



R.A. "Tony" Rojas
Executive Director & President

Macon Water Authority
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Visit Us @ www.maconwater.org

Members

Samuel F. Hart, Sr., Chairman
Frank Patterson, Vice-Chairman
Javors J. Lucas
Dorothy "Dot" C. Black
Dwight Jones
Bert Bivins, III
Gary Bechtel

December 1, 2017

Bid Department,

The Macon Water Authority has requested that sealed bids be received in the Purchasing Department for 1(One) "Horizontal Directional Drill" in accordance with the attached specifications.

It is emphasized that sealed bids must be received by the Purchasing Department of the Macon Water Authority no later than 10:00 a.m., Thursday, December 28, 2017. Bids will be publicly opened and read in the Authority's Board Room, 790 Second Street, Macon, GA. at 10:00 a.m., Thursday, December 28, 2017. Your attendance is encouraged but not required.

It will not be sufficient to mail your sealed bid and depend upon the postal services for on time delivery. Bids received after 10:00 a.m., Thursday, December 28, 2017, will not be accepted. Your bid must be sealed and marked "Sealed Bid – "Horizontal Directional Drill"".

Please review the attached bid documents. All appurtenances must be fully executed for proper consideration, acceptance, and award by the Macon Water Authority. Those not responding to this sealed bid request may be removed from the List of Bidders for a period of 60 days.

Should any questions arise regarding this proposal, please feel free to contact me at (478) 464-5629.

Sincerely,

Mary Brezial
Buyer

Enclosures

TO:		*REMARKS BID TITLE: Horizontal Directional Drill BID DUE: DECEMBER 28, 2017 @ 10:00 a.m. THIS IS A FORMAL SEALED BID YOU MUST SUBMIT TWO (2) COPIES OF EACH BID			
FOR TECHNICAL QUESTIONS CALL: Darryl Macy 478-478-464-5673 SEND SEALED BIDS MARKED - "SEALED BID - "Horizontal Directional Drill" MACON WATER AUTHORITY MARY BREZIAL PURCHASING DEPARTMENT 790 SECOND STREET P.O. BOX 108 MACON, GEORGIA 31202-0108		REQUEST FOR QUOTATION THIS IS NOT AN ORDER			
PLEASE QUOTE THE FOLLOWING ITEMS. WE WILL CONSIDER SUBSTITUTE OFFERS.		DATE ISSUED December 1, 2017	DELIVERY WANTED 6 WEEKS		
QTY.	UOM	DESCRIPTION	UNIT PRICE	LESS DISC	NET
1	EACH	HORIZONTAL DIRECTIONAL DRILL SEE ATTACHED SPECIFICATIONS TECHNICAL QUESTIONS CALL: DARRYL MACY 478-464-5673 MAIL SEALED BID LABELED: "SEALED BID - HORIZONTAL DIRECTIONAL DRILL MARY BREZIAL MACON WATER AUTHORITY P.O. BOX 108 790 SECOND STREET MACON, GA 31202-0108			
WE QUOTE YOU AS ABOVE F.O.B. MACON. SHIPMENT CAN BE MADE IN _____ DAYS FROM RECEIPT OF ORDER. PAYMENT TERMS _____, DATE _____ COMPANY QUOTING _____ OFFICIAL SIGN _____ PLEASE PRINT NAME OF SIGNEE _____ RETURN THIS QUOTATION TO THE ABOVE ADDRESS — ATTENTION PURCHASING					

Recommended Bid Specifications

Ditch Witch® TK Series HDD Guidance System

DESIGN		Comply	Non-Comply
Class	Must be a compact HDD electronic guidance system consisting of a hand-held tracker and a display.	_____	_____
Operator Controls	<ul style="list-style-type: none"> • Tracker's controls must consist of a four-button digital keypad. • Tracker's controls must utilize universally recognized symbols. • Both the tracker and receiver must have a high-resolution display with an easy-to-use, menu-driven interface. 	_____	_____
Construction	<ul style="list-style-type: none"> • Tracker must be constructed of high-impact plastic. • Tracker keypad must be sealed with no through-shafts to prevent moisture from entering the unit. • Must be rain-resistant and comply with enclosure standard IP65. • Tracker must have an upright design • Tracker must not exceed 30 inches (762 mm) in length and 9 lb (4 kg) in weight. 	_____	_____
Power Source	<ul style="list-style-type: none"> • Tracker must utilize 4 C-cell alkaline batteries. • Tracker battery life must be approximately 12 hours continuous use at 70°F (21°C). 	_____	_____
Operation	<ul style="list-style-type: none"> • Tracker must have the ability to track bore depths of 18 inches to 110 feet (304 mm to 34 m). • Tracker must display the roll angle of the tool head via a 24-position clock face. • Tracker must display pitch angle using both up/down arrows and numerical percentages. • When used with a multi-mode beacon, system must be capable of switching to a different mode downhole when interference is encountered. • Peak and null locate methods must be standard on the Tracker and switch automatically in walkover mode. • Must be equipped with auto gain, which constantly monitor's the beacon's signal strength and adjusts gain accordingly. 	_____	_____

