

**CITY OF SPRINGFIELD, TENNESSEE
WATER & WASTEWATER DEPARTMENT
BID NUMBER 1001**

Invitation: To Bid

(1) 3000 PSI, 40 GPM JETTER TRAILER

GENERAL: These specifications are for a current year model. Standard trim offered on model equipment and accessories, fully serviced, ready to operate. The bid will include manufacturer's certificate, warranty service certificate, application for title, instruction book and be bid less all applicable State and Federal taxes.

Check "Yes" or "No" for each of the specified items below. Items checked "Yes" must meet the specifications exactly. All items checked "No" must clearly be marked with the exceptions and explained on a separate document sheet. The City reserves the right to review exceptions and judge the possibility of their acceptability. Failure to note any exceptions or any misrepresentations or failure to submit this completed sheet will result in the rejection of bid. The City reserves the right to accept any bid that it deems meets or exceeds said expectations.

1. It is the intent of these specifications to describe the minimum requirements for one (1) high pressure hydraulic sewer cleaner designed to use high velocity water jets in storm sewers, pipe drains and other conduits to remove obstructions, sand, solidified grease, roots and other materials. The unit, including all necessary equipment, shall be complete and ready for use. All parts not specifically mentioned which form part of the complete unit shall conform in design, strength and quality of material and workmanship to the highest standards of engineering practice.

The high-pressure sewer-cleaning unit shall be the manufacturer's standard as may be modified to meet the specifications. It shall be equipped with the manufacturer's equipment and accessories which are the advertised and published literature for the unit.

ALL EQUIPMENT IN SAID SPECIFICATIONS SHALL BE DELIVERED IN NEW AND UNUSED CONDITON. DEMONSTRATOR UNITS WILL NOT BE ACCEPTED.

SPECIFICATIONS:

2. PUMP:

- 2.1 The pump shall be of ceramic plunger design and capable of continuous operation at maximum designed pressure. The pump will produce 3000 PSI and a flow of 40 Gpm. Crankshaft speed on the pump shall not exceed 800 rpm.

Yes ____ No ____

- 2.2 The pump shall have a nickel coated, alloy fluid end manifold incorporating a safety relief disc system. In addition, pump shall come equipped with an (Adjustable) Pressure Relief/ Un-Loader Valve. Un-Loader Valve shall be Factory set at 3000 PSI.

Yes ____ No ____

- 2.3 The pump shall be high torque driven and requires no lubrication on the drive system. Pump plungers must be precision ground ceramic. **NO EXCEPTIONS**

Yes ____ No ____

- 2.4 Pump should have an air gap between crankcase and plunger to prevent water from entering crankcase.

Yes ____ No ____

- 2.5. Pump shall be rated for temperatures of not less than 160 degrees in continuous duty operation.

Yes ____ No ____

- 2.6 City of Springfield reserves the right to have manufacturer provide certification of actual flow at working pressure and horsepower requirement for the unit.

Yes ____ No ____

- 2.7 Unit shall incorporate a "Low Water" warning light with an automatic engine shutdown to prevent any damage to pump. Shutdown system will be equipped with a manual override switch allowing water to re-circulate while operator retracts hose. **NO CLUTCH REQUIRED**

Yes ____ No ____

- 2.8 Pump shall have 3 inlet and 3 delivery-cartridge style check valves, all of which will be field replaceable within 30 minutes. Valves shall be stainless steel.

Yes ____ No ____

2.9 Pump must have oil sight gauge.

Yes____ No____

2.10 Pump will come equipped with constant lubricating wicks and access points for each cylinder.

Yes____ No____

3. TANK:

3.1 The unit shall contain two (2), rotationally molded, cross-link polyethylene water tanks with a total capacity of 750 Gallons. Minimum of 18 minutes of running time.

Yes____ No____

3.2 Construction shall be of black, high density, and heavy-duty polyethylene with UV light inhibitors.

Yes____ No____

3.3 An overhead type tank filling assembly with a 2" fire hydrant fitting shall be located on the curbside. An adaptor to convert from 2" hydrant fitting to 3/4" garden hose shall also be supplied. A positive air gap anti siphon system shall be incorporated to protect the potable water supply.

