

जाहिर सुचना

उप आयुक्त (घनकचरा व्यवस्थापन विभाग), पनवेल महानगरपालिका हद्दीतील घनकचरा व्यवस्थापन प्रभावीपणे करणेकामी ट्रान्सफर स्टेशन बांधणे या कामाचे अंदाजपत्रक बनविण्याकरीता खाली नमूद केलेल्या बाबींकरीता बाजारभाव दरपत्रके मागविण्यात येत आहे.

अ.क्र.	कामाचे नाव	मुदत
१	पनवेल महानगरपालिका हद्दीतील घनकचरा व्यवस्थापन प्रभावीपणे करणेकामी ट्रान्सफर स्टेशन बांधणे.	१५/०९/२०२३ ते २२/०९/२०२३ (७ दिवस)

कामाचा तांत्रिक तपशील खालीलप्रमाणे आहे.

SR. No.	ITEMS	SPECIFICATIONS
ITEM NO. (01) Leachate Treatment Plant		
1	Leachate Treatment Plant	<p>Providing and supplying Leachate Treatment Plant of 30 m³/day based on MBR technology including transportations. as per specifications. The item includes all necessary accessories, fixtures and equipments required for installation of entire assembly etc. Complete. And Prior Approval of Engineering Incharge is necessary.</p> <p>The LTP shall be designed based on the following parameters: BASIC DATA ON RAW LEACHATE WATER :- pH : 8.0-9.0 (TSS) : 500 mg/lit BOD : 1800-1850 mg/lit COD : 7500 mg/lit O&G : 500 mg/l Amomical Nitrogen : 150 mg/lit TDS : 15000 mg/lit Total Nitrogen : 300 mg/lit TREATED WASTE WATER QUALITY :- pH : 5.5-9.0 (TSS) : <10 mg/lit BOD : <30 mg/lit COD : <250 mg/lit O&G : <10 mg/l TDS : <14500 mg/l Total Nitrogen : <10 mg/lit Amomical Nitrogen : <5 mg/lit</p>
Detail Specification for Leachate Treatment Plant		
SR. No.	COMPONENTS	DESCRIPTION
B		ELECTRO-MECHANICAL EQUIPMENTS
1		Supply, installation, testing & commissioning of 1 No. SS 304 Perforated, Coarse Type Screen with suitable Manual garbage lifting arrangement. Size: 300 mm X 400 mm MOC: SS-304 1 Nos Make: Fabricated

2	Supply, installation, testing & commissioning of Automatic Fine Screw screen made of MOC CS + SS 304 filtering screen in RCC screen channel as per following specifications. Flow Rate: - 1.5 m ³ /h 1 No. Type- 2-3 mm punch hole type Make: Auric/Micro/Eq.
3	Supplying, installing, testing & commissioning of Mechanical Oil Skimmer of suitable capacity along with 100-liter HDPE Oil Collection tank. Type: Belt Type Make: Universal/Eq.
4	Supply, installation, testing & commissioning of non clogging type Raw Influent transfer pumps having CI casing & CI impeller, SS shaft complete with delivery header and all accessories, motor of required capacity. pressure gauge on delivery line with isolation cock, level controller to control the level for provision to control the level of sump automatically. Pumps shall have followed duty: 2Nos.(1W+1S)
4.1	Raw Influent Transfer Pump Flow Rate: 1.5 m ³ /hr Head : 8-10 mtr Type : Submersible type pump Solid handling : 30 MM 2 Nos. Make: Wilo/Kirlosker/Eq. Purpose: For Influent transfer from Collection tank to Bar Screen
4.2	EQT Transfer Pump Flow Rate: 1.5 m ³ /hr Head: 8-10 mtr Type: Submersible type pump Solid handling: 30 MM 2 Nos. Make: Wilo/Kirlosker/Eq. Purpose: For Influent transfer from Equilization tank to Fine Screen
5	Supply, installation, testing & commissioning of Non clogging type centrifugal pumps capable of handling solids up to 8 mm having CI casing & CI impeller, CS shaft complete with all accessories, motor of required capacity, Pressure gauge on delivery line with isolation cock, level controller (with wiring) to control the level of sump automatically. Pumps shall have followed duty: 2 Nos.(1W+1S)
a	Sludge Recirculation pump Flow Rate: 6 m ³ /hr Head: 8-10 mtr Solid handling: 7 MM 2 Nos. Make: Wilo/Kirlosker/Eq. Purpose: For sludge transfer from MBR tank to Aeration tank and and sludge holding tank
b	Supply and fixing of horizontal centrifugal pumps. The pumps shall have CI- Casing & impeller & CS shaft & sleeve, Mechanical/Gland Pack Seal are connected to a TEFC induction motor Motor to be suitable for 400/440 V, 3 Phase, 50 cycles AC power supply, including all necessary piping, valves, accessories, level controller complete complete as required. Pumps shall have followed duty: 2Nos.(1W+1S) Flow Rate: 1.5 m ³ /hr Head: 8-10 mtr Make: Wilo/Kirlosker/Eq. Purpose: For suction of clear weater from MBR tank 2 Nos.
6	Air diffusion system
6.1	Supply, installation, testing & commissioning of 2 Nos. Twinlobe type rotary air blowers (1W + 1S), capable of delivering 125 m ³ /hr with free air at 0.5 kg/cm ² driven through "V" belt or directly coupled through flexible coupling to a TEFC motor of suitable HP Suitable for 415 ± 10% volts, 3 phase, 50 cycles A/C supply. Including foundation and foundation bolts work. (1W+1S) =1Set Make: Beta/Eqv. Purpose: For air supply to, Aeration Tank, EQT & SHT

