



Water Service Size Calculation Worksheet

Property Address: _____

Property Owner Name: _____

Permit Application No: _____

Type of Occupancy: Single Family Multifamily Commercial

Applicant Name: _____

Applicant Address: _____

Applicant Phone: _____ Fax: _____

Please complete the table below, and return the completed form to the Building and Inspection Services Division as a part of your permit submittal.

Fixture Type	Total Number of Fixtures (New + Existing)	x	Unit Load Value	=	Water Supply Fixture Units (W.S.F.U.)
Water Closets			3.0		
Lavatories			1.0		
Bathtubs/showers			2.0		
Kitchen Sink			2.0		
Dishwasher			1.0		
Laundry Sink			3.0		
Laundry Machine			2.0		
TOTAL					
Existing Water Service Pipe Size*: _____ inches					
Required Water Service Pipe Size (see reverse side): _____ inches					

For new residential construction, service size to meet Illinois Plumbing Code and Fire Sprinkler demand requirements. Minimum 1 1/2".

If your existing water service size is less than the required size, your water service will need to be upgraded as a part of your proposed project scope.

*If unsure about the size of an existing water service, please contact the Water and Sewer Division of Public Works at 847-448-4311

Property Owner's Signature: _____ Date: _____

77 ILLINOIS ADMINISTRATIVE CODE, PART 890

ILLINOIS PLUMBING CODE (12/98)

Section 890.Appendix A

**PLUMBING MATERIALS, EQUIPMENT, USE
RESTRICTIONS AND APPLICABLE STANDARDS**

**TABLE N Water Supply Fixture Units (W.S.F.U.) for a Supply System
With Flush Tanks**

**Water Supply Fixture Units (W.S.F.U.) for a
Supply System with Flush Tanks**

W.S.F.U.	Demand (GPM)	Pipe Size (Inches)	Pressure Loss PSI/100' of Pipe)	Velocity (Ft./Sec.)
2	2	1/2"	4.2	2.7
4	3	1/2"	8.7	4.2
6	5	1/2"	22.5	7.0
8	6.5	3/4"	6.3	4.3
10	8	3/4"	9.0	5.4
12	9.2	3/4"	11.5	6.1
14	10.4	3/4"	15.0	6.9
16	11.6	3/4"	18.0	7.7
20	14	1"	7.2	5.6
25	17	1"	10.0	6.6
30	20	1"	13.6	8.0
35	22.5	1 1/4"	5.8	5.7
40	25	1 1/4"	7.0	6.3
45	27	1 1/4"	8.2	6.9
50	29	1 1/4"	9.5	7.4
60	32	1 1/2"	5.0	5.8
70	35	1 1/2"	6.2	6.4
80	38	1 1/2"	7.0	7.2
90	41	1 1/2"	8.0	7.5
100	43.5	1 1/2"	8.7	7.8
120	48	2"	2.7	5.0
140	52.5	2"	3.1	5.4
160	57	2"	3.6	5.8
180	61	2"	3.9	6.1
200	65	2"	4.5	6.6
225	70	2"	5.2	7.1
250	75	2"	6.0	7.7
275	80	2 1/2"	2.6	5.5
300	85	2 1/2"	2.9	5.8
350	95	2 1/2"	3.5	6.5
400	105	2 1/2"	4.2	7.1
450	115	2 1/2"	5.0	8.0
500	125	3"	2.3	5.9
600	145	3"	3.1	6.8