Yes____ No____

3.4 Tank shall contain a 2" spherical valve to enable easy gravity draining of water.

Yes____ No____

3.5 The tank shall be vented and shall have a removable lid to permit inspection and access into the tank.

Yes____ No____

3.6 An 80-mesh, in-line water filter shall be provided in the main water pump feed line, and shall be removable by hand.

Yes____ No____

4. TRAILER:

4.1 Unit will be mounted on a tandem axle trailer with two (2) 7,000 lbs. axles. (14,000 lbs. GVW).

Yes____ No____

- 4.2 Trailer shall be equipped with four (4) ST 225/75R x15D Trailer Tires
Yes____ No____
- 4.3 Trailer shall be equipped with an electric braking system and 7 pin round connector.
(Hydraulic Surge Brakes Available for NO Additional Charge.
Yes____ No____
- 4.4 Trailer will be equipped with recessed LED running lights with DOT-approved side-Marker lights and DOT approved striping on all sides.
Yes____ No____
- 4.5 Trailer must be Furnished with a 2 ½” Pintle Hitch, and a quick disconnect electrical connector (6 Pole round pin) and break-away switch.
Yes____ No____
- 4.6 Trailer must have rear tag light (Fender mounted).
Yes____ No____
- 4.7 Trailer fenders must be Heavy-Duty Square to allow city to decal and number.
Yes____ No____
- 4.8 No wiring or plumbing shall be located beneath trailer frame that could result in damage.
Yes____ No____
- 4.9 LED, recessed lighting package shall be provided for turn signals, brakes, and hazard lights.
Yes____ No____
- 4.10 Trailer frame must be constructed of straight ¼” thick, 2 x 4 steel channel frame on both sides, front to rear, with no welds.
Yes____ No____
- 4.11 Axles shall carry a minimum 5 year warranty.
Yes____ No____

5. **CONTROL:**

- 5.0 Control panel must display Water Pressure and have digital gauges for the engines diagnostic control system.
Yes____ No____
- 5.1 Safety shutdown functions must include engine oil pressure sensor and engine temperature shutdown.
Yes____ No____
- 5.3 Unit shall be equipped with automatic glow plug function.
Yes____ No____
- 5.3.1 All controls must have fuse protection for beacon light, utility lights, water selector valves, and digital display board with a dedicated ground.
Yes____ No____
- 5.4 The following instruments and controls shall be included as standard:
i) Keyed engine ignition switch, charging light, oil pressure light and throttle,
ii) Pressure gauge for water system, must not freeze
iii) Engine hour meter, analog and digital
iv) High Pressure/Recycle Selector Control Valve
v) Hydraulic Lever for controlling the speed and direction of the reel when moved backwards or forwards from a central position.
Yes____ No____
- 5.5 All components and controls shall be mounted on a single control panel with NEMA 4 Water-Tight Housing or Equivalent and shall have a dedicated ground
Yes____ No____
- 5.6 All electrical wiring must be color coded for quick disconnect.
Yes____ No____
- 5.7 The entire control panel assembly shall be mounted to the reel stand and articulate with the hose reel, allowing the operator to control the machine from any position.
Yes____ No____

6. **HOSE REEL:**

- 6.1 The hose reel shall be designed to withstand maximum working pressure without distortion.

Yes____ No____

- 6.2.1 Capacity of the hose reel shall not be less than 600 ft. of 3/4" ID high pressure jetting hose and shall come equipped with a 500 ft. continuous length of 3/4" ID Jetting hose and a minimum bursting pressure of 12,000 PSI

Yes____ No____

- 6.3 The reel shall be driven by hydraulic power in both directions. The reel is to be directly driven by the hydraulic motor. No chains or couplings are acceptable. The hydraulic drive shall have sufficient power to retract the hose when fully extended into the sewer with the sewer cleaning jet in operation.

Yes____ No____

- 6.4 Reel shall be direct drive with no internal fittings. All hose connections must be external to allow tightening without removing the hose. No chain drive will be accepted.

Yes____ No____

- 6.5 Hose guide must have Duro on both plates of reel stand to ensure no metal on metal contact. Reel shall also have a hose footage counter.

Yes____ No____

- 6.6 All high pressure or electrical wiring shall be installed inside aluminum tray on swivel reels to prevent wear or damage.

Yes____ No____

- 6.7 Hose reel must pivot on an industrial type, heavy duty industrial, grease-able ball bearing. Reel will have a minimum of seven (7) locking positions with 2" intervals.