6.2	Supply, installation, testing & commissioning of 2 Nos. Twinlobe type rotary air blowers (1W + 1S), capable of delivering 30 m ³ /hr with free air at 0.5 kg/cm ² driven through "V" belt or directly coupled through flexible coupling to a TEFC motor of suitable HP Suitable for 415 ± 10% volts, 3 phase, 50 cycles A/C supply. Including foundation and foundation bolts work. (1W+1S) =1Set Make: Beta/Eqv. Purpose: For air supply to MBR Module
7	Supply, installation, testing & commissioning of Non clog, Self Cleaning type air dispersion system capable of handling 3-5 cfm of air with oxygen transfer efficiency of 3-4% per / meter water depth. Air dispersion grid shall be assembled in modular form so that they can be replaced / repaired easily from plat form at the top.
7.1	Coarse bubble diffuser 1 Lot
7.2	Fine bubble diffuser 1 Lot Make: Airfin/Eq.
8	Providing and fixing all piping (as described below) including all fittings, ball valve, support for making the system complete. Upvc : Submerged air piping MS Epoxy : Air piping & pumped sewage riser (non-submerged) Upvc/MS Epoxy : Interconnecting pipe line after delivery header of pump/filter 1Lot Make: Jinda/Zoloto, uPVC: Astral
9	Supply, installation, testing and commissioning of MBR Module 0.04 micron pore size with all required accessories. Type: Hollow Fiber Purpose: For physical seperation of solid waste particles from water 1Set Make: Suez/DOW/Eq.
10	Supply, installation, testing and commissioning of Basket Centrifuge with all fittings & accessories. Basket diameter should be 500 mm with Poly Dosing system. (Manual Operation) 1 No. Purpose: For Drying of Sludge Make : Apollo/Eqvt
11	Supply, installation, testing and commissioning of Centrifuge Feed Pumps Complete with all fittings & accessories. Including foundation and foundation bolts. (2Nos.- 1W+1S) Capacity : 1 m ³ /h Head : 10 mtr MOC : CI Purpose: For feed of sludge to Filter Press 2 Nos. Make: Wilo/Kirloskar/Eq.
12	Supply Installation Testing & Commissioning of Agitator with SS 304 Shaft of required capacity to be installed in mentioned below tanks with all fittings and support. 12.i Flash Mixer Tank Agitator - 100 RPM 1 No. 12.ii Flocculation Tank Agitator - 40-50 RPM 1 No. Make: Fabricated By PTBr
13	Supply, installation, testing & commissioning of Chemical dosing system (Lime and Alum) comprising of 100 ltrs LDPE tank with 0-12 LPH electronic metering type pump. 2 Set Make: Asia LMI/Eq.
14	Supply, installation, testing & commissioning of Poly dosing system comprising of 100 ltrs LDPE tank with 0-6 LPH electronic metering type pump. 1 Set Make: Asia LMI/Eq.
15	Supply, installation, testing & commissioning of Chlorine dosing system comprising of 100 ltrs LDPE tank with 0-6 LPH electronic metering type pump. (Location- Treated Water tank for disinfection purpose) 1 Set Make: Asia LMI/Eq.

