

INVITATION FOR BIDS

BRIHANMUMBAI MUNICIPAL CORPORATION
(Water Supply Projects)

ChE/WSP/P/4932 dt. 01.03.2024

INVITATION FOR BIDS
CONTRACT

1. The Municipal Commissioner, for and on behalf of BMC, invites e-tenders consisting of three packets (Technical i.e. packet A & B and Price Packet on Design-Build basis for construction of approx. 113 m deep shaft at Mulund (Octroi Naka) & further construction of approximately 7.15 km long reinforced concrete in-situ lined tunnel of 4.5 metres finished diameter up to approx. 106 m deep shaft at Kasheli (Bhiwandi), using full face rock tunnel boring machine and allied works, under National competitive bidding on least cost basis, from reputed contracting firms who meet the eligibility requirements and fulfil the qualifying criteria stipulated in the bidding document .
2. The scope of the captioned work, in brief, includes the following:
 - a) Design and construction of 5300 mm Bored Diameter tunnel by full face rock tunnel boring machine from proposed shaft at Kasheli to proposed shaft at Mulund of total approximate length 7.15 km passing below Kasheli & Thane Creek.
 - b) Design and Construction of Steel lining using plates conforming to IS 2002 and concrete backpacking to a size of 4400 mm finished diameter for 2.5 km of the length of tunnel under the Creek and Design and construction of tunnel lining of RCC in-situ with finished diameter of 4500 mm tunnel, for the remaining length of the tunnel length.
 - c) Design and Construction of Vertical pipe using plates conforming to IS 2002 and RCC encasement of 400 mm thick to a size of 4400 mm finished diameter in both the shafts.
 - d) Design and construction of Vertical shaft of diameter 14 m and depth of about 113 m by drilling and by controlled blasting method with reinforced concrete supporting arrangement such as circular well/secant piling etc. to enable construction of shaft including RCC shaft lining at Mulund (Octroi Naka). It also comprises of design and construction of Tail and Assembly Tunnel at shaft by drilling and by controlled blasting method.
 - e) Design and construction of Vertical shaft of diameter 14 m and depth of about 106 m by drilling and controlled blasting method with reinforced concrete supporting arrangement such as circular well / secant piling including RCC shaft lining, steel pipes and specials inside the shaft at Kasheli (Bhiwandi). Considering the safety of BMC's existing adjoining water supply tunnel system, the controlled blasting of shaft and Tail & Assembly tunnel shall be designed to have maximum peak particle velocity of 1 mm/s at nearest point of proposed shaft under this contract from existing shaft of Kasheli Water Supply Tunnel. Design and Construction of Steel pipes and specials inside both the shafts at Mulund (Octroi Naka) and Kasheli (Bhiwandi) and extending into the tunnel using plates conforming to IS 2002 and concrete encasement/backpacking.

- f) Steel pipes and specials of 600 mm dia for dewatering within shaft lining using plates conforming to IS 2062 and concrete encasement.
- g) Design and construction of interconnection of proposed watermain comprising header of 4400 mm dia and further connecting with 3000 mm dia with Mumbai III & 2345 mm dia with Mumbai II at shaft location of Mulund (Octroi Naka) with Steel pipes using plates conforming to IS 2062 and RCC encasement.
- h) Design and construction of interconnection of proposed watermain comprising header of 4400 mm dia and further connecting with 3000 mm dia with Mumbai III & 2345 mm dia with Mumbai II at Kasheli (Bhiwandi) shaft location with Steel pipes using plates conforming to IS 2062 and RCC encasement. The design and construction of the connectivity shall be done considering safety of existing Mumbai-II and Mumbai-III watermain & their supporting arrangements & allied works.
- i) Design and Construction of reinforced concrete anchor blocks, thrust blocks, encasement etc at Mulund (Octroi Naka) shaft & Kasheli (Bhiwandi) shaft.
- j) Design, Supply and erection of butterfly valves (02 nos. of 3000 mm dia, 02 nos. of 2345 mm dia & 01 nos. of 4200 mm dia at each shaft location), air valves, scour valves, dismantling joints, flow meter etc at Mulund (Octroi Naka) shaft & Kasheli (Bhiwandi) shaft.
- k) Construction of control room at Mulund (Octroi Naka) shaft.
- l) Design and construction of All Civil, mechanical, and electrical works for construction of valve chambers at Mulund (Octroi Naka) shaft & Kasheli (Bhiwandi) shaft.
- m) Conducting Geotechnical Investigation along with all necessary tests by taking boreholes at the locations approved by the Engineer along the alignment of the proposed tunnel at a distance not more than 20 m from the centreline of proposed tunnel. The depth of PQ size borehole shall be at least 10 m below invert level of proposed tunnel. If required, the successful contractor, at his own cost, shall take additional boreholes/ geotechnical investigations. Preparation of inferences and geological mapping of entire section. Installation of piezometric tubes at suitable locations suggested by the Engineer (minimum two locations) along alignment of tunnel to monitor ground water table.
- n) Conducting Bathymetric survey in Kasheli & Thane creek along the tunnel alignment.
- o) Conducting survey including tunnel alignment survey comprising proposed shafts.
- p) Construction of workshop and office including all existing facilities at all shaft locations.
- q) Painting using food grade epoxy paint shall be provided for internal surface of liners and pipelines.
- r) Identification and protection or diversion of all utilities (including communications, electrical HV and LV cables/chambers, water main, sewerage water/ storm water drainage channels and pipelines etc) within each work site and at the location of interconnection with existing watermain as required.

