

Water Meter Sizing Form (One form per meter)

Project		CCU Project #	
Service Address		Building permit #	
Use of Facility			

This Section to be filled out by Engineer/Architect of Record: The water distribution system shall be designed, and pipe sizes shall be selected such that under conditions of peak demand, the capacities at the fixture supply pipe outlets shall not be less than shown in the table below. The minimum flow rate and flow pressure provided to fixtures and appliances not listed in this table shall be in accordance with the manufacturer's installation instructions.

Enter # of each Fixture Type, then multiply by appropriate Value to get fixture value: (Source: FL Plumbing Code)

Fixture Supply Outlet	Flow rate (gpm)	Pressure (psi)	x	# of Fixtures	=	Total Flow value	Total Pressure value		
Automatic clothes Washer Commercial	3.00		x		=				
Automatic clothes Washer Residential	2.00		x		=				
Bathroom group (toilet, sink, tub, shower) (1.6 gpf water closet)	5.00		x		=				
Bathroom group (toilet, sink, tub, shower) (water closet flushing greater than 1.6 gpf)	6.00		x		=				
Bath tub (with or without overhead shower or whirlpool attachments)	4.00	8	x		=				
Bidet	2.00	4	x		=				
Combination Fixture (Sink and Tray)	4.00	8	x		=				
Dental Lavatory (bathroom sink)	1.00		x		=				
Dental unit or cuspidor	1.00		x		=				
Dishwasher, residential	2.75	8	x		=				
Drinking Fountain	0.75	8	x		=				
Emergency Floor Drains	0.00								
Floor Drains	2.00								
Kitchen Sink, residential	2.5		x		=				
Kitchen Sink, residential w/food waste grinder and/or dishwasher	2.00								
Laundry tray (1 or 2 compartments)	4.00	8	x		=				
Lavatory (bathroom sink)	2.00	8	x		=				
Shower	3.00	8	x		=				
Sillcock, hose bibb	5.00	8	x		=				
Sink, residential	2.50	8	x		=				
Sink, service	3.00	8	x		=				
Urinal standard	4.00		x		=				
Urinal, 1 gallon per flush or less	2.00		x		=				
Urinal, 1 flush valve (see last column for GPM per urinal valve)	15.00	15	x		=			N# of urinal flush valves	GPM
Wash sink (circular or multiple) each set of faucets	2.00		x		=			1	15
Water Closet, blow out, flushometer valve	35.00	25	x		=			2	21
Water Closet, flushometer tank	1.60	15	x		=			3	22
Water Closet, siphonic, flushometer valve	25	15						4	23
Water Closet, tank, close coupled	3	8						5	24
Water Closet, tank, one piece	6	20						6	25
Misc. Connections: 3/8"	2.5							7	26
Misc. Connections: 1/2"	5		x		=			8	27
Misc. Connections: 3/4"	15		x		=			9	28
Misc. Connections: 1"	25		x		=			10	29
Misc. Connections: 1 1/4"	35		x		=				
Lawn and sprinkler, each full head (manufact. installation instructions)			x		=				
Other (*)			x		=				

Total fixture Value per unit =>				
Number of unit in this building =>				
Grand Total Value (Per Unit Total x # of units) =>				

[Proceed to next page]

(*) For any fixtures not listed or listed with no value, submit manufacturer's data sheets and enter appropriate description and value. Information and values in accordance with Florida Plumbing Code

Water services need to be based upon residual pressures during maximum day consumption while still maintaining the required residual pressure at the fixtures:

Total Fixture Value per Unit (Refer to previous table)	Required Meter Size (2" and smaller are supplied by CCU)	Pressure Loss at Max Continuous Operation (PSI)
0-15	5/8" x 3/4" meter	2.8 at 15 GPM
15.5 - 25	3/4" meter	5.0 PSI at 25 GPM
25.5 – 50	1" meter	6.5 at 50 GPM
50.5 – 80	1.5" meter	4.8 at 80 GPM
80.5 – 100	2" meter	3.3 at 100 GPM
100.5 count and more	Meters larger than 2" shall be specially ordered by the Developer through CCU for installation	Specific operating characteristics documentation will be available upon request

Please Note:

1. All commercial facilities must be metered separately from residential facilities with the exception of those commercial facilities that are within a master metered residential development and designed for the exclusive use of the residents within such development.
2. The water meter shall be selected to allow a maximum pressure loss as indicated on the above table.
3. Additional fees may apply if a backflow device is deemed necessary by the Water Distribution Department.
4. The Design Engineer/Architect must submit signed and sealed documentation supporting meter sizing. For meters larger than 2-in, submit the County approved manufacturer's name and model number. For meters 2-inch and smaller the sizing shall be based upon Fixture Flow Values as shown on the previous page and sized as per the Table on this page unless approved otherwise by the Charlotte County Utilities Engineering Department. For all meters the Engineer/Architect must consider all relevant factors before selecting the final meter size.
5. For remodeling projects this form must be submitted only if there is a net increase in Fixture Flow Value.

Demand in accordance with the Fixture Flow Value Worksheet and the Table for Estimating Demand

(Engineer/Architect must attach a completed Fixture Flow Value Worksheet)

Meter Size in Inches

(Engineer/Architect must identify the meter manufacturer and model number)

Type or Print Name of Engineer/Architect of Record for Project

Signature of Engineer/Architect of Record for Project and Date
[Affix Engineering/Architect Stamp Here]

**Table for Estimating Demand
Supporting Documentation**

SUPPLY SYSTEMS PREDOMINANTLY FOR FLUSH TANKS		SUPPLY SYSTEMS PREDOMINANTLY FOR FLUSH VALVES	
Load	Demand	Load	Demand
Fixture Flow Value	Gallons per minute	Fixture Flow Value	Gallons per minute
1	3.0	---	---
2	5.0	---	---
3	6.5	---	---
4	8.0	---	---
5	9.4	5	15.0
6	10.7	6	17.4
7	11.8	7	19.8
8	12.8	8	22.2
9	13.7	9	24.6
10	14.6	10	27.0
11	15.4	11	27.8
12	16.0	12	28.6
13	16.5	13	29.4
14	17.0	14	30.2
15	17.5	15	31.0
16	18.0	16	31.8
17	18.4	17	32.6
18	18.8	18	33.4
19	19.2	19	34.2
20	19.6	20	35.0
25	21.5	25	38.0
30	23.3	30	42.0
35	24.9	35	44.0
40	26.3	40	46.0
45	27.7	45	48.0
50	29.1	50	50.0
60	32.0	60	54.0
70	35.0	70	58.0
80	38.0	80	61.2
90	41.0	90	64.3
100	43.5	100	67.5
120	48.0	120	73.0
140	52.5	140	77.0
160	57.0	160	81.0
180	61.0	180	85.5
200	65.0	200	90.0
225	70.0	225	95.5
250	75.0	250	101.0
275	80.0	275	104.5
300	85.0	300	108.0
400	105.0	400	127.0
500	124.0	500	143.0
750	170.0	750	177.0
1,000	208.0	1,000	208.0
1,250	239.0	1,250	239.0
1,500	269.0	1,500	269.0
1,750	297.0	1,750	297.0
2,000	325.0	2,000	325.0
2,500	380.0	2,500	280.0
3,000	433.0	3,000	433.0
4,000	535.0	4,000	525.0
5,000	593.0	5,000	593.0