16		Anaerobic Media(SAFF Media) in anaerobic tank Supply, installation, testing & commissioning of SAFF media anaerobic digestion of high COD/BOD. Size: 600 X 600 X 1200 mm MOC-PP/PVC Sheet Thickness- 3-4mm Make- PTBr/Eqvt
C		ELECTRICAL AND INSTRUMENTATION
1		Design, fabrication, assembling, wiring, supply, installation, testing and commissioning of motor control centre od non-compartmentalized type fabricated out of 14/16 gauge CRCA sheet steel. Cable gland plates shall be provided on top as well as at the bottom of the panels. Panels shall be treated with all anticorrosive process before painting as per specifications with 2 coate of red oxide primer and final approved shade of powder coated paint. 2 Nos. earthing terminals shall be provided for 3 phase, 4 wire, 50 Hz supply system. Lifting hooks shall also be provided in case of large panels. Approval shall be taken for each panel before fabrication. MCC -1 (Leachate Treatment Plant) 1 Nos. Make : PTBr -CPRI Approved
2		Cable & Cable trays Suppy, installation, testing & commissioning of Cable and GI cable trays as required to complete the electrical connection with all equipments. Make : Cable- Polycab & cable tray- Super steel 1 Lot.
3		Suppy, installation, testing & commissioning of electro-mangnetic type flow meter at inlet of raw sewage transfer pump and outlet of permeate pump. Make: Aster / Electronet/Eq. 1 Nos. Purpose : To Measure flow quantity with time
4		Supply, Installation, Testing & Commissioning of float type water level indicator for operation of the system connected to control panel for automatic switching ON / OFF of each pump. Make: Minilec/Cirrus/Eq. 1 Lot. Purpose : For control level of Influent in tank
5		Supply, Installation, Testing & Commissioning of pressure gauges with in all respect Make: H Guru/Eq. 1 Lot. Purpose : For Measure & Indicate the pressure into vessel
6		Supply, Installation, Testing &Commissioning of Air rota meter for air flow calculation. Make- Microflow/Eq. 2 Nos.
7		Supply, Installation, Testing &Commissioning of pH meter at Hopper bottom tank. Range- 0 to 14 Make- Aster/Eq.

SR. No.	ITEMS	SPECIFICATIONS
ITEM no. (02) Transfer Station Tip Cart Unit		
Detail Specification for Transfer Station Tip Cart Unit		
SR. No.	COMPONENTS	DESCRIPTION
1	Transfer station capacity	200 MT/day (appx)
2	Expected volume of garbageTipper's of D2D system	1 MT (appx)
3	Present tonnage of incoming garbage Appx. /Day: -	100 MT/day (appx)

4	Density of incoming refuse (variable)	0.4 MT/cu.mt.
5	Operating hours of refuse transfer station	24 hours (as per PMC)
6	Present peak hour time	8 a.m. to 12 a.m. & 2.00pm to 6.00 pm
7	compacted garbage density required	0.7 - 0.8 T/cu.mt.
8	No. Of unloading bays per unit (RTS) at present	2 Pcs / RTS.
Transfer Station Stationary Compactors		
		The tenderer shall design the compaction unit so as to achieve minimum 0.7 to 0.8 T/M3 density of compacted garbage. The Refuse transfer station compactor shall be capable of handling garbage having the characteristics as shown in appendix. The proposed Refuse transfer station compactor shall have cycle time of 45-60 seconds with minimum charge box area of 3 M3. Container compaction time should not be more than 24-26 min. for 20 CuM containers. The Refuse transfer station static compactor shall be capable of handling minimum 35 Mt/Hr garbage.
		The compaction unit shall be the proven & established product of the principal manufacturer & shall be tested for relevant characteristics. The test certificates shall be produced prior to supply as well as after the test-run before final commissioning of the units. The successful tenderer shall complete the work of supply, installation, testing and commissioning of the Stationary compactor System with Hopper and required accessories etc. Other Requirements are given below.
	Compaction Chamber Volume	3m3
	Compaction cycle time	40-45sec
	Theoretical volumetric capacity	263m3 /h
	Normal pressure	26Mpa
	Max pressure	30Mpa
	Normal compaction force	320kN
	Max compaction force	370kN
	Power	Min.15kW
	Distance into container	Min 500MM
	Voltage	440V
	Compaction Density	0.7 -0.8t/m3
	Compaction chamber floor plate	Min.8mm Hardox or equivalent
	Ram plate	Min.8mm Hardox or equivalent