- Depth must be calculated and displayed instantly in Peak walkover and Drill-to modes.
- Depth display must be available in feet/inches, inches, or centimeters.
- Tracker must utilize digital signal processing to translate information and display it to the operator.
- Display must provide a projected depth, left/right arrow indicators and a distance estimate from the tracker.
- Display must display beacon temperature in degrees and alert the operator to help prevent overheating.
- Display must be capable of receiving and storing data up to 2,000 feet (610 m) as well provide downloads to the TSR/TMS Plus system and other software.
- Tracker must be capable of analyzing the bore path for interfering signals.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

DIMENSIONS

Tracker

- Height: 30 inches (762 mm)
- Length: 13 inches (330 mm)
- Width: 7 inches (178 mm)
- Weight with batteries: 9 lb (4 kg)

Comply	Non-Comply
_____	_____
_____	_____
_____	_____
_____	_____

Display

- Height: 6 inches (152 mm)
- Depth: 6 inches (152 mm)
- Width: 6 inches (152 mm)
- Weight: 3.5 lb (1.6 kg)

_____	_____
_____	_____
_____	_____
_____	_____

Remote Display

- Height: 7 inches (178 mm)
- Depth: 6.5 inches (165 mm)
- Width: 7 inches (178 mm)
- Weight: 3.5 lb (1.6 kg)

_____	_____
_____	_____
_____	_____
_____	_____

Accessories

Tracking accessories

- A hard case for storing the tracker must be offered.

Beacons

- Single and quad frequency beacons must be available.

Comply	Non-Comply
_____	_____
_____	_____

SAFETY

Operator training

- An operator's manual that describes proper operation and maintenance of the TK Series HDD guidance system must be provided.

Comply	Non-Comply
_____	_____

- Hands-on operator training must be made available to those who have not already been trained.
- Training must be provided by qualified dealership personnel when product is delivered.

MISCELLANEOUS

Comply

Non-Comply

Decals

- Product decals must use universally recognized symbols.
- Written decals must be available in English and all languages required by the European Union.

Delivery and availability of parts

The manufacturer must have a system in place that provides special shipment and delivery of parts for critical situations.

Location of service facility

To reduce costs of maintaining the product, a full service facility must be located in a reasonably close geographic location to the customer's main facility.

After-hours support

Dealership must provide names and phone numbers of personnel that may be called to provide parts and/or service in an emergency.

Recommended Bid Specifications Ditch Witch® FM13V Fluid Mixing System

DESIGN		Comply	Non-Comply
Class	Must be a portable venturi drilling fluid mixing unit capable of adding wet and dry chemicals to drilling fluid and transferring it for use with horizontal directional drilling systems.	_____	_____
Controls & indicators	Operator's station must provide an electric start ignition switch, 12VDC auxiliary outlet, hourmeter, throttle, manual fuel shut-off, battery disconnect, and backup rope start.	_____	_____
Construction	• Bottom of tank must be sloped to ensure all fluid flows through the pump for thorough mixing.	_____	_____
	• Must have independently driven, centrifugal mixing/transfer pump equipped with self-lubricating shaft seal.	_____	_____
	• Must have a one-piece mixing jet.	_____	_____
	• Hopper for dry chemicals must have steep sides and built-in bag ripper.	_____	_____
	• Must provide multiple return ports.	_____	_____
	• All components must ship loose for custom configuration on the customer's truck or trailer.	_____	_____
Performance	• Must allow transfer between tanks while still providing drilling fluid to drilling unit.	_____	_____
	• Must mix a 1000-gal (3785-L) tank of 42 viscosity drilling fluid in eight minutes or less.	_____	_____
	• Must provide up to 220 gpm (830 L/min) of 42 viscosity fluid to drilling unit.	_____	_____

DIMENSIONS

Mixing unit with
500-gal (1893-L) tank

- Length: 150 in (3.8 m)
- Width: 31 in (787 mm)
- Height (with fill): 75 in (1.9 m)
- Weight (empty): 550 lb (250 kg)
- Weight (full of water): 5160 lb (2345 kg)

Comply

Non-
Comply

Mixing unit with
1000-gal (3786-L) tank

- Length: 180 in (4.6 m)
- Width: 42 in (1.07 m)
- Height (with fill): 80 in (2.03 m)
- Weight (empty): 1000 lb (454 kg)
- Weight (full): 9840 lb (4473 kg)

POWER

Engine

- Must be an air-cooled Honda® GX390 gasoline engine or equivalent.
- Engine must be equipped with an electric start and backup rope start.
- Engine must run at a maximum of 3,600 rpm and be rated at 11.7 net hp (8.7 kW).
- Must be equipped with a 6-gal (22.7-L) fuel tank providing eight hours of operating time.

