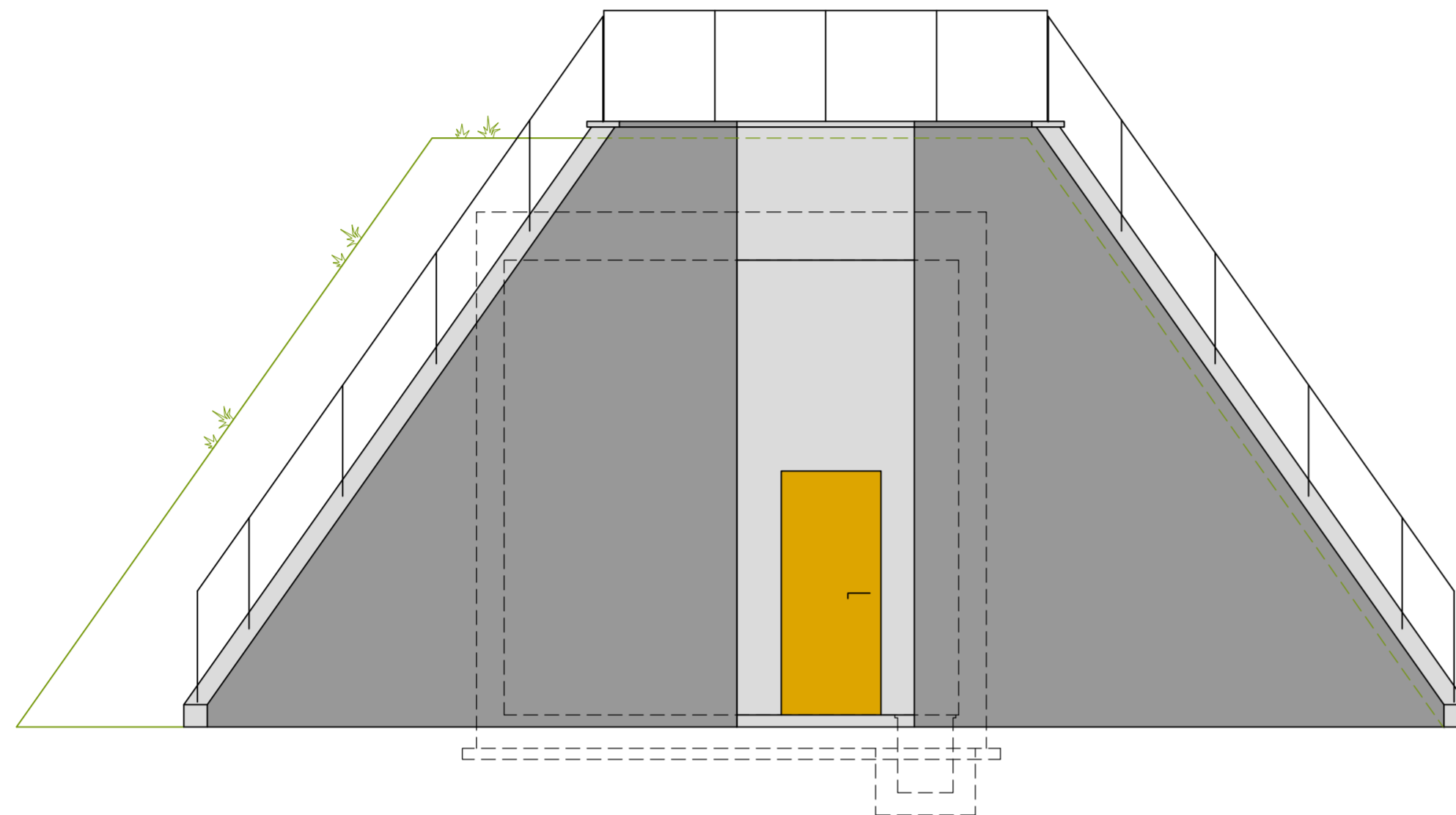
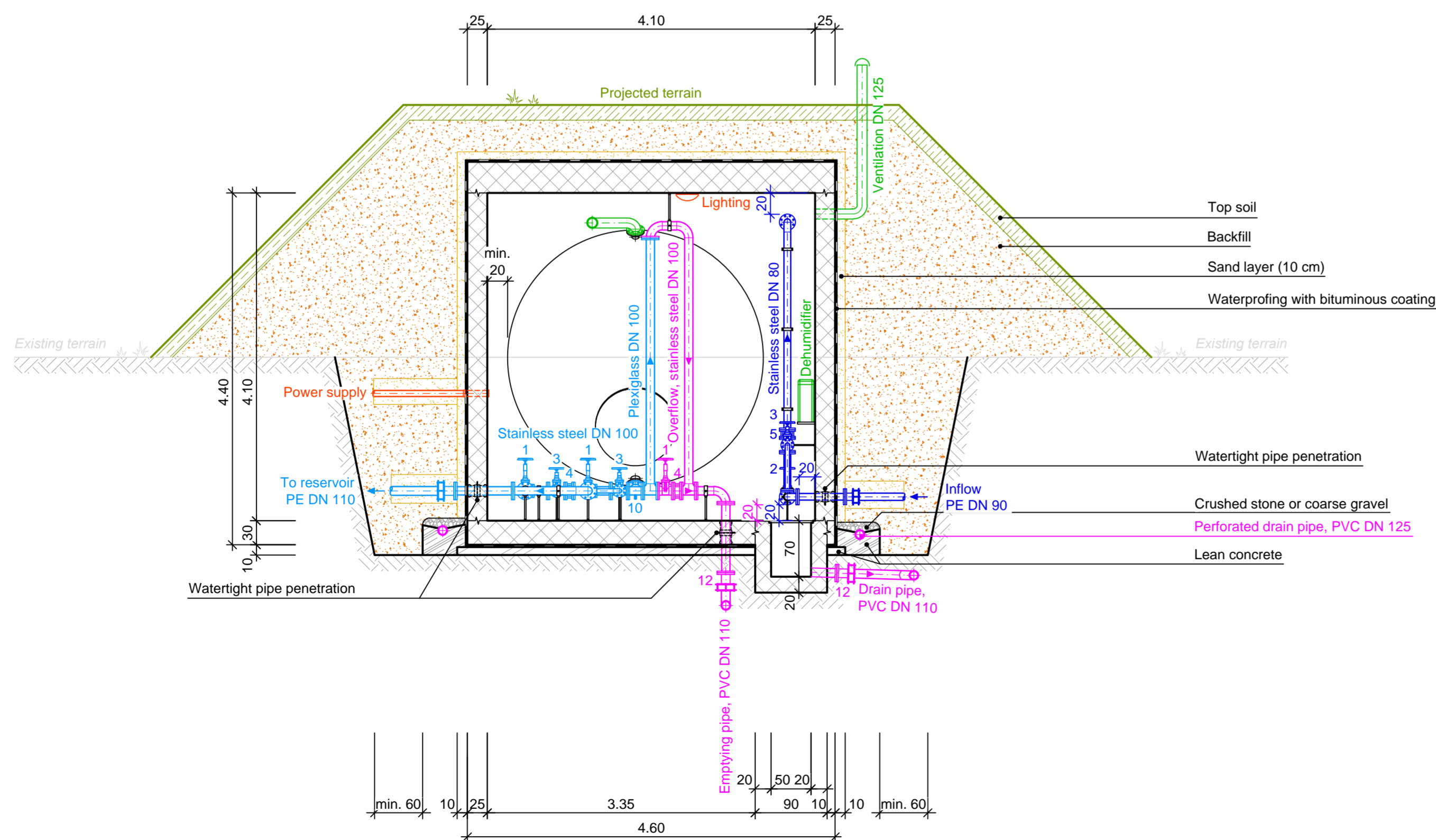


