

# TERMS OF REFERENCE

## TENDER DESCRIPTION: SUPPLY AND DELIVERY OF A MEDIUM PUMPER WITH EQUIPMENT FOR THE WEST RAND DISTRICT MUNICIPALITY

### 1 INTRODUCTION

**Bids are invited from suitably qualified service providers to submit proposals for Supply and Delivery of a Medium Pumper with equipment for Public Safety Rescue and Fire Services for West Rand District Municipality in line with the principles of the National Fire Protection Association (NFPA) 1971.**

### 2. DELIVERABLES /SPECIFICATION

## MEDIUM PUMPER

- Specifications: Medium Pumper: W.R.D.M
  1. The vehicle must be a 4 x 4 All terrain medium pumper.
  2. The vehicle must be easy to use.
  3. Simplicity of operation.
  4. Total road stability at high speed.
  5. Spare parts and aftersales service must be locally available
- Engine and Gearbox
  1. Local engine for ease of maintenance and availability of spare parts and after sale service.
  2. Diesel engine 6 cylinder Water cooled.
  3. Clutch: Single plate dry clutch.
  4. Gearbox / PTO: 6 Speed / hydraulic inboard retarder.
  5. Steering: Power steering (150 bars).
  6. Brakes: Front axle: drum brakes, rear axle: Drum brakes dual circuit air brake: 10 bar
  7. ABS.

8. Tires: 10R22.5.
  9. Rims: Steel Rims 7.50 x 22.5.
  10. Fuel tank: 200 L.
  11. GVM: Should not exceed 16 000 kg
- **Pump and Roll**
    1. Pump and roll feature to be restricted to Low Range.
  - **Cab**
    1. Double Cab: Driver, operator and 4 crew.
    2. Rear Bench must have walk away SCBA brackets and brackets for 6 spare cylinders.
    3. Heavy duty brush Guard and 4 ton electric winch.
  - **Mud flaps**
    1. Heavy duty mud flaps.
  - **Apparatus body**
    1. The body must be built from aluminum to have a high strength to weight ratio to allow more equipment carrying capacity. The body must be corrosion resistant.
    2. The underbody cross members must be constructed from aluminum I beams.
    3. A hose bed must be provided; as well as a Rear access step.
  - **Compartments**
    1. Side: three full compartments on either side of the vehicle.
    2. Rear: House the pump and pump Panel.
    3. Drain holes must be provided in each compartment.
    4. Equipment in compartments must be accessible to shorter members.
  - **Rollup doors**
    1. The doors must be countered balance.
    2. A full width Latch bar is necessary for use with heavy gloves the doors must be manufactured from aluminum.
    3. Securing must be done with a positive latch method.
  - **Pump operators panel**

1. The panel must be placed directly above the pump.
- **Pump system**
    1. Multistage Centrifugal pump.
    2. All moving metal parts in contact with water must be either stainless steel or high quality bronze.
  - **Pump construction**
    1. The pump must be of a size and design to mount on the chassis of a custom or commercial truck and have a Low pressure capacity of 3000 L / min at 1000 Kpa pressure at a lift of 3 meters.
    2. The high pressure capacity shall be 4000 L/ min at 40 Kpa pressure.
    3. The pump must have a thermal Relief system.
    4. The pump must have a drain point.
  - **Priming system**
    1. The pump must be supplied with an oil less electrical primer.
  - **Control system**
    1. 1 x Taco meter
    2. 1 x oil pressure gauge
    3. 1 x Water temperature gauge
    4. 1 x hour meter
    5. 1 x Throttle to control RPM with emergency shutdown button
    6. 1 x PTO engaged light
    7. 1 x water tank level gauge
    8. 1 x foam tank level gauge
    9. 1 x tank to pump control valves, foam tank control valves
    10. All meters must be liquid filled
  - **Discharge manifold**
    1. Four 65mm female instantaneous outlets; with blank caps and two 25mm booster hose reel discharge connections.
  - **Hose Reels.**
    1. Two 30m x 25mm high pressure hoses, with high pressure nozzles.
    2. The hose reels must be electrical rewind hose reels.
  - **Booster tank**
    1. The booster tank must hold a minimum capacity of 4000 L, and must be manufactured from polyethylene.

