



OFFICE OF THE
MUNICIPAL COMMITTEE
BUREWALA

No. 1044/MC(B)

Dated: 17/9/2022

WORK ORDER

To,

Sumico Technologies, Pvt, Ltd,
185/J-1 M.A Johar Town
Lahore

Subject: **PROVISION OF MACHINERY & EQUIPMENT FOR IMPROVEMENT OF SOLID WASTE MANAGEMENT IN BUREWALA CITY"**

Reference:- Your Tender/Bid Dated 22.06.2022 for the work cited above being lowest is approved by the competent authority at a cost Rs.81124800/- (Eight Crore Eleven Lac Twenty Four Thousand Eight Hundred only) with completion period up to 20.01.2023, on following rates, terms & conditions, this is pertinent to mentioned that 21.07.2022 signing dated of contact agreement considered as date of commencement, subject to strict financial regularities and codal formalities.

Sr. No	NS	Description	Unit	Quantity	Rate	Amount
					Rupees	Rupees
1	NS	<p>Loading rikshaw 200cc with Hydraulic unloading complete</p> <p>Model-200ccmotor cycle rikshaw Loading capacity-2000kg Trolley outer size-87"x53"x19/31" Endine-200cc water cooling (4 Forward & 1 Reverse Gear) Power machine Engine. Brake system-Rear hydraulic Leather brake with parking brake -Front,Mechanical. Main features-Heavi duty front shock absorbers,Rear suspension Leaf spring with shock absorbers. Tyre-5-00-12 ULT 10 Ply Starting system-Arm Assy kick/self start Fuel Tank- Minimum 10 liters Battery-12 Volt</p>	Each	12	398,900	4,786,800
2	NS	<p>TRUCK MOUNTED GARBAGE COMPACTOR 8.0 m³</p> <p>Capacity/Cab- Rigid cab all structural steel welded construction reinforced with beams in doors including air conditioning. The cabin shall be factory built, beautifully designed, elegantly styled and comfortable finished. It shall have seating capacity for 3 persons (including driver). Frame-Ladder-shaped "I" channel section made of high strength structural steel Authority letter from chassis manufacturer describing that it is in operation in Purchaser's country for at least eight (8) years shall be attached with the bid.</p>	Each	4	4398500	17,594,000

	<p>Body Capacity 8.0 m3 Excluding Hopper</p> <p>Body Material- DIN ST52, JIS SS 400, equivalent or better grade steel</p> <p>Body floor -4.00~6.00 mm If steel grade used is of yield strength more than 340Mpa, only then 4 mm thickness shall be allowed for Body floor. For DIN ST52 or equivalent material, 5.00 mm plate shall be used.</p> <p>Body Roof 3.00 mm</p> <p>Body Side Plate 4.00 mm Stiffeners to be provided and these shall be full-seam welded on the body if required.</p> <p>Safety Bars Locking & Sealing-2 Nos. Safety Bars under the hopper for maintenance. Hydraulic locking by means of two hydraulic tailgate lifting cylinders which shall also prevent the leakage of the wastewater.</p> <p>Control Valves-Solenoid/Electromechanical valve with safety relief valve for operation from hopper side for press & pack cylinders and on driver side of chassis for Dumping / Ejection Operation.</p> <p>PTO-2 Gear type operated through Electro-vacuum actuator from Cab. This shall be close coupled with Hydraulic Pump.</p> <p>Hydraulic Pump-Pump shall be close-coupled with PTO 50-55 cc / rev. Piston type. The operating pressure shall be minimum 180 bars and Max. Pressure 350 bars.</p> <p>Hydraulic Cylinder Double Acting Type-There shall be 8 units of hydraulic double acting cylinders; 4 Nos for Press & Pack plate, 2 Nos for hopper lift and 2 Nos for Bin lift with honed tube and chrome plated rod as per applicable ISO and SAE Standards. The dimensions of cylinders shall be designed to accomplish the stipulated cycle times and compaction ratio. The cylinder shall be warranted for 02 years.</p> <p>Hydraulic Oil Tank-Hydraulic Tank. Capacity min. 75 liters, equipped with line return filter, suction filter, level & temperature gauge & breather cap.</p> <p>Hydraulic Hoses-All high pressure hydraulic oil hoses shall be double braided according to SAE and shall have a burst pressure rating 2 times the working pressure. The hoses in motion are covered and Protected by steel wire.</p> <p>Operation-Auto Cycle with Electro microprocessor control with manual option shall be provided. The system shall be equipped with emergency stop for safety. The operational control shall be placed on driver side with proper weather protection. Following options shall be available: Auto Continuous: With this option the hopper operation shall continuously operate until stopped. Manual: With this operation each action can be done separately by push buttons. Manual override. Manual override shall be provided in each valve for operation</p>			
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The system shall be controlled from the PLC control box, which enables start, stop, 1 cycle, continuous cycles, and rescue activities. Tailgate and ejector controls shall be in front side of the body. All devices for loading control shall be mounted on tailgate right side, and all shall be manual control for safety purposes. Compaction shall be controlled electrically via push buttons, and manually whenever required. An emergency stop button shall be provided on each side of the truck on the control panel.

