DISTRICT LOCAL GOVERNEMENT ORGANIZATION OF LARNAKA (DLGOL)
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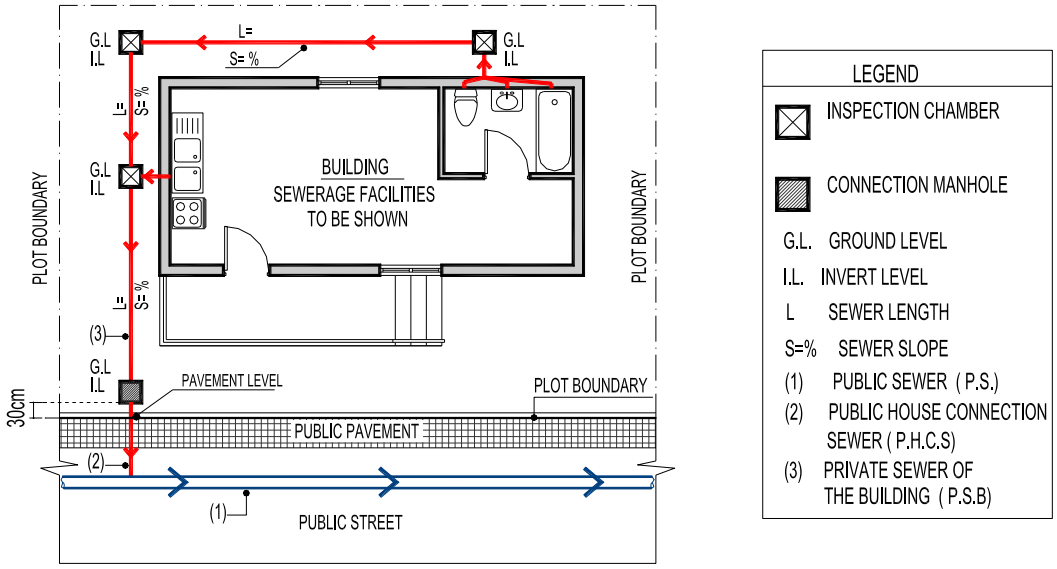
TECHNICAL SPECIFICATIONS FOR THE CONSTRUCTION OF THE PRIVATE SEWERAGE SYSTEM OF A BUILDING



DRAWING No. 1
Typical Plan of a Building and Private Sewerage System

(1) PUBLIC SEWER (P.S.)

(2) PUBLIC HOUSE CONNECTION SEWER (P.H.C.S.)

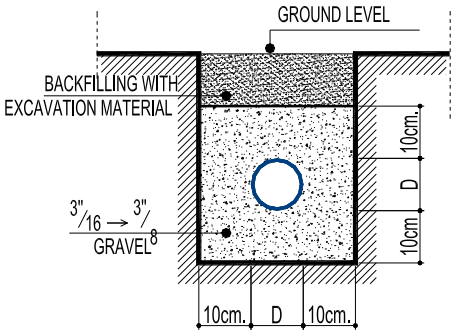
The P.H.C.S. is usually constructed 30cm beyond the plot boundary at a depth of 0.90-1.30m beneath the pavement level. The depth of the P.H.C.S. shall vary depending on the level of the existing public services e.g. EAC, CYTA, and LWB. The exact location of the P.H.C.S. must be found prior to the construction works.

(3) PRIVATE SEWER OF THE BUILDING (P.S.B)

(3.1) The P.S.B. must be manufactured from uPVC plastic (EN1401). Recommended sewer pipe diameters:
- For residencies and small apartment buildings the P.S.B. should have 110mm external diameter.
- For large apartment buildings and hotels the P.S.B should have 160mm external diameter.

(3.2) The P.S.B must be of 1% minimum slope. Slope of 2% is advisable.

(3.3) In case of constructing a provision for the future connection to the public sewerage system, the depth of the outlet pipe from the connection manhole should be 1.20m beneath the pavement level. The inlet pipe to the connection manhole must be constructed to the depth of less than 0.90m.



(3.4) The P.S.B shall be placed in suitable bedding and surround as shown on the typical detail No 2.

(3.5) You are informed that the use of the private sewerage system is strictly for sewage water. The discharge/inflow of rain water is legally prohibited.

DETAIL No. 2
Typical detail of the P.S.B.

(4) INSPECTION CHAMBERS (I.C.)

(4.1) The inspection chambers are the internal manholes of the P.S.B. They are required in each location where the direction of the sewer changes provided that the change exceeds 45° or where new sewers are added. The connection manhole connects the P.S.B. with the P.H.C.S.