- s) Seeking permissions such as CRZ, Forest, Environmental, etc
- t) Provision of temporary power required for construction, tests on Completion, including all commissioning at all shaft locations and payment of bills thereof.
- u) Provision of temporary/construction water connection and payment of bills thereof.
- v) Demolition and Restoration of structures, compound walls, pavements etc. at work sites.
- w) Conducting all Tests on Completion in accordance with these Employer's Requirements.
- x) Submission of as-built documentation and any other documents as required by the Contract.
- y) Handover of the completed Works to the Employer.
- z) Design, Supply and erection/provision of all Temporary and Permanent supports, grouting, Shotcreting, rock bolting etc., or any other methodology required during execution of work.
- aa) Provision of Noise Barrier at Mulund (Octroi Naka) shaft location

3. The detailed Qualification criteria is described in IT.5.is as under;

Bids are invited from well-established domestic contracting companies ("the bidder") who possess following technical capacity (A) during last 07 financial years, as single entity or as Lead Partner in Joint Venture in previous projects and shall meet the financial capacity (B) specified herein under.

The cited clause is applicable to encourage bidders from the Indigenous country if the qualifying works were executed by an Indian bidder in JV / Consortium with Foreign Bidder with 70% or more participation, than 100% value of work for Indian Bidder shall be considered i.e., full work experience for the evaluation. For less than 70% share in JV / Consortium with Foreign Bidder, then the value of work for single Indian / Foreign Bidder shall be considered based on the percentage of the participation in the JV / Consortium.

(A) Technical Capacity

- i. On Bid due date, the bidder should have successfully or substantially* constructed at least One Tunnel project by TBM / NATM technology certified by competent authority of minimum finished diameter of 3.6 meter or equivalent cross-sectional area and minimum length of 5.72 KM in single contract in the last 07 years before due date in the Indian environment.

*Substantially completed means, on bid due date, the physical completion of the project should not be less than 90% of the project value and bills for 90% of total contract value is already paid.

- ii. The bidder, in the last 07 years, in Indian environment, shall have executed in single contract at least:

One vertical shaft of diameter not less than 10 m and depth not less than 80 m or One underground cavern of minimum size 30 m (Length) x 20 m (Width) x 10 m (Height) or One vertical shaft any size and shape with minimum excavated quantity of 6500 Cum.

- iii. The Bidder shall have laid / executed in-situ RCC Concrete lining for the Tunnel of minimum quantity of 22,000 cum in single contract in the span of 2 years during last 07 years.
- iv. The Bidder shall have successfully completed at least One Tunnel by TBM under sea / creek / perennial river in last 10 years.

Relevant Construction Experience:

The Bidder should have experience of successfully completed at least 60% of awarded contract value or the value of the executed work of Rs.380 Cr., whichever is more, in the work of Tunnel / bridge / flyover / Elevated Metro in MMR region in last five years in single contract.

(B) Financial Capacity

1) Relevant construction experience in Key activities

The Bidder, on bid due date, should have successfully or substantially* completed similar work in the last 05 years in the Indian environment as follows:

One similar work of cost not less than Rs. 1146 Cr.

Or

Two similar work cost of each not less than Rs. 764 Cr.

Or

Three similar work cost of each not less than Rs. 573 Cr.

Similar work shall mean the cost of the Tunneling work by TBM / NATM technology in Water supply / Sewerage / Road / Metro / Rail / Hydro projects in the Indian environment.

The value of executed works shall be brought to current costing level by enhancing the actual value of work at compound rate of 10% per annum, calculated from date of completion to last date of submission of bids.

- 2) The bidder shall have achieved average annual financial turnover (in all classes of civil engineering construction works) equal to Rs.573 Cr. in last 3 financial years ending March 2023 and should not be a loss-making entity in last two years (i.e. 2021- 2022 & 2022- 2023).
- 3) The bidder shall demonstrate availability of cash / credit lines facility exclusively for this work of not less than Rs. 79 crore.

