

Conventional Gravity Sewers are networks of underground pipes that convey blackwater, greywater and, in many cases, stormwater from individual households to a (semi-) centralised treatment facility, using gravity and pumps where necessary.

The Conventional Gravity Sewer system is designed with many branches. Typically, the network is subdivided into primary (main sewer lines along main roads), secondary and tertiary networks (networks at the neighborhood and household level).

Design Considerations: Conventional Gravity Sewers normally do not require on-site pre-treatment, primary treatment or storage of household wastewater. The sewer must be designed, however, so that it maintains a self-cleansing velocity (i.e., a flow that will not allow particles to accumulate). For typical sewer diameters, a minimum velocity of between 0.6 to 0.7 m/s during peak

dry weather conditions should be adopted. This requires a daily water consumption rate of more than 100 L per person per day. A constant downhill gradient must be guaranteed along the sewer length to maintain self-cleansing flows, which can require deep excavations. When a gradient cannot be maintained, a pumping station must be in