Comply

Non-
Comply

SAFETY

Noise levels

- Must not exceed operator 92 dBA sound pressure per ISO 6394.
- Must not exceed exterior 105 dBA sound power per ISO 6393.

Comply

Non-
Comply

Operator training

- An operator's manual that describes proper operation and maintenance of the FM13V must be provided.
- Hands-on operator training must be provided to those who have not already been trained.
- Training must be provided by qualified dealership personnel when product is delivered.

MISCELLANEOUS

Comply

Non-Comply

Decals

- Product decals must use universally recognized symbols.
- Written decals must be available in English and all languages required by the European Union.

Delivery and availability of parts

The manufacturer must have a system in place that provides special shipment and delivery of parts for critical situations.

Location of service facility

To reduce costs of maintaining the product, a full service facility must be located in a reasonably close geographic location to the customer's main facility.

After-hours support

Dealership must provide names and phone numbers of personnel that may be called to provide parts and/or service in an emergency.

Recommended Bid Specifications

Ditch Witch® JT10 T4 (HRC) and T4i (LRC)

Horizontal Directional Drill

DESIGN		Comply	Non-Comply
Class	<ul style="list-style-type: none"> Unit must be a horizontal directional drilling unit capable of producing 10,000 lb (44.5 kN) of pullback and spindle speeds to 186 rpm. 	_____	_____
	<ul style="list-style-type: none"> Must be capable of short- to medium-length service line installations with pilot bores up to 3" (76 mm) and backream diameters are variable. 	_____	_____
Operator's station	<ul style="list-style-type: none"> Operator's station must have integrated electric strike system control panel and integrated remote tracking display. 	_____	_____
	<ul style="list-style-type: none"> Operator's station must be positioned approximately midway down the drill pipe box and perpendicular to the pipe box for easier pipe handling. 	_____	_____
	<ul style="list-style-type: none"> Operator's seat must slide forward and backward so that the operator can reach the pipe without leaving the seat. Seat must have an adjustable back. 	_____	_____
	<ul style="list-style-type: none"> Must have single lever to control thrust/pullback and rotation movement. 	_____	_____
	<ul style="list-style-type: none"> Must have single lever to control both front and rear wrenches. Front wrench must have automatic water shutoff. 	_____	_____
	<ul style="list-style-type: none"> Engine speed must be controlled from two levers—one at the operator's station, and one at the rear setup station. 	_____	_____
	<ul style="list-style-type: none"> Operator's station must include thrust and rotation gauges. 	_____	_____
	<ul style="list-style-type: none"> Operator's station must include weather covers for consoles. 	_____	_____
	<ul style="list-style-type: none"> Ignition switch must be at rear of unit with remote start button at operator's station. 	_____	_____
	<ul style="list-style-type: none"> Unit must have all controls within easy reach during operation. 	_____	_____

Construction

- All frame members must have steel construction for durability.
- Thrust drive must consist of a rack-and-pinion system with dual racks that are welded to the drill frame.
- The drill pipe breakout system must consist of two open-top vise wrenches that are angled toward the operator.
- Drill pipe box must be mounted on the drill frame and must hold enough pipes to have for over 300' (91 m) of pipe on board.
- Total unit length must not exceed 146" (3.7 m) including onboard fluid tank.
- The anchoring system must consist of two heavy-duty anchors. Optional asphalt bits must be available for anchoring in streets.
- Anchor rotation and downward force must be independently controlled.
- Unit must have no daily grease points.
- Cylinder locks must be available for stabilizer/frame tilt cylinders.
- Onboard pipe lubrication system must be standard.
- All daily service points must be on one side of the unit under a removable hood.
- Options must include a sun canopy and wash wand.

Operation

- Must be equipped with coordinated makeup feature to prevent pipe thread damage.
- Must be capable of 186 rpm spindle speed.
- Must be equipped with a DrillLok™ mode that allows the tracker operator to disable thrust/pullback and rotation hydraulics before downhole tools are changed.

Hydraulic system

Unit must have three hydraulic pumps to perform all onboard functions.

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Ground drive

- Must be rubber-track-mounted for easy mobility on a variety of jobsites.
- Track direction and speed must be controlled with handles located in setup operator's station.
- Engine speed must be controlled with a throttle lever located at the setup station.

Electric strike system

- Drilling unit must come equipped with an electric strike system that is active when the ignition switch is turned to ON.
- The electric strike system must indicate an electric strike through current and voltage sensing.
- Unit must have the capability to store electric strikes in the processor to record strike history.
- Strike system must include a warning strobe on the drilling unit.