Even though the Bidder meets the above qualifying criteria, he will be disqualified, if in last 5 years it is observed that:

(i) Made misleading or false representation in the forms, statements and attachments submitted in proof of the qualification requirements;

and / or

(ii) Record for poor performance such as abandoning the works, Termination by the client due to non-performance;

and / or

(iii) The Bidder shall either have obtained / applied for / undergone or be in the process of any type of debt restructuring in the immediately preceding Five (5) years from the Bid Submission deadline.

and / or

(iv) Bidder shall have any ongoing proceedings before NCLT.

and / or

- **History of collapse of substructure**

The Bidder should not have any history for collapse due to failure of superstructure / substructure of Bridge / Flyover / Tunnel / Viaduct / Metro / Rail work during the construction in last 02 years.

IT 5.4 Joint Venture will not be permitted.

4. Bidders may obtain further information from the following located office at:

Office of the Deputy Chief Engineer (Water Supply Projects),
Consultancy Cell,
BRIHANMUMBAI MUNICIPAL CORPORATION,
Engineering Hub Building, 1st floor, Dr E Moses Road,
Worli Naka, Worli,
Mumbai - 400 018
INDIA.
Telephone No.:Direct: 022-24945609
Email: dychecc01@gmail.com

5. Contract Period is 73 months (Seventy-Three months) inclusive of monsoon period from the date of receipt of Order of Commencement of the Works.

6 a) A soft copy of complete set of bidding documents (each set consists of Volumes ITB, I, IIA, IIB, and III may be downloaded online by interested bidders. For downloading the Tender documents, the bidders will have to get registered with e-tender portal (<https://mahatenders.gov.in>) for the e-tendering process and

obtain login credentials to participate in the online Tender process. The details of the same are available on <https://mahatenders.gov.in>. For registration, enrolment for digital signature certificates and user manual, please refer to respective links provided in e-tendering tab on <https://mahatenders.gov.in>.

b) For registration enrolment for digital signature certificates and user manual, please refer to respective links provided in e-tendering tab. Vendors can get digital signature from any one of the Certifying Authorities (CA) licensed by controller of certifying authorities namely Safe crypt, IDRBT, National Informatics Centre, TCS,CUSTOMS,MTNL,GSFC and e-Mudhra CA.

c) Blank Bidding documents shall be downloaded from portal (<http://mahatenders.gov.in>) from 4.03.2024 at 1.00 P.M. to 12.04.2024 upto 02:00 P.M by e-tendering process.

d) The bidders shall pay scrutiny fees of Rs. 25000/- plus applicable GST charges, at Citizen Facility Centres of BMC, within 7 days after opening of technical packets A & B but before opening of packet C. In case the bidder fails to pay the requisite scrutiny fee and submit receipt thereof to this office within the above-mentioned period, then the scrutiny fee will be recovered from EMD paid in the form of DD or the BG issued against EMD by the bidder will not be released till payment of requisite scrutiny fee is received.

7. The Bids must be accompanied by the bid security of ₹19.00 crore. Of this ₹19.00 crores, ₹1.90 crores shall be paid through online payment gateway (before submission of bid) and ₹2.85 Cr in the form of Demand Draft (DD) and the balance ₹14.25 crore shall be paid through bankers guarantee (BG) valid for not less than 365 days from the date of submission, in the format attached, before the time and date mentioned in the Header Data. The employer shall accept BG only as per format and from any of the bank provided in the list of banks included in the tender. Any bid not accompanied with bid security shall be rejected by the employer. All processing charges for the bank guarantee along with the stamp duty as applicable shall be borne by the bidder.
8. The Applicant should upload the documents in readable form, He should take trial of uploads by taking printout. The unreadable documents will be treated as null & void. The remaining documents will be evaluated. The decision of opening Authority regarding this will be binding to all applicants.
9. The Municipal Commissioner reserves the right to reject all or any of the e-tender(s) without assigning any reasons at any stage. Those bids without the prescribed bid security will be summarily rejected.
10. The BMC reserves the right to cancel the e-tenders before submission/opening of e-tenders, postpone the e-tenders submission/opening dates and to accept/reject any or all e-tenders without assigning any reason thereof.
11. This tender document is not transferable.
12. Tenderers are requested to submit and upload the tenders in time on or before the stipulated day so as to avoid rush at the closing hours. BMC will not be responsible for poor connectivity of network / internet services / connectivity of

servers / snag in system /breakdown of network / or any other interruptions. If any online information uploaded but not received by Bid creator (BMC) within stipulated time limit, BMC will not be held responsible at any cost and such bids cannot be validated. Any online intimation / information asked to be submitted by Bidders /Contractors or sent to bidders/ Contractors, if not receiving or bounced back at the receiving end due to any problem in the server or connectivity, BMC will not be held responsible.

