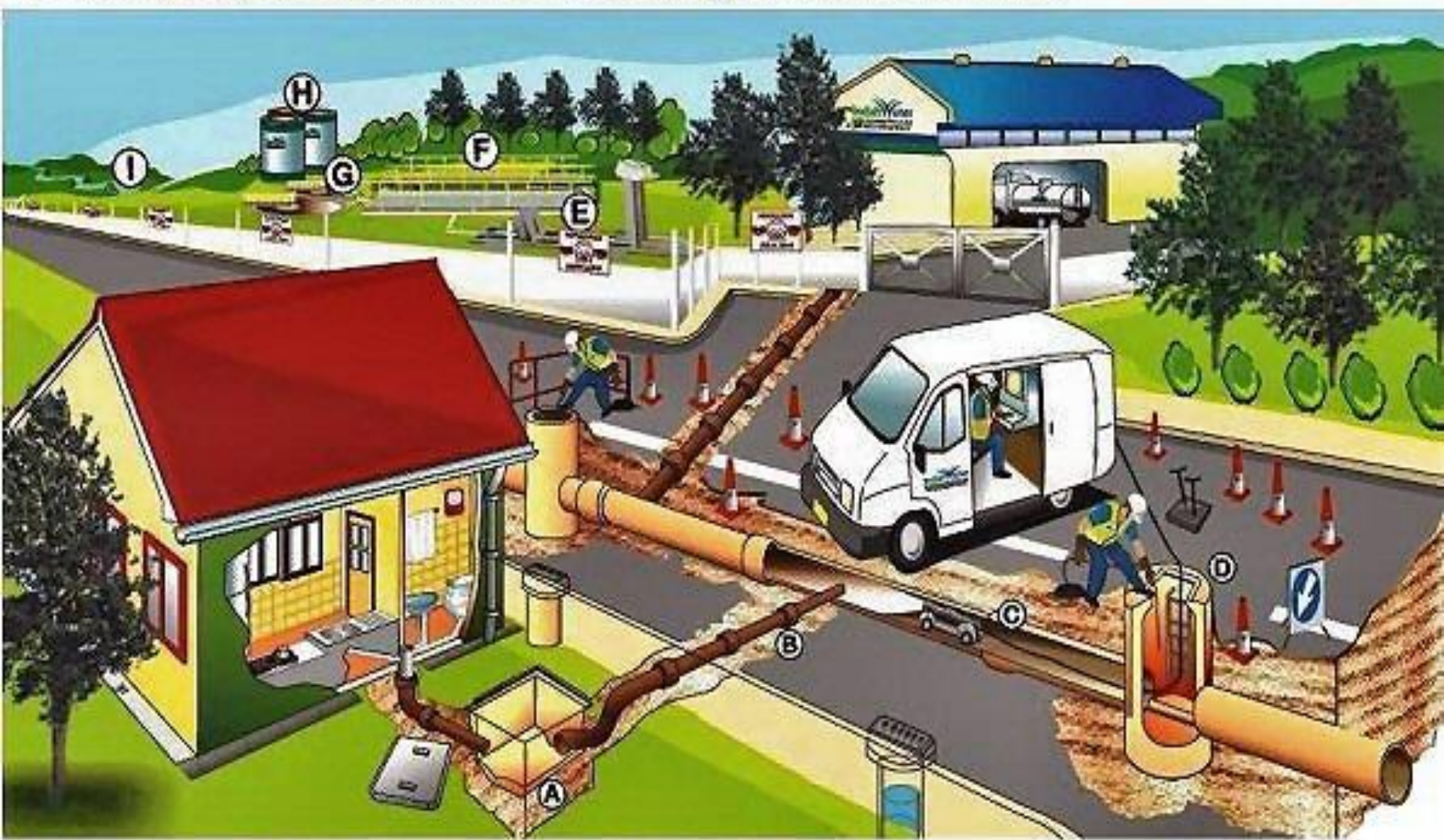


SEWERAGE SYSTEM

Sewerage

- Sewerage refers to the infrastructure that conveys waste materials.
- It encompasses components such as receiving drains, manholes, pumping stations, storm overflows, and screening chambers of the sanitary sewer.
- Sewerage ends at the entry to a sewage treatment plant or at the point of discharge into the environment.