Front View



Section C-C



Legend

	Water pipe (inflow)
	Water pipe (outflow)
	Drain pipe
	Power supply and lighting
	Air conditioning / ventilation
	Bituminous coating
	Construction joint
	Projected terrain
	Existing terrain
	Reinforced concrete
	Non-shrink mortar
	Lean concrete
	Top soil
	Backfill
	Sand
	Gravel 16 / 32 mm
	Natural soil (excavation)
	Mortar
	Concrete and manhole rings
	Door (wood or aluminium)
	Indication of dimensions in cm
	Indication of dimensions in m
	All diameters in mm

Valves and Accessories		DN / PN	Quantity
1	Gate valve with EPDM closing, epoxy painted	100 / 10	3
2	Gate valve with EPDM closing, epoxy painted	80 / 10	1
3	Gate valve with EPDM closing, epoxy painted	50 / 10	6
4	Dismantling piece	100 / 10	4
5	Dismantling piece	80 / 10	2
6	Dismantling piece	50 / 10	3
7	Check valve with ball, flanged	50 / 10	3
8	MULTICAL 62 ultrasonic flow sensor or mechanical water meter	50 / 10	3
9	Y-type strainer, ductile iron, epoxy painted, flanged	50 / 10	3
10	Ball valve with nipple (for water sampling and hose connection)	1/2" / 10	1
11	Multipoint, stainless steel to PE	80 / 10	1
12	Multipoint, stainless steel to PE / PVC	100 / 10	4

Remarks

- Reference design consists of 4 different drawings. "Legend", list of "valves and accessories" and "remarks" apply to the entire set of drawings.
- Building type, materials and final dimensions of the entire building or parts of it, depend on the specific application and its static requirements.
- Structural analysis has to be carried out in each specific case.
- Backfill and layer of top soil must be compacted in layers of 30 - 50 cm depending on local soil conditions.
- Drain pipe must be directed into a stream or discharge channel. The pipe end must be protected from small animals with grating.
- Pipe installations inside the building can be carried out in stainless steel or polyethylene.
- All pipe penetrations in floors and walls must be water tight.
- Gate valves which are closed during normal operation must be opened in reasonable intervals to avoid stagnating water.
- All pipes need to be fixed by metal pipe supports to the building structure like floors, walls and ceiling.
- Vestibule with a second door can be added to minimize humidity problems inside the building.
- Slope stabilization (type, materials and final dimension) depend on local soil conditions.
- Plexiglas tubes are only applicable for non-pressurized systems.
- The building should be connected to power supply if possible.
- Geometry of the retaining wall depends on the soil type and building dimension.

ApaSan - Swiss Water and Sanitation Project Moldova

Reference Designs for Rural Water Supply Systems

Project Plan

Drinking Water Reservoir, V = 50 m³

Front View + Section C-C

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DRAFT

skat Swiss Resource Centre and
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