Ejection / Hopper Lift Operation-Solenoid operational Control be placed on driver side of body with emergency shut off for safety.

Water Tank-One tank of minimum 100 liters capacity under the hopper and other tank of minimum 70 liters capacity under the floor with discharge facility complete in all respects.

Mudguards-Two steel mudguards with rubber flaps at rear ends.

Foot board-Two foldable type rear footboards for crew to stand.

Handles-One handle at each side ¾" pipe handle for the crews to grasp.

Service and maintenance-An authorized sales and service point for the truck brand shall be nominated

Frame Compactor-• Sub frame should be integral part of the container floor reducing total body weight.

- Oil tank shall be built into the compactor container for modern look and reduced build length.
- Container and compacting parts shall be made of high grade steel for intensive use.
- Hopper construction should be made from hard Steel wear plates with high strength and high hardness such as Hardox, Abrazo or equivalent. The ejector plate slides shall be special heavy duty sliding blocks for smooth operation and low maintenance cost.
- Water tight sealing shall be provided between body and tailgate.
- Self-cleaning function shall be present in hopper during unloading.
- Drain valves shall be available for convenient emptying of waste liquids from the body and the hopper.
- The following items shall also be provided in the vehicle:
 - Integrated sewage tank
 - Rear lights mounted on body.
 - Automatic release/engage tailgate lock.
 - Both sides emergency shut-off switches

Cab Exterior-• Color of Cab: As approved by the Employer • Labelling: Logo, Motives and other labelling in both English and Urdu on both sides of the tank as per approval of the Employer. • Front mirror • Kerb mirror

		<p>Cab Interior • Driver's seat with spring loaded type, seat belt and Co-drivers seats for 2 persons.</p> <ul style="list-style-type: none"> • Air conditioning system with temperature control without CFC and HCFC • Instruments: Approved Tracking device, operational (fees paid) for the year in which the unit will be supplied to the Employer, Fuel Level monitor, Battery Condition & Water Temperature, Routing transmitter for tracking system. The vehicle tracking system, as a minimum being capable to monitor speeding, harsh braking, mileage, etc. <p>Lights • Standard twin headlights for right-hand traffic</p> <ul style="list-style-type: none"> • Two (2) standard revolving beacons on cab roof left and right; yellow; • One (1) Standard revolving beacon on roof back side of vehicle; yellow • Protective grid: Hazard-warning lamps; synchronic blinking <p>Safety Equipment and Drive-According to Pakistan Law on technical conditions of vehicles</p> <p>Supplements • First aid kit and safety equipment as required according to Pakistan legislation</p> <ul style="list-style-type: none"> • Tool set (jack and spanner for change of wheel) • Side and rear protection for truck. • A Spare wheel (mounted on suitable place on the truck chassis) 				
3	NS	<p>Mini tipper 1.0 cubic meter superstructure</p> <p>Container Volume One Cubic Meter (Approx.) Authority letter from chassis manufacture describing that it is in operation in Purchaser's country for at least eight (8) years shall be attached with the bid.</p> <ul style="list-style-type: none"> • Body Sides shall be made from minimum 3 mm thick of material ASTM A 36, equivalent or better grade steel sheets corrugated for additional strength without increasing the weight of the body. The container shall have round profile near the floor joint to avoid corrosion and to assist the emptying of the container. • Body Floor shall be made from minimum 4 mm thick of material ASTM A 36, equivalent or better grade steel. The floor shall be single piece for corrosion protection and built-in cab protector shall also be provided. • Floor Stiffeners shall be minimum 3 mm thick of material ASTM A 36, equivalent or better grade steel "U" profile stiffeners shall be provided throughout the length of the floor for strengthening the floor. 	Each	3	723000	2,169,000

