b)	Indian Rupee
Total advance payment	14.2	As provided in Particular Conditions
Percentage of Retention	14.3	6% of each IPC till amount reaches to 5% of the Contract Price
Limit of Retention	14.3	5% of the Accepted Contract Amount
Minimum Amount of Interim Payment Certificates	14.6	<b>Deleted</b>
Periods for submission of insurance: a. evidence of insurance. b. relevant policies	18.1	a. 15days b. 21days
Maximum amount of the Employer's risks	18.2(d)	Rs 1000.00 Lakh
Minimum amount of third party insurance	18.3	Rs 500.00 Lakh

**Delay Damages:**

As given in Table below % (percentage) of the Final Contract Price per day, in the currencies and proportions in which the Contract Price is payable in delay damages.

Milestone No.	Section Name / Description	Period in months
I	20 % of the work*	12 Months
II	40% of the work*	24 Months
III	100 % of the work*	36 months
	Delay Damages	Delay Damages shall be as follows
		Milestone No. Delay Damages in %
		I 0.01%
		II 0.03%



		III	0.05%
	Maximum delay Amount Of	10% of Amount the Accepted Contract	

\* Percentage of work in the milestones shall be with respect to the Accepted Contract Amount. (Excluding advances if any) If the intended completion date is extended after liquidated damages have been paid, the Engineer shall correct any over payment of liquidated damages by the Contractor by adjusting the next payment certificate.



# Section - IX

## Contract Forms



FORM No. COF/1

**Letter of Acceptance**  
*[on letter head paper of the Employer]*

No.-----

Engineering Division

Date: / /2018

To,  
Name of Contractor  
Address-----**Letter of Acceptance****Sub:****Ref:** 1) This office tender notice No. -----

2) Your offer dated -----,

3) Your Modified offer vide letter dated -----

**Dear Sirs,**

This is to notify you that, your Bid dated ----- for ( Name of Work)-----  
-----lump sum price Rs. ----- (Rs. In words) as negotiated to Rs ----- (Rs. In  
Words) in accordance with the instructions to bidders vide letter under reference no 3 above is  
hereby accepted by the MMRDA.

You are hereby requested to furnish Performance Security in the form detailed in clause 4.2 of GCC  
and as modified in PCC of Rs----- valid up to 28 days from the date of expiry of Defects Liability  
Period i.e. up to ----- in the form detailed in Para 4.2 of ITB within 28 days of the receipt of this  
letter of acceptance and sign the contract, failing which action as stated in clause 42 of ITB will be  
taken

Yours faithfully,

Sd/-  
Chief Engineer



No. MMRDA/ED/SWEC/TN-1790/LOA/ 445 /2020

Engineering Division  
Date: 02 November 2020

To,  
**M/s. J. Kumar Infraprojects Ltd.**  
16-A, Andheri Industrial Estate,  
Veera Desai Road,  
Andheri (W) Mumbai-400053

### Letter of Acceptance

**Sub.: Design and construction of Sewri-Worli elevated connector**

- Ref:**
1. MMRDA's e-tender notice No. MMRDA/ENG-1/0001790 published on 03.08.2019
  2. Your offer dated 15.10.2019
  3. Your Modified offer letter JKIL/MMRDA/TENDER/009/2020 dated 15.01.2020

Sir,

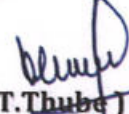
This is to notify you that, your Bid dated 15.10.2019 for **Design and construction of Sewri Worli elevated connector** containing lump-sum offer of Rs. 1057,00,00,000/- (Rupees. One Thousand Fifty Seven Crore Only) as negotiated to **Rs. 1051,86,39,690/- (Rupees One Thousand Fifty One Crore Eighty Six Lakh Thirty Nine Thousand Six Hundred Ninety Only)** submitted in accordance with the Instructions to Bidders vide letter referred at Sr. No. 3 above is hereby accepted by the Mumbai Metropolitan Region Development Authority.

You are hereby requested to furnish the Performance Security in the form detailed in clause 4.2 of GCC and as modified in PCC of Rs. 52,59,31,985/- (Rupees Fifty Two Crore Fifty Nine Lakh Thirty One Thousand Nine Hundred Eighty Five Only) valid up to 28 days from the date of expiry of Defects Liability Period in the form detailed in Para 42 of ITB within 28 days from the receipt of this Letter of Acceptance and sign the Contract, failing which action as stated in clause 42 of ITB will be taken.

Thanking you,



Yours faithfully,

  
(Dr. D.T. Thube)  
Chief Engineer, MMRDA

02/11/2020

Mumbai Metropolitan Region Development Authority

Bandra-Kurla Complex, Bandra East, Mumbai 400 051  
T +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 1112 / 1264   
<https://mmrda.maharashtra.gov.in> Chief Engineer,  
Engineering Division  
M.M.R.D.A.



Chief Engineer,  
Engineering Division  
M.M.R.D.A.

No. MMRDA/ED/SWEC/LOA/ 452 /2020

Engineering Division  
Date: 24 November 2020

To,  
M/s. J. Kumar Infraprojects Ltd.  
16-A, Andheri Industrial Estate,  
Veera Desai Road,  
Andheri (W) Mumbai-400053

**Sub.: Design and construction of Sewri-Worli elevated connector**

- Ref.:**
1. MMRDA's e-tender notice No. MMRDA/ENG-1/0001790 published on 03.08.2019
  2. Your offer dated 15.10.2019
  3. Your Modified offer letter JKIL/MMRDA/TENDER/009/2020 dated 15.01.2020
  4. MMRDA Letter No. MMRDA/ED/SWEC/TN-1790/LOA/ 445 /2020 dated 02 November 2020

Sir,

MMRDA has issued the Letter of Acceptance dated 02 November 2020 for the work of "Design and Construction of Sewri-Worli elevated connector" to you for your lump-sum offer of Rs. 1057,00,00,000/- (Rupees. One Thousand Fifty Seven Crore Only) as negotiated to **Rs. 1051,86,39,690/- (Rupees One Thousand Fifty One Crore Eighty Six Lakh Thirty Nine Thousand Six Hundred Ninety Only).**

This is to inform you that the accepted offer of **Rs. 1051,86,39,690/- (Rupees One Thousand Fifty One Cr ore Eighty Six Lakh Thirty Nine Thousand Six Hundred Ninety Only)** shall be inclusive of the applicable Goods and Services Tax (GST).

This letter shall be read along with the Letter of Acceptance issued to you and shall form part of the Contract to be signed with you.

Thanking you,

Yours faithfully,



*(Signature)*  
(Dr. D.T. Thube) 24/11  
Chief Engineer, MMRDA

Mumbai Metropolitan Region Development Authority

Bandra-Kurla Complex, Bandra East, Mumbai 400 051

T +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 1112 / 1264

<https://mmrda.maharashtra.gov.in>

*(Signature)*  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.



Chief Engineer,  
Engineering Division  
M.M.R.D.A.

No MMRDA/ED/SWEC/TN1790/Work Order/ 0003 /2021

Engineering Division  
Date: 13 January 2021

To,  
**M/s. J. Kumar Infraprojects Ltd.**  
16-A, Andheri Industrial Estate,  
Veera Desai Road,  
Andheri (W) Mumbai-400053

### WORK ORDER

**Sub.: Design and construction of Sewri Worli Elevated connector**

- Ref.:**
1. E-Tender No MMRDA/ENG-1/0001790 dated 03<sup>rd</sup> August 2019
  2. 145<sup>th</sup> Meeting of MCZMA held on 7<sup>th</sup> July 2020 for CRZ clearance
  3. 205<sup>th</sup> Meeting of SEIAA held on 8<sup>th</sup> September 2020 for CRZ clearance
  4. Letter of Acceptance letter No. MMRDA/ED/SWEC/TN1790/LOA/445/2020 dated 2<sup>nd</sup> November 2020 issued to you
  5. MMRDA Letter No. MMRDA/ED/SWEC/LOA/452/2020 24<sup>th</sup> November 2020.
  6. Your letter no. JKIL/MMRDA/TENDER/174/2020 dated 15<sup>th</sup> December 2020 submitting BG & further amendment vide letter JKIL/MMRDA/TENDER/002/2021 dated 5<sup>th</sup> January 2021
  7. Contract Agreement signed between M/s. J. Kumar Infraprojects Ltd & Mumbai Metropolitan Region Development Authority dated 13<sup>th</sup> January 2021.

Sir,

1. Pursuant to your submission of the requisite Bank Guarantee against Performance Security issued by Indian Bank, Large Corporate Branch, Mumbai bearing Bank Guarantee No0156120IPGO48003 dated 15.12.2020 amounting to Rs 31,55,59,500/- valid up to 11<sup>th</sup> January 2029, as per Clause 42 of Instruction to Bidders of the Bid document and signing of the Contract Agreement for the work of "**Design and construction of Sewri Worli Elevated Connector**" at your quoted price of Rs. 1051,86,39,690/- (i.e. Rs. One Thousand Fifty One Crore Eighty Six Lakh Thirty Nine Thousand Six Hundred & Ninety only) including GST, you are hereby requested to proceed with the execution of the said work in accordance with the Contract Agreement.
2. The date of starting of work shall be reckoned from the date of issue of this Notice to Proceed with the work. The time limit to complete this work is Thirty Six calendar months including monsoon. It is hereby requested to furnish the detailed programme of the work in the form of CPM/PERT and Environment Management Plan (EMP) pursuant to clause 27 of Contract data Section of the tender.



Mumbai Metropolitan Region Development Authority

Bandra-Kurla Complex, Bandra East, Mumbai 400 051  
T +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 1112 / 1264  
<https://mmrda.maharashtra.gov.in>

  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

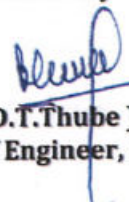
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3. A copy of the CRZ clearance accorded to Sewri Worli Elevated Connector shall deem to be part of the Contract Agreement. The copy of the CRZ clearance is enclosed herewith.

Thanking you,

Yours faithfully

Encl.: CRZ clearance

  
(Dr. D.T. Thube) 13/11/2021  
Chief Engineer, MMRDA



Chief Engineer,  
Engineering Division  
M.M.R.D.A.

  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.



# J. Kumar Infraprojects Ltd.

We dream ... So we achieve...

