

## Size and Capacity of Water Service for a House with one Dwelling Unit

### ONTARIO BUILDING CODE

#### 7.6.3.4. Size

- (6) Where both hot and cold water is supplied to fixtures in a house containing only one dwelling unit, the water service pipe is permitted to be a minimum of  $\frac{3}{4}$  in. in size provided,
- (a) a minimum  $\frac{3}{4}$  in. water supply piping located in the basement or lower level is extended to the base of every hot and cold riser that serves a maximum of one bathroom group and to the last water supply branch serving any basement bathroom group, fixture supply or hose bibb, and
  - (b) the total hydraulic load is not more than 26 fixture units, using the values given in Table 7.6.3.2.A.

### OBJECTIVE

Recent amendments to the Building Code were made as the previous Building Code requirements could potentially be interpreted to cause installation of larger water supply piping than what has historically been required. This could cause issues with over-use of water and resident dissatisfaction with waiting periods for hot water.

As an example, the diagram below contains the following fixture units for a house containing (one dwelling unit) and would satisfy the requirements for a  $\frac{3}{4}$ " water service.

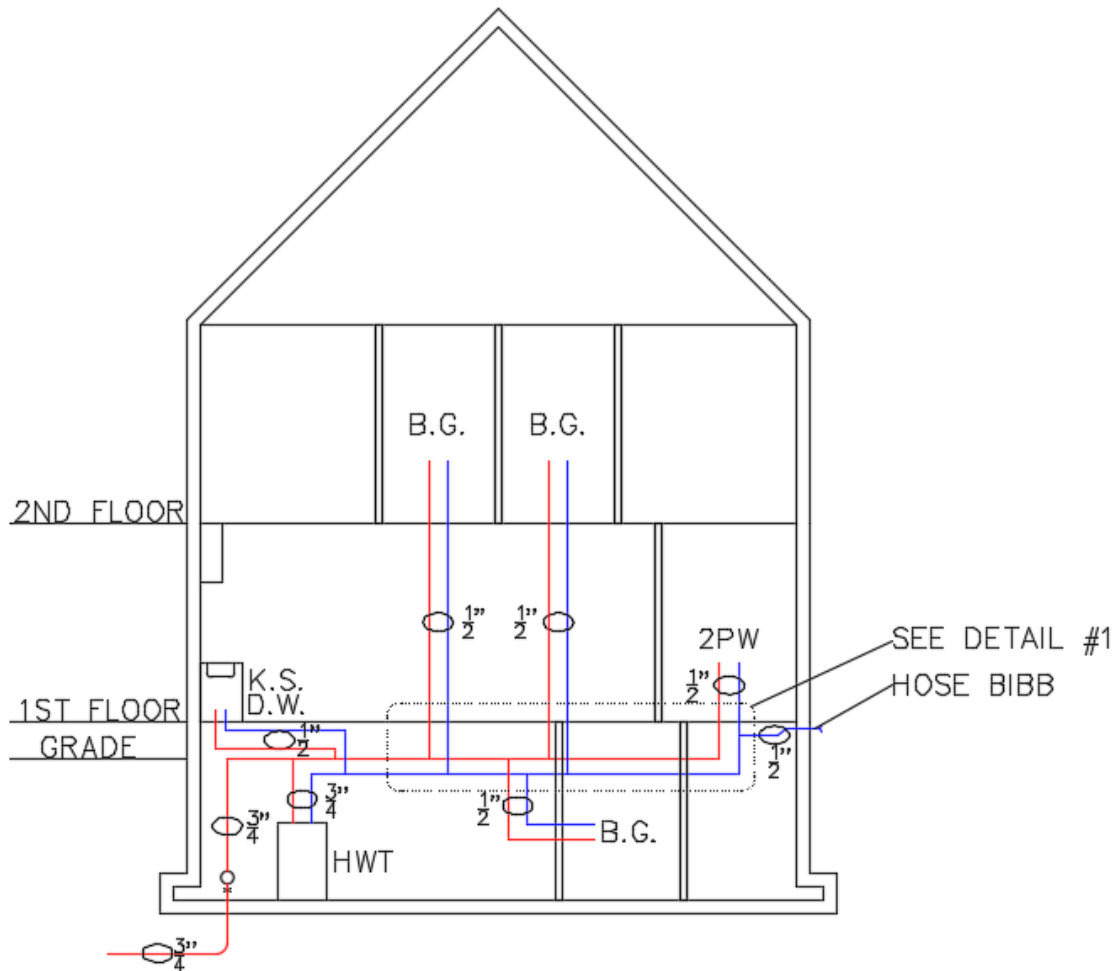
Second floor – 2 bathroom groups (water closet, lavatory, and bath or shower @ 3.6 fixture units each = 7.2 fixture units

First floor – kitchen sink, dishwasher, 2 piece washroom with water closet and lavatory, laundry tub and clothes water @ 1.4, 1.4, 2.2, 0.7, 1.4, and 1.4 fixture units respectively, total = 8.6 fixture units

Basement – 1 bathroom group and 2 hose bibbs @ 3.6 and 2.5 each fixture units respectively, total = 8.6 fixture units

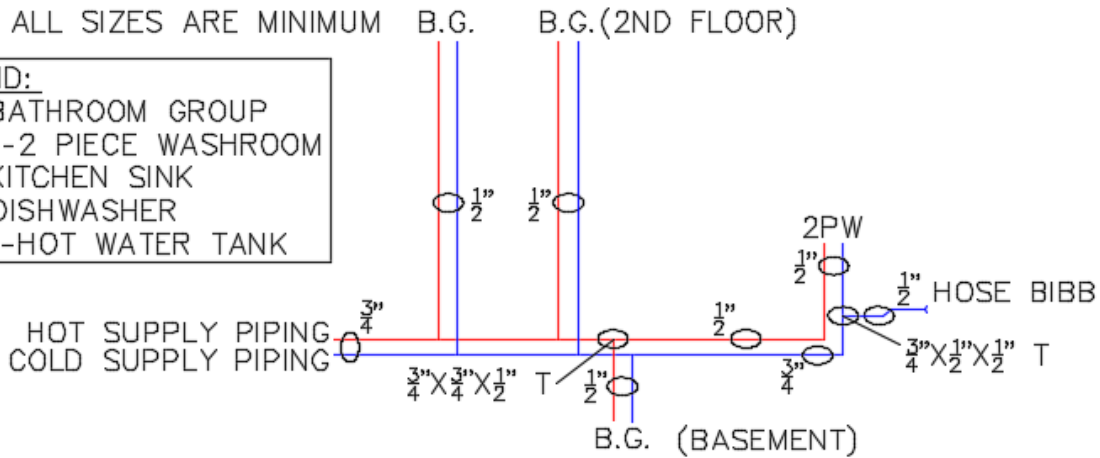
Total fixture units =  $7.2 + 8.6 + 8.6 = 24.3$

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NOTE: ALL SIZES ARE MINIMUM

**LEGEND:**  
 B.G.-BATHROOM GROUP  
 2.P.W.-2 PIECE WASHROOM  
 K.S.-KITCHEN SINK  
 D.W.-DISHWASHER  
 H.W.T.-HOT WATER TANK



DETAIL #1