

TERMS OF REFERENCE

HIRING OF CONSULTANCY SERVICES AGAINST 3RD PARTY VALIDATION FOR WORK OF SEWER DESILTING IN NORTH ZONE IN WASA, LAHORE IN YEAR 2024.

1. BRIEF INTRODUCTION

WASA is responsible for management, operation and maintenance of sewerage, and drainage services in the city. For efficient sewerage system, agency needs to rehabilitate sewerage through repeated cleaning of sewers to achieve design capacity of sewer and ensure smooth flow and safe disposal of sewage.

Urban flooding in monsoon is one of the serious challenges of Lahore city usually being faced owing to under developed. Urban flooding during monsoon usually befalls due to intense rainfalls that occur more than forecasted. It's a complex global phenomenon that stems from the combination of extreme hydrological and metrological events followed by widespread devastation, economic damages and loss of human lives. Unplanned urbanization, population sprawl, transmigration and upsurge of built-up areas with passage of time are primarily causes of inundation and flooding during monsoon in city.

It is stated that completion of desilting process pertaining to sewers before monsoon is of prime importance. Desilting of sewer is carried by WASA staff as well as through contract which needs to be re-validated by consultants as Third Party.

2. OBJECTIVES:

Objectives of the 3rd Party Validation of the above-mentioned work are:

- i. To verify the desilting work of sewers carried out by WASA Staff.
- ii. To deploy officials at each site of work throughout working hours and ensure daily progress.
- iii. To submit report and recommend actions against concerned engineers in charge in case of failure of work due to inefficiency of WASA officers/officials.
- iv. To observe behavior of sewer/drain to ensure execution of work and work will not delay due to surcharging of sewers.
- v. To verify deployment of manpower, machinery, equipment, working hours, for carrying out desilting work.
- vi. Physical verification of water level in sewers for smooth functioning and recommend tube well timings in the specific area of desilting to be carried out.
- vii. To guide WASA Staff about methodology of desilting operation to achieve maximum results.
- viii. To ensure progress of desilting as per schedule and target.

- ix. To compile the progress of desilting works of sewers on daily & weekly basis and submit report.
- x. To verify consumption of POL being used in machines for desilting work.
- xi. To ensure use of Health, safety equipment by Lahore while desilting work.

3. SCOPE OF WORK / DUTIES AND RESPONSIBILITIES OF THE CONSULTANTS.

The overall scope of work is to supervise/validate the desilting activities as per details given below, but not limited to this:

Number of sewer manholes in Towns in North Zone WASA: 169,432 Nos.

Sr. No.	Description	Name of Towns				
		RT	GT	ST	AWT	Total
i.	Manholes	51,775	38,783	26,729	52,145	169,432

RT: Ravi Town, GT: Gulberg Town, ST: Shalimar Town, AWT: Aziz Bhatti Wahga Town

Length and size of sewer.

- Sewer line: 1,872.83 km

Sr. No.	Description	Total Length of Sewer in km				
		RT	GT	ST	AWT	TOTAL
i.	Length (Trunk + Lateral + submains)	533.53	343.18	450.80	545.32	1872.83

4. DUTIES AND RESPONSIBILITIES OF CONSULTANT:

The duties and responsibilities of the Consultants will include but not limited to the following:

- i. Consultant will prepare a comprehensive and logical action to carry out the Verification/Validation work and will present it to the Client.
- ii. The consultant would be required to physically verify hundred percent (100%) of machinery and its working hours.
- iii. The consultant would be required to physically verify hundred percent (100%) physical verification of staff and their working hours
- iv. The consultant would be required to physically verify hundred percent (100%) physical verification of fuel consumption.

- v. The consultant would be required to physically verify hundred percent (100%) physical verification of desilting of sewers at different sites.
- vi. The consultant would be required to monitor the implementation of planned schedule in all Towns.
- vii. The consultant would be required to prepare daily progress report.
- viii. Consultant will develop movies for the desilting processes and also will prepare & deliver fortnightly presentations regarding the desilting activities.
- ix. For the already done desilting work before hiring / mobilization of the consultant, the consultant will collect all the available data, reports, photographs, fuel consumed, working hours of the machinery and staff. The consultant will thoroughly examine the data and will ascertain the adequacy of the desilting work done on the basis of quality and quantity. They will also co-relate the data for the work done with the work being done to ascertain the accuracy of work done.

5. ROLE OF THE CLIENT:

- i. The Client will nominate coordinators i.e. who be authorized to approve the action plan / work plan proposed by the consultant and receive the consultants inspection report.
- ii. Client will provide all the data of its existing sewerage and drainage system to the consultant required for monitoring and Third Party Validation of desilting process.
- iii. Client will allow access to the consultant to its infrastructure where the verification and Third Party Validation is required.

6. REPORTING REQUIREMENT:

- i. Inception Report (Covering all the program, methodology for the task and proposed schedule-within one week).
- ii. Daily and Weekly Report.
- iii. Fortnightly report alongwith presentation.
- iv. Monthly Report.
- v. Final Report.
- vi. Evaluation report (5 hard copies and a soft copy) clearly specifying his observations and findings.
- vii. Recommendation / suggestions for improvement if any.

7. DURATION OF THE ASSIGNMENTS:

The Consultant will be required to complete the whole activities and furnish the final report in a period of three (03) months.

8. CORE TEAM OF THE CONSULTANCY:

The core team must have minimum relevant experience as described below:

Sr. No.	DESCRIPTION	NO. OF STAFF	MONTHS	QUALIFICATIONS
i.	Project Manager	1	0.5	B.Sc. Civil Engineering with at least 15 years experience.
ii.	Senior Engineer (Sewerage)	1	3	B.Sc. Civil Engineering at least 10 years experience.
iii.	Safety Engineer	1	3	B.Sc. Civil Engineering at least 05 years experience.
iv.	Inspectors / Quantity Surveyor	3	3	D.A.E. with at least 05 years experience.
v.	Cameraman/ Technician	1	3	D.A.E. Civil with at least 05 years experience.
vi.	Supporting Staff	6	3	Suitable qualification.