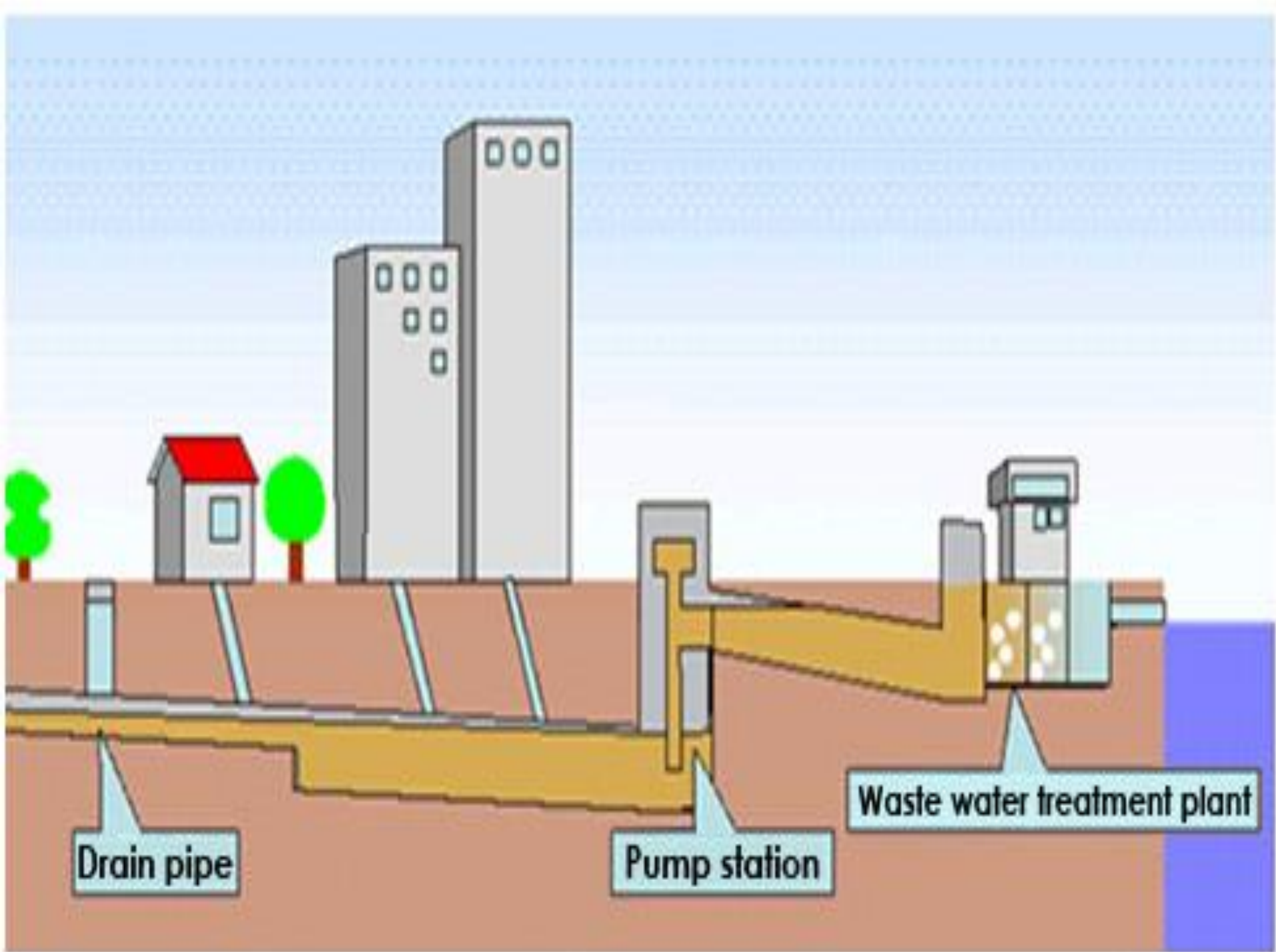
Sewerage System Connected To Sewage Treatment Plant



A: Inspection Chamber
B: Private Sewerage Pipeline
C: Public Sewerage Pipelines

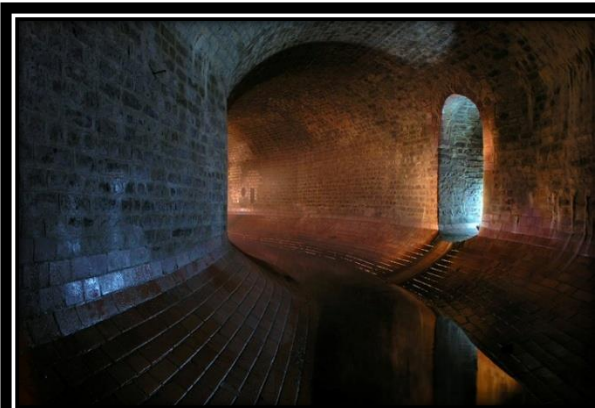
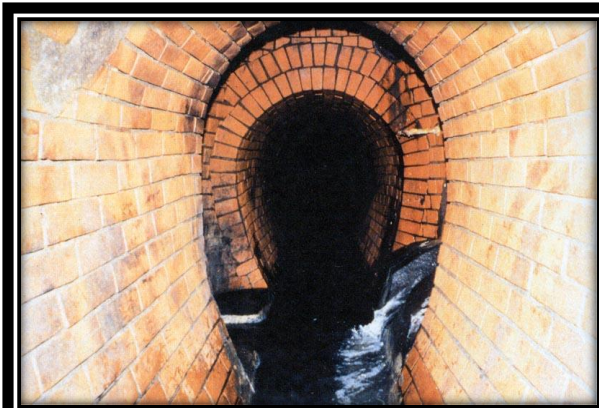
D: Public Manhole
E: Screen
F: Aeration Tanks