2. The tank must have a manual fill tower.
  3. The tank overflow must be 100 mm and must dump behind the rear tires.
  4. Two tank openings is needed: one for tank to pump and one for tank filling, complete with a 65 mm instantaneous coupling and value
  5. Baffle balls must protect against water surge while driving.
  6. The mountings must protect the tank from road shock and vibrations.
  7. The tank must be fully removable without disturbing the body structure.
- **Foam tank**  
One 150 Liter class a foam tank shall be provided and must be manufactured in heavy duty polypropylene.
    1. The tank shall be supplied with the following:
      2. Tank drain with ball value.
      3. Foam line to foam system.
      4. Tank fill inlet with value.
  - **Around the pump foam systems.**  
The system must comprise of the following:
    1. Control panel
    2. Foam concentrated adductor
    3. Metering value
    4. Motive water control value
    5. Strainer
    6. Flushing system
    7. Foam system controls
  - **Tank fill**
    1. 65mm fill line with in line valve.
  - **Electrical system**
    1. The wiring system must meet SABS standards.
    2. The wiring must be weather proof and protected from abrasion.
    3. The following must be installed:
      4. Compartment lights
      5. Step lights
      6. Back up alarm
      7. Electronic siren and speaker

8. The light bar and warning lights must be fitted with red lenses and L.E.D
9. Cab mounted spotlights
10. Battery charger (24V)
11. Pneumatic light system (2 x 1000 watt lights L.E.D)
12. Front and rear strobe lights(L.E.D) must be fitted

- **Equipment**

1. 1 x two section extension ladder
2. Roof ladder
3. Attic ladder
4. Hard suction rocks
5. Hard suction hoses
6. Suction strainer
7. Suction wrenches
8. 2 x spark proof rechargeable torches
9. 6 x Drager SCBA with 6 liter 300 bar cylinder and PASS Devices
10. 1 x Air bag protection device
11. 1 x Set of Stabilsation chocks and blocks
12. 1 x Dividing breeching
13. 1 x Collecting breeching
14. 1 x 5 Kg CO2 extinguisher
15. 2 x 9 Kg Dry powder extinguisher
16. 1 x Round thread standpipe
17. 1 x Standpipe KEY AND BAR
18. 1 x Large flat head axe – 900mm Hickory handle
19. 1 x Large pick head axe – 900mm Hickory handle
20. 2 x Hollow fiberglass handle ceiling hook
21. 1 x 900 mm Crowbar
22. 1 x 750 mm bolt cutter
23. 1 x 6.3 Kg Sledge hammer

24. 1 x Spade
25. 1 x Round nose shovel
26. 12 x 450 mm Orange road cones
27. 8 x 30m x 65mm hose with BIC
28. 8 x 30m x 38mm hose with BIC
29. 1 x Gas detectors
30. 1x thermal detectors(Handheld)
31. 2 x fog 110 – 470 l/ min selectable literate nozzle c/w P/G and shut- off
32. 2 x 360 – 950 l/min selectable literage nozzle c/w P/G and shut- off
33. 1 x 225 l / MIN Branch pipe
34. 1 x 450 l / MIN Branch pipe
35. 1 x 4.5 kVa generator
36. 1 X Electrical Reciprocating Saw
37. 1 x 100 m Extension lead
38. 2 x Pair of rubber hose ramps
39. 1 x Crossfire/ hurricane c/w master stream nozzles
40. 1 x Floating pump
41. 1 x Petrol chainsaw
42. 1 x 20 liter Jerry Can
43. 1 x Hooligan tool
44. Intrinsic safe Ram fan /Blower
45. 2 x Full Rescue sets. Each set consisting of:
  1. Anchor straps x 6 (CMC 201023)
  2. Pick – off straps x 1 (CMC 201106)
  3. Carabiners steel (Autolock) x 10 (CMC 300010)
  4. Petzl ID (280 kg) x 1 (Petzl (L)D020BA00
  5. Rescue organizer (Anchor plate) x1 ( CMC 300610)
  6. Harnesses (Class 3) x 1 (Petzl C071CA01)
  7. HA Helmet x 1 (Petzl A010DA00)
  8. Rescue-cender (Gibbs) x 1 (Petzl B50A)
  9. Edge protection x 1 (Petzl item # 294042))
  10. Cows Tail Ascend Lanyard x 1 (Petzl L051AA00)
  11. Etrier x 1 (CMC Code 201161)
  12. Headlamp x 1 (Pettzle Tikka) White Lighting level+ red mode
  13. Pulley Double x 1 (Petzl P65A)
  14. Pulley Single x 2 (Petzl P60A)
  15. Salvage Sheet x 1 (2 x 2 m) (between 450 – 550 GSM)
  16. Kit bag to carry the equipment (a-f) x 1 (Petzl 4411103)
  17. Kernmantle Static 13mm x 100m (white) rope x 1 ( CMC 281200)
  18. Rope Bag for 100m rope x 1 (CMC #4-2,600 CI(43 L) RED

