PART 1 - GENERAL

1.01 Provide the following equipment, in the indicated sequence, at each main water service to each building:

A. Main isolation valve

B. Tee to sprinkler system double check backflow preventer (minimum 1 union or flanged connection).

C. Building reduced pressure backflow preventer.

D. Strainer with manual blowdown and stainless steel screen.

E. Tee for upstream connection of PRDV (pressure reducing valve) and water meter bypass

   1. Bypass shall be line size and include pressure gauges upstream and downstream of bypass isolation valve.

   2. Pressure gauges shall be isolated by gauge isolation valves.

F. Isolation valve

G. PRDV

H. Water meter with union connections.

   1. Owner will furnish for contractor to install a 2 inch Badger Recordall compound series meter. Provide a flanged connection with space needed for meter. (at this time, 32.25 inch but verify with FS Division of Utilities.) Provide minimum of 6 inch unobstructed straight pipe downstream of meter. Install Y-strainer at least ten pipe diameters of unobstructed straight pipe upstream of the meter. Provide isolating valves on inlet and outlet and a full line size bypass with globe valve for liquid service. (See UAF Domestic Water Detail.)

   2. Indicate as such on drawings.

I. Isolation valve

J. Tee for downstream connection of PRDV and water meter bypass.

1.02 Where sprinkler system entrance to building is separate from domestic water system entrance, omit paragraph 1.01 B. above and provide as separate equipment at sprinkler system:

A. Provide a separate main isolation valve prior to the sprinkler system double check
backflow preventer

B. Provide sprinkler system double check backflow preventer with minimum one union or flanged connection.

1.03 Provide area floor drains at all mechanical/utility rooms, restrooms, shower rooms, drying areas, laundry rooms, and laboratories. Slope floors uniformly from the wall to the drains.

1.04 Install trap primers on all floor drains. See Section 22 40 00 for trap primers.

1.05 Provide diaphragm or piston style water hammer arrestors at hot & cold service to all fixtures. Pipe riser tubes not allowed. Single water hammer arrestor may serve banks of fixtures.

PART 2 - PRODUCTS

2.01 Reduced Pressure Backflow prevention valves:

A. Febco, Watts, or Ames. No alternate brands, no substitutions.

B. Must be listed by Foundation for Cross-Connection Control and Hydraulic Research.

2.02 Strainers shall have manual blow down valve and stainless steel screen and vacuum breaker equipped hose thread connection.

2.03 Pressure Reducing Valve: WATTS brand, 0-200psi, bronze construction. Provide minimum 3 inch round 0-200 psi pressure gauges.

2.04 Water Meter: 2 inch diameter, 150 lb. flanges. Register to display gallons. Badger Recordall Compound Series meter. Owner Furnished Contractor Installed. No alternate brands; no substitutions.

2.06 Gate valves not allowed for line size less than 3 inches, utilize full port ball valves. Use rising stem gate valves for valves 3 inches and greater.

PART 3 – EXECUTION

3.01 Provide a cleaning and disinfection specification for domestic water piping in accordance with current adopted codes and regulations. Require submission of all results to UAF and if required, Alaska DEC (i.e. utilidor, building service entry up to the first backflow).

3.02 UAF Facilities Services and Consultant shall obtain necessary construction permits and approvals to operate from ADEC and/or appropriate Utility prior to construction on any public water system (i.e. utilidor, building service entrance).

3.03 Coordinate with Division 26 to provide conduit and wiring for the water meter.

END OF SECTION