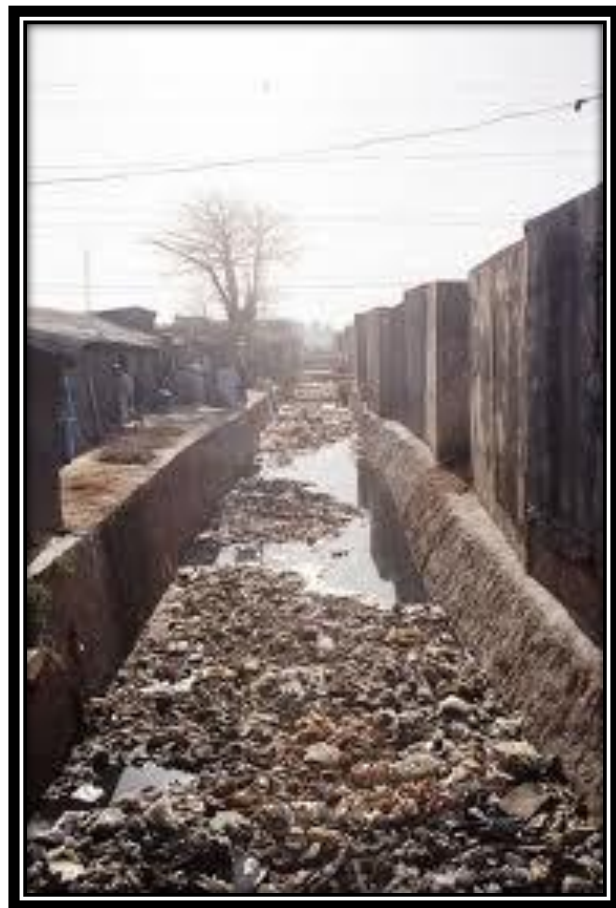
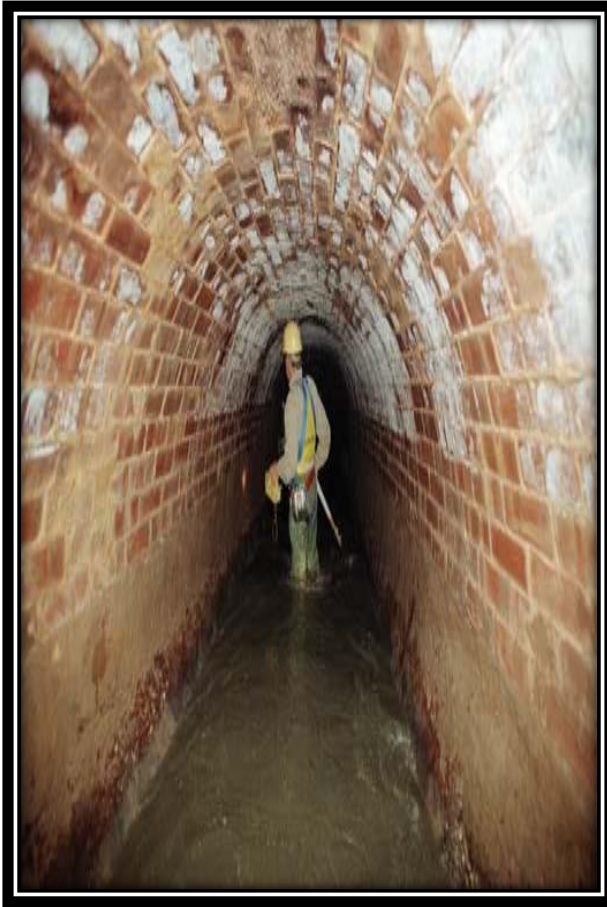
G: Clarifier
H: Sludge Digesters
I: River