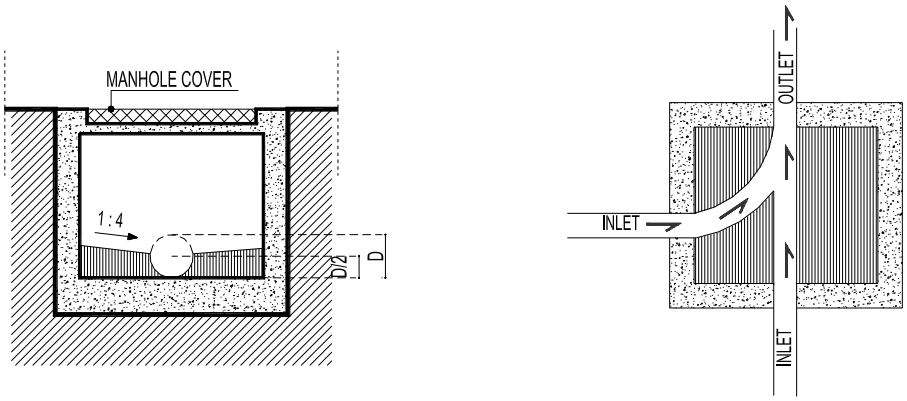
(4.2) The I.C. should be square or circular and manufactured from cast in situ or precast concrete, polyethylene or other approved by DLGOL material. They must also be watertight and airtight.

(4.3) In case that the I.C. are located in the basement they should only be cast in situ or precast concrete or polyethylene to achieve water tightness. The use of bricks or precast concrete pipes even if they are coated shall not be approved.

(4.4) Manhole covers should be cast iron or ductile iron. Manhole cover type should be in accordance with Table No1 and the dimensions as shown on Table No 2. All covers should comply with the requirements of the E.U. Standard EN 124/1994 or other equivalent specification.

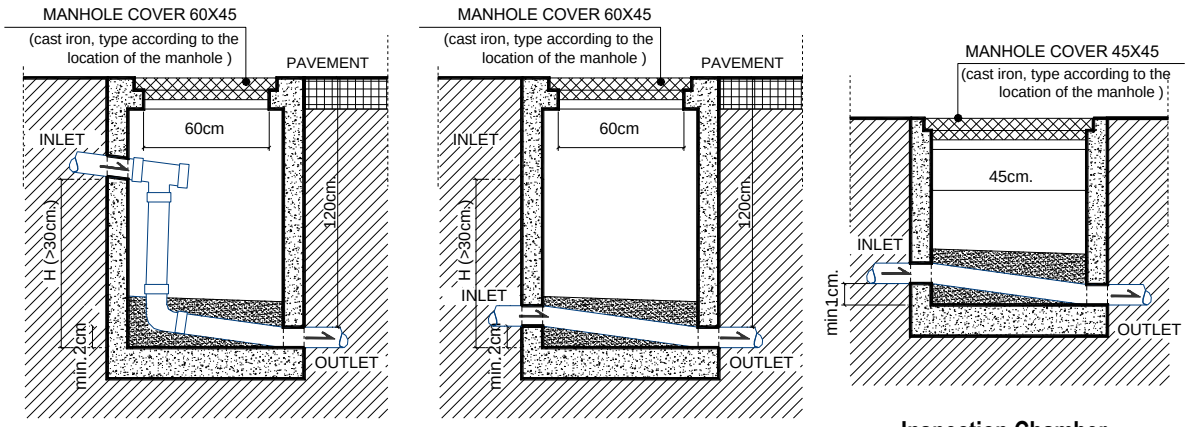
Table No 1-Cover types (EN 124)	
Type	**Load- Location of the manhole**
A15	Light duty- for residencies (no car loads)
B125	Light duty – for pavements and light vehicles
C250	Medium duty– for parking areas
D400	Heavy duty - for streets and avenues
E600	Heavy duty - for infrastructure (e.g. airports, ports)

(4.5) Dimensions and details of manholes should be according to the following typical details and Table No 2. All dimensions are in centimeters.



DETAIL No. 3

Typical details of the benching



Connection Manhole
(75 cm. x 75 cm.)

Connection Manhole
(75 cm. x 75 cm.)

Inspection Chamber
(45 cm. x 45 cm.)