Yes____ No____

7.1 HOSE REEL DRIVE SYSTEM:

The hydraulic power for powering the hose reel shall be by means of a pump directly driven from the auxiliary engine; hydraulic motor with direct drive to the hose reel; an oil reservoir; a direction and speed control valve and hydraulic hose rated to withstand the maximum system pressure.

Yes____ No____

7.2 The oil filter shall be the return type and have a replaceable cartridge.

Yes____ No____

7.3 The oil reservoir tank shall have a capacity of at least 8.5 gallons. The tank shall be metal construction.

Yes____ No____

7.4 Hose reel shall be mounted in such a manner that debris does not create residue on other components (tool box).

Yes____ No____

8. SEWER CLEANING HOSE:

8.1 The unit shall be equipped with a 500 ft. continuous length of reinforced thermoplastic hose it shall be 3/4" ID, Kevlar Lined, and have a minimum Bursting Rating of 12,000 PSI.

Yes____ No____

9. PIPING:

9.1 All piping subjected to high pressure shall have a minimum burst pressure of 14,000 psi.

Yes____ No____

9.2 The unit shall be equipped with a dual filtration system. An 80-mesh clear water filter of the in-line type shall be installed in the suction line at a location permitting easy accessibility for cleaning. In addition, an 80-mesh bag filter will be fitted in each water tank.

Yes____ No____

9.3 All inlet water line plumbing from water tank bulk head to pump shall not exceed Three feet and shall be a minimum of Schedule 80 grade.

Yes _____ No _____

10. ENGINE – AUXILIARY:

- 10.1 The engine shall be a four-cylinder, liquid-cooled, Kubota V38800DI-T-E3B industrial type diesel having a minimum displacement of 220.9 cubic inches. The engine shall be equipped with an IDI Combustion System, a Turbocharged Intake System, and capable of producing an output of 100 HP @ 2600 RPM.

Yes _____ No _____

- 10.2 Engine shall be equipped with a protective shroud with a maximum of 82 decibels. Engines without soundproof enclosures will not be accepted.

Yes _____ No _____

- 10.3 The following accessories shall be furnished:
i) 12 Volt keyed ignition system with battery charging alternator and charging light,
ii) Cable variable speed control throttle,
iii) Centrifugal Governor,
iv) Replaceable cartridge type oil filter.

Yes _____ No _____

- 10.4 The engine fuel tank shall have a minimum capacity of 16 gallons.

Yes _____ No _____

- 10.5 Engine must have high temperature and low oil automatic shut-down.

Yes _____ No _____

- 10.6 Fuel Tank shall be constructed of 16 Gauge Aluminum to prevent Rust and Corrosion.

Yes _____ No _____

- 10.7 Battery for Auxiliary engine must be fully enclosed.

Yes _____ No _____

11. PAINTING:

- 11.1 All components of Jetting Unit shall be primed and Powder Coated.

Yes _____ No _____

- 11.2 The Frame shall be primed, powder coated, and painted black.
All other sheet metal should be painted white.

Yes____ No____

- 11.3 Hose Reel shall be, primed, powder coated, and painted for easy visibility.

Yes____ No____

- 11.4 All screws, bolts, washers, nuts shall be rust proof or stainless steel throughout entire unit.

Yes____ No____

12. TOOLBOX – STORAGE:

(2) Lockable toolboxes (with matching keyed locks) shall be located on each fender with a minimum of 16 cubic feet of storage. Toolboxes shall contain nozzle holders, and each shall measure no less than 72” L x 13” W x 16 ¼” H.

(If NO, Specify Toolbox Storage Space)

Yes____ No____

- 12.1 Toolboxes shall be constructed of 16 Gauge Aluminum to prevent rust and corrosion.

Yes____ No____

13. SAFETY EQUIPMENT:

- 13.1 Hand held Spotlight (for shining in manhole) with a power weather proof power outlet mounted on the rear of the unit.

Yes____ No____

- 13.2 Reflective, DOT safety tape will be mounted on rear and both sides of unit.

Yes____ No____

- 13.3 DOT Approved LED Lighting System and LED Side Markers to be provided on 4 Corners of trailer.

Yes____ No____

- 13.4 Install LED amber and white 30 Light bar, model number: 8891102, Buyers
Light bar mounted 18" higher than the tank and engine.
(City to specify final location)
Amber & White LED Strobes mounted on rear & sides of trailer and wired in with
bar light switch.

