

SCHRIEVER AFB, CO UTILITY SYSTEM DESCRIPTIONS

General: Schriever AFB is located at an altitude of 6,267 feet in east central El Paso County approximately 15 miles east of downtown Colorado Springs, Colorado. The Base sits on 3,840 acres that are divided as follows:

- 356 acres – Restricted area where the majority of the Base buildings are located
- 284 acres – Outside restricted area used for parking, administrative facilities, and recreational area
- 3,200 acres – Undeveloped

System Descriptions: The electric, natural gas and water distribution systems and the wastewater collection system at Schriever AFB are being considered for privatization. The information provided here is an estimate only and is subject to change.

Electric: The MVEA provides power to Schriever AFB through an MVEA-owned, double-ended substation that has two 115/12.5-kilovolt (kV) delta, 15/20/25 megavolt ampere (MVA) transformers. Schriever AFB takes ownership at the 12.5 kV side of the substation. In addition, Schriever AFB purchases power from WAPA, which is wheeled by MVEA. From the substation, two incoming circuits connect to two manually switched, redundant buses. The electrical distribution system is underground in a combination of utilidor passageways and concrete-encased duct banks. Most circuits are redundant. Facility service transformers are generally either outside pad-mounted transformers or indoor dry-type. There are uninterruptible power supplies within the various base facilities to avoid power interruptions. Seven 12.47 kV diesel engine generators provide backup power to the Base. The transfer between power sources is fully automated. Neither the generators nor the generator switchgear will be privatized. Included in the privatization are all street, parking lot, and athletic field lighting. Perimeter security lighting is excluded from privatization. Future metering will be accomplished through an approved master metering program and would be the responsibility of the privatization contractor to maintain and read.

Natural Gas: For privatization purposes, the Base's natural gas distribution system includes all piping downstream from the master meter and up to and including the regulator and meter at each building. Natural gas is supplied to Schriever AFB by the CSU and is transported by People's Natural Gas (Utilicorp) through a high-pressure line that enters at the northwest corner of the Base. Gas is furnished by a master meter at 150 pounds per square inch gauge (psig), then reduced to 50 psig for delivery to the Building 600 boilers through a 10-inch diameter pipeline. Gas for the remainder of the Base taps off the 10-inch line through a regulator and is reduced to 5 to 8 psig for distribution.

The Base's natural gas distribution system consists of approximately 14,000 linear feet (lf) of steel and 6,000 lf of polyethylene (PE) pipe ranging from 1 to 10 inches in diameter. There are two natural gas stations and regulators on the incoming gas line. The steel pipe portion of the natural gas distribution system is cathodically protected with magnesium anodes.

Water: The water supply system enters the northwest corner of the Base through a 10-inch pipeline. Water is stored by Schriever AFB in two 1.8-million-gallon underground storage reservoirs (Buildings 4021 and 4022).

Chlorinated well water is furnished to Schriever AFB by the CMD for domestic, process, irrigation, and firewater uses. Building 50 is located outside of the secure area and houses the main water meter, the shut-off valve, and a chlorination system, all of which are owned and

maintained by CMD. Another chlorination system is owned by the Air Force and is located in Building 420. The chlorination system is located between two reservoirs. Two circulating pumps provide minimal recirculation of the reservoirs. There are four domestic pumps capable of supplying the water needs of the Base in addition to three fire pumps. Two of the fire pumps are electric-motor driven, and the remaining fire pump is driven with a diesel engine.

Water is distributed throughout Schriever AFB from the pump station through approximately 39,000 lf of 4- to 10-inch-diameter mains and approximately 3,000 lf of service lines ranging in diameter from 1 to 2 inches. All mains and service lines are Schedule 40 polyvinyl chloride (PVC) pipe. There is a galvanic anode cathodic protection system installed on the system's metallic fittings that includes valves, fittings, and hydrants. AFB.

All utility consumption meters and isolation valves are part of the privatization.

Wastewater: The wastewater system consists of approximately 15,000 lf of PVC piping with sizes ranging from 4- to 10-inches in diameter. There is one 140-gallon-per-minute (gpm) duplex lift station on the system.

Schriever AFB has four oil water separators collecting industrial wastewater. The effluent from these units enters the wastewater system.

The point of contact is Mark Young (mark.young@tyndall.af.mil), FAX 850-283-6336