Water Meter Sizing Calculations

Single-Family Residential

Plan Check Number: _____ Date: _____

To determine the water meter fee, the water development fee and the sewer connection fee, we must know the size of the water meter required for the residence. To determine the correct size, please provide the following essential information.

This does NOT permit the violation of any section of any federal, state or local regulations.

1. Total number of fixture units (FU's) of all water using outlets is:

Type of Fixture	FU's		Existing Fixture Count		New Fixture Count		Total FU's
Bidet	**2**	**X**		**+**		**=**	
Bathtub (with/without shower head)	**1.4**	**X**		**+**		**=**	
Clothes washer	**1.4**	**X**		**+**		**=**	
Dish washer	**1.4**	**X**		**+**		**=**	
Full-bath group with bathtub (with or w/o shower head) or shower stall	**3.6**	**X**		**+**		**=**	
Half-bath group (water closet & lavatory)	**2.6**	**X**		**+**		**=**	
Hose bibb (sillcock)	**2.5**	**X**		**+**		**=**	
Kitchen group (dishwasher & sink with/without grinder)	**2.5**	**X**		**+**		**=**	
Kitchen sink	**1.4**	**X**		**+**		**=**	
Laundry group (clothes washer & laundry tub)	**2.5**	**X**		**+**		**=**	
Laundry tub	**1.4**	**X**		**+**		**=**	
Lavatory	**0.7**	**X**		**+**		**=**	
Shower stall	**1.4**	**X**		**+**		**=**	
Water closet (tank type)	**2.2**	**X**		**+**		**=**	
***Other**		**X**		**+**		**=**	
					Total	**=**	

**Water supply outlets for items not listed above shall be computed at their maximum demand, or according to the size of the supply pipe as indicated in the currently adopted International Plumbing Code; whichever is greater.*

2) Total length of the piping from the water meter to the farthest water-using outlet/fixture is: _____ lineal feet.

3) Local water service pressure is _____ pounds per square inch (psi).

4) Total square footage under roof: _____.**

****When the TOTAL square footage under roof exceeds 12,000 sq ft, the minimum required meter size shall be not less than 1-1/2", and the minimum supply from the meter to the building shall be not less than 2" ID pipe.**

It is the owner/builders responsibility to conduct a water pressure test at your site or as near as possible to your site. Your building permit cannot be issued until you have obtained this info. An approved type pressure regulator is required to be installed

Owner/Agent: _____

Phone: _____

Fax: _____

E-mail: _____

To be completed by the Plans Examiner
Size of Meter _____
Size of Building Supply _____

Signature: _____ Date: _____

When approved by the City of Scottsdale, the Applicant shall deliver a copy of this form, or the City approved plans, to the Fire Sprinkler Designer to use in the calculation of the fire sprinkler system. Verification of the Meter size must accompany Fire Sprinkler plans submitted for review .

PLANNING AND DEVELOPMENT SERVICES
7447 E. INDIAN SCHOOL ROAD SUITE 100, SCOTTSDALE, AZ 85251-3915 PHONE: 480-312-2500 FAX: 480-312-7088

METER AND SERVICE PIPE (inches)	DISTRIBUTION PIPE (inches)	MAXIMUM DEVELOPMENT LENGTH (feet)									
Pressure Range Over 60		40	60	80	100	150	200	250	300	400	500
$^3/_4$	$^1/_2$[a]	3	3	3	2.5	2	1.5	1.5	1	1	0.5
$^3/_4$	$^3/_4$	9.5	9.5	9.5	9.5	7.5	6	5	4.5	3.5	3
$^3/_4$	1	32	32	32	32	32	24	19.5	15.5	11.5	9.5
1	1	32	32	32	32	32	28	28	17	12	9.5
$^3/_4$	$1^1/_4$	32	32	32	32	32	32	32	32	32	30
1	$1^1/_4$	80	80	80	80	80	80	69	60	46	36
$1^1/_2$	$1^1/_4$	80	80	80	80	80	80	76	65	50	38
1	$1^1/_2$	87	87	87	87	87	87	87	87	87	84
$1^1/_2$	$1^1/_2$	151	151	151	151	151	151	151	144	114	94
2	$1^1/_2$	151	151	151	151	151	151	151	151	118	97
1	2	87	87	87	87	87	87	87	87	87	87
$1^1/_2$	2	275	275	275	275	275	275	275	275	275	252
2	2	365	368	368	368	368	368	368	368	318	273
2	$2^1/_2$	533	533	533	533	533	533	533	533	533	533

TABLE AP201.1—continued
MINIMUM SIZE OF WATER METERS, MAINS AND DISTRIBUTION PIPING BASED ON WATER SUPPLY FIXTURE UNIT VALUES (w.s.f.u.)

METER AND SERVICE PIPE (inches)	DISTRIBUTION PIPE (inches)	MAXIMUM DEVELOPMENT LENGTH (feet)									
Pressure Range 50 to 60 psi		40	60	80	100	150	200	250	300	400	500
$^3/_4$	$^1/_2$[a]	3	3	2.5	2	1.5	1	1	1	0.5	0.5
$^3/_4$	$^3/_4$	9.5	9.5	9.5	8.5	6.5	5	4.5	4	3	2.5
$^3/_4$	1	32	32	32	32	25	18.5	14.5	12	9.5	8
1	1	32	32	32	32	30	22	16.5	13	10	8
$^3/_4$	$1^1/_4$	32	32	32	32	32	32	32	32	29	24
1	$1^1/_4$	80	80	80	80	80	68	57	48	35	28
$1^1/_2$	$1^1/_4$	80	80	80	80	80	75	63	53	39	29
1	$1^1/_2$	87	87	87	87	87	87	87	87	82	70
$1^1/_2$	$1^1/_2$	151	151	151	151	151	151	139	120	94	79
2	$1^1/_2$	151	151	151	151	151	151	146	126	97	81
1	2	87	87	87	87	87	87	87	87	87	87
$1^1/_2$	2	275	275	275	275	275	275	275	275	247	213
2	2	365	365	365	365	365	365	365	329	272	232
2	$2^1/_2$	533	533	533	533	533	533	533	533	533	486