



**LITTLE ROCK WASTEWATER
SPECIFICATIONS FOR
RUBBER TIRED WHEEL LOADER BACKHOE, SMALL TRACK-HOE &
MINI TRACK-HOE EXCAVATOR**

Bid Number: 007-2010

Open Date: August 9, 2010

Time: 1:00 P.M., C.S.D.T.

To: Distributors of Four-Wheel Drive Rubber Tired Wheel Loader Backhoes & Mini Track-Hoe Excavators

Bid Shall Meet or Exceed the Following Minimum Specifications:

1.0 Submittal of Bid

1.1 The Purchasing Department of Little Rock Wastewater will accept sealed bids until 1:00 P.M., C.S.D.T., Monday, August 9, 2010 for the purchase of the following: Four-wheel drive Rubber Tired Wheel Loader Backhoes, Small Track-Hoe Excavators and a Mini Track-Hoe Excavator.

1.2 Quantity: Seven (7) Four-wheel drive Rubber Tired Loader Backhoes, Five (5) units with four (4) foot Extendable Dipper Sticks, two (2) without Extendable Dipper Sticks. Four (4) Small Track-Hoe Excavators and one (1) Mini Track-Hoe Excavator.

2.0 Scope

2.1 It is the intent of this specification to describe the minimum requirements for a four-wheel drive industrial wheel loader unitized main frame design and center mounted rear backhoe, minimum requirements for a small track-hoe excavator and minimum requirements for a mini track-hoe excavator. These units shall be new and of current manufacturer's production model. Units that are classified as demonstrator, prototype or discontinued models will not be accepted. All equipment and accessories cataloged as standard shall be included as part of this specification. Models bid must comply with **ICED** and **SAE** standard and meet **OSHA**, Federal and State regulations.

3.0 Delivery

- 3.1 Bidder shall guarantee delivery by **October 8, 2010** delivered to Clearwater Maintenance Complex, 5300 South Shackleford Road, Little Rock, Arkansas. 72204.

SEVEN (7) 4WD RUBBER TIRED WHEEL LOADER BACKHOES

4.0 Weight

- 4.1 14,500-18,200 pounds, not including hydro-inflation in the tires, additional counter weights or optional equipment even if specified.

5.0 Engine

- 5.1 The engine shall be diesel, having a minimum SAE rating of 63 net horsepower at 2,200 RPM. The diesel engine shall be water cooled, direct injection, four/stroke cycle.
- 5.2 The engine shall be equipped with the following minimum items:
- a. Direct 12-volt starting system with a 50-amp alternator.
 - b. Heavy duty pressure lubrication system with full flow oil filters.
 - c. Replaceable dry-type air cleaner with safety element and air restriction indicator.
 - d. Replaceable fuel filter element.
 - e. Fuel pump that can manually be used to prime the fuel system.
 - f. Governor.
 - g. Vertical muffler with exhaust extension and rain cap.
 - h. All manufacturers standard accessories necessary for full protection of engine's operation.

6.0 Transmission

- 6.1 Units shall be equipped with torque converter with manual shift. The transmission shall incorporate power shuttle for shifting into forward and reverse direction without clutching for loader operations. The transmission will provide a minimum of four (4) forward and four (4) reverse speeds. Oil to air cooler must be provided for the reverse/torque converter system.

7.0 Differential and Final Drives

- 7.1 The manufacturer's standard differential shall incorporate a mechanical differential lock that can be engaged on the go in either forward or reverse

direction. The final drives to the planetary design shall be located inboard next to the differential housing, or external.

8.0 Brakes

8.1 Units shall be equipped with rear wheel service brakes that are disk type, self adjusting, self equalizing and can be either individually or simultaneously applied. The service and park brake must be capable of holding the unit when fully loaded. The park brake shall be either foot or hand operated or incorporated into the transmission. Both service and park brake must meet **SAE-J1152** standard for braking.