Sewerage System

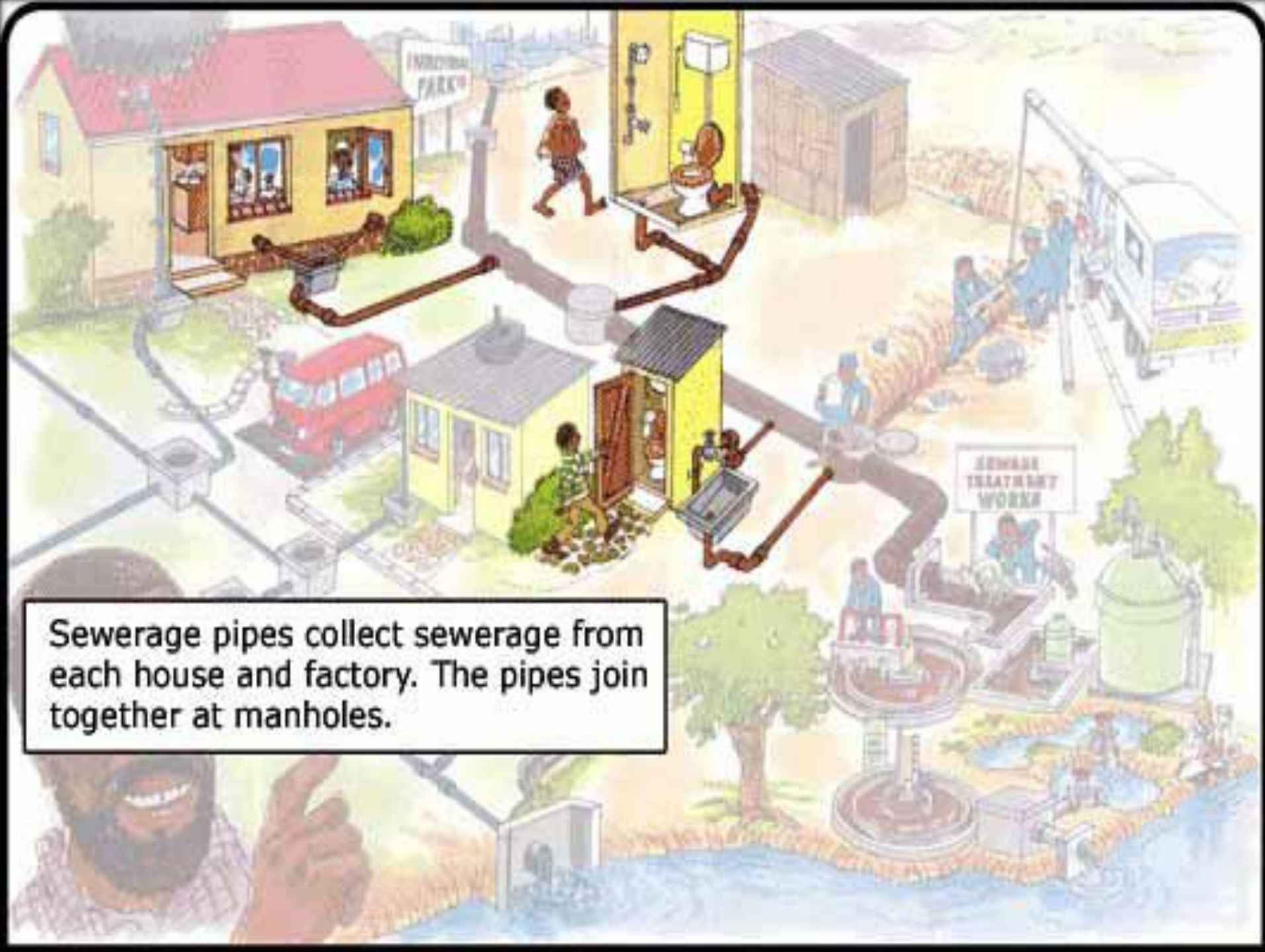
- Sewerage System is an organized system of conveying sewage.





Characteristics

1. Check invert level (I.L) of street sewer to ensure that I.L of last manhole within the building site is higher than that of the street sewer.
2. As per location of all the wet areas marked on the Floor Plan, mark the location of manholes on the Ground Floor considerations:
 - a) Distance between two manholes – 5 to 50 ft
 - b) Manhole is provided at every 90° corner & all the manholes are properly numbered in a sequence (from highest I.L to lowest I.L of all manholes located inside the building site).