	Rear tipcart lifting capacity	2500Kg
Container - handling unit (door lifting, push pull system and claw mechanism)		
		The transfer station compaction unit shall have hydraulically operated container handling unit to align the container & refuse transfer station compactor unit in proper position to avoid spillage of waste during compaction.
		Container handling unit shall have arrangement for lifting the rear side sliding door of the container using its hydraulic system.
		The container-handling unit shall be the proven & established product of the principal manufacturer & shall be tested for relevant characteristics. The test certificates shall be produced prior to installation as well as after the test-run before final commissioning of the unit.
		The transfer station compaction unit shall have hydraulically operated container handling unit to align the container & refuse transfer station compactor unit in proper position to avoid spillage of waste during compaction.

SR. No.	ITEMS	SPECIFICATIONS
ITEM NO. (03) Transfer Station Hopper and feeder arrangement		
SR. No.	COMPONENTS	DESCRIPTION
1		The tenderer shall provide 6mm thk mild steel hoppers at the transfer station having garbage holding capacity as per present one at site. Hopper capacity should be approx..25cum
2		The hopper opening area at the top shall be designed in such a way that garbage should not come out while unloading the Equipment's.
3		The hopper shall be well supported by MS structure of appropriate size to take self weight and weight of the garbage. The design and drawing for the structure shall be submitted by the successful tenderer.
4		The hopper and feeder arrangement shall be painted with epoxy / corrosion resistant paint. Color shed will be as per the requirement of PMC.
5		Hopper shall be having 3 side railing system at the top from where garbage will be dumped inside it. All joints of the hopper must be supported with required MS materials and quality of welding shall be good for better life and working.

SR. No.	ITEMS	SPECIFICATIONS
ITEM NO. (04) 20CuM MS Container for Garbage transportation		
1	20CuM MS Container for Garbage transportation	The closed top, rear loading type container will be compatible with Hook loader as well as stationary compactor to be installed at transfer station. The container will have rear door opening by ratcheting arrangement for loading refuse at processing site. it shall also have mechanical locking arrangements to lock them with stationary compactor while loading the refuse. 20cum container made of IS2062 E350Grade steel with suitable mechanical ratchet locking, sliding door, heavy duty container roller and hook loader lifting hook. The Container would be used for storage and transportation of compacted of municipal solid waste. Container should be of 20 CuM volumetric capacities. The lifting hook shall be integrated within the frame and be capable of taking specified load. Container shall have arrangement to collect leachate forming during compaction. Container Shall have upward sliding door (Guillotine) arrangement. It shall be having proper sealing also.

Detail Specification for 20CuM MS Container for Garbage transportation		
SR. No.	COMPONENTS	DESCRIPTION
1	Container Volume	20cum
2	Shape	Cylindrical
3	Dimensions (Overall)	6000(L)X2350(W)X2498(H)Approx
4	Floor Thk	6MM
5	Side Wall Thk	4MM
6	Weight	Approx.4200kg
7	Hook Rod Dia	50mm dia
8	Rachet Lock	provided
9	Roller	2nos -Heavy duty roller on Rear sides
10	Reinforcement	provided
11	Painting	The inside of container to be coated with two coat black color and Bottom of the container shall also be painted with black anti corrosive paint. The outside shall be painted as per customer requirement with minimum one coat of first quality synthetic paint to ensure long lasting structure suitable for handling raw garbage under corrosive conditions. Prior to painting coat of anticorrosive zinc rich primer shall be applied as per the paint manufacturer standard. The supplier should paint number on container and messages on the body color code shall be different for dry waste & wet waste container as per customer requirement.