Regd. Off.: 16-A, Andheri Industrial Estate, Veera Desai Road, Andheri (W), Mumbai - 400053. INDIA  
Ph.: +91-22-6774 3555. Fax+91-22-2673 0814. E-mail : info@jkumar.com Website : www.jkumar.com  
CIN No. : L74210MH1999PLC122886



**J. Kumar**

ISO 9001:2015  
ISO 14001:2015  
OHSAS 18001:2007

REF: JKIL/SWEC/TENDER/002/2021

Date: 5<sup>th</sup> January, 2021

**To,**  
**The Chief Engineer,**  
**Engineering Division - MMRDA,**  
MMRDA New Building,  
2<sup>nd</sup> floor, BKC, Bandra (E)  
Mumbai 400 051

Project : "Design and Construction of Sewri Worli Elevated Connector 02<sup>nd</sup> Call".

Sub : Amendment of Performance Security in the form of BG.

Ref : (i) Your LOA Letter No. MMRDA/ED/SWEC/IN-1790/LOA/445/2020 dt. 02.11.2020  
(ii) Your Letter No. MMRDA/ED/SWEC/J. Kumar/PS/457/2020 dt. 15.12.2020  
(iii) Our Letter No. JKIL/SWEC/TENDER/174/2020 dt. 15.12.2020  
(iv) Confirmation of Indian Bank vide their letter no. MLCB/J KR/BG dt. 18.12.2020  
(v) Your Letter No. MMRDA/ED/SWEC/J.Kumar/PS/459/2020 dt. 23.12.2020  
(vi) Our Letter No. JKIL/MMRDA/TENDER/182/2020 dated 28.12.2020

Dear Sir,

We are in receipt of your letter dated 23.12.2020 referred above.

In reference to the same and on our special request, our banker has accepted the same and amended the PBG accordingly. We are now submitting herewith the amended Performance Bank Guarantee dated 05.01.2021 as per the requirement of tender condition.

We request you to kindly accept the enclosed amendment of Performance Bank Guarantee and issue us the draft contract agreement for taking further action please.

Thanking you in advance and assuring you our best services at all times.

Yours faithfully

**For J. Kumar Infraprojects Limited**

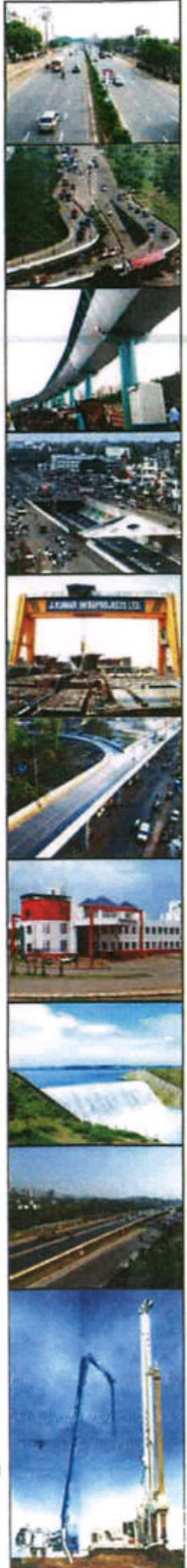
**(Qamar Choudhary)**  
**Manager Contracts**

Encl: Amended Performance Bank Guarantee



*Qamar Choudhary*  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

213



Chief Engineer,  
Engineering Division  
M.M.R.D.A.

214 200







महाराष्ट्र MAHARASHTRA

2020

AZ 166568

प्रधान मुद्रांक कार्यालय, मुंबई  
प.म.नं. क्र. १०००००६  
22 SEP 2020  
सक्षम अधिकारी

श्री. दि. क. गर्वई

To,

The Chief Engineer,  
Mumbai Metropolitan Region Development Authority (MMRDA),  
2<sup>nd</sup> Floor, New MMRDA Building, Bandra-Kurla Complex,  
Bandra (East), Mumbai - 400 051.

**Sub: Amendment in Bank Guarantee**

Ref: BG No- 0156120 IPG 048003 dated 15.12.2020 for Rs 31,55,59,500/-

Dear Sir,

With reference to the above captioned subject, we request you to amend the following in the Bank Guarantee -



कृते इंडियन बैंक  
For Indian Bank

मुख्य प्रबंधक/Chief Manager  
बृहद कॉरपोरेट शाखा, मुंबई  
Large Corporate Branch, Mumbai  
SUNESH JAIN  
CHIEF MANAGER  
6183459

कृते इंडियन बैंक  
For Indian Bank

सहायक प्रबंधक/Asstt. General Manager  
बृहद कॉरपोरेट शाखा, मुंबई  
Large Corporate Br., Mumbai

Chief Engineer,  
Engineering Division  
M.M.R.D.A.

श्री. जयश्री  
D. Jeyashree  
सहायक प्रबंधक  
Asst. General Manager  
S.S. No. J381.

0000 215

Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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..2..

1. In Page No 02 & 03 of Point No. 06
6. Notwithstanding anything contained herein
  1. Our liability under this bank guarantee shall not exceed Rs.31,55,59,500/- (Rupees Thirty One Crore Fifty Five Lakh Fifty Nine Thousand Five Hundred Only).
  2. This bank guarantee shall be valid up to 11.12.2023 and.
  3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if a written claim or demand is served upon us on or before 12 months from the date of expiry mentioned in (II) above – 11.12.2024 (date of expiry of claim period). Unless a suit or action to enforce the claim under this Bank Guarantee is made on or before the date of expiry of claim period, all your rights under this Bank Guarantee shall be extinguished and we shall have been relieved and discharged from all liabilities thereunder, irrespective of return of original Bank Guarantee" is deleted

**To be read as,**

"Not with standing anything contained herein above, this guarantee is limited to Rs.31,55,59,500/- (Rupees Thirty One Crore Fifty Five Lakh Fifty Nine Thousand Five Hundred Only) shall remain in force until. All claims hereunder must be presented to the guarantor, not after the said date, all your right under the said guarantee shall be fortified we shall be discharged from all liabilities under this guarantee thereafter."

AND

Bank Guarantee No. 0156120 IPG 048003 dated 15.12.2020 amount of Guarantee Rs.31,55,59,500/- (Rupees Thirty One Crore Fifty Five Lakh Fifty Nine Thousand Five Hundred Only) valid up to 11.12.2023 plus claim period upto 11.12.2024.

At the request of our constituents M/s. J.Kumar Infraprojects Ltd., 16-A, Andheri Industrial Estate, Veera Desai Road, Andheri-West, Mumbai – 400 053. We, Indian Bank, Large Corporate Branch, 210, 'B' Wing, Mittal Tower, Nariman Point, Mumbai – 400 021 do hereby extend the validity period of the captioned guarantee for a further period of 63 Month.

कृते इंडियन बैंक  
For Indian Bank

मुख्य प्रबंधक/Chief Manager  
बृहद कॉरपोरेट शाखा, मुंबई  
Large Corporate Br., Mumbai

**MANISH JAIN**  
CHIEF MANAGER  
6182450



कृते इंडियन बैंक  
For Indian Bank

सहायक महाप्रबंधक/Asstt. General Manager  
बृहद कॉरपोरेट शाखा, मुंबई  
Large Corporate Br., Mumbai

**D. Jeyashree**  
सहायक महाप्रबंधक  
Asst. General Manager  
S.S. No. J381.

Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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ALABAMA  
Engineering Division  
M. R. D. A.

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NOTWITHSTANDING anything contained herein above,

1. Our liability under this guarantee is restricted to Rs 31,55,59,500/- (Rupees Thirty One Crore Fifty Five Lakh Fifty Nine Thousand Five Hundred Only).
2. This guarantee shall remain in force until- 11.01.2029 with claim period up to- 11.01.2030.
3. We are liable to pay the guarantee amount or any part thereof under this guarantee only if you serve upon us a written claim or demand on or before – 11.01.2030 failing which all your rights under this guarantee shall cease and bank shall be released and discharged from all liabilities irrespective of the fact whether the original guarantee is returned to us or not.
4. If the guarantee is not returned to us by – 11.01.2030 the guarantee will be deemed to be automatically cancelled. This guarantee is governed as per Indian law.

And all other terms & conditions of the aforesaid BG will remain unchanged.

Dated at Mumbai this 05<sup>th</sup> January, 2021.

For Indian Bank

कृते इंडियन बैंक  
For Indian Bank

मुख्य प्रबंधक/Chief Manager  
वृहद कॉरपोरेट शाखा, मुंबई  
Large Corporate Br., Mumbai

**MANISH JAIN**  
**CHIEF MANAGER**  
**6183459**

कृते इंडियन बैंक  
For Indian Bank

सहायक महाप्रबंधक/Asstt. General Manager  
वृहद कॉरपोरेट शाखा, मुंबई  
Large Corporate Br., Mumbai

डी. जयश्री  
**D. Jeyashree**  
सहायक महाप्रबंधक  
Asst. General Manager  
S.S. No. J381.



  
Chief Engineer,  
Engineering Division  
**M.M.R.D.A.**

Chief Engineer,  
Engineering Division  
M.M.R.D.A.



इंडियन बैंक



Indian Bank

इलाहाबाद

ALLAHABAD

JKUMAR BG/ CONFIRMATION

Date: 12.01.2021

The Chief Engineer  
MMRDA  
BKC, Bandra (East)  
Mumbai – 400051.



[Cieefengineer1@mlmmrda.maharashtra.gov.in](mailto:Cieefengineer1@mlmmrda.maharashtra.gov.in)

**Sub: Confirmation of Bank Guarantee**

We hereby confirm that the Bank Guarantee/s have been issued/ amended by our Large Corporate Branch, Mumbai, on behalf of M/s J. Kumar Infracorps Ltd. The details of the same are as under:

S. No	Your Letter Ref No	Bank Guarantee No and Dated	BG Amendment date	Beneficiary	Amount (Rs)	Validity and Claim date
1	MMRDA/ED/SWEC/amended PSBG confirm/0002/2021 Dt. 11.01.2021	0156120IPG048003 15.12.2020	05.01.2021	MMRDA	31,55,59,500.00	11/01/2029 & 11/01/2030

The original Bank Guarantee/s referred above have been signed by Authorised Signatories.