9.0 Tread Width

9.1 The minimum rear tread width that will be accepted is 62 inches. Both front and rear axles shall meet or exceed **SAE-J43** standards for load ratings. The minimum axle rating for the front axle is 9,800 pounds, and the rear axle is 12,500 pounds.

10.0 Tires

10.1 The tractors shall be equipped with two (2) industrial type (F3) front tires and two (2) general purpose traction tread (R4) rear tires of a size and ply rating compatible with the full loaded weight of the units as specified. Tires shall be not less than the minimum specifications noted: **Front 11L x 15, 8-Ply (F3); Rear 16.9 x 24, 8-Ply (R4).**

11.0 Hydraulics

11.1 The hydraulic system as normally provided by the manufacturer shall be of the size, type, and capacity to perform all required operations of the tractor, loader and backhoe. Hydraulic system must support multi-function on the excavator unit to maximize trench operations and have a hydraulic pump with a minimum capacity of 38 GPM. The hydraulic oil to air cooler is to prevent hydraulic oil from exceeding recommended operating temperature and must have a pressure relief valve, oil filters, and a reservoir with visual oil level indicator or dipstick check.

12.0 Operator's Station

12.1 The operator's station shall have a "**flat deck**" design with a standard seat as supplied by manufacturer for use with both the tractor loader and backhoe. Adequate hand rails and self-cleaning steps must be provided for easy entry into the operator's station. A seat belt meeting the requirements of **SAE-J386** is required. A four post roll over protection

structure (**ROPS**) with canopy for overhead (**FOPS**) protection meeting the requirements of **SAE-J1050C** is required.

13.0 Loader

13.1 Units shall be equipped with a four-wheel drive industrial type front-end loader. The loader shall have a general purpose bucket rated at one (1) cubic yard heaped capacity. The cutting width of the bucket shall be a single lever with a float position. The bucket as it is being raised to the full height position must be self-leveling either by mechanical or hydraulic means. A bucket level indicator must be provided. The loader shall meet or exceed the following minimum specifications:

- a. Lift capacity at full height 6,500 pounds.
- b. Break out force 10,550 pounds.
- c. Dump height clearance at 45-degree, 8-foot 9-inches.
- d. Rollback at ground level 40-degree.
- e. Digging depth below ground level 4-inch.
- f. Cutter blade.

14.0 Backhoe

14.1 The tractor shall be equipped with a rear center mounted fixed hydraulic backhoe. The backhoe is to be operated by dual levers for raise, lower, swing, and bucket functions. The stabilizers are to be individually controlled and shall be equipped with street pads. A positive mechanical locking device for boom and swing is required while in transport position. Chains for locking boom in transport position are not acceptable. The backhoe in the normal setting shall meet these minimum specifications:

- a. Digging depth with a two (2) foot bucket shall be 14-foot (2)-inches minimum.
- b. Swing arc 180-degrees.
- c. Maximum lifting capacity per SAE-J31 with boom at 65 degrees 3,900 pounds.
- d. Bucket digging force 12,500 pounds.
- e. Reach from center of swing mast 17-foot 9-inch.
- f. Bucket size (1) 12-inch (2.5 cubic foot), (7) 24-inch (7.0 cubic foot), and (2) 18-inch (4.7 cubic foot), heaped capacity extra heavy duty with lift loop.
- g. Five (5) tractors to be equipped with four (4) foot extendable dipper stick with full width wear strips.

15.0 Accessories and Additional Equipment

15.1 The tractors shall be equipped with, but not limited to the following items:

- a. Hydrostatic power steering.
- b. Rear fenders.
- c. Vandal protection package with built-in locks on engine, fuel tank, coolant point and a keyed removable battery disconnect.
- d. Foot and hand throttle shall be provided.
- e. Two (2) front halogen lights.
- f. Two (2) rear working lights.
- g. Electric back up alarm.
- h. Electric system shall be multiple and fuse protected and shall be accessible in the operator's compartment. Fuses shall be color coded, automotive spade type for easy identification and removal.
- i. 750 Pound counterweight.