SR. No.	ITEMS	SPECIFICATIONS
ITEM NO. (05) Hookloader with t chasis		
1	Hookloader with t chasis	The hook loader equipment mounted on a truck chassis (HLE) shall be used for lifting loading the closed containers (General 20 cum vol capacity) and discharging the solid waste materials like garbage, garden waste and other like refuse materials by lifting the container at the desired location. The hydraulically operated HLE Shall be capable of loading unloading the steel container on/from chassis having by hooking and rolling on/off principle. HLE shall be capable of enough to handle the load of 20 MT with at least 10% safety factor. HLE shall be provided with an arm type hook mechanism for loading and unloading the container. The HLE will have a control frame assembly located with an outer structure to handle and to tip the container. It shall have telescopic jib with heavy duty hook. Two main rams for lifting/tipping standard containers locking arrangement, hydraulic pump, stabilizers and other by hydraulic element as per functional needs. The hydraulic pump will be driven by the vehicle engine gearbox throw the power take off (PTO) unit. A pair of roller assembly located at the rear end of the container will facilitate and guide the main beam sections of container during loading/unloading of the container. Necessary safety locking arrangement (Mechanical) shall be provided to lock the container with the HLE. Tipping operation of the container shall be done after effective locking. All safety control like holding valves, check valves/relief valves, electric hydraulic / Pneumatic functional interlocking arrangements will be provided for operational reliability. It shall have all required hydraulic connections for loading-unloading-locking-emptying of the container. All control levers shall be provided at a convenient location for operation.

Detail Specification for Hookloader with T chasis		
SR.	COMPONENTS	DESCRIPTION
1	HLE Capacity/Model	T22/L6000
2	Hyd pump capacity	80LPM
3	Operating Pressure	310 Bar
4	Hyd Tank Capacity	100 Liters
5		The hook loader should be mounted on Truck Chassis of 28 T GVW (6X4) of TATA/Ashok Leyland/Eicher or equivalent. The Chassis should be with Non-Sleeper Driver Cabin fitted with PTO and Hydraulic Pump. Other requirements are given below.
6	Chassis GVW	28Ton
7	Engine HP	Min 200
8	Suspension	NRS
9	Wheelbase	5000 to 5050mm

SR.	ITEMS	SPECIFICATIONS
ITEM NO. (06) Weigh Bridge		
1	Weigh bridge	Fully Electronic 20T - 7.5 x 3 mtr Appro. - Modular Pit less Type Weighbridge (Capacity - 20T, Accuracy - 2Kg), along with 4 nos of separate steel structure, 6 nos. of Multiended Shear Beam Digital Load cell, Digital Indicator, Jumbo Display, Junction Box, Printer, Printer Cable, UPS without battery. Weighing bridge at appropriate location to register entry and exit of vehicles. RFID tags on hook loader vehicles. RFID tags on containers, RFID reader at transfer station, Integration with cameras to capture image of vehicle (along with number plate) entering & existing transfer station. System should be able to capture all the following attributes but not limited to at the time of weighing and printing of weighing slip.

SR.	ITEMS	SPECIFICATIONS
ITEM NO. (07) Container change over system		
1	Container change over system	Container change over system is used to move the containers automatically from the compactor on a changeover system to storage (buffer) more containers (empty or full) at the station. The device can be driven by a hydraulic cylinder. A hook-loader vehicle takes the full container onto or load an empty container on the change-over bed, at the same time the compactor can continuously load the container with waste. Power Driver System - The components are constructed from reputed global brands. The system is integrated in the rear of the compactor. Optimized the system by LESS valves, and positioned outside for better serviceability. Crusher cylinder support was relocated to the middle, which significantly improve the lifetime of the machine. The Leachate collection chamber should be provided inside the container which functions as sewage storage tank. Sewage collection tray installed on the compactor to collect and guide the sewage to the disposal. Ball valve on the container for drain during the compaction must be provided.

- १) सीलबंद निविदा दि. २२/०९/२०२१ रोजी दुपारी ३.०० वाजेपर्यंत पनवेल महानगरपालिकेच्या घनकचरा व्यवस्थापन विभागात स्विकारण्यात येतील.
- २) प्राप्त झालेली दरपत्रके शक्यतो दि. २५/०९/२०२१ रोजी दुपारी ३.३० (शक्यतो) वाजता उपस्थित ठेकेदार यांच्या समक्ष उघडण्यात येतील.
- ३) अटी व शर्ती युक्त निविदांचा विचार केला जाणार नाही.

सही /-

उप आयुक्त

घनकचरा व्यवस्थापन विभाग

पनवेल महानगरपालिका

जा.क्र पमपा/घकवि/२५२३/प्र.क्र.२८८/८४५/२०२३

दि. १५/०९/२०२३

प्रत माहितीस्तव —

१. प्रसिध्दीकरीता
२. माहिती फलक करीता