

**OFFICE OF THE EXECUTIVE ENGINEER**  
**WEST BANK DIVISION, SD & SWM, KMDA**  
**5th Floor, Unnayan Bhavan, Kolkata – 700 091**

Memo no. 136/EE (WBD)/SD&SWM/KMDA of 2023-24

DATE: 15.09.23

**Notice Inviting Quotation No- 10/EE(WBD)/ SD&SWM /KMDA / of**  
**2023-24**

Sealed Quotations in Letter head pad are hereby invited by the **Executive Engineer, West Bank Division, SD&SWM Sector, KMDA**, 5th Floor, Unnayan Bhavan, Kolkata – 700 091 from bonafide, reliable, experienced & resourceful firms / individuals contractors, joint ventures / consortium who have successfully completed works in Government / Govt. Undertaking / Govt. Autonomous Bodies / Semi-Govt. / Statutory Bodies/Local Bodes having credentials having credentials of **1 (One) Similar Nature Of Completed Work (Calculate the Area and Volume of Landfill, Geotechnical Investigation & Determination of In-Situ Density)** of the minimum value not less than i) 40% of the estimated amount in a single contract OR ii) two contracts each of at least 30% of the estimated amount OR iii) single running work having completed 80% or more and value of which is not less than as in i) above, during last 5 (five) years from the date of issue of this NIQ.

Sl. No.	Name of Work	Earnest Money (Rs.)	Time of Completion	Cost of Tender Paper (non-refundable) (Rs.)
1.	Calculate the Area and Volume of Land fill, Geotechnical Investigation & Determination of In-Situ Density of Nabadwip Dumping Ground under Nabadwip Municipality using Drones.	2% of the Quoted Amount. Initial Earnest Money deposit shall be Rs: 2000.00 and balance (if any) of 2% shall have to be deposited on acceptance of bid.	7 Days	350/- (Cash/ Demand Draft)

1) Original Earnest Money deposit in the form of DD/ Bank Draft/ Pay Order issued from any Nationalized/ Scheduled Bank in favor, **KMDA** payable at **Kolkata**.

2) Details Tender Proceedings will as follows :

1)	Last date of receipt of application (in duplicate) along with all documents for quotation.	Up to 2 pm on 22.09.23
2)	Date and time for permission for participating and issuance of Tender Documents.	At 4.00 pm on 22.09.23
3)	Date and time of submitting of quotation.	At 1:00 pm on 26.09.23
4)	Date and time of opening of quotation.	At 3:00 pm on 26.09.23

Tenders will be opened by the **Executive Engineer, West Bank Division, SD&SWM Sector, KMDA**, (5<sup>th</sup> Floor), Unnayan Bhavan, Kolkata – 700 091 or his authorized representative in presence of tenderer or their authorized representatives who may like to be present.

### 3) *Eligibility criteria for the bidders:-*

- a) Intending tenderers should produce credentials of the minimum value not less than i) 40% of the estimated amount in a single contract OR ii) two contracts each of at least 30% of the estimated amount OR iii) single running work having completed 80% or more and value of which is not less than as in i) above, during last 5 (five) years from the date of issue of this NIQ.
  - b) Bidder should have PAN card, P. Tax, Valid income tax return (For Last 3 yrs ), Valid 15 digit Goods and Services Taxpayer Identification Number (GSTIN) under GST Act, 2017 & Latest Valid Trade License, Credentials, Work Order etc.
  - c) Bidders shall not be under Ban/Blacklisting/Debarment for corrupt and fraudulent practices or for lack in performance by any Government/Semi-Government entity.
  - d) Any false declaration and non-compliance of the above would be a ground for immediate termination of the contract and further legal action in accordance with the laws
- 4) **Earnest Money:-** The tenderer shall have to deposit requisite earnest money along with the tender document in prescribed manner failing which the tender shall be rejected. The balance earnest money if any to fulfill **2(two) percent of the tender value** is to be deposited at the time of execution of formal agreement.
- 5) The **Executive Engineer, West Bank Division, SD&SWM Sector, KMDA**, Unnayan Bhavan, Kolkata – 700 091, reserves the right to cancel the N.I.T. due to unavoidable circumstances and no claim in this respect will be entertained. During scrutiny, if it is come to the notice to tender inviting authority that the credential or any other papers found incorrect/manufactured/fabricated, that tenderer will not be allowed to participate in the tender and that application will be out rightly rejected without any prejudice with forfeiture of earnest money forthwith.
- 6) Before issuance of the Work Order, the tender inviting authority may verify the credential & other documents of the successful bidder if found necessary. After verification, if it is found that such documents submitted by the successful bidders either manufactures or false in that case Work Order will not be issued in favour of the bidder under any circumstances.