16.0 Painting

16.1 The complete units with the exception of trim shall be painted manufacturer's standard color.

17.0 Manuals

17.1 Provide one (1) each of the operators's manual for each machine and provide an extra one for the office. Parts catalog shall be made available by manual or online. One technical manual shall be provided at time of delivery. Manuals shall totally cover in detail maintenance, operation replacement parts, and technical data to repair the unit.

18.0 Warranty

18.1 The manufacture must warrant the unit from defective parts and workmanship for a minimum of six (6) months from date unit is placed into service. A copy of the warranty policy outlaying the terms and conditions shall be in the proposal.

19.0 Optional Equipment

19.1 Additional equipment needed to complete this specification is indicated below:

- a. Slow moving vehicle signs.
- b. Tool box.
- c. Rotating beacon light.
- d. Street pads.
- e. One (1) 18-inch extra heavy duty bucket.
- f. One (1) 12-inch extra heavy duty bucket.
- g. Rear view mirror.

FOUR (4) SMALL TRACK-HOE EXCAVATORS

20.0 Weight

20.1 11,600 – 14,700 pounds.

21.0 Width

21.1 Maximum width of unit shall not exceed 80 inches.

22.0 Engine

22.1 The engine shall be diesel having a minimum SAE rating of 40.0 net horsepower at 2,400 RPM. The diesel engine shall be water cooled, direct injection, four stroke cycle.

22.2 The engine shall be quipped with the following minimum items:

- a. Direct 12-volt starting system with a 50-amp alternator.
- b. Heavy duty pressure lubrication system with full flow oil filters.
- c. Replaceable dry-type air cleaner with safety element and air restriction indicator.
- d. Replaceable fuel filter element.
- e. Fuel pump that can be manually used to prime the fuel system.
- f. Governor.
- g. Vertical muffler with exhaust extension and rain cap.
- h. All manufacture's standard accessories necessary for full protection of engine's operation.

23.0 Transmission

23.1 Unit shall be equipped with a two speed transmission to manufacture's standard.

24.0 Brakes

24.1 Unit shall be equipped with manufacture's standard brakes.

25.0 Tracks

25.1 Unit shall be equipped with rubber tracks of a minimum width of 15 inches or as recommended by manufacturer.

26.0 Hydraulics

26.1 The hydraulic systems as normally provided by the manufacture shall be of size, type and capacity to perform all required operations of the track-hoe. Hydraulic system must support multi-function on the excavator unit to maximize trench operations and have a hydraulic pump with a minimum capacity of 38 GPM. The hydraulic oil to air cooler to prevent hydraulic oil from exceeding recommended operating temperature must have a pressure relief valve, oil filters, and a reservoir with visual oil level indicator or dipstick check.

27.0 Operator's Station

27.1 The operators shall have a "flat deck" design with standard seat as supplied by the manufacture for use with both the blade and backhoe. Adequate hand rails and self-cleaning steps must be provided for easy entry into the operator's station. A seat belt meeting the requirements of **SAE-J386** is required. A four post roll-over (**FOPS**) protection meeting the requirements of **SAE-J1050C** is required.

28.0 Blade

28.1 Unit shall be equipped with a dozer blade with a minimum size of height 14 inches x width 77 inches. The minimum lift above ground shall be 14 inches and minimum drop below ground shall be 14 inches. This blade shall be capable of light grading and backfilling and shall be controlled from the operator's station.