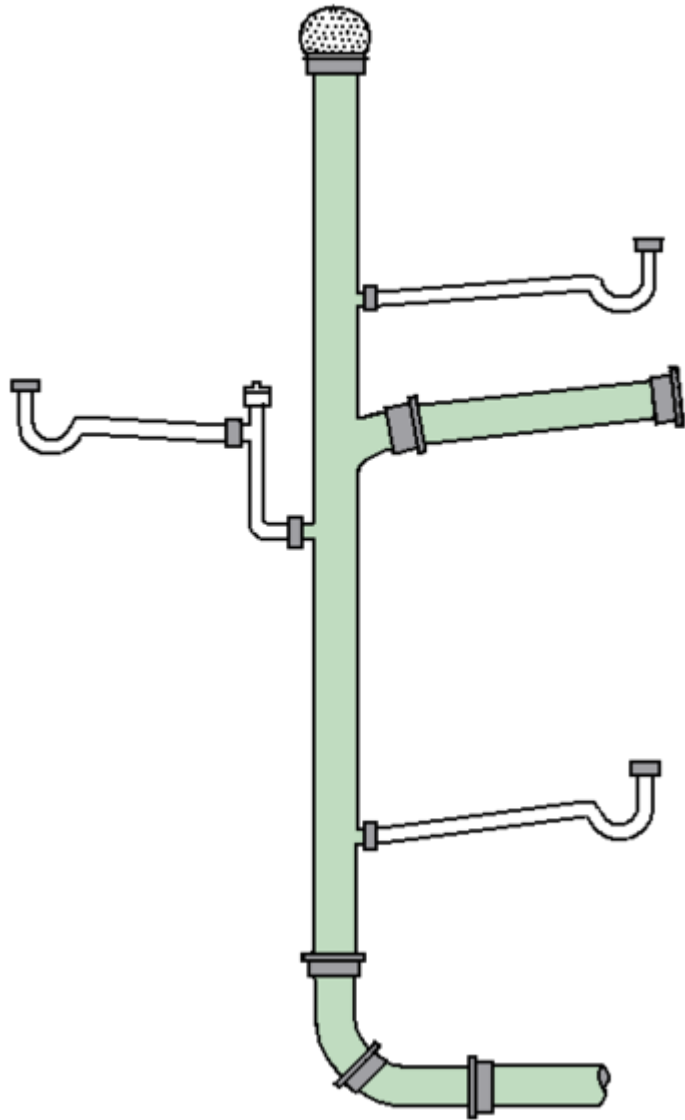


Sewerage pipes collect sewerage from each house and factory. The pipes join together at manholes.



Characteristics

3. Shortest & most efficient route of all sewer pipes whether inside or outside the building @ min 1% slope must be adopted and properly vented accordingly.
4. Minimum one floor drain (F.D) must be provided in each wet area.
5. All F.Ds from Baths/Laundry must be connected to Gully Trap with proper vent pipe first, and then to the nearest manhole, while the F.Ds from Kitchen/Cooking Areas must be connected to Grease Trap (G.T) & then to the manhole.

