

ATTACHMENT J7

Kulis ANGB Water Distribution System

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J7 Kulis ANGB Water Distribution System

J7.1 Kulis ANGB Overview

Kulis Air National Guard Base (ANGB) is located at the Ted Stevens Anchorage International Airport (AIA), on the western edge of Anchorage, Alaska. The ANGB is located within the city limits of Anchorage, Alaska. The Base leases the approximately 229 acres of the southeast corner of AIA at Runway 24L/06R. The Base currently has approximately 37 buildings totaling approximately 400,000 square feet.

Kulis ANGB is the headquarters of the 176th Group and currently employs approximately 440 full-time personnel during weekday shifts. In addition, 30 State of Alaska personnel and 12 civilian fire fighters are employed full time. The Base supports over 1,220 traditional Air National Guard personnel.

The Alaska Air National Guard (ANG) was officially organized in 1952 as the 8144th Air Base Squadron and later moved to Elmendorf AFB. The unit was renamed the 144th Fighter Bomber Squadron and acquired F-80Cs and T-33s in 1953. The squadron moved to AIA in 1955. The Base was named after Lt. Albert Kulis, an Alaskan ANG pilot killed on a training flight in 1954. The squadron was redesignated the 144th Fighter Interceptor Squadron in 1955 and the 144th Air Transport Squadron in 1957 – flying the C-47 Gooney Bird and later the larger C-123 Provider.

In 1969 the squadron became the 176th Tactical Airlift Group, with the 144th Tactical Airlift Squadron as its flying squadron. The Base received eight C-130 Hercules aircraft in 1976. The C-130s were updated to a newer model in 1983. When a second ANG unit was established at Eielson AFB near Fairbanks in 1986, the Group was redesignated the 176th Group to reflect the two missions of airlift and aerial refueling under a single group commander. In 1990, the 210th Air Rescue Squadron, flying HH-60G Pavehawk helicopters and HC-130 tanker-airlift aircraft, was created at Kulis ANGB. Current missions are authorized 18 aircraft: nine C-130s, six HH-60Gs, and three HC-130s. Plans for future missions will require 30 aircraft: sixteen C-130s, eight HH-60Gs, and six HC-130s.

Projected future mission requirements have necessitated the renovation or demolition of older facilities and the construction of new facilities. The Kulis ANGB Capital Improvements Program (CIP) emphasizes consolidating existing facilities and maximizing their utilization as much as possible. Over the next 5 years, key projects planned for Kulis ANGB, if implemented, will increase the total square footage of buildings and facilities on Base by approximately five percent.

J7.2 Water Distribution System Description

J7.2.1 Water Distribution System Fixed Equipment Inventory

The Kulis ANGB water distribution system consists of all appurtenances physically connected to the distribution system from the point in which the distribution system enters the Installation and Government ownership currently starts to the point of demarcation, defined by the Right of Way. The system may include, but is not limited to, pipelines, valves, fire hydrants, storage facilities, exterior backflow devices, pumps, and meters. The actual inventory of items sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the distribution system.

Specifically excluded from the water distribution system privatization are:

- Anchorage Water and Wastewater Utility (AWWU) Water Meters
- Backflow prevention devices

J7.2.1.1 Description

Water is supplied to Kulis ANGB by Anchorage Water and Wastewater Utility (AWWU) via three metered mains fed from AWWU mains and one metered connection at the fire station which is fed directly from AWWU. The three metered main feeds are:

- Building 00841 Water Meter Facility, which is located on the south Base boundary near the Base entrance gate off of Raspberry Road.
- Building 00842 Water Meter Facility, located in the northeast corner of the Base.
- Building 00843 Water Meter Facility located on the west side of the Base, near West Perimeter Road.

Each metering station is enclosed in an above ground building constructed of concrete block. AWWU owns and maintains the metering equipment in the buildings; the Base owns and maintains the buildings.

The Kulis ANGB fire station, constructed in 1999 and located near the northwest corner of the Base, is supplied water via a connection to an AWWU line on the south side of the base. The AWWU owned meter is located adjacent to the station, while ownership begins at the connection to the AWWU main.

The water distribution piping system is comprised mostly of 4- to 16-inch mains and a comparatively small quantity service laterals.

