

Attachment J03

Fort Leavenworth Potable Water System

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J03 Fort Leavenworth Water System

J03.1 Fort Leavenworth Overview

Fort Leavenworth is home to the U.S. Army’s Command and General Staff College, the U.S. Army Combined Arms Command, and the U.S. Disciplinary Barracks. Founded in 1827 by Col. Henry Leavenworth for whom it is named, Fort Leavenworth has been witness to much of the history of the American West. The Post is situated approximately 35 miles northwest of Kansas City, Missouri. Fort Leavenworth is a completely self-contained military post. It has 1,586 units of family housing and twelve guesthouse units. The Post has three elementary schools and one junior high school as well as daycare and preschool programs. There is a twenty-five-bed hospital, an eighteen-hole golf course, swimming pools and many other sports and shopping venues on the Post.

J03.2 Water System Description

The Fort Leavenworth potable water system consists of all appurtenances physically connected to the system from the point in which the Government ownership currently, starts to the point of demarcation defined by the real estate instruments. Generally, the point of demarcation will be the building footprint. The system may include, but is not limited to the water wells, the water treatment plant, the storage tanks and the distribution lines including service laterals. The following description and inventory is included to provide the Offeror with a general understanding of the size and configuration of the distribution system. The inventory is assumed to be approximately 90 percent complete. The Offeror shall base the proposal on site inspections, information in the bidder’s library, other pertinent information, and to a lesser degree the following description. Under no circumstances shall the successful Contractor be entitled to any rate adjustments based on the accuracy of the following description and inventory.

J03.2.1 Water System Fixed Equipment Inventory

Existing facilities include water source, water treatment, water storage and water distribution facilities. Source water is obtained from five wells located in the northeast corner of the Post. The current status of the wells is as follows:

<u>Wells</u>	<u>Nominal Capacity</u>	<u>Status</u>
No. 5	1200 gpm	Pump not operational
No. 6	1200 gpm	78% capacity
No. 7	1200 gpm	107% capacity
No. 8	1200 gpm	89% capacity
No. 9	1200 gpm	85%-90% capacity

All wells have been treated chemically. When operational, the 200-kW emergency generator located atop Well No. 7 can power only three wells at a time. This limits the wellfield capacity to 5.18 MGD. Water drawn from all wells at Fort Leavenworth is fairly hard and must be treated before it is fully potable.

All the water from the various wells is treated in the water treatment plant in Building 25. Treated water is delivered to the Installation by three “high service” pumps, each rated at 1,735 gpm (gallons per minute) and powered by 200-HP motors. There is an 800-kVA diesel electric generator that provides emergency power sufficient to operate both the water treatment plant and two distribution pumps. Sludge from the water treatment process is pumped to either the sanitary sewer system or one of two sludge lagoons on the Post.

The present water capacity at Fort Leavenworth is 3.3 million gallons, of which only 2.3 million gallons is usable. Two tanks mainly serve the Installation - one in Building 340 has a million gallon capacity and the other in Building 354 has a 300,000-gallon capacity. Both these tanks have a high water level of approximately 1,049 feet. A third million-gallon capacity tank was completed in 1990 at an elevation of 1,096 feet. However, several problems have occurred with this tank and minor rework remains to be done.

Water is distributed to the Installation from the water treatment plant by pipes that are less than 2 inches to 20 inches in diameter. The three water pumps are available (although only two can function at a time) to pump water throughout the system. The water distribution system is estimated to have an average age of 25 years.

J03.2.1.2 Inventory

Table 1 provides a general listing of the major water system fixed assets for the Fort Leavenworth water system included in the purchase. The system will be sold in a “as is, where is” condition without any warranty, representation, or obligation on the part of Government to make any alterations, repairs, or improvements. Ancillary equipment attached to, and necessary for, operating the system, though not specifically mentioned herein, is considered part of the purchased utility.

Table 1
Fixed Inventory
Water Distribution System Inventory – Fort Leavenworth

Item	Size	Quantity	Unit	Average Year of Construction
Pipe	Less than 2"	57,031	Linear Feet	1965
	2"	27,270	Linear Feet	1965
	2 ½"	1,536	Linear Feet	1965
	3"	9,665	Linear Feet	1965
	4"	14,842	Linear Feet	1965
	6"	88,684	Linear Feet	1965
	8"	54,966	Linear Feet	1965
	10"	10,888	Linear Feet	1965
	12"	30,490	Linear Feet	1965
	14"	2,975	Linear Feet	1965
	16"	9,577	Linear Feet	1965
	20"	9,928	Linear Feet	1965
	Building Services		1,079	Each
Main Valves		611	Each	1965
Main Meters		3	Each	1965
Hydrants		377	Each	1965
Storage Tanks	3,000,000	1	Gallons	1934
	1,000,000	1	Gallons	1922
	1,000,000	1	Gallons	1989
	1,000,000	1	Gallons	1934
Booster Pumping Station		1	Gallons/ Minute	

Water Treatment Plant		1	Gallons / Day	1934
Wells	950	1	Gallons/ Minute	
	1300	1	Gallons/ Minute	
	1100	2	Gallons/ Minute	
		1	Pump Not Operational	

J03.2.2 Water Distribution System Non-Fixed Equipment and Specialized Tools Inventory

Table 2 lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment and tools. The successful Contractor shall provide any and all equipment, vehicles, and tools, whether included in the purchase or not, to maintain a fully operating system under the terms of this contract.