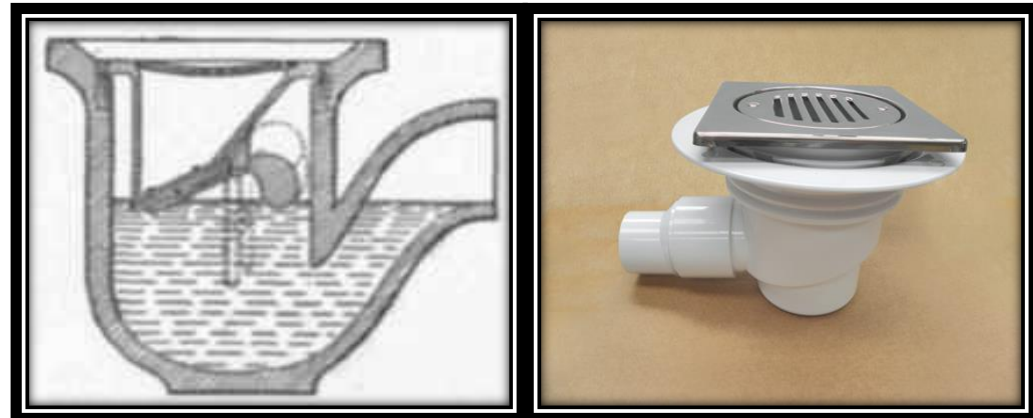


Vent Pipe

F.Ds

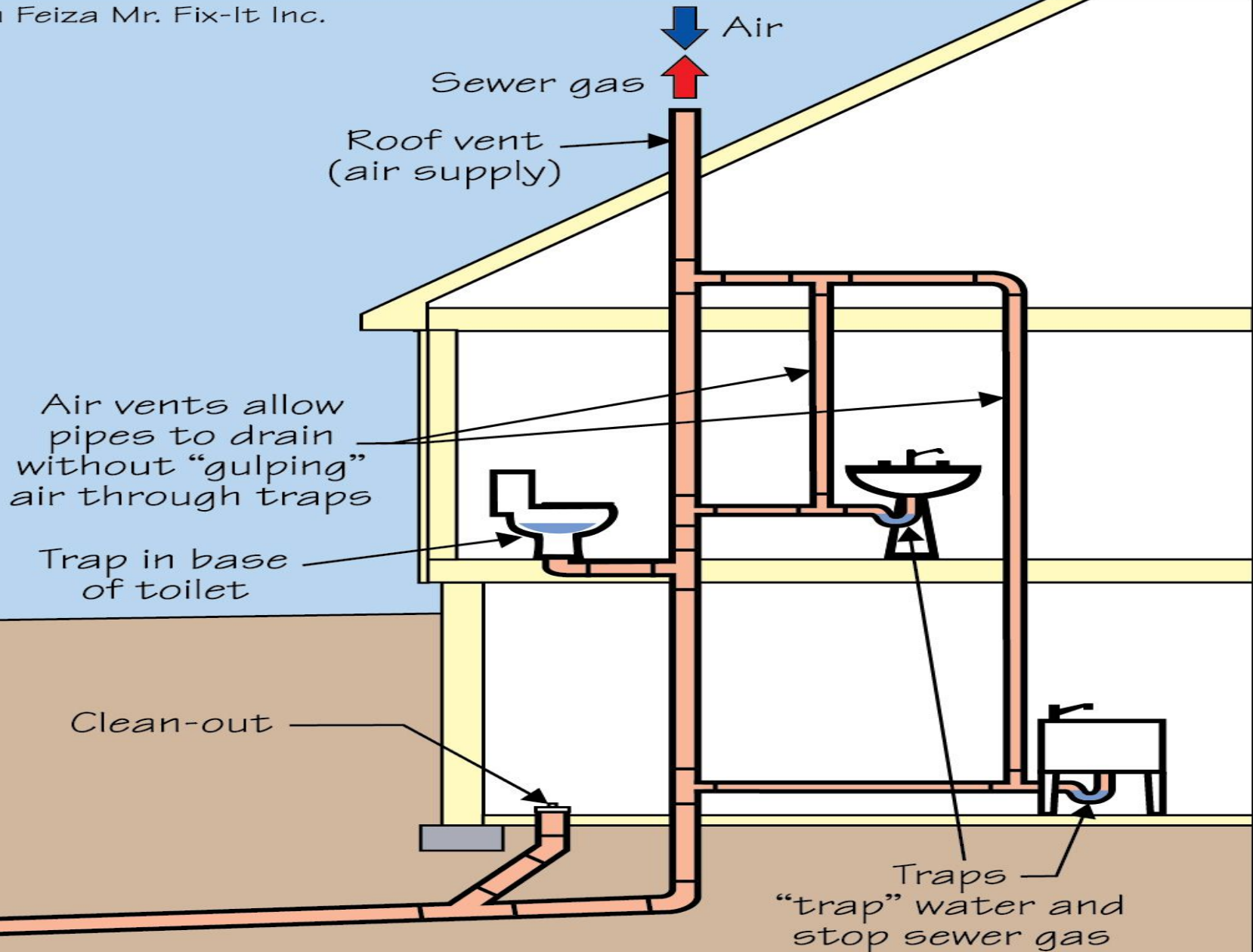


G.T



Drainage, Waste and Vent (DWV) System

© Tom Feiza Mr. Fix-It Inc.