Water system pressure and flow capacity are sufficient for current demands, and capacity is available for future planned facilities. Fire flow capacity is also sufficient for current services and for future planned expansion. All the water mains are looped to provide a secondary fire flow supply.

Backflow prevention is provided at most building fire suppression risers. Most industrial water use connections are not isolated with backflow prevention.

There is no cathodic protection on the water lines at Kulis ANGB. Water line burial depths range from four to fifteen feet deep, with an average depth of ten feet. Heat trace, tracer wire or marking tape is not installed on the water distribution system piping. Approximately 5% of the pipe is buried below paved surfaces.

Water is supplied to Kulis ANGB is treated by AWWU and there are no chlorination facilities on the Base.

J7.2.1.2 Inventory

Table 1 provides a general listing of the major water distribution system fixed assets for the Kulis ANGB water distribution system included in the sale.

TABLE 1
Fixed Inventory
Kulis ANGB Potable Water Distribution System

Component	Size	Quant.	Unit	Approximate Year of Construction
Ductile Iron Pipe	1-in.	60	LF	1991
	1 1/2-in.	94	LF	1991
	4-in.	344	LF	1991
	6-in.	2,044	LF	1991
	8-in.	2,162	LF	1991
	8-in.	298	LF	2002
	10-in.	3,038	LF	1991
	12-in.	1,643	LF	1991
	12-in.	84	LF	2002
	14-in.	20	LF	2002
	16-in.	4,172	LF	1991
	16-in.	664	LF	2002
Copper Pipe	3/4-in.	256	LF	1975
	1-in.	206	LF	1975
	1-3/4-in.	142	LF	1975
	2-in.	498	LF	1975
Asbestos Cement Pipe	4-in.	55	LF	1956

TABLE 1
Fixed Inventory
Kulis ANGB Potable Water Distribution System

Component	Size	Quant.	Unit	Approximate Year of Construction
Galvanized Iron Pipe	2-in.	124	LF	1980
Gate Valve	3/4-in.	1	EA	1980
	1-in.	3	EA	1980
	1 3/4-in.	1	EA	1980
	2-in.	6	EA	1980
	4-in.	5	EA	1980
	6-in.	8	EA	1980
	6-in.	1	EA	2002
	8-in.	9	EA	1980
	8-in.	1	EA	2002
	10-in.	6	EA	1980
	12-in.	6	EA	1980
	12-in.	1	EA	2002
	16-in.	7	EA	1980
	16-in.	5	EA	2002
Water Meter Building 841				
Meter Vault Building, Concrete Block construction 15'x20'		300	SF	1990
Knife Gate Valve	8-in.	2	EA	1990
Butterfly Valve	12-in.	2	EA	1990
Double Check Valve	12-in.	1	EA	1990
Pressure Sustaining Valve	12-in.	1	EA	1990
Electric Heater - wall mounted		1	LS	1990
Facility Lights		1	LS	1990
Water Meter Building 842				
Meter Vault Building, Concrete Block construction 15'x20'		300	SF	1990
Knife Gate Valve	8-in.	2	EA	1990
Butterfly Valve	12-in.	2	EA	1990

TABLE 1
Fixed Inventory
Kulis ANGB Potable Water Distribution System

Component	Size	Quant.	Unit	Approximate Year of Construction
Double Check Valve	12-in.	1	EA	1990
Pressure Sustaining Valve	12-in.	1	EA	1990
Electric Heater - wall mounted		1	LS	1990
Facility Lights		1	LS	1990
Water Meter Building 843				
Meter Vault Building, Concrete Block construction 14'x16'		224	SF	2002
Gate Valve	3-in.	1	EA	2002
Gate Valve	4-in.	2	EA	2002
Check Valve	4-in.	1	EA	2002
Butterfly Valve	10-in.	3	EA	2002
Pressure Sustaining Valve	10-in.	1	EA	2002
Electric Heater - wall mounted		1	LS	2002
Facility Lights		1	LS	2002
Fire Hydrants		25	EA	1991
Water Meter		1	EA	2000

Notes:
PVC = Polyvinyl chloride
EA = Each
GAL= Gallon
HP = Horsepower
LF = Linear Feet
SF = Square Feet

J7.2.2 Water Distribution System Non-Fixed Equipment and Specialized Tools

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, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

TABLE 2
Spare Parts
Kulis ANGB Potable Water Distribution System

Qty	Item	Make/Model	Description	Remarks
There are no spare parts with the system to be privatized.				