- 7) Rates should be quoted clearly both in figures & words for each item and the quoted rates must be inclusive of every demand. No conditional quotation will be accepted.
- 8) **Language of Quotation:-** The quotation shall be submitted in English. All literatures and correspondence in connection with the quotation shall be in English.
- 9) Successful bidder shall have to execute an agreement in the prescribe format which will be available from the office.
- 10) The Tender inviting authority reserves the right to accept or reject any or all the quotations without assigning any reason what so ever.
- 11) **List of common documents shall have to be submitted by each tenderer at the time of submission of last date of receiving quotation.**
  - i. Income Tax Return ( For last 3yrs )
  - ii. Pan Card.
  - iii. Professional Tax clearance certificate.
  - iv. Trade License.
  - v. Technical Credential.
  - vi. Work Order for the work in technical credential.
  - vii. Payment certificate of the said work.
  - viii. Valid 15 digit Goods and Services Taxpayer Identification Number (GSTIN) under GST Act, 2017.
  - ix. Certificate / License of the pilot, who is operating the drone from the competent authority.

**12) Scope of Work:-**

- I. The Service Provider is responsible to obtain necessary clearances from Director General of Civil Aviation, Ministry of Defense and other agencies of Government of India or concerned State Government as may be required to complete the job of flying of drone over the proposed area, acquire data etc. The client would provide necessary documentation.
- II. Drones equipped with high resolution cameras (at least 4K) with facility of Global Positioning System (GPS) to be deployed for Calculate the Area and Volume of Land-fill of Nabadwip Dumping Ground.
- III. To analyze quality images in respect to Nabadwip Dumping Ground and provide GIS & AutoCAD mapping of the image.
- IV. All necessary arrangements for the drone survey i.e. Hardware, software upgrade and pilots as will be required to be provided by the Contractor.
- V. If any accident or loss to property results from such activity your concerned will have to mend it at his own cost and will indemnify KMDA against it.
- VI. The captured images or data shall not be shared with any third party without written consent of competent authority of KMDA.
- VII. The bidders have to conduct the following soil test and to be done by NABL accredited Laboratory.
  - a) Bulk Density.
  - b) Moisture Content.

**c) Dry Density.**

Soil exploration up to maximum depth of 6 m from top of landfill at least 6 different locations at different depth to collect UDS sample & Determination of In-Situ Density of Nabadwip Dumping Ground i.e. at 1 m depth , 2 m depth , 3 m depth ,4 m depth , 5m depth & 6m depth.

- VIII. The flight path shall cover the desired area completely including enough cross flight lines to eliminate shadowing and allow for proper quality control.
- IX. Area finalized & signed by concerned state revenue authorities after outer boundary of the dumpsite being marked with peg with 50 m buffer all-around
- X. Sun angle no less than 30 degree to minimize shadow.
- XI. The project site has relief changes due to built up area therefore photograph should be captured at high sun angle to avoid shadows due to these high relief formations.
- XII. Cloud free with minimal smoke, smog, fog and dust.
- XIII. To avoid breaks within individual flight lines.
- XIV. Open space should be chosen for the flight and landing of drone to avoid endanger to public or property
- XV. The following points shall be kept in mind while selecting control point locations: • Clear of HT/LT lines, radio / mobile towers, high frequency dish antennas, radar etc. • Free from multipath problems associated with tall features in the vicinity. • Free from foliage • Free from major obstructions / obstacles • Easily accessible to the survey team. • Open to sky with a clear view towards sky at 15degree angle with horizontal plain.
- XVI. The agency shall prepare contour map with contour interval 0.25 m. The RL of contour line shall be based on GTS bench mark.
- XVII. Permanent Bench Mark shall be established within the dumping ground on a permanent structure with permanent colour.
- XVIII. Service provider will calculate volume of waste & the area of dumpsite.

**13) Establishment of Check Points**

2. Utilizing existing GCP Ground Control Points or CORS network provided by Survey of India whose adjusted coordinates are available, minimum 5 well distributed check points in each village polygon shall be provided by GNSS observation either in static or RTK mode. Check points shall be uniformly distributed in polygon. 3. Check Points shall be made on conspicuous points be easily identifiable in images procured through Drone Survey. 4. Check points shall be engraved neatly for their identification and will be painted by filling of engraving with contrast color paint. Unique ID of Point are to be written. 5. Check points are to be post pointed in image in digital form and submit it to Sol along with processed coordinate in .xls sheet. 6. Using digital camera of at least 10 mega pixels, Service Provider shall also take photograph of each Check point after finalizing writing etc. and submit it to Survey of India in digital form with proper indexing and labeling

**14) Responsibility of Service provider:**

- a) The Service Provider will have the responsibility for obtaining clearance from Gol agencies for flying over the survey area, acquiring and processing Drone data including QA/QC, and delivery of raw and processed products to Survey of India.

- b) The Service Provider will have the responsibility to ensure compliance of DGCA issued guidelines for Requirements for Operation of Civil Remotely Piloted Aircraft System (RPAS).