Yes____ No____

- 13.5 Two square LED adjustable work lights, model number: mwl-27, Maxon LED Work
Lights installed on trailer (City to specify final location)

Yes____ No____

14. PULSATION SYSTEM:

- 14.1 The unit will feature an automatic pulsation system to induce an intermittent
pulse into the hose so that it breaks the friction and allows the hose to travel long
distances and negotiate multiple turns, and free hose when it becomes stuck in
the pipe.

Yes____ No____

- 14.2 The jet must be capable of climbing vertically 80 feet.

Yes____ No____

15. OTHER SUPPLIED EQUIPMENT:

- 15.1 Two Stainless RPD drain jets shall accompany unit in the following combinations:

i. 3 Rear, 1 Forward, Penetrator Nozzle, 15 degree

Yes____ No____

ii. 6 Rear, Flushing Nozzle, 35 degree

Yes____ No____

- 15.2 Finned Nozzle Extension (Threaded)

Yes____ No____

- 15.3 10 ft. ¾" Orange/ Black Leader Safety Hose - 14,000 psi
Minimum bursting pressure.

Yes____ No____

- 15.4 3" Tiger Tail Hose Protector.

Yes____ No____

15.5 Manufacturer to provide training on safety, operator use and maintenance. Min. of 1 day.

Yes ☐ No ☐

15.6 Operations, Service manual and service DVD must accompany unit.

Yes ☐ No ☐

15.7 Hydraulic Speed Control Valve for Operator convenience with (10) Lockable Settings.

Yes ☐ No ☐

15.9 Anti-Freeze Circulation System provided allowing the ENTIRE Water system to be winterized with a Minimum of 16 Gallon Aluminum Storage Tank.
(Front Mounted)

Yes ☐ No ☐

15.10 Hardened Steel Tiger Tail Holder (Mounted)

Yes ☐ No ☐

15.11 An Un-Loader "Relief" Valve shall be mounted to the pump and pre-set to the Maximum working pressure. In addition, a pressure relief Blow-Out Disc System Will be incorporated on the opposite side of the water pump, as a secondary Protection for the Pump.

Yes ☐ No ☐

15.12 10 Extra, 4000 PSI Pressure Discs.

Yes ☐ No ☐

15.13 Bulldog rotating nozzle with skid by Enz USA or equal for
(Grease & Root Cutter for 6-24" Pipe)

Yes ☐ No ☐

15.14 Wash-Down Gun with retractable hose reel & 50 ft. of 1/2" Hose with Fan tip nozzle.

Yes ☐ No ☐

15.15 Standard cleaning nozzle with front & rear jets by Enz USA or equal

Yes ☐ No ☐

15.16 Dragon Jet Nozzle (Sand Sweeper for 8"-24" Pipes) By US Jetting
Or equal.

Yes ☐ No ☐

15.17 Grenade Bomb Flusher Nozzle by ENZ USA or equal.

Yes _____ No _____

15.18 Portable MINI Jet Reel w/ 150 ft. 1/4" Hose & Ball nozzle (2-6" Pipe)

Yes _____ No _____

15.19 Install LED amber and white 30 Lightbar, model number: 8891102, Buyers light bar mounted 18" higher than the tank. **(City to specify final location)**

Yes _____ No _____

15.20 Two square LED work lights, model number: mwl-27, Maxon LED Work Lights installed on trailer **(City to specify final location)**

Yes _____ No _____

MINIMUM WARRANTY:

Unit Shall be equipped with a (1) One Year, Hitch to Bumper Warranty, including all components except for Specified Wear and Tear Items. Diesel Engine shall have a (2) Two Year, 250 Hour Manufacturer's Warranty. High-Pressure Water Pump Shall have a (2) Year, 250 Hour Warranty on all "Hard" Parts. Water Tanks shall have no less than a (2) year Warranty. Trailer Axles shall have no less than a (2) Year Warranty.

Yes _____ No _____

Bidder shall have a fully manned shop with trained technicians and parts to service the equipment offered. This shop must be located in within 200 miles of the City Of Springfield.

Yes _____ No _____

DELIVERY:

Equipment to be delivered to the City of Springfield Water/Wastewater Department
Any Questions contact: Terry L. Cadwell @ 615-382-1600

ALL EQUIPMENT LISTED IN SPECIFACATIONS SHALL BE INCLUDED IN THE TOTAL PRICE OF THE BID.