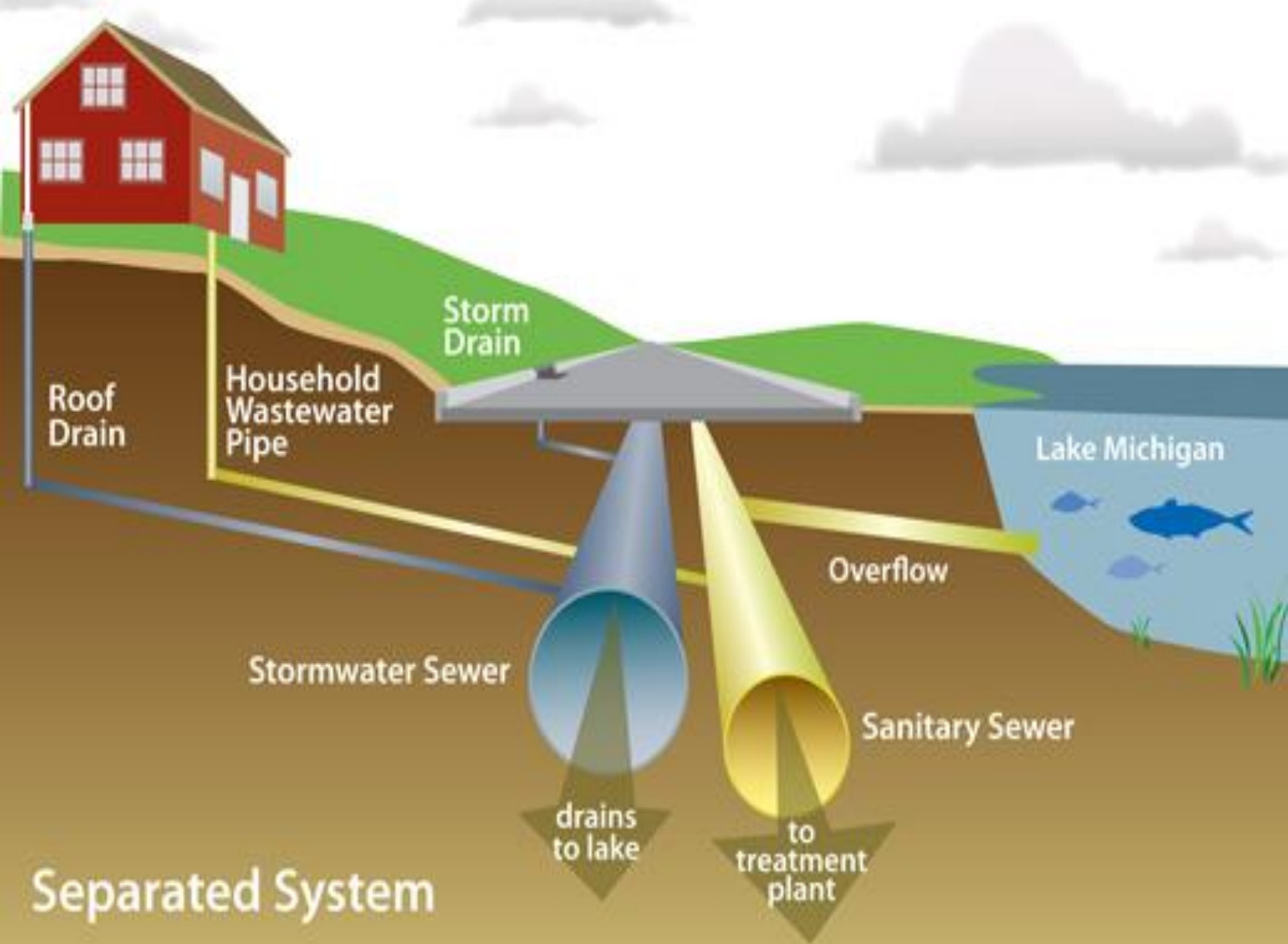


Characteristics

6. All W.Cs / Urinals must be directly connected to the nearest M.H. with proper vent pipe.
7. For floors above G.F; one or two pipe system for all sewerage D.Ps may be adopted considering no. of wet areas and fixtures installed & floor slab of all wet area must be depressed min 6" w.r.t general floor level of upper level floors.
8. Direction of flow must be indicated on all sewer pipes starting from the fixture to the manhole and in the pipes interconnecting manholes.

Characteristics

9. 3" min. diameter for all D.Ps from upper floors.
10. All manholes must be properly ventilated by providing upright vent pipes (V.Ps) on the exterior walls/cols in such a way that the height of such vents to be higher than the window head/lintel level of the highest window/ventilator.
11. To control unnecessary length of sewer pipes inside the wet areas, fixtures may be grouped and interconnected e.g. all wash basins, urinals, W.Cs etc.
12. D.Ps for roof drainage system should never be connected to the sewerage M.H system.