**15) “Force Majeure” (FM):**

For the purposes of this Contract, “Force Majeure” (FM) means extraordinary events or circumstance beyond human control such as an event described as an Act of God (like a natural calamity) or events such as war, strike, riots, crimes (but not including negligence or wrong-doing, predictable/seasonal rain and any other events specifically excluded in the clause). An FM clause in the contract frees both parties from contractual liability or obligation when prevented by such events from fulfilling their obligations under the contract. An FM clause does not excuse a party’s nonperformance entirely, but only suspends it for the duration of the FM. The firm has to give notice of FM as soon as it occurs and it cannot be claimed ex-post facto. There may be a FM situation affecting the purchase organization only. In such a situation, the purchase organization is to communicate with the supplier along similar lines as above for further necessary action. If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of FM for a period exceeding 90 (Ninety) days, either party may at its option terminate the contract without any financial repercussion on either side.

Any period within which a party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

**16) The risks and coverage by insurance shall be:**

- (i) Aviation insurance to protect against Third Party property and bodily damage claims during Drone survey Work ( In accordance with the statutory requirements applicable to India)
- (ii) Personal injury or death insurance for Service Provider’s Employees (In accordance with the statutory requirements applicable to India)
- (iii) Loss or damage to equipment and data till project completion (Minimum Cover Contract Price)

**17) Deliverables, Time Schedule & Terms of Payment :-**

- a) On completion of the job, the Bidder shall submit the reports as per scope of the work (Calculate the Area and Volume of Land fill, Geotechnical Investigation & Determination of In-Situ bulk Density , dry density & moisture content etc.).
- b) All submissions of deliverables shall be accompanied by ‘area polygons’ in .shp format. , .dwg format & .kmz or .kml format
- c) Raw Drone data/images along with fly log, on board GNSS/IMU data
- d) All deliverables must conform to the projection, datum, and coordinate system specified in the tender document. File sizes cannot exceed 1 gigabyte, unless otherwise specified by the EIC. Each file must be organized to facilitate data manipulation and processing.
- e) Drone data collection report detailing mission planning and flight logs will be submitted.
- f) A survey report detailing the collection of all ground control including the following will be submitted: • I base Ground Control points • Check points
- g) Post Processing Report detailing GNSS data, Drone image processing, ORI generation and

DEM generation will be submitted

- h) Data should be delivered on Pen drive/External Hard Drive. External hard drives/pen drive will be retained by EIC.
- i) Data deliveries should be clearly labelled with name of Service Provider, date of supply and list of contents
- j) All reports are to be provided in editable format i.e. Word (.doc/.docx) format, Excel spreadsheet (.xls/.xlsx) or appropriate digital format as approved by EIC.
- k) All images should be clear and sharp in detail with no light streaks, static marks, scratches, ice effect or other noticeable blemishes. The imagery should be free from defects, such as out-of-focus imagery, and should not contain inconsistencies in tone and/or density. The ortho-rectified image should be free from tilt and relief displacement. To ensure consistency, the imagery should be radio metrically and geometrically corrected to enable adjacent files to be displayed simultaneously without obvious distinctions between them.
- l) Time schedule for Deliverables and the payment schedule linked to the specified Deliverables are given below.

Sl. No	Description of Deliverables / Stage of work	Submission of Reports	Time Schedule (to be reckoned from the date of award of Work Order)	Payment milestone (%)
1.0	Submission of the reports as per scope of the work.	3 Hard Copy + 1 Soft Copy	7 Days	---
2.0	On approval of the reports as per scope of the work.	3 Hard Copy (corrected and approved) +1 Soft Copy	----	100% of the Quoted Amount. Deducting SD shall be as per order of Finance dept. , Govt. of West Bengal.

**Acceptance of the lowest and/or any other quotation is not obligatory. The undersigned reserves the right to accept or reject any of all quotations without assigning any reason what so ever.**



**Executive Engineer, West Bank Division,  
SD&SWM Sector, KMDA**

**Copy forwarded to the Deputy Secretary, P.R. Department, KMDA- enclosed please 2 (two) copies of the NIQ. He is requested to kindly circulate the NIQ as per prevailing norms of KMDA.**



**Executive Engineer, West Bank Division,  
SD&SWM Sector, KMDA**

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**DATE: 15.09.23**

**Copy forwarded for kind information to :-**

1. The Chief Engineer, SD&SWM Sector, KMDA.
2. The Addl. Chief Engineer, SD&SWM Sector, KMDA.
3. The Superintending Engineer, Planning Circle, SD & SWM, KMDA.
4. The Superintending Engineer, Programme Circle, SD&SWM Sector, KMDA.
5. The Superintending Engineer, North Circle, SD&SWM Sector, KMDA.
6. The Superintending Engineer, South Circle, SD&SWM Sector, KMDA.
7. The Accounts Officer, SD&SWM Sector, KMDA.
8. Notice Board, West Bank Division, SD & SWM, KMDA.



**Executive Engineer, West Bank Division,  
SD&SWM Sector, KMDA.**