

Diagram - 001 (Water Supply - Before Distribution)

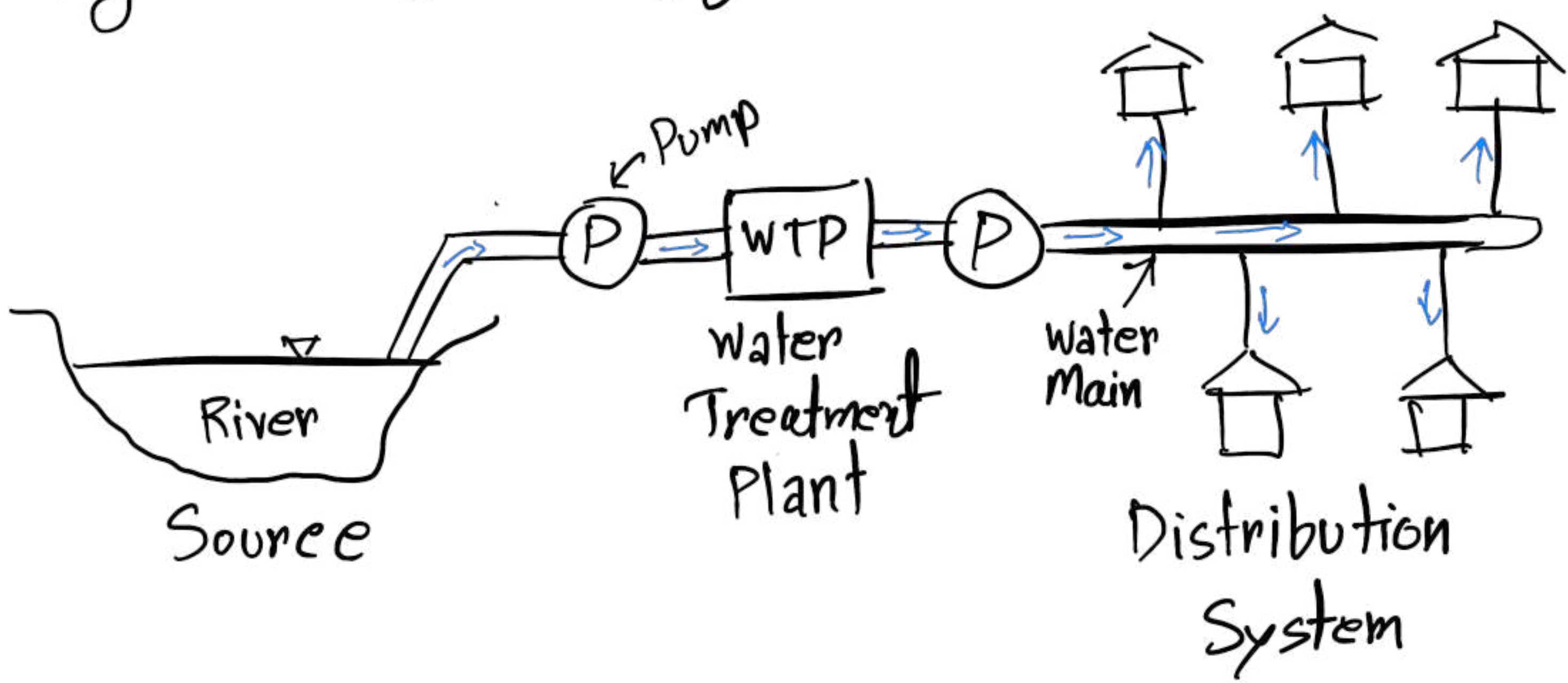
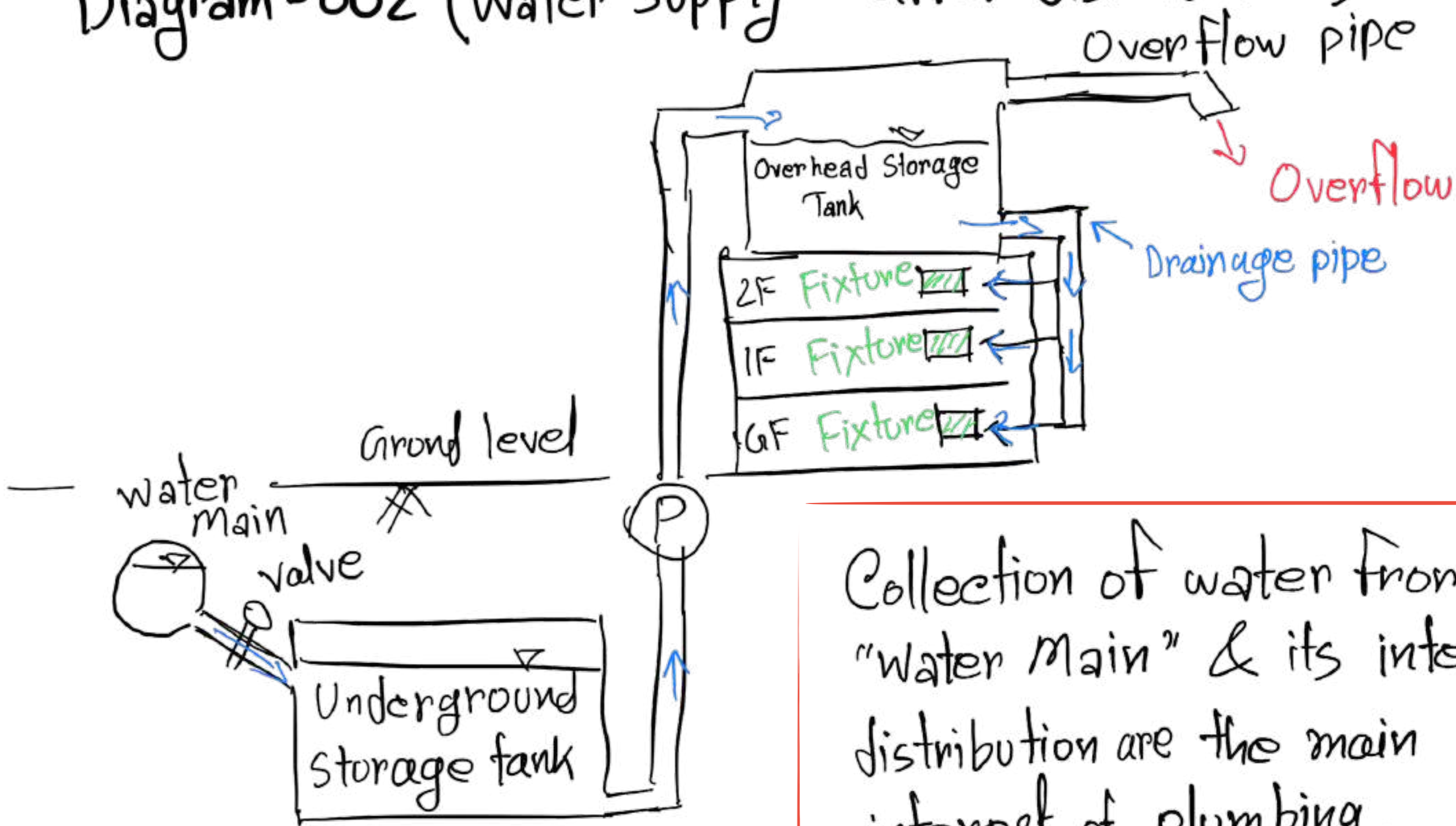


Diagram - 002 (Water supply - after distribution)



Collection of water from "Water Main" & its internal distribution are the main interest of plumbing.

Example - 02 (Calculation of storage tank size and drainage pipe)

A temporary shed contains housing for 25 families, where the average family size is 3.5 person. Calculate the storage tank size and diameter of the drainage pipe. (There are 2 water storage tank of equal size, and they are pumped 2 times per day.)

Solution

$$\text{Total population} = 25 \times 3.5 = 87.5 \text{ person}$$

From table 8.5.1 (a), daily water consumption per person = 80 lpcd

$$\text{So, total daily water demand} = 87.5 \times 80 = 7,000 \text{ liter}$$

Water is pumped 2 times per day.

$$\text{So, total storage size} = 7,000 / 2 = 3,500 \text{ liter}$$

Again, there 2 tank of same size.

$$\text{So, size of each tank} = 3,500 / 2 = \boxed{1,750 \text{ liter}}$$

So, From table 8.5.2,

$$\text{diameter of storage tank drainage pipe} = \boxed{25 \text{ mm}}$$