TABLE 3
Specialized Vehicles and Tools
Kulis ANGB Potable Water Distribution System

Description	Quantity	Location	Maker
There are no specialized vehicles and tools with the system to be privatized.			

J7.2.3 Water Distribution System Manuals, Drawings, and Records

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

TABLE 4
Manuals, Drawings, and Records
Kulis ANGB Potable Water Distribution System

Qty	Item	Description	Remarks
1	Drawing	Water Map	Tab Number U-1
1	Drawings	Water system as-builts	Stored in Building 00050

J7.3 Specific Service Requirements

The service requirements for the Kulis ANGB water distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Kulis ANGB water distribution system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

1. The contractor shall keep meter books with monthly consumption and demand (if applicable) for each meter reading. Meter books shall also include building address of facility number, meter number, previous month readings, current month readings, points of contact.
2. The contractor shall enter into a memorandum of understanding with the Kulis ANGB Fire Department for fire protection of all facilities included in the purchase of the utility. The contractor will agree to adhere to all fire protection requirements of Kulis ANGB. The Contractor shall maintain the structures fire alarm system. The Contractor further agrees to permit the Kulis ANGB Fire Department personnel access to their facilities for the sole purpose of performing fire inspections and emergency response.

3. The Contractor shall perform flow testing and marking of fire hydrants IAW National Fire Protection Association standards/recommended practices. The government reserves the right to review flow test records. The Contractor shall be required to meet all unique and specific fire-flow requirements for the base, which will be listed and available in the Utilities Privatization Technical Library.
4. The Contractor shall prepare and distribute the annual consumer confidence report.

J7.4 Current Service Arrangement

Kulis ANGB currently receives water (commodity supply) from Anchorage Water and Wastewater Utility (AWWU). For the months from October 2002 thru August 2003 water use at Kulis ANGB ranged from 378 kgals (thousand gallons) in January 2003 to 475 kgals in August 2003. Total flow for the eleven months was 3,733 kgals.

Key projects planned for Kulis ANGB may increase the total square footage of buildings on Base by approximately five percent.

J7.5 Secondary Metering

J7.5.1 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 for all secondary meters IAW Paragraph C.3.3 and J7.6 below.

TABLE 5
Existing Secondary Meters
Kulis ANGB Potable Water Distribution System

Meter Location	Meter Description (Type)
Dining Hall, Building 00022	Service Meter

J7.5.2 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 Paragraph C.13, Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3.3 and J7.6 below.

TABLE 6
New Secondary Meters
Kulis ANGB Potable Water Distribution System

Meter Location	Meter Description
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Meter Location	Meter Description
There are no new secondary meters required for the system to be privatized.	

J7.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. 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:

Kulis ANGB/ 176th CES
 5005 Raspberry Road, Building 50
 Anchorage, Alaska 99502-1998
 Phone number: 907-249-1382

2. 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 be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to:

Kulis ANGB/ 176th CES
 5005 Raspberry Road, Building 50
 Anchorage, Alaska 99502-1998
 Phone number: 907-249-1382

3. Meter Reading Report. The monthly meter reading report shall show the current and previous month readings for all identified 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:

Kulis ANGB/ 176th CES
 5005 Raspberry Road, Building 50
 Anchorage, Alaska 99502-1998
 Phone number: 907-249-1382

J7.7 Water Conservation Projects

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

There are no water conservation projects with the system to be privatized.

J7.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Kulis ANGB boundaries.

J7.9 Off-Installation Sites

No off-installation sites are included in the sale of the Kulis ANGB water distribution system.

J7.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 7** provides a listing of service connections and disconnections required upon transfer.

TABLE 7
Service Connections and Disconnections
Kulis ANGB Potable Water Distribution System

Location	Description
There are no service connections or disconnections with the system to be privatized.	

J7.11 Government Recognized System Deficiencies

Table 8 provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Kulis ANGB water distribution system. If the utility system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewal and Replacement Plan process and will be recovered through Schedule L-3. Renewal and Replacement projects will be recovered through Sub-CLIN AB.

TABLE 8
System Deficiencies
Kulis ANGB Potable Water Distribution System

Project Location	Project Description
There are no system deficiencies with the system to be privatized.	