29.0 Track-hoe

29.1 Unit shall be equipped with a hoe meeting the following minimum standards:

- a. Digging depth with two (2) foot bucket shall be 12 foot (4)-inches minimum.
- b. Arm breakout force shall be 6,175 pounds minimum.
- c. Bucket breakout force shall be 9,445 pounds minimum.
- d. Dump height shall be 13 foot (3)-inches minimum.
- e. Boom swing angle (left/right) shall be 80-degrees/45-degrees minimum.
- f. Operators station rotation of 360-degrees minimum.
- g. Bucket size 24-inches (4.0 cubic foot) heaped capacity extra heavy duty with lift loop.
- h. Extendable dipper stick or long stick.

30.0 Accessories and Additional Equipment

- 30.1 The excavators shall be equipped with, but not limited to the following items:
- a. Vandal protection package with built-in locks on engine, fuel tank, coolant point and a keyed removable battery disconnect.
 - b. Electric travel alarm.

31.0 Painting

- 31.1 The complete unit, with exception of trim shall be painted manufacturer's standard color.

32.0 Manuals

- 32.1 Provide one (1) each of the operators's manual for each machine and provide an extra one for the office. Parts catalog shall be made available by manual or online. One technical manual shall be provided at time of delivery. Manuals shall totally cover in detail maintenance, operation replacement parts, and technical data to repair the unit.

33.0 Warranty

- 33.1 The manufacturer must warrant the unit from defective parts and workmanship for a minimum of six (6) months from date unit is placed into service. A copy of the warranty policy outlying the terms and conditions shall be in the proposal

34.0 Optional Equipment

- 34.1 Additional equipment needed to complete this specification as indicated below:
- a. Slow moving vehicle signs.
 - b. Tool box.
 - c. Rotating beacon light.
 - d. One (1) 18-inch extra heavy duty bucket.
 - e. One (1) 12-inch extra heavy duty bucket.
 - f. Rear view mirror.

ONE (1) MINI TRACKHOE

35.0 Weight

- 35.1 3,500 – 3,800 pounds.

36.0 Width

36.1 Maximum width of unit shall not exceed 52 inches.

37.0 Engine

37.1 The engine shall be diesel having a minimum SAE rating of 15.2 net horsepower at 2,300 rpm. The diesel engine shall be water cooled, direct injection, four stroke cycle.

37.2 The engine shall be equipped with the following minimum items:

- a. Direct 12-volt starting system with a 40-amp alternator.
- b. Heavy duty pressure lubrication system with full flow oil filters.
- c. Replaceable dry-type air cleaner with safety element and air restriction indicator.
- d. Replaceable fuel filter element.
- e. Fuel pump that can be manually used to prime the fuel system.
- f. Governor.
- g. Vertical muffler with exhaust extension and rain cap.
- h. All manufacture's standard accessories necessary for full protection of engine's operation.

38.0 Transmission

38.1 Unit shall be equipped with a two-speed transmission to manufacture's standard.

39.0 Brakes

39.1 Unit shall be equipped with manufacture's standard brakes.

40.0 Tracks

40.1 Unit shall be equipped with rubber tracks of a minimum width of 9.1 inches or as recommended by manufacturer. Tracks shall also adjust in width from a minimum of 39 inches to a maximum of 51.2 inches.

41.0 Hydraulics

41.1 The hydraulic systems as normally provided by the manufacture shall be of size, type and capacity to perform all required operations of the track-hoe. The hydraulic oil to air cooler to prevent hydraulic oil from exceeding recommended operating temperature must have a pressure relief valve, oil filters, and a reservoir with visual oil level indicator or dipstick check.

42.0 Operator's Station

42.1 The operators shall have a "flat deck" design with standard seat as supplied by the manufacture for the use with both the blade and backhoe. Adequate hand rails and self-cleaning steps must be provided for easy entry into the operator's station. A seat belt meeting the requirements of **SAE-J386** is required. A four post roll-over (**FOPS**) protection meeting the requirements of **SAE-J1050C** is required.