19. Kernmantle Static 13mm x 50m (red) rope x 1 (CMC 281203)
20. Rope Bag for 50m rope x 1 ( CMC CODE S42Y 045)

46. 1 x Patient extrication / retrieval set consisting of:

1. 1 x MPD (13mm) (CMC 333000)
2. 1 x Anchor plate , 12 hole (Petzl G063CA00)
3. 1 x Rescue Retrieval System (4:1) (CMC 500102)
4. 1 x Patient rigging kit witch Caribiner loops (CMC Item # 726477)
5. 1 x Wire Basket stretcher bridal (CMC Item # 724131)
6. 1 x Accessory Cord (8mm x 50 m) (Petzl R076AA00)
7. 1 x Wire Basket (CMC Item # 726117)
8. 1 x Wire Basket Patient Shield (CMC 740005)
9. 1 x Pulley, Knot passing for Technical Horizontal Systems (CMC Item # 300391)

All equipment must be mounted in and on the vehicle to the client's specifications.

- **Body paint finish**

Body must be painted Fire Engine Red and must feature acrylic urethane products.

The following must be provided:

1. Chassis and body stripe
2. Chevrons
3. Lettering (WRDM Badge and Decals)

This vehicle must comply to and where possible exceed the following:

1. Road traffic act (1989)
2. SABS codes
3. CKS 928 Specifications
4. NFPA 1901

- **Training**

The following training must be provided on site:

1. Vehicle & Pump operations
2. Driver training
3. Firefighter safety
4. Water supply systems

## 5. Foam applications and techniques

- **Warranties**

1. 1 Year standard
2. 5 Year structural
3. Booster tank Lifetime warranty
4. Foam tank Lifetime warranty
5. 3 year full service and maintenances agreement

## PROJECT DURATION AND TIME FRAME

Delivery: 3-6 Months

## EVALUATION CRITERIA

### Preference points system

This tender will be evaluated on **80/20** Preference Point System (80 points will be allocated for price and 20 for B-BBEE Level of Contribution) in line with the provision of preferential procurement Policy Framework Act, Supply Chain Management Policy of WRDM and National Treasury Regulations.

### Functionality Evaluation

Functionality will be out of 100 points. Bidder(s) who obtain **less than 60 points** of the functionality evaluation will be eliminated from further evaluation. The evaluation will be based on the following:

### FUNCTIONALITY

EVALUATION CRITERIA		
NO.	DESCRIPTION	WEIGHTS
1.	<p>Bidders must have experience in supply and delivery of Fire Engines for Rescue and Fire services and should have successfully completed a minimum of 3 similar projects (References to be supplied).</p> <p>Points will be allocated as follows</p> <p>Less than 3 projects = 0</p> <p>3 projects = 40 points</p> <p>4 projects = 50 points</p> <p>5 projects and Above = 60 points</p>	60



2.	<p>Experience in terms of monetary value on the above mentioned projects(Attach appointment letters)</p> <p>Points will be allocate as follows</p> <p>Below R1 000 000 = 0</p> <p>R2 000 000 to R 3 000 000 = 20 points</p> <p>R3 000 000 to R6 500 000 = 25 points</p> <p>R6 500 000 to R10 000 000 = 30 points</p> <p>R10 000 000 and above = 40 points</p>	40
	<b>TOTAL</b>	<b>100</b>