Yours Faithfully,

Asst. General Manager  
Corporate Branch, Mumbai

Head Office: 25 Rajalakshmi, Arva, Shanmugam Salai, Pudupet, Gopalapuram, Chennai, Tamil Nadu-600014  
Branch: Large Corporate Branch, Mumbai, 37, Mumbai Samachar Marg, Fort, Mumbai - 400 023  
Tel: 22702745/46 Fax: 22702735, Email: [br.mumifb@allahabadbank.in](mailto:br.mumifb@allahabadbank.in)



00000 221

Chief Engineer,  
Engineering Division  
M.M.R.D.A.





# J. Kumar Infraprojects Ltd.

We dream ... So we achieve...

Regd. Off.: 16-A, Andheri Industrial Estate, Veera Desai Road, Andheri (W), Mumbai - 400053. INDIA  
Ph.: +91-22-6774 3555. Fax+91-22-2673 0814. E-mail : info@jkumar.com Website : www.jkumar.com  
CIN No. : L74210MH1999PLC122886



**J. Kumar**

ISO 9001:2015  
ISO 14001:2015  
OHSAS 18001:2007

REF: JKIL/SWEC/TENDER/182/2020

28<sup>th</sup> December 2020

**To,**  
**The Chief Engineer,**  
**Engineering Division - MMRDA,**  
MMRDA New Building,  
2<sup>nd</sup> floor, BKC, Bandra (E)  
Mumbai 400 051

Sub: "Design and Construction of Sewri Worli Elevated Connector 02<sup>nd</sup> Call".  
Reg. Clarification on Observations on submitted Performance Security in the  
Form of BG.

Ref: (i) Your LOA Letter No. MMRDA/ED/SWEC/TN-1790/LOA/445/2020 dt. 02.11.2020  
(ii) Your Letter No. MMRDA/ED/SWEC/J. Kumar/PS/457/2020 dt. 15.12.2020  
(iii) Our Letter No. JKIL/SWEC/TENDER/174/2020 dt. 15.12.2020.  
(iv) Confirmation of Indian Bank vide their letter no. MLCB/J KR/BG dt. 18.12.2020  
(v) Your Letter No. MMRDA/ED/SWEC/J. Kumar/PS/459/2020 dt. 23.12.2020

Dear Sir,

We are in receipt of your letter dated 23.12.2020 referred above.

We would like to appreciate MMRDA for accepting our request for reduction in the performance security to 3% as per the guidelines issued by Ministry of Finance, Department of Expenditure dated 12.11.2020 considering the pandemic situation of Covid19.

Further, please find below our clarifications to the observations on submitted PBG:

Sr No	Client Observation	Clarification
1	There is deviation in the wording in BG submitted by you from that mentioned in clause No 6. "Clause 6- Not withstanding anything contained herein.....:"	We have submitted the performance bank guarantee as per the prescribed format provided in the tender document of MMRDA. However, the last paragraph i.e



*bay*  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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Chief Engineer,  
Engineering Division  
M.M.R.D.A.



Sr No	Client Observation	Clarification
		"Notwithstanding anything....." is slightly modified as per the requirement of the Indian Bank and same is followed in issuing the PBGs. This is the standard practice followed by Bank. However, we would like to assure you that the essence of the content as per the format of tender documents remains unchanged
2	As per LOA issued by MMRDA and as per clause 42 of GCC, the Performance Security shall be valid up to 28 days from the date of Expiry of Defects Liability Period. Defects Liability period is notified at Section VIII i.e. 24 months for BT work and 60 months for Viaduct proper, Retaining wall, other structural works & Rigid pavement. However, it is observed that the Validity of submitted PBG is up to 11.12.2023 (about 36 months).	We have submitted the PBG having its validity up to the project completion period (36 Months) as it is difficult for the Banker to issue the PBG for larger duration in one go (i.e 36 + 60 = 96 Months) in this Covid times due to banking procedures. We do hereby undertake that we will extend the validity of said PBG before two (2) months from the expiry of the same.

These changes are owing to banking procedures and beyond the control of the contractor.

Hence we request you to kindly accept the submitted Performance Bank Guarantee and process further for the signing of contract agreement.

Thanking you in advance and assuring you of our best services at all times.

Yours faithfully

For J. Kumar Infraprojects Limited

(Qamar Choudhary)  
Manager Contracts



  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

M.M.R.D.A.  
Engineering Division  
Chief Engineer



No. MMRDA/ED/SWEC/J.Kumar/PS/ 459 /2020

Engineering Division  
 Date: 23 December 2020

To,  
**M/s. J. Kumar Infraprojects Ltd.**  
 16-A, Andheri Industrial Estate,  
 Veera Desai Road,  
 Andheri (W) Mumbai-400053

**Sub: Design and Construction of Sewri to Worli Elevated connector**

- Observations on Performance Security in the Form of BG

- Ref:**
1. Letter of Acceptance issued by MMRDA No. MMRDA/ED/SWEC/TN-1790/LOA/445/2020 dated 2<sup>nd</sup> November 2020 and 24<sup>th</sup> November 2020.
  2. MMRDA letter MMRDA/ED/SWEC/J.Kumar/PS/ 4572020 dated 15.12.2020
  3. Your letter No. JKIL/MMRDA/SWEC/TENDER/174/2020 dated 15.12.2020
  4. Confirmation of Indian Bank vide their letter no MLCB/J KR/BG dated 18.12.2020

Sir,

1. MMRDA vide letter referred at Sr.No.1 has issued Letter of Acceptance (LOA) for the work of "Design and Construction of Sewri to Worli Elevated connector" to you for your lump-sum offer amounting to Rs 1051,86,39,690/- including GST.
2. This office vide letter referred at Sr. No. 2 has communicated to furnish the performance security 3% of accepted tender cost up to 21<sup>st</sup> December 2020.
3. Accordingly, the Bank Guarantee NO 0156120IPGO480 of Indian Bank, Large Corporate Branch amounting to Rs 31,55,59,500/- (Rs Thirty One Crore Fifty Five Lakh Fifty Nine Thousand Five Hundred Only) has been submitted by you vide letter referred at Sr.No.3.
4. The branch Manager of Indian Bank has confirmed above performance Bank Guarantee (BG) vide their letter dated 18.12.2020.
5. The observations on PBG are as below;
  - I. There is deviation in the wording in BG submitted by you from that mentioned in clause No 6.

As per Tender : Form no COF/4 (pg no 168-169) contents in BG format	As per Submission BG by the contractor
Clause 6 - Notwithstanding anything contained herein above, this guarantee is limited to Rs._____	Clause 6 Notwithstanding anything contained herein 1. Our liability under this Bank Guarantee



**Mumbai Metropolitan Region Development Authority**

Bandra-Kurla Complex, Bandra East, Mumbai 400 051  
 T +91 22 2659 1234 EPABX +91 22 2659 0001 / 4000 F +91 22 2659 1112 / 1264  
<https://mmrda.maharashtra.gov.in>

  
**Chief Engineer,**  
**Engineering Division**  
**M.M.R.D.A.**

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Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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<p>As per Tender : Form no COF/4 (pg no 168-169) contents in BG format shall remain in force until. All claims hereunder must be presented to the guarantor, not after the said date, all your right under the said guarantee shall be fortified we shall be discharged from all liabilities under this guarantee thereafter.</p>	<p>As per Submission BG by the contractor shall not exceed Rs. 31,55,59,191/</p> <p>2. This bank guarantee shall be valid up to 11.12.2023 and</p> <p>3. We are liable to pay the Bank Guarantee amount or any part there of this bank guarantee only and only if a written claim or demand is served upon us on or before 12 months from date of expiry mentioned in (II) above 11.12.2024 (date of expiry of claim period ) unless a suit or action to enforce the claim under this bank guarantee made on or before the expiry of claim period all your rights under this bank Guarantee shall be extinguished and we shall have been relieved and discharged from all liabilities thereunder, irrespective of return of original Bank Guarantee..</p>
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II. As per LOA issued by MMRDA and as per clause 42 of GCC, the Performance Security shall be valid up to 28 days from the date of Expiry of Defects Liability Period. Defects Liability period is notified at Section VIII i.e. 24 months for BT work and 60 months for Viaduct proper, Retaining wall, other structural works & Rigid pavement. However, it is observed that the Validity of submitted PBG is up to 11.12.2023 (about 36 months).

6. In view of above, it is requested to furnish revised performance Bank Guarantee (BG) complying the points mentioned above.

Thanking you,

Yours faithfully,

  
 (Dr. D.T. Thube)  
 Chief Engineer, MMRDA

23/12



  
 Chief Engineer,  
 Engineering Division  
 M.M.R.D.A.

M.M.R.D.A.  
Engineering Division  
Chief Engineer





# J. Kumar Infraprojects Ltd.

We dream ... So we achieve...

Regd. Off.: 16-A, Andheri Industrial Estate, Veera Desai Road, Andheri (W), Mumbai - 400053. INDIA  
Ph.: +91-22-6774 3555. Fax+91-22-2673 0814. E-mail : info@jkumar.com Website : www.jkumar.com  
CIN No. : L74210MH1999PLC122886



**J. Kumar**

ISO 9001:2015  
ISO 14001:2015  
OHSAS 18001:2007

REF: JKIL/MMRDA/SWEC/TENDER/174/2020

Date: 15<sup>th</sup> Dec, 2020

To,  
**The Chief Engineer,**  
**Engineering Division - MMRDA,**  
MMRDA New Building,  
2<sup>nd</sup> floor, BKC, Bandra (E)  
Mumbai 400 051

Project: "Design and Construction of Sewri Worli Elevated Connector 02<sup>nd</sup> Call".

Subject : Submission of Performance Bank Guarantee.

Ref : (i) Your LOA No. MMRDA/ED/SWEC/TN-1790/LOA/445/2020 dtd. 02.11.2020  
(ii) Our Letter No. JKIL/SWEC/Tender/152/2020 dtd. 20.11.2020  
(iii) Our Letter No. JKIL/MMRDA/SWEC/TENDER/166/2020 dtd. 25.11.2020  
(iv) Your office letter No. MMRDA/ED/SWEC/J.Kumar/PS/457/2020 dtd.  
15.12.2020

Dear sir,

This has reference to the letters referred above.

In terms of Clause No. 42 of ITB, we are submitting herewith Bank Guarantee amounting to Rs. 31,55,59,500/- (Rs. Thirty one crores fifty five lakhs fifty nine thousand five hundred Only) vide BG No. 0156120IPG048003 dated 15.12.2020 from Indian Bank, Large Corporate Branch, Mumbai 400 023 towards Performance Security as per tender condition.