13. E-tenders shall be uploaded up to 2.00 P.M. on 12.04.2024 and Packet 'A' & 'B' of bids will be opened on the next working day at 04.00 P. M.

14. The Packet 'A' & 'B' shall contain all duly certified credential documents, filled up forms& schedules, undertakings and other information etc .required as stipulated in the tender as per e-tendering process and Packet ;'C' shall contain only single lump sum amount to be quoted online by the Bidder. Only the technical packets 'A' & 'B' will be opened on above mentioned portal in the office of The Deputy Chief Engineer (Water Supply Projects), (Consultancy Cell) at address mentioned at Clause No.4 above at 4.00 P.M. on 15.04.2024 in the presence of bidder's authorised representatives who choose to attend. The Packet C shall be opened on a date which will be intimated to bidders if bid submission in Packet A & B satisfies/includes all the requirements and same are found acceptable to the Authority during technical evaluation.

In the event of specified date of opening of bids being declared as holiday for the BMC, bids shall be opened on next working day.

15. Bidders should note that timing of downloading/submission/opening of tender shall be considered as per BMC web time only. The BMC will arrange a site visit to the proposed shaft locations and inspection of rock core samples. The site visit will be at 11.00 AM on 07.03.2024 starting from Mulund Octroi naka shaft location adjacent to Eastern Express Highway. The pre-bid meeting will be held in the Office of Additional Municipal Commissioner (Projects)'s conference room, 2nd floor, Annex Building, Municipal Head Office, Mahapalika Marg, Fort, Mumbai – 400 001, INDIA on 14.03.2024 at 11.30 A.M.

16. Bids shall remain valid for a period of 180 days after the date of opening of technical bid.

17. The BMC reserves the right to cancel the e-tenders before submission/opening of e-tenders, postpone the e-tenders submission/opening dates and to accept/reject any or all e-tenders without assigning any reason thereof.

18. The bids from the joint Venture will not be allowed.

19. The details are available on portal (<http://mahatenders.gov.in>).

Tender id : 2024_MCGM_1021526_1.

20. Payment in Indian Rupees only.

Sd/-
(01.03.2024)

**Chief Engineer
(Water Supply Projects)**

HEADER DATA

Tender Document No	2024_MCGM_1021526_1
Name of Organization	BRIHANMUMBAI MUNICIPAL CORPORATION
Subject	Construction of water conveyance tunnel from Kasheli (Bhiwandi) to Mulund (Octroi Naka).
Cost of Tender Scrutiny Fee	Rs: 25000/- + 18% GST
Bid Security Deposit/ EMD	1.Rs.1.90 Crores (Online on www.mahatenders.gov.in) 2.Rs.2.85 Crores (Demand Draft in favour of BMC & submit original DD in the office of DyChE(WSP)CC 3.Rs. 14.25 Crores through bankers guarantee (BG) valid for not less than 365 days from the date of submission in the format attached & submit original B.G. in the office of DyChE(WSP)CC i.e. Total EMD of Rs.19.00 Crores
Date of issue and sale of tender	04/03/2024 from 1:00 pm
Last date & time for sale of tender & payment of online Bid Security.	12/04/2024 up to 02:00 pm
Submission of Packet A, B & C (Online)	12/04/2024 up to 02.00 pm
Submission of part Bid Security through D.D. and B.G.	12/04/2024 up to 04.00 pm
Site Visit	07/03/2024 at 11.00 am
Pre-Bid Meeting	Hon. Additional Municipal Commissioner (Project)'s Office, Brihanmumbai Municipal Corporation 2 nd Floor, Annex Building, Mahapalika Marg, Mumbai, Maharashtra 400001 Date: - 14/03/2024, Time 11:30 am.
Opening of Packet A	15/04/2024, Time 04:00 pm
Opening of Packet B	15/04/2024, Time 04:10 pm
Address for communication	Office of the: -Dy.Ch.E. (WSP)Consultancy cell, BMC, 1 st floor, Engineering Hub Bldg, Dr. E. Moses Road, Worli Naka, Worli, Mumbai 400018
Venue for opening of bid	Online in Ch. Engg. (WSP)'s office located at above address.
Email id	dychecc01@gmail.com

- Changes if any in the above scheduled dates will be published on www.mahatenders.gov.in
- For any coordination w.r.t. site visit, please call Shri. Laxmikant Vaidya (9869266054).
- Bidder should note that the Tender Scrutiny fee of Rs. 25000/- + 18 % GST will be payable within 7 days after opening of Packet A & B in any of the Ward Citizens Facilitation Centers (CFCs) as per Circular No. CA/FRG/03 dt. 11.05.2023.