J7.12 Right of Access to the Utility System

Exhibit A—Map of Premises

Exhibit A map or maps from the Base Comprehensive Plan or other drawings show the known locations of the utility system and are available at the Base Civil Engineering Office. Portions of the utility system may not be fully shown on the map or maps. Any such failure to show the complete utility system on the map or maps shall not be interpreted as that part of the utility system being outside the Premises. The Premises are co-extensive with the entire linear extent of the utility system sold to Grantee, whether or not precisely shown on the map or maps.

EXHIBIT A

Water Distribution System Kulis ANGB

Qty	Item	Description	Remarks
1	Drawing - Hard Copy and CAD format	Water Map	Tab Number U-1
1	Drawings - Hard Copy	Water system as-builts	Stored in Building 00050

Exhibit B—Description of Premises

B.1. General Description of the Utility System, Lateral Extent of the Right-of-Way, and Points of Demarcation:

UTILITY SYSTEM DESCRIPTION:

The utility system may be composed of, without limitation, wells, well pumps, supporting emergency generator sets, water treatment equipment, valves, fire hydrants, water distribution mains, meters, booster station pumps, storage tanks, reservoirs, all related electrical controls, and computer hardware and software used to operate and control the production and delivery of water to end users on the Installation.

LATERAL EXTENT OF UTILITY SYSTEM RIGHT-OF-WAY:

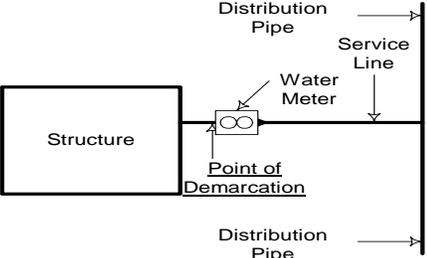
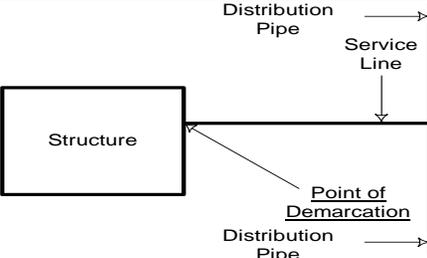
For pipe sizes of 24 inches in diameter or less, 26-feet-wide, extending 13 feet on each side of the utility system, as installed.

For pipe sizes greater than 24 inches in diameter, 50-feet-wide, extending 25 feet on each side of the utility system, as installed.

UTILITY SYSTEM POINTS OF DEMARCATION:

The point of demarcation is defined as the point on the utility system where ownership changes from the utility system owner to the facility owner. The table below

identifies the type and general location of the point of demarcation with respect to the facility for each scenario.

Point of Demarcation (POD)	Applicable Scenario	Sketch
<p>POD is at the water meter, backflow device, or valve (closest apparatus to the exterior of the structure).</p>	<p>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>	 <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 service 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 vertical line represents the distribution pipe, with an arrow pointing to it labeled 'Distribution Pipe'. Below the service line, another vertical line represents the service line, with an arrow pointing to it labeled 'Service Line'.</p>
<p>POD is where the service line enters the structure.</p>	<p>No water meter, backflow device, or valve exists on the service line entering the structure. Service valve may be installed within 25 feet of the structure at any time. Down stream side of the service valve will become the new point of demarcation.</p>	 <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 vertical line represents the distribution pipe, with an arrow pointing to it labeled 'Distribution Pipe'. Below the service line, another vertical line represents the service line, with an arrow pointing to it labeled 'Service Line'.</p>
<p>If the fire suppression system has a storage tank, then the POD is located on the inlet side of the isolation valve or backflow prevention device closest to the storage tank. If no storage tank is present, the POD is located on the inlet side of the PIV or isolation valve closest to the fire suppression pumps.</p>	<p>Fire suppression system is provided flow and/or pressure by the potable water distribution system. These systems are typically dedicated to serving one facility or a small cluster of facilities.</p>	<p>None</p>
<p>POD is located on the inlet side of the PIV, isolation valve, or backflow prevention device closest to the fire suppression system.</p>	<p>Fire suppression system is connected to the potable water distribution system.</p>	<p>None</p>
<p>POD for irrigation systems is the inlet side of the backflow prevention device or isolation valve closest to the irrigation system.</p>	<p>Irrigation system is fed directly from potable water distribution system.</p>	<p>None</p>