<ul style="list-style-type: none"> • 5 mm thick Robust Hydraulic cylinder mounting brackets duly reinforced with mounting bracket plate (to avoid point load on the container) shall be provided. • Two pivot brackets duly reinforced with 5mm thick Gussets shall be provided. • All steel surfaces shall be applied with two coats of Zinc-rich Epoxy primers to give protection against rust and corrosion to enhance the design life, and one final coat outer side using 2- component polyurethane paint of min. 200 microns DFT in the color shade approved by Employer/Engineer. The paint shall be applied after sand/shot blasting to SA 2.5. • Sub Frame: Rectangular Pipes 1.5 x 3 inch having thickness of 5 mm, suitably mounted on the pickup chassis. The Frame shall be mounted on the same cargo deck brackets originally installed by OEM to maintain strength of the chassis. Sub frame shall be attached to the chassis with High Tensile strength Nuts and Bolts. The canvas rubber Padding shall be provided. 			
<ul style="list-style-type: none"> • Sub Frame Pivot Brackets 8mm thick of material ASTM A 36, equivalent or better grade steel brackets shall be provided with Bi-Metallic Bushes for retaining lubrication. All lifting pins shall be equipped with grease nipples and spiral grease pathways to increase the productivity and design life of the structure. 			
<ul style="list-style-type: none"> • Tipping Angle shall be minimum 70 degrees which shall allow complete emptying of the container. 			
<ul style="list-style-type: none"> • Tipping Height of the body shall allow the waste to be emptied into a standard hopper of the compactor of 8.0 cubic meter capacity 			
<ul style="list-style-type: none"> • Paint: All steel surfaces shall be applied with two coats of Zinc-rich Epoxy primers to give protection against rust and corrosion to enhance the design life, and one final coat outer side using 2- component polyurethane paint of min.200 microns DFT in the color shade approved by Employer/Engineer. The paint shall be applied after sand/shot blasting to SA 2.5. 			
<p>Hydraulic System-Hydraulic Power Pack Hydraulic Pump: 2.1~2.5 cc/rev., DC Motor 1500 w, Tank Capacity = 7~10 Liters (+/- 10%) Operating Pressures: 100~140 bars Hydraulic Fittings: High quality galvanized hydraulic fittings for leak free operations.</p> <ul style="list-style-type: none"> • Hydraulic Hoses: Double Braided SAE 100 R2 (min.) hydraulic hoses with burst pressure twice as much as the working pressure. • Hydraulic Lifting Capacity: 1200 Kg minimum using a hydraulic double acting cylinder. 			

