

2021 UPC (Comm/Res)

City of Bozeman Water Service Calculation Worksheet

Project Address: _____ Property Owner: _____

General Contractor: _____

Permit Number: _____ Proposed Water Meter Size: _____

*As a substitute for this form you can utilize Appendix M in Uniform Plumbing Code. The calculator results, as well as all of the fixtures that will be used on this project will need to be submitted in lieu of this form.

UPC Table 610.3 Standard Design Water Supply Fixture Units

<u>Appliances and Fixtures</u>	<u>Fixture Units</u>		<u># of Fixtures</u>	<u>Total</u>
Bathtub/Combination Tub/Shower	4.0	X	_____	= _____
Soaker Tub	10.0	X	_____	= _____
Shower (per head)	2.0	X	_____	= _____
Clothes washer	4.0	X	_____	= _____
Dishwasher	1.5	X	_____	= _____
Hose Bibb	2.5	X	_____	= _____
Additional Hose Bibb (each)	1.0	X	_____	= _____
Drinking Fountain	0.5	X	_____	= _____
Service / Mop Basin	3.0	X	_____	= _____
Lavatory Sink	1.0	X	_____	= _____
Kitchen Sink	1.5	X	_____	= _____
Laundry Sink	1.5	X	_____	= _____
Water closet (1.6 GPF)	2.5	X	_____	= _____
Water closet (1.6 GPF - Flushometer tank)	2.5	X	_____	= _____
Water closet (flushometer valve)	Sec. 610.1 Table Values	X	_____	= _____
Urinal (flushometer valve)	Sec. 610.1 Table Values	X	_____	= _____
Total Number of Fixture Units				_____

First identify the length in feet to the farthest fixture and applicable service. Then, cross reference the number of fixtures, based on the Total Number of Fixture Units above to determine the appropriate Meter & Service, and Supply & Branch size.

UPC Table 610.4 Maximum Allowable Length in feet - 46-60 PSI

Meter & Service	Supply & Branches	60'	80'	100'	150'	200'
¾"	¾"	20	19	17	14	11
¾"	1"	39	36	33	28	23
1"	1"	39	39	36	30	25
¾"	1¼"	39	39	39	39	39
1"	1¼"	78	76	67	52	44
1½"	1¼"	78	78	78	66	52
1"	1½"/2"	85	85	85	85	85
1½"	1½"	151	151	151	128	105
2"	1½"	151	151	151	150	117
1½"	2"	370	340	318	272	240
2"	2"	370	370	370	368	318

If count is over 370 fixtures, water demand does not meet table 610.4 submitted by a registered Montana mechanical engineers design, signed and stamped.

*Appendix M requires the property to be identified as a water conservation Building.