Kindly accept the above Bank Guarantee and send us the draft contract agreement for taking further necessary action.

Thanking you in advance and assuring you of our best services at all times.

Yours faithfully

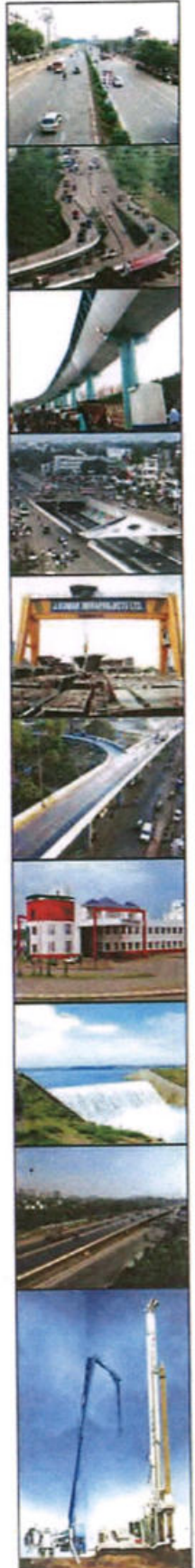
**For J. Kumar Infraprojects Limited**

(Qamar Choudhary)  
Manager Contracts

Encl: Original PBG



*teeruf*  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.



Chief Engineer,  
Engineering Division  
M.S.R.D.A.





ALLA0211561

2ND FLOOR, ALLAHABAD BANK BLDG.37, MUMBAI  
SAMACHAR MARG, FORT, MUMBAI-40023,

Network Acknowledgement Report

Delivery		
Network :	SFMS	
Session Holder :		
Session :		
Sequence :		
Delivery Status :	Network Ack	
ACK Date (dd/mm/yy) :	15/12/20	
ACK Time (hh:mm) :	19:10	
MESSAGE HEADER		
Swift Input :	FIN 760COV Guarantee: Format Specifications	
Sender Bank :	ALLA0211561 2ND FLOOR, ALLAHABAD BANK BLDG.37, MUMBAI SAMACHAR MARG, FORT, MUMBAI-40023,	
RECEIVER BANK :	MAHB0000164 MHADA BUILDING, OPP KALANAGAR,BANDRA EAST,MUMBAI - 400051.	
MESSAGE TEXT		
7020-- Transaction Reference Number (Issuing Bank Guarantee Number)	Transaction Reference Number	0156120IPG048003
7024-- Type of Bank Guarantee	Type of Bank Guarantee	PERFORMANCE
7025-- Amount of Guarantee	Currency Code	INR
	Amount	315559500
7026-- Guarantee Validity	Guarantee From Date (YYYYMMDD)	20201215
	Guarantee To Date (YYYYMMDD)	20231211
7027-- Guarantee Effective Date	Guarantee Effective Date (YYYYMMDD)	20201215
7029-- End date for lodgement of claim	End date for lodgement of claim(YYYYMMDD)	20241211
7031-- Issuing Branch IFSC	Issuing Branch IFSC	<b>BIC CODE: ALLA0211561</b>
7032-- Issuing branch name and address	Issuing branch name and address	ALLAHABAD BANK LCB MUMBAI
7033-- Name of applicant and his details	Name of applicant and his details	M/s. J KUMAR INFRAPROJECTS LTD 16-A, ANDHERI INDUSTRIAL ESTATE, VEERA DESAI ROAD, ANDHERI WEST MUMBAI
7034-- Name of Beneficiary and his details	Name of Beneficiary and his details	MMRDA Bandra Kurla Complex,BandraEMumbai 400051
7035-- Beneficiary IFSC	Beneficiary IFSC	<b>BIC CODE: MAHB0000164</b>
7036-- Beneficiary branch name and address	Beneficiary branch name and address	BANDRA EAST BR MHADA BLDG, KALANAGAR, BANDRA E, MU MBAI 400 051



*[Signature]*  
Chief Engineer,

Engineer-769 Division  
M.M.R.D.A.

http://10.3.25.51:8080/XMM\_WEB/AckNakReport.jsp?Transno=172622&Engineer=769 Division 2021

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M.M.R.D.A.  
Engineering Division  
Chief Engineer





महाराष्ट्र MAHARASHTRA

2020

AX 354269

प्रधान मुद्रांक कार्यालय, मुंबई  
प.मु.वि.क्र. ८००००९५  
30 JUN 2020  
सक्षम अधिकारी

श्रीमती जयका पाटील

BANK GUARANTEE FOR PERFORMANCE SECURITY

1. In Consideration of the Mumbai Metropolitan Region Development Authority, having address at 2<sup>nd</sup> Floor, New MMRDA Building, Bandra-Kurla Complex, Bandra (East), Mumbai – 400 051, represent at its Chief Engineer, (hereinafter called "the MMRDA") having agreed to exempt M/s. J.Kumar Infracore Projects Ltd, having its registered office at 16-A, Andheri Industrial Estate, Veera Desai Road, Andheri-West, Mumbai – 400 053 (hereinafter called "the contractor") from the demand, under the terms and conditions of an agreement dated \_\_\_-\_\_\_ mad between the Executive engineer (ED) MMRDA and M/s. J.Kumar Infracore Projects Ltd for Design and Construction of Sewri to Worli Elevated Connector (2<sup>nd</sup> Call) (hereinafter called "the said Agreement"), of security deposit for the due fulfillment by the said contractor(s) of the terms and conditions contained the said Agreement, on production of a Bank Guarantee for Rs.31,55,59,500/- (Rupees Thirty One Crore Fifty Five Lakh Fifty Nine Thousand Five Hundred Only).

For INDIAN BANK

Asst. General Manager  
Corporate Branch, Mumbai

A.S. Rajasekaran  
Asst. Chief Engineer,  
Engineering Division



कृते इंडियन बैंक  
For Indian Bank

मुख्य प्रबंधक/Chief Manager  
वृहद कॉरपोरेट शाखा, मुंबई  
Large Corporate Br., Mumbai

MANISH JAIN  
CHIEF MANAGER  
6183459

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1 JUL 2020

जाडे १३ २ Annexure १

दस्तावा प्रकार	YES/NO
दस्त नोंदणी करणार आहेत का ?	YES
मिळकतीचे ताणन -	J. KUMAR INFRA PROJECTS LTD.
मुद्रांक घिकत घेऊन घ्यावे आहे	16A, ANDHERI INDUSTRIAL ESTATE, VEERA DESAI ROAD, ANDHERI (W), MUMBAI - 400 058.
दस्तावा नोंदणी करणारे	Indian Bank
	Ash
	1 JUL 2020

मुद्रांक घिकत घेऊन घ्यावे आहे

मुद्रांक घिकत घेऊन घ्यावे आहे

मुद्रांक घिकत घेऊन घ्यावे आहे

मुद्रांक घिकत घेऊन घ्यावे आहे

मुद्रांक घिकत घेऊन घ्यावे आहे



MANISH JAIN  
ASST. CHIEF ENGINEER

Chief Engineer,  
Engineering Division  
M.M.R.D.A.

00000 237

Chief Engineer,  
Engineering Division  
M.M.R.D.A.

832 7000 238





We, Indian Bank, having its branch office at Large Corporate Branch, 210, 'B' Wing, Mittal Tower, Nariman Point, Mumbai – 400 021 (hereinafter referred to as "the Bank") at the request of Contractor(s) do hereby undertake to pay an amount not exceeding Rs.31,55,59,500/- (Rupees Thirty One Crore Fifty Five Lakh Fifty Nine Thousand Five Hundred Only) for damage caused to or suffered or would be caused to or suffered by the MMRDA by reasons of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

2. We, Indian Bank, do hereby undertake to pay the amounts due and payable under this guarantee without any demur merely on a written demand from the MMRDA stating that the amount claimed is due by way to loss or damage to or would be caused to or suffered by the MMRDA by reason of breach by the said contractor(s) of any of the items or conditions contained in the said Agreement or by reasons of the contractor(s) failure of repudiation to perform the said Agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.31,55,59,500/- (Rupees Thirty One Crore Fifty Five Lakh Fifty Nine Thousand Five Hundred Only)

3. We undertake to pay the MMRDA any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under these presents being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.

4. We, Indian Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement, and that it shall continue to be enforceable till all the dues of the MMRDA under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till the Executive Engineer (ED) of MMRDA, Engineering Department (indicate the name of Administrative Department) certified that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the 11.12.2024, we shall be discharged from all liability under this guarantee thereafter.

5. We, Indian Bank further agree with the MMRDA that the MMRDA shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time for from time to time any of the powers exercisable by the MMRDA against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reasons of any such variation, or extension being granted to the said contractor(s) or for any forbearance, act of commission on the part of the MMRDA or any indulgence by the MMRDA to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. Notwithstanding anything contained herein

1. Our liability under this bank guarantee shall not exceed Rs.31,55,59,500/- (Rupees Thirty One Crore Fifty Five Lakh Fifty Nine Thousand Five Hundred Only)
2. This bank guarantee shall be valid up to 11.12.2023 and

कृते इंडियन बैंक  
For Indian Bank

मुख्य प्रबंधक/Chief Manager  
वृहद कॉरपोरेट शाखा, मुंबई  
Large Corporate Br., Mumbai

MANISH JAIN  
CHIEF MANAGER  
6183459

For INDIAN BANK

Asst. General Manager  
Corporate Branch, Mumbai

A.S. Rajasekaran  
SS No. R301

Chief Engineer,  
Engineering Division  
M.M.R.D.A.



Chief Engineer,  
Engineering Division  
M.M.R.D.A.

0429 000 # 240





3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if a written claim or demand is served upon us on or before 12 months from the date of expiry mentioned in (II) above 11.12.2024 (date of expiry of claim period). Unless a suit or action to enforce the claim under this Bank Guarantee is made on or before the date of expiry of claim period, all your rights under this Bank Guarantee shall be extinguished and we shall have been relieved and discharged from all liabilities thereunder, irrespective of return of original Bank Guarantee"

7. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s)/Supplier(s).

