

1 Water Service Line Flow Chart

System Pressure (psi)	2 Min. System Residual Fire Flow Pressure (psi)	Available Pressure Drop (psi)	Service Size (inch)							
			0.75		1		1.5		2	
			Available Flow w/o Meter (gpm)	* Rated Flow Through Meter (gpm)	Available Flow w/o Meter (gpm)	* Rated Flow Through Meter (gpm)	Available Flow w/o Meter (gpm)	* Rated Flow Through Meter (gpm)	Available Flow w/o Meter (gpm)	* Rated Flow Through Meter (gpm)
150	20	130	53	30	113	50	328	100	700	160
145	20	125	52	30	111	50	322	100	686	160
140	20	120	51	30	108	50	315	100	671	160
135	20	115	50	30	106	50	307	100	655	160
130	20	110	48	30	103	50	300	100	640	160
125	20	105	47	30	101	50	293	100	624	160
120	20	100	46	30	98	50	285	100	608	160
115	20	95	45	30	95	50	277	100	591	160
110	20	90	43	30	93	50	269	100	574	160
105	20	85	42	30	90	50	261	100	557	160
100	20	80	41	30	87	50	253	100	539	160
95	20	75	39	30	84	50	244	100	520	160
90	20	70	38	30	81	50	235	100	501	160
85	20	65	36	30	78	50	226	100	482	160
80	20	60	35	30	74	50	216	100	461	160
75	20	55	33	30	71	50	206	100	440	160
70	20	50	32	28	67	50	196	100	418	160
65	20	45	30	26	64	50	185	100	395	160
60	20	40	28	24	60	50	174	100	370	160
55	20	35	26	23	56	48	162	100	345	160
50	20	30	24	21	51	44	149	100	317	160
45	20	25	22	19	46	40	135	100	287	160
40	20	20	19	17	41	36	119	88	255	158
35	20	15	16	14	35	30	102	76	218	135
30	20	10	13	12	28	24	82	62	175	110
25	20	5	9	8	19	17	56	43	120	77
20	20	0	0	0	0	0	0	0	0	0

* Values derived from SR Water Meters Typical Performance Curves and the meters AWWA Maximum Capacity

Assumed:

L (ft) = 40.0 (max length in feet from main to meter)

C = 135.0 (older HDPE pipe)

When used to calculate the pressure drop using the US customary units system, the equation is:

$$P_d = \frac{4.52 * L * Q^{1.85}}{C^{1.85} * d^{4.87}}$$

where:

P_d = pressure drop over a length of pipe, psig (pounds per square inch gauge pressure)

L = length of pipe, ft (feet)

Q = flow, gpm (gallons per minute)

d = inside pipe diameter, in (inches)

C = Hazen Williams coefficient of friction

Notes:

1. This table is for reference purposes only and represents maximum anticipated flow to the point of connection (40 foot maximum length) without additional valves and piping. Homeowners, Architects, Engineers, Fire Sprinkler Designers, etc., are responsible to verify existing water system pressures prior to design and incorporate the information into the water service and fire service line design. Additional pressure losses will occur through additional required valves and piping.

2. The minimum water pressure at the point of connection shall be above 20 psi with fire flow and peak day demands, above 30 psi with peak instantaneous demands, and above 40 psi with peak day demands. See Utah Administrative Code R309-105-9, Minimum Water Pressure.

3. Individual home booster pumps shall not be allowed for any individual service from the public water supply main, see Utah Administrative Code R309-105-9 and R309-540-5(4)(c)

STANDARD DRAWING

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WATER SERVICE LINE FLOW CHART

PARK CITY MUNICIPAL CORPORATION