Point of Demarcation (POD)	Applicable Scenario	Sketch
<p>POD is the inlet side of the hose bib or water fountain assembly's connection to the service lateral.</p> <p>Note: A service valve may be installed within 25 feet of the hose bib or water fountain at any time. Once installed, the inlet side of the service valve becomes the new POD.</p>	<p>Drinking Fountains and Hose Bibs connected to the water distribution system (typically found at ballfields and outdoor recreation areas). <u>No valve is located on the lateral</u> providing water service to the drinking fountain or hose bib within 25 feet of these connections.</p>	<p>None</p>
<p>POD is the inlet side of the service valve.</p>	<p>Drinking Fountains and Hose Bibs connected to the water distribution system (typically found at ball fields and outdoor recreation areas). <u>Service valve is located on the lateral</u> providing water service to the drinking fountain or hose bib within 25 feet of these water use devices.</p>	<p>None</p>
<p>POD is at the overhead service line's connection to the service entrance mast.</p> <p>Note: If an electric meter is present, or is to be installed, the owner of the electric distribution system on the installation is the owner and maintainer of the electric meter. The POD for the electric meter is at the water utility owner's conductors to the electric utility owner's conductors. This meter POD applies regardless of the location of the electric utility owner's meter. The water utility owner will own the service entrance mast, including the can.</p>	<p>Electric power is provided to a water facility via an <u>overhead</u> service drop. This configuration could be found at facilities dedicated to the water utility such as a water well, pump station, or water tower.</p>	<p>None</p>
<p>POD is at the transformer secondary terminal spade.</p> <p>Note: If an electric meter is present, or is to be installed, the owner of the electric distribution system on the installation is the owner and maintainer of the electric meter. The POD for the meter is at the water utility owner's conductors to the electric utility owner's conductors. This meter POD applies regardless of the location of the electric meters and transformers.</p>	<p>ELECTRIC POWER IS PROVIDED TO A WATER FACILITY VIA AN <u>UNDERGROUND SERVICE CONNECTION</u>. THIS CONFIGURATION COULD BE FOUND AT FACILITIES DEDICATED TO THE WATER UTILITY SUCH AS A WATER WELL, PUMP STATION, OR WATER TOWER.</p>	<p>None</p>

UNIQUE POINTS OF DEMARCATION:

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

Building No.	Point of Demarcation (POD) Description
BLDG 00841 (Water Meter Building)	Downstream of the keybox and shutoff valve from the Anchorage Water and Wastewater Utility (AWWU) connection off of Raspberry Road. This is approximately 40 feet south of Building 00841. Note that the meter in Building 00841 is an AWWU owned meter.
BLDG 00842 (Water Meter Building)	Downstream of the keybox and shutoff valve from the Anchorage Water and Wastewater Utility (AWWU) connection off of Roundabout Road. This is approximately 40 feet east of Building 00842. Note that the meter in Building 00842 is an AWWU owned meter.
BLDG 00843 (Water Meter Building)	Downstream of the keybox and shutoff valve from the Anchorage Water and Wastewater Utility (AWWU) connection off of West Perimeter Road. This is approximately 150 feet south west of Building 00843. Note that the meter in Building 00843 is an AWWU owned meter.
BLDG 00042 (Fire Station Building)	Downstream of the keybox and shutoff valve from the Anchorage Water and Wastewater Utility (AWWU) connection off of West Perimeter Road. This is approximately 200 feet west of Building 00042. Note that the meter for Building 00042 is an AWWU owned meter.

B.2. Description of Restricted Access Areas:

Description	Facility #	State Coordinates	Other Information
Water Meter Building	00841		Located approximately 220 ft. west of the intersection of West Perimeter Road and Roundabout Road on West Perimeter Road. The ROW extends 25' beyond the building perimeter walls.
Water Meter Building	00842		Located in the north east corner of the installation on Roundabout Road. The ROW extends 25' beyond the building perimeter walls.
Water Meter Building	00843		Located approximately 100 ft. south of the Corrosion Control Hangar on the west

Description	Facility #	State Coordinates	Other Information
			side of the installation, off of West Perimeter Road. The ROW extends 25' beyond the building perimeter walls.

Exhibit C—Environmental Baseline Survey

The Air Force has determined that it is not required to conduct an EBS in regard to the sale of this utility system.