8. We, Indian Bank (indicate the name of Bank) lastly undertake not to revoke this guarantee during its currency.

Date: 15<sup>th</sup> Day of December 2020

For Indian Bank

कृते इंडियन बैंक  
For Indian Bank

मुख्य प्रबंधक/Chief Manager  
बृहद कॉरपोरेट शाखा, मुंबई  
Large Corporate Br., Mumbai

**MANISH JAIN**  
CHIEF MANAGER  
6183459

For INDIAN BANK

Asst. General Manager  
Corporate Branch, Mumbai

**A.S. Rajasekaran**  
SS No. R301



Chief Engineer;  
Engineering Division  
M.M.R.D.A.

M.M.R., D.A.  
Engineering Division  
Chief Engineer



21 DEC 2020

इंडियन बैंक



Indian Bank

इलाहाबाद

ALLAHABAD

कॉर्पोरेट शाखा मुंबई **Large Corporate Branch Mumbai**

210, मिटल टावर, "बी" विंग  
नरीमन पोईंट, मुंबई - 400 021.  
E-mail - lcbmumbai@indianbank.co.in  
Website - www.indianbank.in

210, Mittal Tower, "B" Wing,  
Nariman Point, Mumbai - 400 021  
Phone : 022 - 40178003 / 40178004

MLCB/J KR/BG

Date : 18/12/2020

Mumbai Metropolitan Region Development Authority,  
Engineering Division,  
Bandra Kurla Complex,  
Bandra East,  
MUMBAI 400051.

Sub.: Confirmation of Bank Guarantee

We hereby confirm that the Bank Guarantee has been issued by our Large Corporate Branch, Mumbai, on behalf of M/s J Kumar Infraprojects Ltd. The details of the same are as follows:

Sr. No.	Your Letter Ref. No.	Bank Guarantee No. & Dated	Beneficiary	Amount Rs.	Valid upto with Claim period
1	MMRDA/ED/S WEC/PSBG CONFIRM/458/ 2020  Dated : 18.12.2020	0156120IPG048003 Dated : 15.12.2020	MMRDA, MUMBAI	31,55,59,500/-	11.12.2023  &  11.12.2024

The original Bank Guarantee referred above has been signed by Authorised Signatories.

Yours faithfully



*[Handwritten signature]*

Assistant General Manager

*J381*

PAP/BG CONF LTR/18/19

*322499*

*21/12/2020*  
*4000 243*

*[Handwritten signature]*  
**Chief Engineer,  
Engineering Division  
M.M.R.D.A.**



**FORM No. COF/2****Issue of Notice to proceed with the work**  
(On Letterhead of the Employer)**By Fax / Courier**

No.-----

Engineering Division

Date: / /2018

To,  
Name of Contractor  
Address-----

Notice to proceed with the work

**Sub:**

- Ref: 1) This office letter of acceptance no. -----  
2) Agreement with MMRDA on -----.

Dear Sir,

Pursuant to your pledging the requisite Bank Guarantee against performance security issued by ----  
--- Bank Ltd , ----- Mumbai bearing Bank Guarantee No. ----- dated ----- amounting to Rs.  
----- /- valid up to ----- and, as per Clause 42 of Instruction to Bidders of Tender document and  
signing of the contract agreement for the work of on ----- at bid price of Rs ----- (Rs. In  
words) which is lump sum Rs. ----- (i.e. Rs.-----).You are hereby requested to proceed  
with the execution of the said work in accordance with contract documents.

The date of starting of work shall be reckoned from the date of issue of notice to proceed with the  
work. The time limit to complete this work is Thirty Six calendar months including monsoon. It is  
hereby requested to furnish the detailed programme of the work in the form of CPM/PERT  
including Environment Management Plan (EMP) pursuant to clause 27 of Contract data Section of  
the tender.

Thanking you.

D.A. - Certified Tender Copy.

Yours faithfully

(Sd/-)  
Chief Engineer

**FORM No. COF/3  
CONTRACT AGREEMENT****MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY**

THESE ARTICLES OF AGREEMENT made at Mumbai this \_\_\_\_\_ day of \_\_\_\_\_ Two Thousand Nineteen between the "Mumbai Metropolitan Region Development Authority" constituted and established under section 3 of the "Mumbai Metropolitan Region Development Act, 1974" and having its principal office on 5<sup>th</sup> floor, MMRDA office Building, Plot Nos.C-14/15, Near Drive-in theatre, "E" Block, of BKC, Bandra (East), Mumbai - 400 051 hereinafter called "The Authority" (which expression shall unless the context does not admit, include its successor or successors and assign or assigns) of the one part and Shri \_\_\_\_\_ Indian inhabitant and being partners of the partnership firm carrying on business of Civil works in the name and style of \_\_\_\_\_ and having their office at \_\_\_\_\_, hereinafter called collectively "the Contractor" (which expression shall unless that context does not admit, included their respective heirs, administrators, executors and surviving partner or partners) of the other part.

WHEREAS the Authority invited by its public advertisement No. \_\_\_\_\_ dated \_\_\_\_\_ published in News paper \_\_\_\_\_ dated \_\_\_\_\_ public tenders (with their corrigendum's complete) for the execution of works referred to there in and more particularly described in the tender documents constituted in the Tender Notice, General Tender Notice, Instructions to the Tenderers, General Conditions of contract, Specifications, Technical Report, Schedule of Quantities of work and other allied documents.

AND WHEREAS the contractor submitted their tender dated \_\_\_\_\_ for a lump sum of Rs. \_\_\_\_\_ and whereas in exercise of its power under clause-IV of. Sub-section (2) Section 6 of the Mumbai Metropolitan Region Development Authority Act, 1974, As amended up to-date. The Executive Committee of the Authority approved of the said tender of the contractor being accepted subject to the following terms and conditions in the executive committee \_\_\_\_\_ meeting held on \_\_\_\_\_ dated \_\_\_\_\_ vide resolution no. \_\_\_\_\_.

AND WHEREAS the parties hereto are desirous of recording the agreement so concluded between them which they do hereinafter.

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of the Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as a part of this





Agreement, and the priority of the documents shall be as follows:

1. The Contract Agreement
  2. Notice to proceed with works (Work-Order)
  3. The letter of Acceptance
  4. Correspondence post bid and letter of bid
  5. Addendum/ CSD issued by MMRDA
  6. Particular Conditions of contract
  7. Special Conditions of Contract
  8. The General Conditions of Contract
  9. Employer's Requirements
  10. Additional Technical Specifications.
  11. Technical Specifications.
  12. Employer's Drawings.
  13. Schedules and
  14. Other documents forming part of the Contract including contractor's technical proposal.
3. In consideration of the payments to be made by the Employer to the Contractor as herein after mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy and defects therein conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying of defects therein the Contract Price of such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed the day and year first before written:

SIGNED AND DELIVERED FOR AND ON )  
BEHALF OF MUMBAI METROPOLITAN )  
REGION DEVELOPMENT AUTHORITY ) Signature  
By Engineer pursuant to approval dated \_\_\_\_\_ )  
of the Authority ) Designation

In the presence of :

(1)

(2)



**FORM No. COF/4****BANK GUARANTEE FOR PERFORMANCE SECURITY AND ADDITIONAL PERFORMANCE SECURITY**

1. In Consideration of the Mumbai Metropolitan Region Development Authority (hereinafter called "the MMRDA") having agreed to exempt \_\_\_\_\_ (hereinafter called "the said contractor(s)" from the demand, under the terms and conditions of an agreement dated \_\_\_\_\_ mad between the Executive engineer (ED) MMRDA and \_\_\_\_\_ for \_\_\_\_\_ (hereinafter called "the said Agreement"), of security deposit for the due fulfillment by the said contractor(s) of the terms and conditions contained the said Agreement, on production of a Bank Guarantee for Rs. \_\_\_\_\_ (rupees \_\_\_\_\_).

We, \_\_\_\_\_ (hereinafter referred to as " the Bank") at the request of \_\_\_\_\_ (Contractor(s) do hereby undertake to damage caused to or suffered or would be caused to or suffered by the MMRDA by reasons of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

2. We, \_\_\_\_ (indicate name of the bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur merely on a demand from the MMRDA starting that the amount claimed is due by way to loss or damage to or would be caused to or suffered by the MMRDA by reason of breach by the said contractor(s) of any of the items or conditions contained in the said Agreement or by reasons of the contractor(s) failure of repudiation to perform the said Agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. \_\_\_\_\_
3. We undertake to pay the MMRDA any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under these presents being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.
1. We, \_\_\_\_\_ (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the



performance of the said Agreement, and that it shall continue to be enforceable till all the dues of the MMRDA under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till the Executive Engineer (ED) of MMRDA \_\_\_\_\_ (indicate the name of Administrative Department) certified that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the \_\_\_\_\_ we shall be discharged from all liability under this guarantee thereafter.

2. We, \_\_\_\_\_ (indicate the name of Bank) further agree with the MMRDA that the MMRDA shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the MMRDA against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reasons of any such variation, or extension being granted to the said contractor(s) or for any forbearance, act of commission on the part of the MMRDA or any indulgence by the MMRDA to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
3. Notwithstanding anything contained herein above, this guarantee is limited to Rs. \_\_\_\_\_ shall remain in force until. All claims hereunder must be presented to the guarantor, not after the said date, all your right under the said guarantee shall be forfeited we shall be discharged from all liabilities under this guarantee thereafter.
4. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s)/Supplier(s).
5. We, \_\_\_\_\_ (indicate the name of Bank) lastly undertake not to revoke this guarantee during its currency.

Date:- \_\_Day of \_\_2014

For \_\_\_\_\_ (Indicate the name of the Bank)



## FORM No. COF/5

## FORM OF ADVANCE PAYMENT GUARANTEE

To:

**The Chief Engineer.**

Engineering Division

2<sup>nd</sup> Floor, MMRDA New Building,

Plot No. C-14 &amp; 15,

MMRDA, Bandra-Kurla Complex,

Bandra (E), Mumbai 400 051, India.

**Gentlemen,**

In accordance with the provisions of the Conditions of Contract, sub clause 51.1 ("Advance Payment") of the above-mentioned Contract, \_\_\_\_\_ [name and address of Contractor] (hereinafter called "the Contractor") shall deposit with \_\_\_\_\_ [name of Employer] a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of \_\_\_\_\_ [amount of guarantee]<sup>1</sup> \_\_\_\_\_ [in words].

We, the \_\_\_\_\_ [bank or financial institution], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to \_\_\_\_\_ [name of Employer] on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding \_\_\_\_\_ [amount of guarantee]<sup>1</sup> \_\_\_\_\_ [in words].

