




INTEROFFICE MEMORANDUM

TO: Marana Water, Development Services, Engineering
FROM: Scott Schladweiler, P.E., Water Director 
SUBJECT: Marana Water Meter Sizing Guidelines
DATE: March 20, 2020

Applicability of this Memorandum: Effective April 1, 2020, all meters shall be evaluated per the guidelines contained herein as of the date of building permit issuance. No refunds or reimbursements will be considered for water meters with an approved building permit issued prior to April 1, 2020. Previously approved plans for models or improvements may be revised at the applicant's cost if no building permit has been issued for that lot/project.

Water meters shall be sized in accordance with the maximum design capacity shown in the table below. Maximum design capacity is established as the safe maximum operating capacity (SMOC) for the Type I meters representing residential and commercial applications where low flow accuracy is of particular concern as referenced in American Water Works Association (AWWA) standard for Cold Water Meters – Electromagnetic and Ultrasonic Type, for Revenue Application C715. Maximum International Plumbing Code (IPC) Fixture Unit counts were interpolated using the 2018 IPC, and are included below for reference only through 4-inch meter size. The determining factor for meter sizing shall be the required design capacity. Use of the design capacity and fixture unit counts to determine water meter size shall be at the discretion of Marana Water technical staff.

Meter Size (inches)	Maximum IPC Fixture Units ^{1,2} ()	Maximum Meter Design Capacity (gpm)
5/8" ³	20	20
3/4"	53	30
1"	130	50
1 1/2"	380	100
2"	700	160
3"	2400	350
4"	5000	600
6"	N/A	1350
8" ⁴	N/A	1600

Notes:

1. Fixture unit limits were interpolated from Table E103.3(3) of the 2018 International Plumbing Code (IPC) and assume the use of flush tanks. For flushometer valves, consult referenced table.
2. Use of an accepted engineering practice other than the IPC to determine the maximum design capacity shall only be accepted following approval by Town of Marana Development Services.
3. The $\frac{5}{8}$ " meters used by Marana Water are actually $\frac{5}{8}$ " x $\frac{3}{4}$ " meters, which include a $\frac{5}{8}$ " flow tube and sensing unit, and $\frac{3}{4}$ " connections to the service line.
4. For meter sizes larger than 8-inch, consult Marana Water.