DETAIL No. 4
Typical details of the connection manhole and the inspection chamber

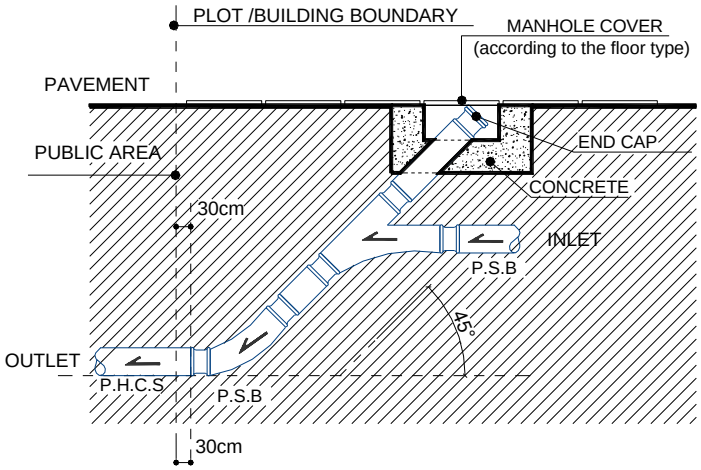
Table No 2 – Inspection chamber's dimensions (in centimeters)

MANHOLE TYPE	MANHOLE SHAPE	MANHOLE DEPTH	MINIMUM INTERNAL DIMENSIONS	MINIMUM WALL THICKNESS	MINIMUM SLAB THICKNESS	COVER CLEAR OPENING
Connection Manhole	Square	Up to 150	75 x 75	15	15	60 x 45
	Circular	Up to 150	Φ 75	15	15	Φ 60
	Square*	150-250	100 x 100	20	15	60 x 60
	Circular*	150-250	Φ 100	20	15	Φ 60
		Greater than 250	For further construction information please contact LSDB			
Inspection chamber	Square	Up to 90	45 x 45	10	10	45 x 45
	Circular	Up to 90	Φ 45	10	10	Φ 45

(*) The manholes should be of reinforced concrete

(4.6) It is very important that there is adequate ventilation through vertical pipes which extend to a minimum height of 1.50m. above the building roof.

(4.7) In case that the P.S.B. is necessary to be constructed inside the building or where the water table level is high, a rodding eye connection shall be constructed. The DLGOL consent should be obtained prior to the said construction.



DETAIL No. 5
Detail of the rodding eye connection

(5) GREASE TRAPS

(5.1) Grease traps are compulsory to be installed in line with the kitchen private sewer for restaurants, hotels, confectioneries and bakeries.

(5.2) The grease trap is placed as a part of the P.S.B. that comes out from the kitchen and prior to the connection with the other sewers. The grease trap location should be accessible for maintenance.

(5.3) The maintenance of the grease trap is the owner's responsibility. The type and construction should be approved by the LSDB.

(5.4) The grease trap should be watertight and ventilated.

(5.5) The dimensions below are recommended:

- For small restaurants and hotels where the daily water consumption in the kitchen is less than $4m^3$, each compartment of the grease trap should be of minimum dimensions 60X60cm.
- For larger restaurants and hotels where the daily water consumption in the kitchen is greater than $4m^3$, each compartment should be of minimum dimensions 90X90cm.

(5.6) For further information, the DLGOL have available typical details for grease traps and technical instructions.

(6) PUMPING STATIONS

(6.1) The construction of a pumping station is compulsory when the flow with gravity is impossible.

(6.2) The type and construction of the pumping station should be approved by the LSDB. The pumping station maintenance is the owner's responsibility.

(6.3) The pumping station should be watertight and ventilated.

(6.4) The dimensions below are recommended:

- For small residencies and apartment buildings (up to 6 flats) the pumping station should be 100X100X140cm. minimum internal dimensions. One pump is required.
- For larger apartment buildings, tourist flats or hotels the pumping station should be 150X150X245cm. minimum internal dimensions. Two pumps are required.

(6.5) For further information the DLGOL has available typical details of the pumping station and technical instructions.

(7) CONNECTION MANHOLES CONSTRUCTED WITH PRECAST CONCRETE PIPES

The use of precast concrete pipes for the construction of the connection manholes is not approved, due to the material's porosity, lack of water tightness and inadequate wall thickness.

GENERAL INFORMATION FOR THE CONNECTION TO THE PUBLIC SEWERAGE SYSTEM

- The owner or tenant of a property within an area which is proposed to be connected to the public sewerage system is obligated to obtain the license connection and construct the P.S.B within the period of time determined by the DLGOL.
- The owner or tenant of a property can be provided with the application form for the license connection from the DLGOL offices. The application form contains useful information for the connection procedures and documents that should be submitted with it.
- After obtaining the license connection, the owner or tenant should notify in writing within ten (10) working days the DLGOL for the proposed programme of the P.S.B construction.
- The DLGOL inspector is authorised to inspect the construction of the P.S.B. The inspector shall be notified for the inspection prior to the backfilling of the excavation.
- After the construction of the P.S.B is completed the owner or tenant should notify the DLGOL. The connection of the P.S.B. to the public sewerage system is not allowed without the DLGOL inspector's written consent.
- After the completion of the connection to the public sewerage system, the owner or tenant is obligated to abandon, clean and backfill the existing septic tanks, absorption pits and any other private sewerage treatment facilities.