



Potable Water Hydraulic Load Calculator - NPC 2020

Project address: _____

Private use fixture units assigned per 2.6.3.2.A. - **fill in quantity (QTY) column only.**

This hydraulic load calculator will assign fixture units to each type of fixture and determine the total cold, hot and combined load required to select pipe size.

Fixture	FU's	Qty	Cold	Hot	Total
Bathroom group w/ 6LPF flush tank*	3.6		0	0	0 *Bathroom Group up to 3 fixtures with 1/2" bathtub supply line
Bathroom group w/ >6LPF flush tank*	6		0	0	0
toilet 6 LPF or less - WC	2.2		0		0
toilet > 6 LPF - WC	3		0		0
hand basin 8.3LPM or less - LAV	0.7		0	0	0
hand basin > 8.3LPM - LAV	1		0	0	0
1/2" bathtub - BT	1.4		0	0	0
3/4" bathtub - BT	10		0	0	0
shower 9.5LPM or less - per head - SH	1.4		0	0	0
shower >9.5LPM - per head - SH	2		0	0	0
bidet - BD	2		0	0	0
kitchen sink 8.3 LPM or less - KS	1.4		0	0	0
kitchen sink > 8.3 LPM - KS	2		0	0	0
dishwasher - DW	1.4			0	0
bar sink - BS	1		0	0	0
clothes washer - CW	1.4		0	0	0
laundry sink - LS	1.4		0	0	0
combination hot/cold hose bib (1/2")	2.5		0	0	0
1/2" hose bib - HB	2.5		0		0
3/4" hose bib - HB	3		0		0
1/4" fridge water supply	1		0		0
irrigation (maximum 1 inch)	12		0		0
fire suppression (50GPM)	130				0
TOTAL HYDRAULIC LOADS			0	0	0

Existing water service size:

NOTE: use only 2.4 m/s for PEX, 3.0 m/s for HDPE

Proposed water service size:

1.5 m/s for cu. cold, & 1.2 m/s for cu. hot.

Table 2.6.3.4. Water Pipe Sizing for Buildings Containing One or Two Dwelling Units or Row Houses with Separate Water Service Pipes

Nominal Pipe Size of Water Pipe, NPS	Water Velocity, m/s		
	3.0	2.4	1.5
	Hydraulic Load, fixture units		
1/2	8	7	4
3/4	21	16	9
1	43	31	18
1 1/4	83	57	30

