

26.8, $\frac{1}{2}$ -in. fixtures, the riser of the 2nd floor supplied must accommodate 53.6 fixtures, the 3rd, 80.4, etc. These values are shown in Fig. 2. By referring to Table 3 the pipe sizes may be determined readily and are as shown in Fig. 2. The hot water riser will

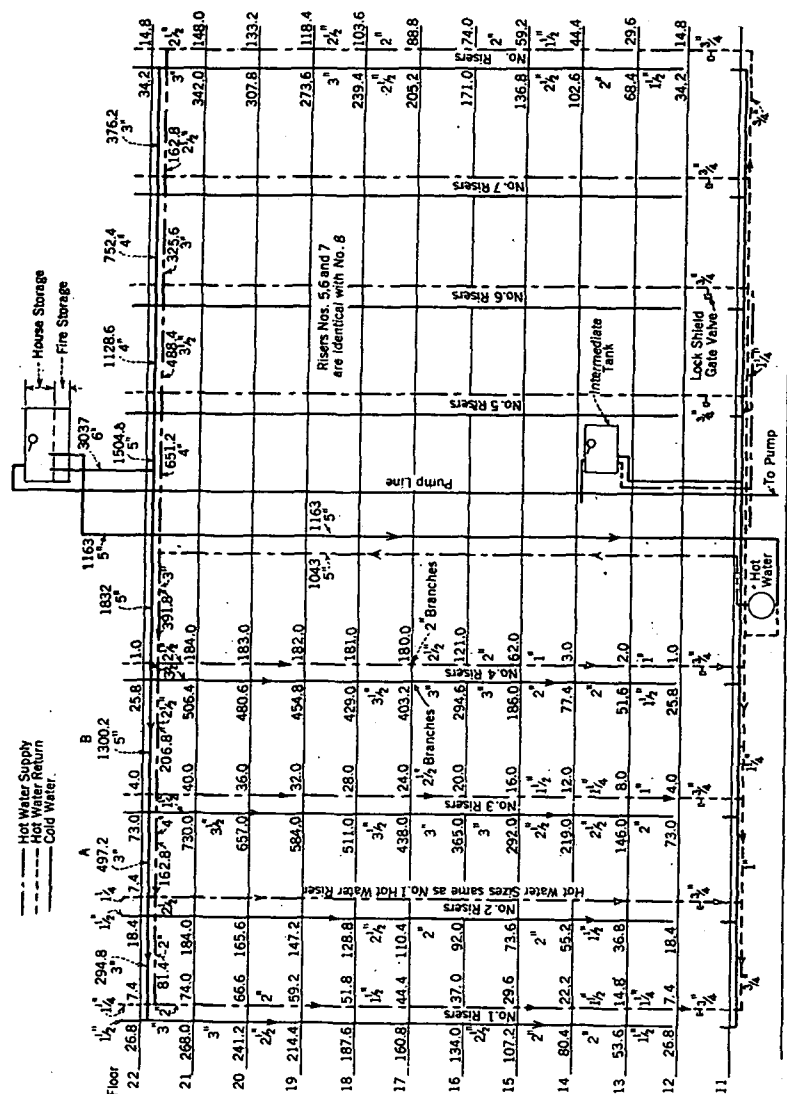


FIG. 2. PIPE SIZES AND QUANTITIES OF WATER FOR WATER SUPPLY PIPING PROBLEM. (SEE EXAMPLE 2)

supply the baths and lavatories only and has a value of 7.4 for each floor. The riser is sized accordingly. Riser No. 2 is similar to Riser No. 1 except that only 1-in. pipe has been used for the flushometer connections. The discharge to the flushometer valve will be at a lower rate and will take a correspondingly smaller riser. The cold water factor per floor is now 18.4.

The class of fixtures per floor and their fixture value for the various risers of Fig. 2 are as follows:

Riser No. 1

2 W. C. flushometers ($1\frac{1}{4}$ -in. connections)	19.4
2 Baths ($\frac{3}{4}$ -in. connections)	5.4
2 Lavatories ($\frac{1}{2}$ -in. connections)	2.0
Fixture value per floor (cold water)	26.8
Fixture value per floor (hot water)	7.4

Riser No. 2

2 W. C. flushometers (1-in. connections)	11.0
2 Baths ($\frac{3}{4}$ -in. connections)	5.4
2 Lavatories ($\frac{1}{2}$ -in. connections)	5.0
Fixture value per floor (cold water)	18.4
Fixture value per floor (hot water)	7.4

Riser No. 3

6 W. C.	58.2
4 Urinals	10.8
4 Lavatories	4.0
Fixture value (cold water)	73.0
Fixture value (hot water)	4.0

Riser No. 4

12th, 13th, 14th and 18th to 22nd floors.

2 W. C.	19.4
2 Urinals	5.4
1 Lavatory	1.0
Fixture value (cold water)	25.8
Fixture value (hot water)	1.0

15th, 16th and 17th floors

6 Rain Head Showers	6.0
6 Needle Showers	33.0
4 W. C. ($1\frac{1}{4}$ -in.)	38.8
4 Urinals ($\frac{3}{4}$ -in.)	10.8
3 Lavatories	3.0

Fixture value (cold water)	91.8
Allowance (see p. 212)	17.0

Fixture value used	108.6
Fixture value (hot water)	42.0
Allowance (see p. 212)	17.0

Fixture value used	59.0
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Risers 5, 6, 7 and 8

2 W. C.	19.4
2 Baths	5.4
2 Lavatories	2.0
2 Sinks	2.0
2 Laundries ($\frac{3}{4}$ -in.)	5.4

Fixture value (cold water)	34.2
Fixture value (hot water)	14.8