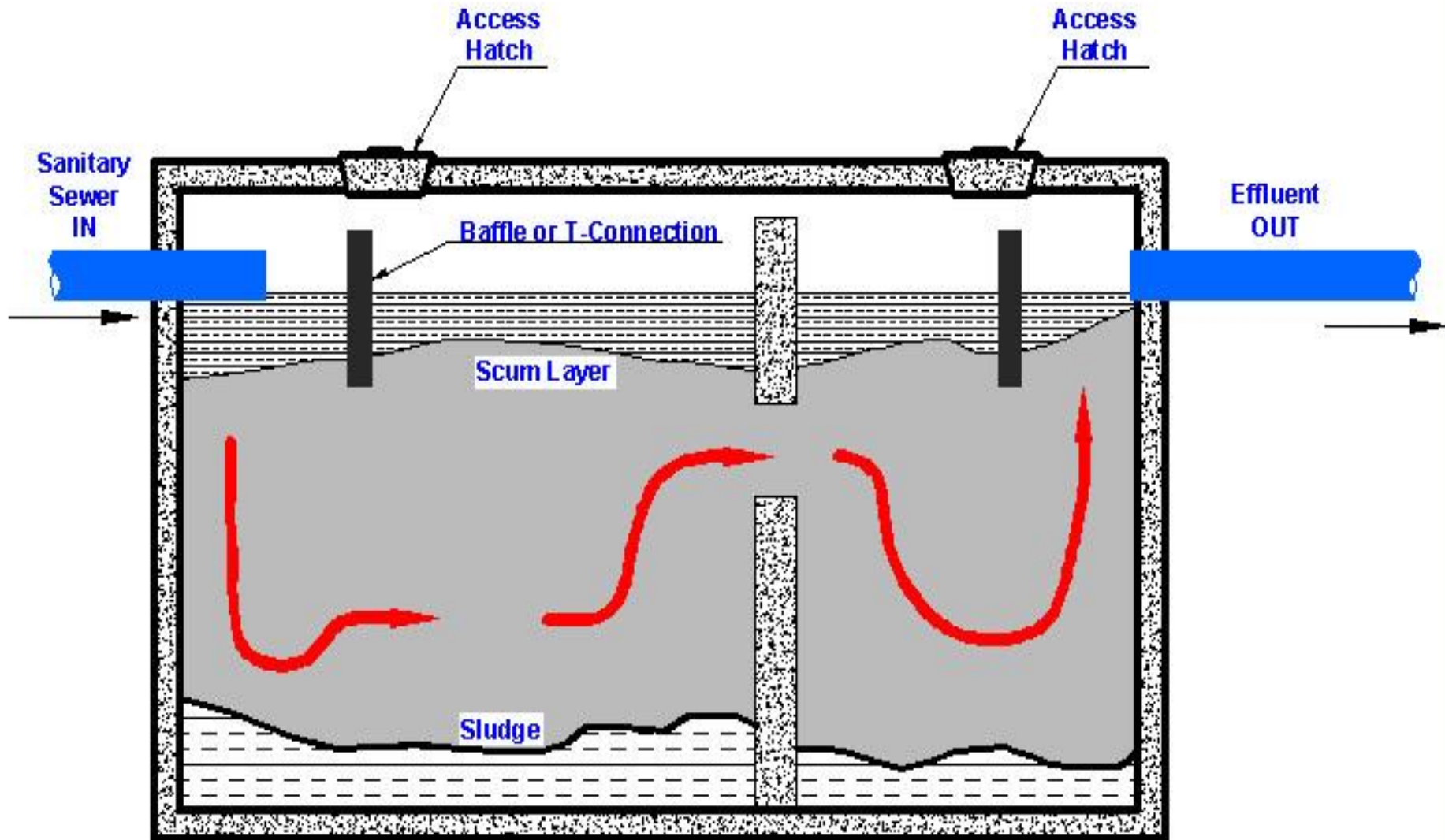


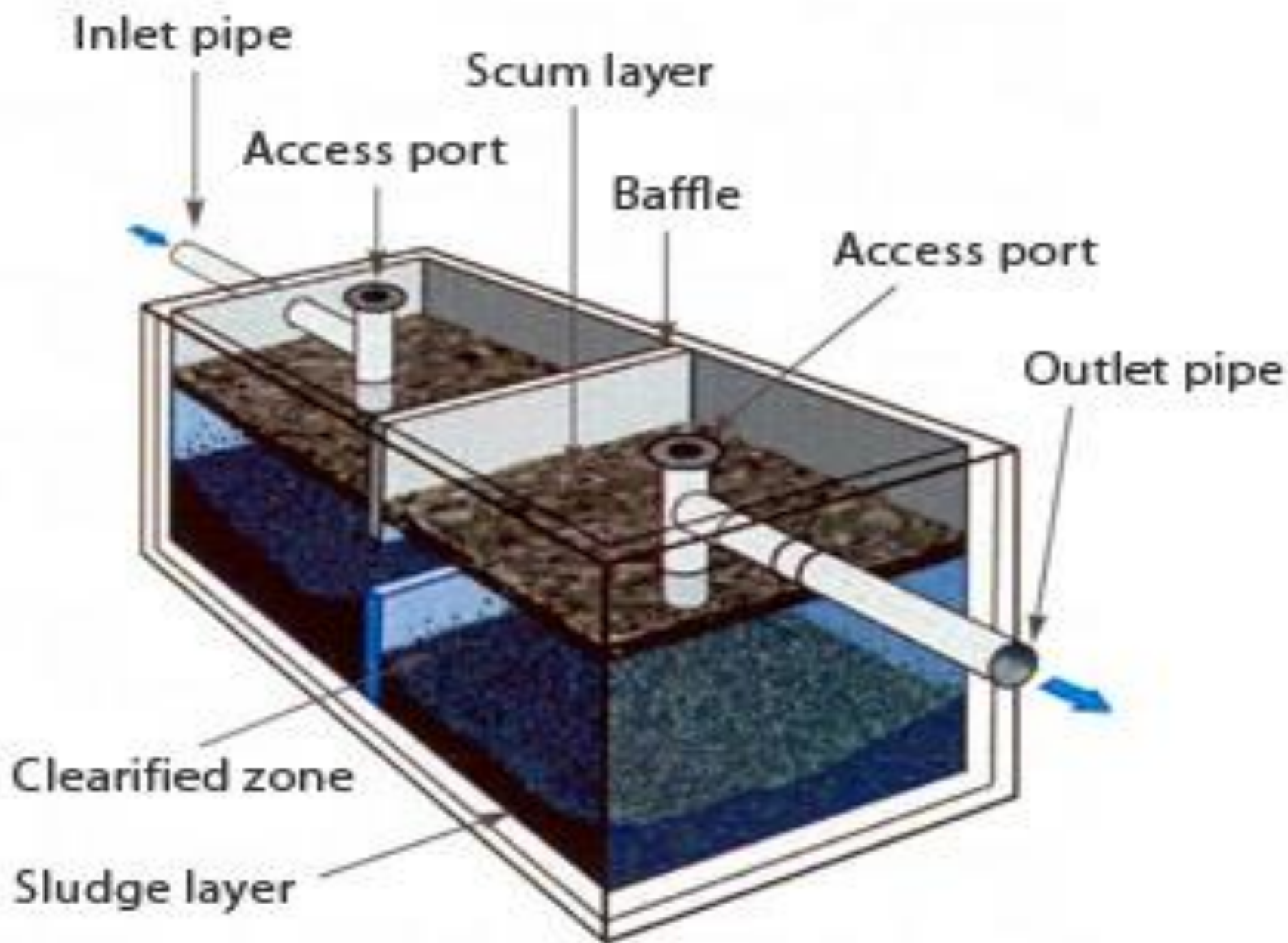
Characteristics

13. Two types of sewerage water related to sewerage layout design are:
 - a. Wastewater (does not contain any human excretion)
 - b. Soiled water (any wastewater containing human excretion)

14. A septic tank/soakage pit must be provided before disposing the wastewater or sewage into the street sewer.

TYPICAL SEPTIC TANK







M H C P
845-265-3265



The End