We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed there under or of any of the Contract documents which may be made between \_\_\_\_\_ [name of Employer] and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until \_\_\_\_\_ [name of Employer] receives full repayment of the same amount from the Contractor.

Yours truly,

Signature and seal:

Name of Bank/Financial Institution:

Address:

Date: \_\_\_\_\_

1 An amount shall be inserted by the bank or financial institution representing the amount of the Advance Payment, if any and denominated in Indian Rupees.



  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

**BANK GUARANTEE IN LIEU OF RETENTION MONEY**

To: \_\_\_\_\_ [name and address of Employer]  
\_\_\_\_\_ [Address of Employer]

WHEREAS \_\_\_\_\_ [name and address of Contractor] (hereinafter called the "Contractor") has under taken, in pursuance of Contract No. \_\_\_\_\_ Dated \_\_\_\_\_ to execute \_\_\_\_\_ [Name of Contract and Brief Description of Works] (Here in after called the "Contract");

AND WHERE AS IT HAS BEEN AGREED BY YOU IN THE SAID contract that the Contractor has option to replace the Retention Money with an un-conditional Bank Guarantee;

NOW THEREFORE we here by affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, unto a total of \_\_\_\_\_ [Amount of the Bank Guarantee in figures], \_\_\_\_\_ [Amount in words], # such sums being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of \_\_\_\_\_ [Amount of Guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We here by waive the necessity of your demanding the said debt from the Contract or before presenting us with the demand.

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

This guarantee shall be valid till the 'Engineer' certifiers payment of retention money in accordance with Sub-Clause 14.9 of Particular Conditions, i.e. up to .....

SIGNATURE AND SEAL OF THE GUARANTOR Name of the Bank: \_\_\_\_\_

Address: \_\_\_\_\_

Date: \_\_\_\_\_

# An amount to be inserted by the Guarantor, representing the amount specified in the Contract, and denominated either in the currency(ies) of the Contractor in a freely convertible currency acceptable to the Employer



FORM No. COF/7

**FORMAT FOR POWER OF ATTORNEY FOR AUTHORISED SIGNATORY****POWER OF ATTORNEY\***

*(To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant stamp Act. The stamp paper to be in the name of the company who is issuing the power of Attorney)*

Know all men by these presents, we ... do hereby constitute, appoint and authorize Mr/Ms. .... who is presently employed with us and holding the position of .....as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for the work of ...Including signing and submission of all documents and providing information/responses to Mumbai Metropolitan Region Development Authority representing us in all matters, dealing with Mumbai Metropolitan Region Development Authority in all matters in connection with our bid for the said project.

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

Dated this ..... day of ..... 2018.

(Signature of authorized Signatory)

.....

(Signature and Name in Block letters of Signatory)

Seal of Company

Witness

Witness 1:

Name:

Address:

Occupation:

Witness 2:

Name:

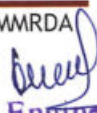
Address:

Occupation:

\*Notes:

- i) Deleted.
- ii) The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.



  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

**Form - X**

**(A) Specific Construction Experience**

Fill up one form per contract

Contract of Similar Size and Nature			
Contract No.		Contract Identification	
Award Date		Completion Date	
Role in Contract	<input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Subcontractor		
Total Contract Amount	INR		
If partner in a JV or subcontractor, specify participation in total contract amount	Percent of Total:	Amount: INR	
Employer's Name, Current Address and Current Telephone/Fax Number, E-mail			
Description of the similarity in accordance with Criteria 3 (A) of Section III			

The Bidder shall attach copies of Certificate of Completion issued by the employer, failing which the claim of the bidder shall be summarily rejected (in case of experience as a subcontractor, the employer shall be the owner of the Project who has engaged the main Contractor), with theform.



*[Signature]*  
**Chief Engineer,  
 Engineering Division  
 M.M.R.D.A.**

**(B) Specific Construction Experience**

Fill up one form per contract

Contract of Similar Size and Nature			
Contract No.		Contract Identification	
Award Date		Completion Date	
Role in Contract	<input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Subcontractor		
Total Contract Amount	INR		
If partner in a JV or subcontractor, specify participation in total contract amount	Percent of Total:	Amount: INR	
Employer's Name, Current Address and Current Telephone/Fax Number, E-mail			
Description, quantity & period of execution of the key activities in accordance with Criteria 3 (B) of Section III			

Copy of Certificate of Completion issued by the employer shall be attached with respective 3 (B) form, failing which the claim of the Bidder shall be rejected.







MUMBAI METROPOLITAN REGION  
DEVELOPMENT AUTHORITY

e-TENDER FOR

DESIGN AND CONSTRUCTION OF ELEVATED SEWRI TO  
WORLI ELEVATED CONNECTOR ( 2<sup>nd</sup> Call)

VOLUME- II

**BILLING SCHEDULE & SCHEDULE OF VARIATIONS**

MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY  
ENGINEERING DIVISION

MMRDA NEW OFFICE BUILDING, 2<sup>nd</sup> FLOOR,  
BANDRA – KURLA COMPLEX,  
BANDRA (EAST), MUMBAI – 400 051



*[Signature]*  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

[Type text]

DESIGN AND CONSTRUCTION OF ELEVATED SEWRI-WORLI (EAST-WEST)  
CORRIDOR (2<sup>nd</sup> call)

## VOLUME- II

## BILLING SCHEDULE &amp; SCHEDULE OF VARIATIONS

## INDEX

Sr. No.	Particulars	Page No.	
		From	To
1	Form of Bid	3	3
2	Billing Schedules and Schedule of Variations	4	10
A	Billing Schedule	5	6
B	Schedule of Variations	7	7
C	Model of Measurement and Preparation of IPC	8	8
D	Schedule of Rates for Variation Work	9	10



  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

# **VOLUME-02**



**1. FORM OF BID**

**NAME OF CONTRACT:-** "DESIGN AND CONSTRUCTION OF SEWRI TO WORLI ELEVATED CONNECTOR- 2<sup>nd</sup> Call"

To:  
**The Chief Engineer,**  
Mumbai Metropolitan Region Development Authority (MMRDA),  
2nd Floor, MMRDA New Building,  
Bandra Kurla Complex, Bandra (East),  
Mumbai- 400 051.

Gentlemen:

In accordance with the Conditions of Contract, Specifications, Drawings, and Schedule of Variation and Addenda's for the execution of the above-named Works, we the undersigned, offer to carry out Engineering, Procurement & Construction and install such Works and remedy any defects therein in conformity with the Conditions of Contract, Particular Conditions, Appendix to Tender, Specifications, Drawings, Billing Schedule, Provisional Sums, Variation and Addenda for the sum mentioned by us in the form of Financial Bid in e-tender format and in the table given below also.

Sr. No	Description	Cost in Cr. ( including GST)	Basis	Amount in Rs. #	
				In fig.	In words
1	Design and Construction of Sewri to Worli Elevated connector (2 <sup>nd</sup> call)		Lump sum		

**Note - # :- Bidder has to quote his amount including GST.**

Signature \_\_\_\_\_ in the capacity of \_\_\_\_\_

duly authorized to sign bids for and on behalf of \_\_\_\_\_

(in block capital or typed)

Address: \_\_\_\_\_

Witness: \_\_\_\_\_

Address: \_\_\_\_\_

Occupation \_\_\_\_\_



  
**Chief Engineer,**  
**Engineering Division**  
**M.M.R.D.A.**

## **Billing Schedule, Schedule of Variations and Schedule of Rates for Variation Works**



[Type text]



Page 4

**1. Billing Schedule, Schedule of Variations and Schedule of Rates for Variation Works**

**A) Billing Schedule**

The Bidder shall submit a detailed billing schedule for interim payments for the work executed along with his tender. The billing schedule shall be subjected to the following overall limitations:

Particulars	Specified limit (percentage of Contract price)	% quoted by Bidder
1) On completion and or approval of following items	6.8 to 12.4	
i) Survey, Geotechnical investigation, utility diversion plan.	0.3 to 0.5	
ii) Marking alignment / setting out plan	2.2 to 3.8	
iii) Structural Design and working drawings for road and structural work.	<b>0.8 to 1.2</b>	
iv) Development of casting yard	<b>1.6 to 2.4</b>	
v) Construction of site office and laboratory and establishing of casting yard	0.7 to 1.0	
vi) Mobilizing equipment on ground such as batching plant precast segments launching girder, gantry etc.	1.0 to 3.0	
vii) Traffic diversion/ management plan with approval from Traffic Police / Branch in Mumbai.	0.2 to 0.5	
2) Site clearance including, barricading, removal of electric poles and signals and signage, demolition of existing pavement, footpath, side drains, earth works including embankment, excavation, sub grade etc as indicated by Engineer and preparation for ground improvements work if required,	0.1 to 0.2	
3) Pile foundations viz. including empty boring up to design founding level shown in Vol IV, caging of reinforcement, concreting of piles, pile caps, applying coal tar, Testing of Test piles and submission of report on Testing etc. includes barricading restoring road surface if required.	16 to 22	
4) Piers, pier caps, abutment, abutment cap	9.0 to 12.0	
5) Super Structure	<b>45.6 to 54.4</b>	
a) Pre-casting of Concrete segments in the casting yard	22.6 to 26.4	
b) Transportation and Launching of Precast concrete segments	10 to 12	
c) Fabrication, transportation & erecting of steel superstructure including cast in-situ	13 to 16	

deck slab, etc. for Obligatory Span		
6) Fixed items such as Crash Barrier, Bearings, Expansion Joint, deck waterproofing, wearing course, down take pipes, connecting to nearest SW drain and carrying out necessary tests on completed items.	4 to 7	
7) Retaining structure for approach ramp including fill material and Road wearing course.	1.5 to 2	
8) All electrical items including street lighting.	1.0 to 2.0	
9) Miscellaneous items like painting of Bridge including Crash barrier kerb, road furniture including road marking, road signs, gantry & over hang signs, pitching, filter media for Pitching, Utility Ducts, M S railing & M S Ladder etc.	0.8 to 1.2	
10) Cost towards the expenditure in DLP for 5 Years	0.8 to 1.2	

- Note:** a) No payment shall be made for enabling works, which do not form part of sewri-worli elevated connector.
- b) The above percentage does not include the % earmarked for advance envisaged in the Conditions of Contract.