43.0 Blade

43.1 Unit shall be equipped with a dozer blade with a minimum size of height 9.1-inches x width 51.2-inches. The minimum lift above ground shall be 7.5-inches and minimum drop below ground shall be 8.3-inches. This blade shall be capable of light grading and backfilling and shall be controlled from the operator's station.

44.0 Track-hoe

44.1 Unit shall be equipped with a hoe meeting the following minimum standards:

- a. Digging depth with two (2) foot bucket shall be 6 foot 2 inches minimum.
- b. Arm breakout force shall be 1,748 pounds minimum.
- c. Bucket breakout force shall be 3,505 lbs. minimum.
- d. Dump height shall be 8.1 foot minimum.
- e. Boom swing angle (left/right) shall be 73-degrees/50-degrees minimum.
- f. Operators station rotation of 360-degrees minimum.
- g. Bucket size 12-inches to 18-inches (0.49 to 1.17 cubic feet) heaped capacity extra heavy duty with lift loop.

45.0 Painting

45.1 The complete unit, with exception of trim shall be painted manufacturer's standard color.

46.0 Manuals

46.1 Provide one (1) each of the operators's manual for each machine and provide an extra one for the office. Parts catalog shall be made available by manual or online. One technical manual shall be provided at time of delivery. Manuals shall totally cover in detail maintenance, operation replacement parts, and technical data to repair the unit.

47.0 Warranty

47.1 The manufacturer must warrant the unit from defective parts and workmanship for a minimum of six (6) months from date unit is placed into service. A copy of the warranty policy outlining the terms and conditions shall be in the proposal

48.0 Optional Equipment

48.1 Additional equipment needed to complete this specification as indicated below:

- a. Slow moving vehicle signs.
- b. Tool box.
- c. Rotating beacon light.
- d. One (1) 18-inch extra heavy duty bucket.
- e. One (1) 12-inch extra heavy duty bucket.
- f. Rear view mirror.

49.0 Repurchase Agreement

49.1 Sale of the above tractors to Little Rock Wastewater with a guarantee “**REPURCHASE PRICE**” of the tractors requested one (1) year from the delivery date in accordance with the following conditions:

49.2 The tractors will be used by Little Rock Wastewater in the Maintenance Operations. Preventative maintenance will be performed by Little Rock Wastewater. After one (1) year, the tractors will be released back to the successful bidder.

49.3 Little Rock Wastewater shall have the option of retaining possession of one (1) or all tractors at the end of one (1) year period.

49.4 If Little Rock Wastewater elects to release the tractors back to the successful bidder, the tractors will be picked-up at delivery point. Clearwater Maintenance Complex, 5300 South Shackelford Road: Little Rock, Arkansas 72204.

49.5 Little Rock Wastewater will be responsible for shortages or damages beyond regular wear and tear caused by Maintenance Operations. No adjustment for such shortages or damages will be allowed without written consent from Little Rock Wastewater. Little Rock Wastewater will allow five (5) working days from time tractors are picked-up by bidder for bidder, to submit a list of items deemed beyond regular wear for Little Rock Wastewater to approve. **Little Rock Wastewater will not accept any additional adjustments after the five (5) working day period has expired.**

- 49.6. Payment for “**REPURCHASE**” is to be made to Little Rock Wastewater, 11 Clearwater Drive, Little Rock, Arkansas 72204, within 30 days after tractors are returned to Bidder.

Should any additional information be required concerning this bid please contact Trudy Noble, CPPB, Purchasing Supervisor, at (501) 688-1442 or Jeremy Burks, CPPB, Buyer II at (501) 688-1447 between the hours of 8:00 A.M. and 4:30 P.M., C.S.D.T., Monday through Friday.

The Little Rock Wastewater encourages all Minority and Women’s Business Enterprises to inquire and submit a bid if you are a provider of this type of pipe.

The Little Rock Wastewater reserves the right to reject any and all bids and to waive any and all informalities.

Little Rock Wastewater



Trudy A. Noble, CPPB
Purchasing Supervisor