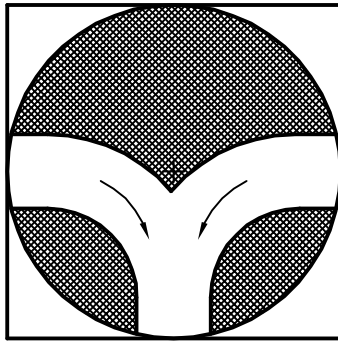
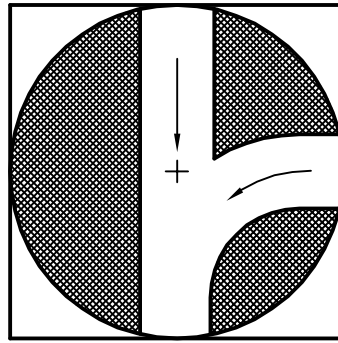


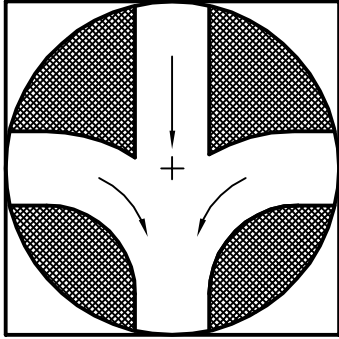
1. Right angle bend



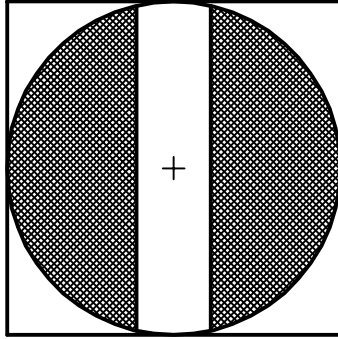
2. Tee connection



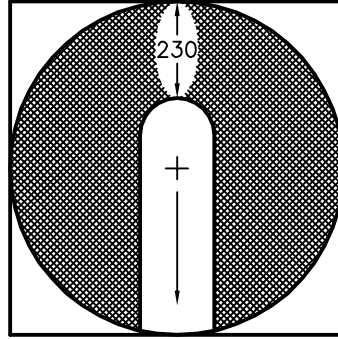
3. Three way junction



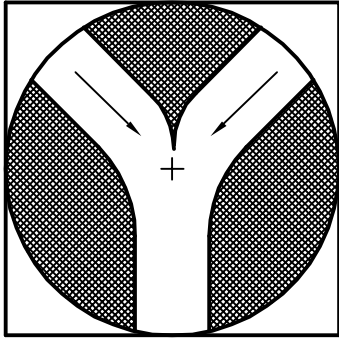
4. Four way junction



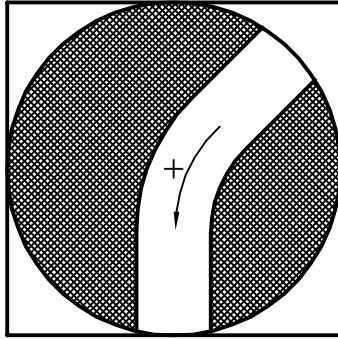
5. Straight through



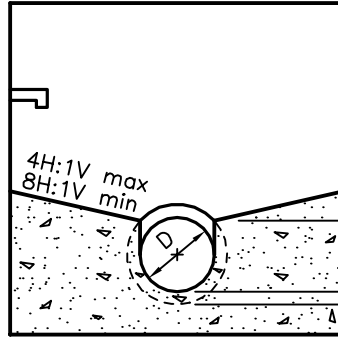
6. Dead end



7. Wye connection



8. 45° bend



Section

MAXIMUM SIZE HOLE IN THE WALL IN PRECAST RISER SECTIONS					
Maintenance Hole Diameter	No. 1-4	No. 5 and 6	No. 8	No.7	
				Inlet Hole	Outlet Hole
1200	700	860	780	700	860
1500	860	1220	960	860	1170
1800	1220	1485	1220	1220	1485
2400	1485	2020	1760	1485	2020
3000	1930	2450	2300	1930	2450
3600	2470	3085	2730	2470	3085

NOTES:

- 1 Slopes shall be maintained from the outlet hole opening for top of benching.
- A Concrete for benching shall be 30MPa.
- B When benching is hand-finished, it shall be given wood float finish, channel shall be given steel trowel finish.
- C Benchng slope and height shall be as specified.
- D When specified, maintenance holes that are 1200mm in diameter with a uniform channel for 200 or 250mm pipe may be prebenched at the manufacturer with standardized benching slope and channel orientation.
- E All dimensions are nominal.
- F All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING

Nov 2014 | Rev | 4

**MAINTENANCE HOLE BENCHING
AND PIPE OPENING ALTERNATIVES**



OPSD 701.021