Table 2
Spare Parts
Water Distribution System – Fort Leavenworth

Qty	Item	Make/Model	Description	Remarks
None Identified				

Table 3
Specialized Equipment and Vehicles
Water Distribution System – Fort Leavenworth

Description	Quantity	Location	Maker
None Identified			

J03.2.3 Water System Manuals, Drawings, and Records Inventory

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

Table 4
Manuals, Drawings, and Records
Water Distribution System – Fort Leavenworth

Qty	Item	Description	Remarks
	Water Distribution System Drawings	Base water distribution system and layout	May not have all drawings available

J03.3 Current Service Arrangement

The Army owned water system at Fort Leavenworth produces its potable water from a natural spring (CU-SP-19). Emergency water can be purchased from the Borough of Carlisle.

J03.4 Secondary Metering

The Base may require secondary meters for internal billings of their reimbursable customers, utility usage management, and energy conservation monitoring. The Contractor shall assume full ownership and responsibility for existing and future secondary meters IAW Clause C.3.

J03.4.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings once a month for all secondary meters IAW C.3 and J03.5 below.

Table 5
Existing Secondary Meters
Water Distribution System – Fort Leavenworth

Meter Location	Meter Description
None identified	

J03.4.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in Table 6. New secondary meters shall be installed IAW Clause C.13, Operational Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Clauses C.3, and J03.5 below.

Table 6
New Secondary Meters
Water Distribution System – Fort Leavenworth

Meter Location	Meter Description
None Identified	

J03.5 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following: Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month for

the previous month. Invoices shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)

Outage Report. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall include the following information for Scheduled and Unscheduled outages:

Scheduled: Requestor, date, time, duration, facilities affected, feedback provided during outage, outage notification form number, and digging clearance number.

Unscheduled: Include date, time and duration, facilities affected, response time after notification, completion times, feedback provided at time of outage, specific item failure, probability of future failure, long term fix, and emergency digging clearance number.

Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)

Meter Reading Report. The monthly meter reading report shall show the current and previous month readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)

System Efficiency Report. If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)

J03.6 Energy Savings and Conservation Projects

IAW C.3, Utility Service Requirement, the following projects have been implemented by the Government for energy conservation purposes:

- None

J03.7 Service Area

IAW Clause C.4, Service Area, the service area is defined as all areas within the Fort Leavenworth boundaries.

J03.8 Off-Installation Sites

There are no off-installation sites associated with this scope.

J03.9 Specific Transition Requirements

IAW Clause C.13, Operational Transition Plan, **Table 6** lists service connections and disconnections required upon transfer, and **Table 7** lists the improvement projects required upon transfer of the Fort Leavenworth water system.

Table 6
Service Connections and Disconnections
Water Distribution System – Fort Leavenworth

Location	Description
None Identified	

Table 7
System Improvement Projects
Water Distribution System – Fort Leavenworth

Project Location	Project Description
None Identified	

J03.10 Water Distribution System Points of Demarcation

The point of demarcation is defined as the point on the piping system where ownership changes from the Grantee to the building owner. The table below identifies the general locations of these points with respect to the building served.

Table 8
Points of Demarcation
Water Distribution System – Fort Leavenworth

Point of Demarcation	Applicable Scenario	Sketch
Water Meter or Backflow Device, or Valve (closest apparatus to the exterior of the structure)	Water meter, backflow device, or valve is located on the service line entering the structure within 25 feet of the exterior of the structure.	<p>The sketch shows a rectangular structure on the left. A horizontal line representing the service line enters the structure from the right. On this line, there is a circular symbol representing a water meter. An arrow points to this symbol with the label 'Point of Demarcation'. Above the service line, a horizontal line with an arrow pointing right is labeled 'Distribution Pipe'. Below the service line, another horizontal line with an arrow pointing right is labeled 'Service Line'. The water meter is positioned between the structure and the service line.</p>
Point where the service line enters the structure	No water meter, backflow device, or valve exists on the service line entering the structure.	<p>The sketch shows a rectangular structure on the left. A horizontal line representing the service line enters the structure from the right. An arrow points to this entry point with the label 'Point of Demarcation'. Above the service line, a horizontal line with an arrow pointing right is labeled 'Distribution Pipe'. Below the service line, another horizontal line with an arrow pointing right is labeled 'Service Line'. The service line enters the structure directly without any meter or valve.</p>

J03.10.1 Unique Points of Demarcation

The following table lists anomalous points of demarcation that do not fit any of the above categories.

Table 9
Unique Points of Demarcation
Water Distribution System – Fort Leavenworth

Building No.	Point of Demarcation Description
None	

J03.11 Plants and Towers

The following table lists anomalous points of demarcation that do not fit any of the above categories

Table 10
Plants and Towers
Water Distribution System – Fort Leavenworth

Description	Facility Number	State Coordinates	Other Information
Water Tower 3,000,000-Gals		Available in base maps	
Water Tower 1,000,000-Gals		Available in base maps	
Water Tower 1,000,000-Gals		Available in base maps	
Water Tower 1,000,000-Gals		Available in base maps	
Water Treatment Plant		Available in base maps	
<i>“User Note: This table should include any parcels of land that the Grantee will need to be granted exclusive use under the right-of-way. This land should be described according to a state coordinate system.”</i>			