#### B) Schedule of Variations

**Preamble:** During the Course of execution notwithstanding the provision in Clause No. 13 of GCC.

Employer / Contractor in the interest of completion of work may be required to execute, the items of work not fully covered by the Contractor Design, the anticipated items of work which may be required to vary are listed as stipulated in Section (D) below.

1. Extra or additional work likely to crop up is included in schedule of items (Schedule of Variation) for which applicable rates are mentioned in Schedule of Rates for Variation works in Vol- II.
2. Rates for all rebates arising out of deletion / reduction in scope of Design Build & Turnkey Construction part of work shall be 100% of the rate of extra work, when a certain item/component is deleted / reduced.
3. Rebate in case of deletion of any item / component in full or part which is replaced or substituted by another item / component, due to requirements of the Employer shall be 100% of the rate extra work for the item deleted partially / fully.
4. Any item not covered by schedule of variation shall be paid as extra items and for such items no escalation will be paid. The rate for such items shall be worked out based on the current Schedule of rates i.e. e-DSR of PWD 2018-19. In case the item is not available in this Schedule then the rate for such item shall be worked on the basis of Schedule of rates i.e. SSR 2018-19 and If any item rates are not available in SSR, then it may be paid on the basis of actual



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Chief Engineer,  
Engineering Division  
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Chief Engineer,  
Engineering Division  
M.M.R.D.A.



expenses to be incurred for the item by preparing rate analysis based on current market rate.

5. Rates for extra works for Controlled Concrete Mixes, for which the rates are not provided in schedule of variation, shall be derived from corresponding rates the nearest designated mixes by linear interpolation.
6. Excavation of pits to ascertain utilities prior to foundation work will not be paid for.

**C) Model of Measurement and Preparation of IPC**

In respect of variation the Contractor shall record all the measurements as per PWD practice, including overlaps, in case of reinforcement and shall submit in soft (CD) and hard copy along with each interim bill.

**D) SCHEDULE OF RATES FOR VARIATION WORKS: - All Below Variation Rates are inclusive GST.**

The payment towards such alterations shall be made as per the rates given in schedule of variations irrespective of the offer of the accepted Tender.

Details of variation for the items covered under Lump Sum quoted Cost due to change in actual execution

Sr. No	Description of variation item	Unit of measurement	Rate (Rs.)
1	Average variation in founding strata at location of group of piles at one foundation location of abutment (earth retaining structure).		
	For Four Lane and above	Meter	347000
	For less than four lane	Meter	212100
2	Average variation in founding strata at location of group of piles at one foundation location of Pier.		
	For Four Lane and above	Meter	207000
	For less than four lane	Meter	212100
3	Variation in overall height of abutments above top surface of pile cap		
	For Four Lane and above	Meter	89900
	For less than four lane	Meter	83000
4	Variation in overall height of Piers above top surface of pile cap		
	For Four Lane and above	Meter	118000
	For less than four lane	Meter	83000
5	Variation in the plan area of the bridge deck of Steel superstructure. The rate shall include all foundation, substructure, Superstructure, Expansion joint, crash barrier, wearing coat and all other sundry items	Square meter	139500



6	Variation in the plan area of the bridge deck of viaduct having concrete superstructure. The rate shall include all foundation, substructure, Superstructure, Expansion joint, crash barrier, wearing coat and all other sundry items	Square meter	69300
7	Variation in length of RE Wall and Approaches. The rate shall include Earthwork, base, sub-base, subgrade, Crust in the approach portion	Rmt.	177000

Specifications for variation Item shall be as Per IRC codes/MORTH Specifications. ✓




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Chief Engineer,  
Engineering Division  
M.M.R.D.A.



DESIGN AND CONSTRUCTION OF ELEVATED SEWRI TO WORLI ELEVATED CONNECTOR  
(2<sup>nd</sup> call)



**MUMBAI METROPOLITAN REGION  
DEVELOPMENT AUTHORITY**

**e-TENDER FOR**

**DESIGN AND CONSTRUCTION OF ELEVATED SEWRI TO  
WORLI ELEVATED CONNECTOR ( 2<sup>nd</sup> Call)**

**VOLUME- II**

**BILLING SCHEDULE & SCHEDULE OF VARIATIONS**

**MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY  
ENGINEERING DIVISION**

**MMRDA NEW OFFICE BUILDING, 2<sup>nd</sup> FLOOR,  
BANDRA – KURLA COMPLEX,  
BANDRA (EAST), MUMBAI – 400 051**



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*[Signature]*  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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DESIGN AND CONSTRUCTION OF ELEVATED SEWRI-WORLI (EAST-WEST)  
CORRIDOR (2<sup>nd</sup> call)

VOLUME- II

BILLING SCHEDULE & SCHEDULE OF VARIATIONS

INDEX

Sr. No.	Particulars	Page No.	
		From	To
1	Form of Bid	3	3
2	Billing Schedules and Schedule of Variations	4	10
A	Billing Schedule	5	6
B	Schedule of Variations	7	7
C	Model of Measurement and Preparation of IPC	8	8
D	Schedule of Rates for Variation Work	9	10



Chief Engineer,  
Engineering Division  
M.M.R.D.A.

M.M.R.D.A.  
Engineering Division  
Chief Engineer



# J. Kumar Infraprojects Ltd.

We dream ... So we achieve...

Regd. Off.: 16-A, Andheri Industrial Estate, Veera Desai Road, Andheri (W), Mumbai - 400053. INDIA  
Ph.: +91-22-6774 3555. Fax+91-22-2673 0814. E-mail : info@jkumar.com Website : www.jkumar.com  
CIN No. : L74210MH1999PLC122886

## FORM OF BID

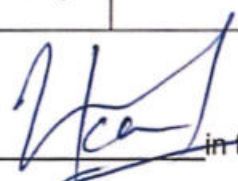
**Name of Contract:** "Design and Construction of Sewri to Worli Elevated Connector (2<sup>nd</sup> Call).

To:  
The Chief Engineer,  
Mumbai Metropolitan Region Development Authority (MMRDA),  
2<sup>nd</sup> Floor, MMRDA New Building,  
Bandra Kurla Complex, Bandra (East),  
Mumbai- 400 051.

Gentlemen:

In accordance with the Conditions of Contract, Specifications, Drawings, and Schedule of Variation and Addenda's for the execution of the above-named Works, we, the undersigned, offer to carry out Engineering, Procurement & Construction and install such Works and remedy any defects therein in conformity with the Conditions of Contract, Particular Conditions, Appendix to Tender, Specifications, Drawings, Billing Schedule, Provisional Sums, Variation and Addenda for the sum mentioned by us in the form of Financial Bid in e-tender format and in the table given below also.

Sr. No	Description	Cost in Rs. (including GST)	Basis	Amount in Rs.	
				In fig.	In words
1	Design & Construction of Sewri to Worli Elevated Connector (2 <sup>nd</sup> Call)	1057,00,00,000/-	Lump sum	1057,00,00,000/-	One Thousand Fifty Seven Crores rupees only

Signature  in the capacity of **Authorized Signatory**

duly authorized to sign bids for and on behalf of  
**M/s. J. KUMAR INFRAPROJECTS LIMITED.**

Address: 16-A, Andheri Industrial Estate,  
Veera Desai Road, Andheri West,  
Mumbai 400 053


Witness: Archana Adsule

Address: 16A Andheri Industrial Estate, Veera Desai Road Mumbai 400 053

Occupation: Service

Date 15/10/2015  
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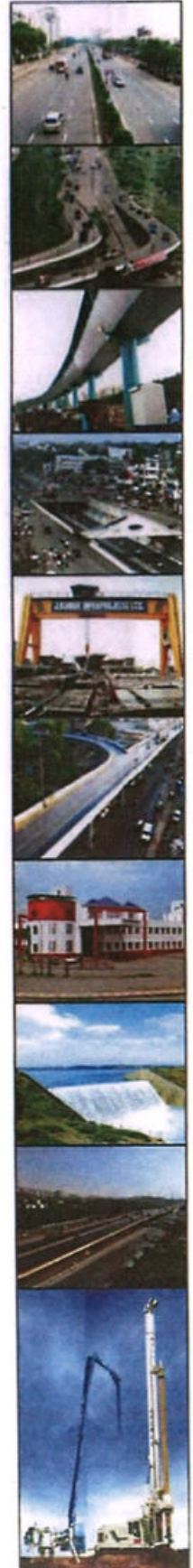


  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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**J. Kumar**  
ISO 9001:2015  
ISO 14001:2015  
OHSAS 18001:2007



Chief Engineer,  
Engineering Division

M.M.R.D.A.

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## Billing Schedule, Schedule of Variations and Schedule of Rates for Variation Works



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Chief Engineer,  
Engineering Division  
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M.M.R.D.A.  
Engineering Division  
Chief Engineer.

# J. Kumar Infraprojects Ltd.

We dream ... So we achieve...