	<p>Hydraulic Lifting System</p> <ul style="list-style-type: none"> • Lifting Cylinders: Double acting hydraulic cylinders made from hard chromed rods and honed tubes shall be provided. Hydraulic seals suitable for local abeling shall be provided for efficient and long life of the cylinders. All Hydraulic Cylinders shall be equipped with hose burst protection; by means of Pilot operated check valves. • Stabilizing Cylinders: 2 Nos. Double Acting Hydraulic Cylinders made from Hard Chromed Rods and Honed Tubes with hydraulic Seals for efficient and long life of the cylinders. • The honed tubes, chromed rods, hoses and hydraulic seals shall be as per applicable ISO and SAE Standards <p>Electrical System</p> <ul style="list-style-type: none"> • 12 Volt DC Electrical System, Weather Proof Control Panel with high quality imported switches with Single action tipping operation. • Operating Buttons placed on side of the vehicle <p>Accessories</p> <p>Mudguards: Two MS mudguards with rubber flaps at the rear end. Reflective strips on the rear end of the mudguards.</p> <ul style="list-style-type: none"> • Rotating Beacon: One Rotating Beacon Light on the cabin. • Working Light: One working light for night time operations. Grill shall be provided for Rear Lights for protection. <p>Color: As per Employer/Engineer's approval</p> <p>Visibility: Color and Labelling in English and Urdu on front and sides with Logo, Motive, slogan</p>			
4	<p>Cab Exterior • Color of Cab: As approved by the Employer • Labelling: Logo, Motives and other labeling in both English and Urdu on both sides of the tank as per approval of the Employer. • Front mirror • Kerb mirror</p> <p>Cab Interior</p> <ul style="list-style-type: none"> • Driver's seat with spring loaded type, seat belt and Co-drivers seats for 2 persons. • Instruments: All standard & necessary instruments and meters for safe operation of the vehicle <p>Lights</p> <ul style="list-style-type: none"> • Standard twin headlights for right-hand traffic • Two (2) standard revolving beacons on cab roof left and right; yellow; • One (1) Standard revolving beacon on roof back side of vehicle; yellow • Protective grid: Hazard-warning lamps; synchronic blinking <p>Safety Equipment and Drive • According to Pakistan Law on technical conditions of vehicles.</p> <p>Supplements • First aid kit and safety equipment as required according to Pakistan legislation</p> <ul style="list-style-type: none"> • Tool set (jack and spanner for change of wheel) • Side and rear protection for truck. • A Spare wheel (mounted on suitable place on the truck chassis 			


5	NS	<p>Garbage Container 0.8 m3 capacity</p> <p>The rectangular garbage container shall be provided with overall 0.8 m3 capacity. The material of the container shall be hot dip galvanized iron (GI) as per ISO 1461 or ASTM A123. Thickness of the main body shall not be less than 3 mm and thickness of top lid shall not be less than 2 mm. The container dimensions shall be approximately 1200mm x 1200mm x 800mm (±5%). The container shall be provided with six (6) nos. Teflon/steel wheels with NTN, SKF or FAG bearings and a wheel locking mechanism to prevent movement when placed at a location</p>	Each	423	77700	32,867,100
6	NS	<p>WASTE TIPPING TROLLEY / HAND CART 0.4 ~ 0.5 M3 CAPACITY</p> <p>The handcart shall be provided for household waste collection. Capacity of the cart shall be 0.4-0.5 m3 and it shall be suitable for handling by single person. The material of the handcart shall be galvanized iron as per ISO 1461 or ASTM A123. Thickness of the sheet shall not be less than 2 mm. The bucket / pan shall be supported with stiff suitable size frame made from angle iron fames of ¼" thickness and the substructure will also be fabricated from the same thickness of angle iron with suitable size to make it robust and sturdy</p> <p>Waste Tipping Trolley The Handcart is provided for household waste collection.</p> <p>Capacity 0.4 ~ 0.5 M3 of house Hold Waste</p> <p>Construction Bucket made with G I Sheet 1.2 mm Base Pipe box 100x50 mm Handle Pipe dia 32 mm</p> <p>Wheels 2 Nos. Inflatable Side Wheels dia 560 mm 1 No. Inflatable Rear Wheel dia 305 mm Solid Axle Rod Dia 30 mm</p> <p>Overall Dimensions Length = 1700 mm (approx.) Width = 1100 mm (approx.) Height = 1200 mm (approx.)</p> <p>Bucket Dimensions Length = 1550 mm (approx.) Weight = 600 mm (approx.) Height = 870 mm (approx.)</p>	Each	100	74500	7,450,000
7	NS	<p>Three wheeled handcarts with adjustable height compatible with 0.8 cubic meter containers</p> <p>The rectangular garbage container shall be provided with overall 0.8 m3 capacity. The material of the container shall be hot dip galvanized iron (GI) as per ISO 1461 or ASTM A123. Thickness of the main body shall not be less than 3 mm and thickness of top lid shall not be less than 2 mm. The container dimensions shall be approximately 1200mm x 1200mm x 800mm (±5%). The container shall be provided with six (6) nos. Teflon/steel wheels with NTN, SKF or FAG bearings and a wheel locking mechanism to prevent movement when placed at a location.</p> <p>Capacity 0.4 ~ 0.5 M3 of house Hold Waste</p>	Each	27	74700	2,016,900