_____	_____
_____	_____
_____	_____
_____	_____

Drilling fluid system

- T4: Flow rate must be variable from 0-16 gpm (0-60.6 L/min). Optional 20 gpm (75.7 L/min) pump must be available.
- T4i: Flow rate must be variable from 0-13 gpm (0-49.4 L/min).
- Fluid pressure and flow must be controllable from the operator station.
- The fluid pump must be mounted on the drilling unit.
- The unit must come standard with a 40-gal (151 L) onboard fluid tank.
- Optional mixing systems must be available.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Downhole tools

- Tool joints must be heat-treated.
- The directional head must be capable of accepting a variety of fluid nozzles and cutting bits for varied soil conditions.

_____	_____
_____	_____

Drill pipe

- Unit must offer two styles of drill pipe: 3-piece composite and forged.
- The unit must be able to use drill pipe constructed with expanded end tubing.
- The drill pipe must have a wear indicator.
- The unit must be able to use drill pipe constructed with a heavy wall liner to reduce the amount of fluid and time required to fill pipe and obtain drilling pressure.

_____	_____
_____	_____
_____	_____
_____	_____

DIMENSIONS

		Comply	Non-Comply
T4 weight (with 54 drill pipes, 16-gpm pump & empty water tank)	7216 lb (3,273 kg)	_____	_____
T4 weight (with 54 drill pipes, 20-gpm pump & empty water tank)	7240 lb (3,284 kg)	_____	_____
T4i weight (with 50 drill pipes, empty water tank)	6,750 lb (3,060 kg)	_____	_____
Length	146" (3.7 m)	_____	_____
Width	49" (1.2 m)	_____	_____
Height	74" (1.9 m)	_____	_____

DRILLING FLUID SYSTEM

		Comply	Non-Comply
T4 standard			
Fluid pressure, max.	750 psi (52 bar)	_____	_____
Flow rate, max.	16 gpm (49 L/min)	_____	_____
Onboard fluid tank	40 gal (151 L)	_____	_____
T4 optional			
Fluid pressure, max.	750 psi (52 bar)	_____	_____
Flow rate, max.	20 gpm (49 L/min)	_____	_____
Onboard fluid tank	40 gal (151 L)	_____	_____
T4i			
Fluid pressure, max.	750 psi (52 bar)	_____	_____
Flow rate, max.	13 gpm (49 L/min)	_____	_____
Onboard fluid tank	40 gal (151 L)	_____	_____

POWER

		Comply	Non-Comply
T4 engine	<ul style="list-style-type: none"> Engine must be a liquid-cooled Deutz® TD2.9 diesel or equivalent. Engine must produce 66 hp (49 kW) at 2200 rpm. 	_____	_____
T4i engine	<ul style="list-style-type: none"> Engine must be a liquid-cooled Deutz D2011L04i diesel or equivalent Engine must produce 53.5 hp (39.9 kW) at 2300 rpm. 	_____	_____

FLUID CAPACITIES

		Comply	Non-Comply
T4 fuel tank	18 gal (68 L)	_____	_____
T4 hydraulic reservoir	23 gal (87 L)	_____	_____
T4i fuel tank	19 gal (72 L)	_____	_____
T4i hydraulic reservoir	18 gal (68 L)	_____	_____

SAFETY

		Comply	Non-Comply
Operator training	<ul style="list-style-type: none"> An operator's manual that describes proper operation and maintenance of the JT10 must be provided. Hands-on operator training must be provided to those who have not already been trained at no additional cost. Training must be provided by qualified dealership personnel when product is sold. 	_____	_____

MISCELLANEOUS

		Comply	Non-Comply
Decals	<ul style="list-style-type: none"> Product decals must use universally recognized symbols. Written decals must be available in English and all languages required by the European Union. 	_____	_____
Delivery and availability of parts	The manufacturer must have a system in place that provides special shipment and delivery of parts for emergency situations when possible.	_____	_____
Location of service facility	To reduce costs of maintaining the product, a full service facility must be located in a reasonably close geographic location to the customer's main facility.	_____	_____
After-hours support	Dealership must provide names and phone numbers of personnel that may be called to provide emergency parts and/or service.	_____	_____

PROPOSAL FORM

Date: _____

For: **MACON WATER AUTHORITY**
P. O. Box 108
790 Second Street
Macon, GA 31202-0108

Ladies and Gentlemen:

Having carefully examined the Specifications entitled:

Macon Water Authority:
Horizontal Directional Drill
And Addendum (a) No. (s)-If applicable

The undersigned proposes to furnish all services, labor and materials called for by Them for the entire work, in accordance with said documents, for

The sum of: _____ Dollars.
(\$ _____)

Which sum is hereinafter called the "Base Bid".

Name: _____

Address: _____

By: _____

Title: _____ Telephone No: _____

END OF SECTION