BID FORM:

Bidder will state approximate delivery time (days) _____

Bidder's Statement: (Equipment Proposed Complies to all Specifications):

Yes _____ No _____

Explain if No _____

NOTE: The City of Springfield will choose the option that is considered in its best interests.

TOTAL BID PRICE DELIVERED: _____

DEALER: _____

CONTACT PERSON: _____

SIGNATURE: _____

PHONE: _____

DATE: _____

IRAN DIVESTMENT ACT NOTICE

Tenn. Code Ann. § 12-12-106 requires the chief procurement officer to publish, using credible information freely available to the public, a list of persons it determines engage in investment activities in Iran, as described in § 12-12-105.

For these purposes, the State intends to use the attached list of "Entities Ineligible to Contract with the State of South Carolina or any Political Subdivision of the State per the Iran Divestment Act of 2014, S.C. Code Ann §§ 11-57-10, et. Seq."

While in conclusion on the list would make a person ineligible to contract with the state of Tennessee, if a person ceases its engagement in investment activities in Iran, it may be removed from the list.

If you feel as though you have been erroneously included on this list, please contact the Central Procurement Office at CPO.Website@tn.gov.

NIKKI K. HALEY, CHAIR
GOVERNOR
CURTIS M. LOFTIS, JR.
STATE TREASURER
RICHARD ECKSTROM, CPA
COMPTROLLER GENERAL



OFFICE OF THE EXECUTIVE DIRECTOR

HUGH K. LEATHERMAN, SR.
CHAIRMAN, SENATE FINANCE COMMITTEE
W. BRIAN WHITE
CHAIRMAN, HOUSE WAYS AND MEANS
COMMITTEE

List Date: July 1, 2016

**Entities Ineligible to Contract with the State of South Carolina or any
Political Subdivision of the State per the Iran Divestment Act of 2014, S.C.
Code Ann. §§ 11-57-10, et seq.**

- | | |
|----------------------------------------------|------------------------------------------------|
| 1. Abadan Petrochemical Co. | 36. Petro China Co. Ltd. |
| 2. Aban Offshore Ltd. | 37. Polskie Gornictwo Naftowe i Gazownictwo SA |
| 3. Arak Petrochemical Co. | 38. Royal Dutch Shell Plc |
| 4. Arvand Oil & Gas | 39. Sepehr Energy |
| 5. Behran Oil Co. | 40. Shiraz Petrochemical Co. |
| 6. Bharat Petroleum Corporation Ltd. | 41. Showa Shell Sekiyu K.K. |
| 7. China National Petroleum Corp. (CNPC) | 42. Tabriz Oil Refining Co. |
| 8. China Petroleum & Chemical Corp. | 43. Total S.A. |
| 9. Cosmo Energy Holdings Company Limited | 44. Toyota Tsusho Corporation |
| 10. Dragon Oil Plc | 45. Tupras Turkiye Petrol Rafinerileri AS |
| 11. Eni Spa | |
| 12. Esfahan Oil Refining Co. | |
| 13. Essar Oil Ltd. | |
| 14. Fanavarzan Petrochemical Co. | |
| 15. Farabi Petrochemical Co. | |
| 16. Gail (India) Ltd. | |
| 17. Gazprom OAO | |
| 18. Gubre Fabrikalari T.A.S. | |
| 19. Hindustan Petroleum Corporation Ltd. | |
| 20. Hyundai Heavy Industries | |
| 21. Idemitsu Kosan Co. Ltd. | |
| 22. Indian Oil Corporation Ltd. | |
| 23. IX Holdings, Inc. | |
| 24. Koc Holding A.S. | |
| 25. Lukoil Oil Co. | |
| 26. Maire Tecnimont S.P.A. | |
| 27. Mangalore Refinery & Petrochemicals Ltd. | |
| 28. Mitsubishi Corporation | |
| 29. Mitsui & Co. Ltd. | |
| 30. National Iranian Oil Co. | |
| 31. National Iranian South Oil Co. | |
| 32. Oil & Natural Gas Corporation Ltd. | |
| 33. Pardis Petrochemical Co. | |
| 34. Pars Oil Co. | |
| 35. Parsian Oil and Gas Development Co. | |

Contact irandivestment@mmo.sc.gov with questions regarding this list.

IRAN DIVESTMENT ACT

"By the submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each of a joint bid each party thereto certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not a person included within the list created pursuant to § 12-12-106."

Signature: _____

Date: _____

Title: _____