		Construction Bucket made with G I Sheet 1.2 mm Base Pipe box 100x50 mm Handle Pipe dia 32 mm				
		Wheels 2 Nos. Inflatable Side Wheels dia 560 mm 1 No. Inflatable Rear Wheel dia 305 mm Solid Axle Rod Dia 30 mm				
		Overall Dimensions Length = 1700 mm (approx.) Width = 1100 mm (approx.) Height = 1200 mm (approx.)				
		Bucket Dimensions Length = 1550 mm (approx.)Weight = 600 mm (approx.)Height = 870 mm (approx.)				
8	NS	Arm Roll Container 5 m3 The 5 m3 Container is manufactured from Mild steel and are compatible with Arm Roll vehicle having following features: - i. Body Size 5 M3 ii. Body Type Open type with full opening of back door, to allow easy dumping iii. Body Construction All welded mild steel construction to match with Arm Roll Vehicle. a. Floor Floor Fabricated with 6 mm thick MS sheet, reinforced by channels. b. Sidewalls Side walls fabricated from 3 mm thick MS Sheet, reinforced by channels. c. Back Door Back Door fabricated from 3 mm thick MS Sheet, reinforced by channels. d. Front Front side fabricated from 4 mm thick MS Sheet, reinforced by channels. iv. Lifting Hook Made from 50 mm dia, high carbon steel bar welded with brackets of 12 mm thick MS Plate v. Hook Plate Made from M S 10 mm thick. vi. Lifting Locks The container is to be equipped with Locks. vii. Main Frame C Channel made from 7 mm thick viii. Support Channel 50 x 100 x 50 mm (2.5 mm thick) ix. Wheels Support caste steel wheels at rear end, dia 150 mm x. Support Leg Box Fabricated from 4 mm thick M S sheet. xi. Color One coat of Red Oxide with 2 coats of enamel pain, color as per choice of customer. xi. Color One coat of Red Oxide with 2 coats of enamel pain, color as per choice of Engineer incharg	Each	30	474700	14,241,000
		Total				81,124,800

TERM & CONDITIONS:-

1. The contractor has to submit copy of memorandum/partnership deed attested by a competent authority and power of attorney in Original in favour of authorized partner if any to receive the payment on your behalf and carry out instructions of the Engineer incharge.
2. The work shall be carried out strictly according to the provision made in the technically sanctioned estimated.

3. No claim for increase or decrease in scope of work shall entertained.
4. No claim/payment of increased in the rate of material or above in the market due to any reason will be claimed/entertained.
5. The Municipal Committee, Burewala will not accept any responsibility for loss accrued due to interruption of work as result shortage or delay in supply of material and or other input required for completion of work.
6. The rates approved are for this specific project only. There are not be applied on other work anywhere else.
7. No deviation of quantities of items to be executed by the contractor shall be made without prior approval of the competent authority
8. It will be exclusive responsibility of the contractor to complete the work according to specifications.
9. As you accept the above cost of bid according to quoted rates terms and conditions you should contact concerned Sub Engineer for getting demarcation for the commencement of work immediately.
10. Payment will be made after clearance of the consultants as per policy in vogue and no secured advance/Advance payment will be made as per clause approved bid document.
11. You are liable to abide by all terms and condition contained in Bid/contract form work rules and also/ instructions issued time by time as per local Govt, Department Government of the Punjab.
12. Manufacturer shall be responsible to receive vehicle chassis from Municipal Committee, Burewala and after completion of work shall return it to the Office of Municipal Committee, Burewala.
13. The payment will be made on the availability of funds PCP Project.
14. Pre inspection of machinery will be conducted prior to delivery.



Chief Officer
Municipal Committee
Burewala

No. & Dated Above.

A copy is forwarded for information to:-

1. The Administrator, Municipal Committee, Burewala
2. The Director Project (PCP) PM&FC, Lahore
3. The Team Lead JERs Consultant, Lahore
4. The Municipal Officer (I&S) Municipal Committee, Burewala
5. The Municipal Officer (Finance) Municipal Committee, Burewala
6. The Resident Assistant Director (Audit & Accounts), Municipal Committee, Burewala
7. Sub Engineer, Municipal Committee, Burewala