Regd. Off.: 16-A, Andheri Industrial Estate, Veera Desai Road, Andheri (W), Mumbai - 400053, INDIA  
Ph.: +91-22-6774 3555. Fax+91-22-2673 0814. E-mail : info@jkumar.com Website : www.jkumar.com  
CIN No. : L74210MH1999PLC122886



**J. Kumar**

ISO 9001:2015  
ISO 14001:2015  
OHSAS 18001:2007

## NAME OF THE WORK: DESIGN & CONSTRUCTION OF ELEVATED SEWRI TO WORLI ELEVATED CONNECTOR (2nd Call)

### A) BILLING SCHEDULE

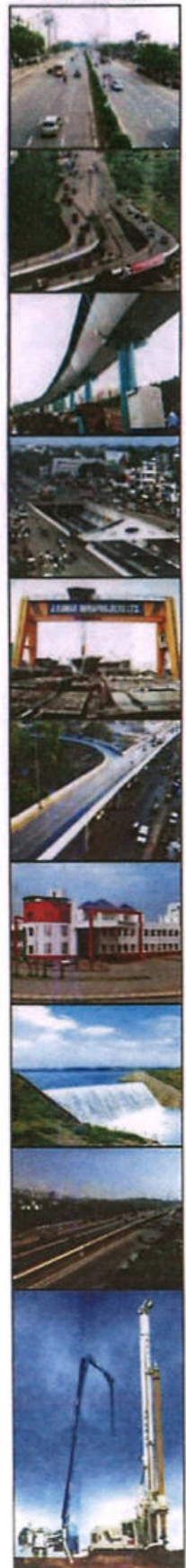
The Bidder shall submit a detailed billing schedule for interim payments for the work executed along with his tender. The billing schedule shall be subjected to the following overall limitations:

Particulars	Specified limit (percentage of contract price)	% quoted by Bidder
1 On completion and or approval of following items	6.8 to 12.4	11.8
i Survey, Geotechnical investigation, utility diversion plan	0.3 to 0.5	0.50
ii Marking alignment / setting out plan	1.4 to 2.6	2.60
iii Structural Design and Working drawings for road and structural work.	0.8 to 1.2	1.00
iv Development of Casting yard	1.6 to 2.4	2.40
v Construction of site office and laboratory and establishing of casting yard	0.7 to 1.0	1.00
vi Mobilizing Equipment on ground such as batching plant precast segments launching girder, gantry etc	1.0 to 3.0	3.00
vii Traffic diversion / management plan with approval from Traffic Police / Branch in Mumbai.	0.2 to 0.5	0.50
viii Maintenance of existing road and road on which the traffic is diverted during the construction period (including monsoon) road, storm water drains, footpath etc.	0.8 to 1.2	0.80
2 Site clearance including, barricading, removal of electric poles and signals and signage, fire hydrant box, demolition of existing pavement, footpath, side drains, earth works including embankment, excavation, sub grade etc as indicated by Engineer and preparation for ground improvements work if required etc.	0.1 to 0.2	0.15
3 Pile foundations viz. including empty boring up to design founding level shown in Vol IV, caging of reinforcement, concreting of piles, pile caps, applying coal tar, Testing of Test piles and submission of report on Testing etc. includes barricading restoring road surface if required.	13.5 to 18.5	18.50



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Engineering Division  
M.M.R.D.A.

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Engineering Division  
Chief Engineer



Particulars		Specified limit (percentage of contract price)	% quoted by Bidder
4	Piers, piers caps, abutment, abutment cap	9.0 to 12.0	10.50
5	Super Structure	42.6 to 51.4	46.95
a	Pre-casting of Concrete ssegments in the casting yard	19.6 to 23.4	23.40
b	Transportaion and Launching of Precast Concrete Segments	10 to 12	10.20
c	Fabrication, transportation & erecting of steel superstructure including cast in-situ deck slab, etc. for Obligatory Span	13 to 16	13.35
6	Fixed items such as Crash Barrier, Bearings, Expansion Joint, deck waterproofing, wearing course, down take pipes, connecting to nearest SW drain and carrying out necessary tests on completed items.	4 to 7	4.00
7	Retaining structure for approach ramp including fill material and Road wearing course	1.5 to 2	1.50
8	Dismantling & Reconstruction of existing approaches of Elphinstone ROB ,removal of debris /excavated material Foundation & Sub structure of Sewri & Elphinstone ROB , Vehicular subway at both side approaches of Elphinstone ROB, Construction of total 4 staircases on sides of both approached of Elphinstone Road ROB, Construction of Service roads (flexible pavement) on either sides of approaches of Elphinstone ROB as per available width including the Storm water drains and footpaths etc.	4 to 8	4.00
9	Miscellaneous items like painting of Bridge including Crash barrier, kerb, road furniture including road marking, road signs, gantry & over hang signs, Pitching, filter media for Pitching, Utility Ducts, M S railing and M S Ladder etc.	1.8 to 3.2	1.80
10	Cost towards the expenditure in DLP for 5 years	0.8 to 1.2	0.80
			100.00

For J. Kumar Infraprojects Limited

Authorised Signatory



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Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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Engineering Division  
Chief Engineer



**B) Schedule of Variations**

**Preamble:** During the Course of execution notwithstanding the provision in Clause No. 13 of GCC.

Employer / Contractor in the interest of completion of work may be required to execute, the items of work not fully covered by the Contractor Design, the anticipated items of work which may be required to vary are listed as stipulated in Section (D) below.

1. Extra or additional work likely to crop up is included in schedule of items (Schedule of Variation) for which applicable rates are mentioned in Schedule of Rates for Variation works in Vol- II.
2. Rates for all rebates arising out of deletion / reduction in scope of Design Build & Turnkey Construction part of work shall be 100% of the rate of extra work, when a certain item/component is deleted / reduced.
3. Rebate in case of deletion of any item / component in full or part which is replaced or substituted by another item / component, due to requirements of the Employer shall be 100% of the rate extra work for the item deleted partially / fully.
4. Any item not covered by schedule of variation shall be paid as extra items and for such items no escalation will be paid. The rate for such items shall be worked out based on the current Schedule of rates i.e. e-DSR of PWD 2018-19. In case the item is not available in this Schedule then the rate for such item shall be worked on the basis of Schedule of rates i.e. SSR 2018-19 and If any item rates are not available in SSR, then it may be paid on the basis of actual



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Engineering Division  
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expenses to be incurred for the item by preparing rate analysis based on current market rate.

5. Rates for extra works for Controlled Concrete Mixes, for which the rates are not provided in schedule of variation, shall be derived from corresponding rates the nearest designated mixes by linear interpolation.
6. Excavation of pits to ascertain utilities prior to foundation work will not be paid for.

**C) Model of Measurement and Preparation of IPC**

In respect of variation the Contractor shall record all the measurements as per PWD practice, including overlaps, in case of reinforcement and shall submit in soft (CD) and hard copy along with each interim bill.

**D) SCHEDULE OF RATES FOR VARIATION WORKS: - All Below Variation Rates are inclusive GST.**

**The payment towards such alterations shall be made as per the rates given in schedule of variations irrespective of the offer of the accepted Tender.**

Details of variation for the items covered under Lump Sum quoted Cost due to change in actual execution

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	For Four Lane and above	Meter	347000
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5	Variation in the plan area of the bridge deck of Steel superstructure. The rate shall include all foundation, substructure, Superstructure, Expansion joint, crash barrier, wearing coat and all other sundry items	Square meter	139500

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*Chief Engineer,*  
**Engineering Division**  
**M.M.R.D.A.**

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6	Variation in the plan area of the bridge deck of viaduct having concrete superstructure. The rate shall include all foundation, substructure, Superstructure, Expansion joint, crash barrier, wearing coat and all other sundry items	Square meter	69300
7	Variation in length of RE Wall and Approaches. The rate shall include Earthwork, base, sub-base, subgrade, Crust in the approach portion	Rmt.	177000

Specifications for variation Item shall be as Per IRC codes/MORTH Specifications.

For J. KUMAR INFRA PROJECTS LTD.

  
Authorised Signatory



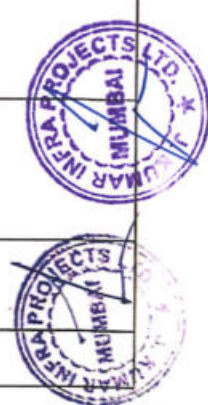
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Engineering Division  
M.M.R.D.A.

Chief Engineer,  
Engineering Division,  
M.M.R.S.A.



Name of work: DESIGN AND CONSTRUCTION OF SEWRI TO WORLI ELEVATED CONNECTOR (second Call)  
Common Set of Deviations (CSD)

Sr. No	Page No.	Section	Ref. Clause No.	Existing Provision in the Bid document	Modified Provision																				
16	122	Section VII Employer's requirement		<p>Design Data</p> <p>Design data given hereunder, for Obligatory spans and viaduct is based on Employer's due diligence and Engineering: Contractor shall use this data for preparing his proposal keeping in mind that he has to compulsorily follow Obligatory requirements for designing the obligatory spans (steel structure), structure and viaduct.</p>	<p>Design Data</p> <p>Design data given hereunder, for Obligatory spans and viaduct is based on Employer's due diligence and Engineering: Contractor shall use this data for preparing his proposal keeping in mind that he has to compulsorily follow Obligatory requirements for designing the obligatory spans (steel structure), structure and viaduct.</p> <p>Arrangement shown in GAD is indicative contractor may opt for alternative arrangement of GAD /alternative arrangement for superstructure compulsorily following Obligatory requirements for designing the obligatory spans (steel structure), structure and viaduct within quoted price .</p>																				
17	7	Volume II	Sr No 5	<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Description of variation item</th> <th>Unit of measurement</th> <th>Rate (Rs.)</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>Variation in the plan area of the bridge deck of Steel superstructure. The rate shall include all foundation, substructure, Superstructure, Expansion joint, crash barrier, wearing coat and all other sundry items</td> <td>Square meter</td> <td>139500</td> </tr> </tbody> </table>	Sr. No.	Description of variation item	Unit of measurement	Rate (Rs.)	5	Variation in the plan area of the bridge deck of Steel superstructure. The rate shall include all foundation, substructure, Superstructure, Expansion joint, crash barrier, wearing coat and all other sundry items	Square meter	139500	<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Description of variation item</th> <th>Unit of measurement</th> <th>Rate (Rs.)</th> </tr> </thead> <tbody> <tr> <td>5 a</td> <td>Variation in the plan area of the bridge deck of Steel superstructure. The rate shall include all foundation, substructure, Superstructure, Expansion joint, crash barrier, wearing coat and all other sundry items (span up to 60 meter)</td> <td>Square meter</td> <td>139500</td> </tr> <tr> <td>5 b</td> <td>Variation in the plan area of the bridge deck of Steel superstructure. The rate shall include all foundation, substructure, Superstructure, Expansion joint, crash barrier, wearing coat and all other sundry items (span above 60 meter)</td> <td>Square meter</td> <td>185100</td> </tr> </tbody> </table>	Sr. No.	Description of variation item	Unit of measurement	Rate (Rs.)	5 a	Variation in the plan area of the bridge deck of Steel superstructure. The rate shall include all foundation, substructure, Superstructure, Expansion joint, crash barrier, wearing coat and all other sundry items (span up to 60 meter)	Square meter	139500	5 b	Variation in the plan area of the bridge deck of Steel superstructure. The rate shall include all foundation, substructure, Superstructure, Expansion joint, crash barrier, wearing coat and all other sundry items (span above 60 meter)	Square meter	185100
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For J. KUMAR INFRA PROJECTS LTD.

*[Signature]*  
Authorised Signatory

Page 8 of 13  
Chief Engineer,  
Engineering Division  
M.M.R.D.A.

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