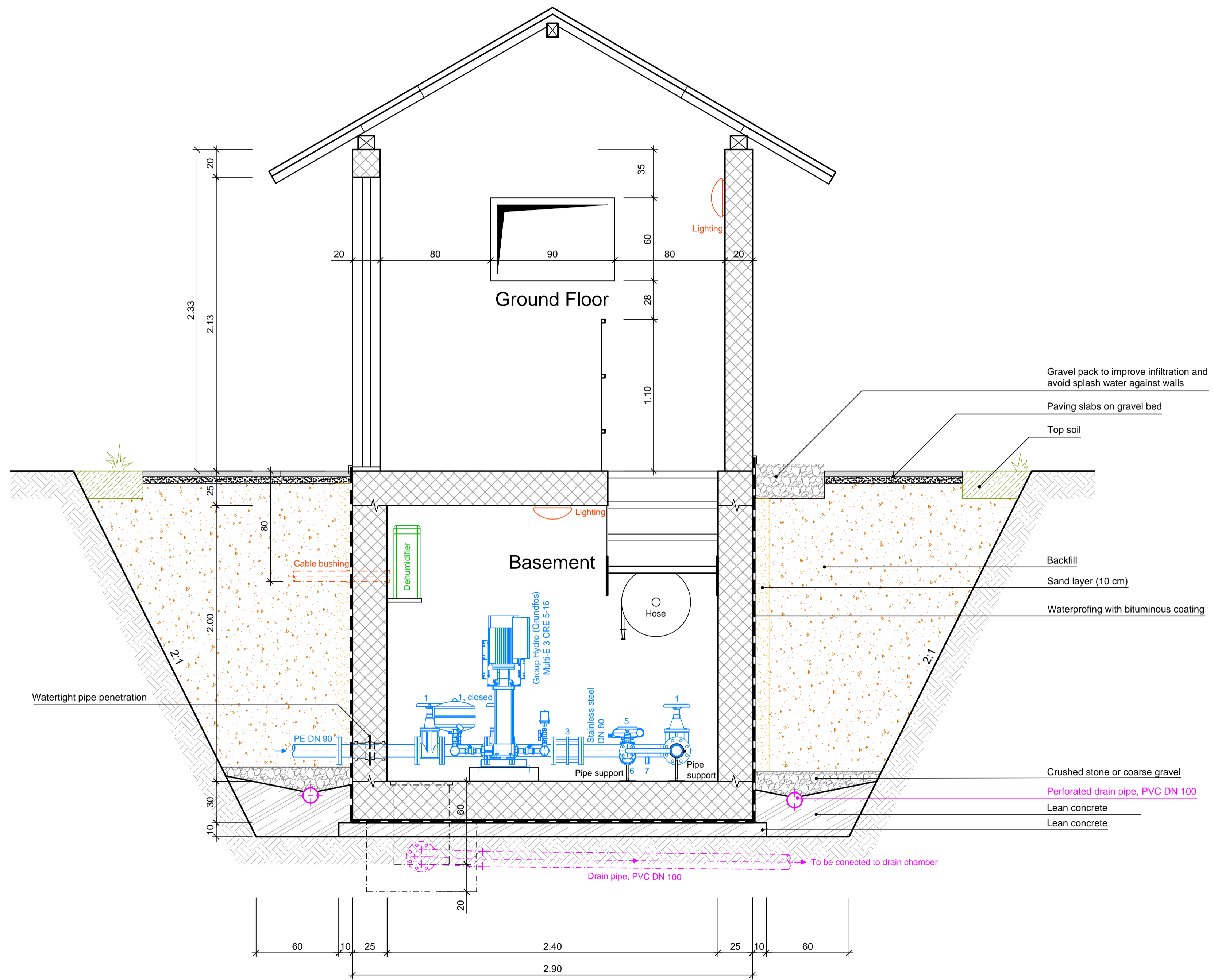


# Section B-B



**Legend**

- Water pipe
- Drain pipe
- Power supply and lighting
- Ventilation
- Bituminous coating
- Construction joint
- Reinforced concrete
- Wood
- Lean concrete
- Crushed stone 2 / 5 mm
- Top soil
- Backfill
- Sand
- Gravel 16 / 32 mm
- Natural soil (excavation)
- Concrete manhole rings

11 Indication of dimensions in cm  
 1.00 Indication of dimensions in m  
 DN, Ø All diameters in mm

No.	Valves and Accessories	DN / PN	Stk.
1	Gate valve with EPDM closing, epoxy painted	80 / 10	4
2	Gate valve with EPDM closing, epoxy painted	25 / 10	2
3	Dismantling piece	80 / 10	2
4	Check valve with ball, flanged	25 / 10	1
5	MULTICAL 62 ultrasonic flow sensor, flanged	25 / 10	1
6	Y-type strainer, ductile iron, epoxy painted, flanged	25 / 10	1
7	Ball valve with nipple (for water sampling and hose connection)	1/2" / 10	1

- Remarks**
- Reference design consists of 6 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.
  - If a different pumping system than a pressure booting system with integrated membrane vessel shall be used, a surge vessel has to be dimensioned according to the specific hydraulic conditions.
  - Roof construction is indicative only and has to be designed to the specific requirements.
  - Gate valves that are closed during normal operation must be opened in reasonable intervals to avoid stagnating water.
  - Depending on local climate conditions a thermal insulation by XPS-panels (underground) and EPS-panels (over ground) is recommended.
  - Instead of reinforced concrete, brickwork can be used for ground floor walls.

## ApaSan - Swiss Water and Sanitation Project Moldova

Reference Designs for Rural Water Supply Systems

Project Plan

### Pumping Station Section B-B

**CSDENGINEERS+**  
INGENUOUS BY NATURE

CSD Ingénieurs SA  
Chantellerie 37 - Granges-Paccot  
CP 384, CH-1701 Fribourg  
t 026 460 74 74  
f 026 460 74 79  
e fribourg@csd.ch  
www.csd.ch

DRAFT

**skat** Swiss Resource Centre and  
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