

Clearances between underground services

This document specifies the minimum clearances between Sydney Water buried pipes and other utility services.

Water pipes

Proposed services	Minimum horizontal clearance between services ^{1,2} (mm)		Minimum vertical clearance between services ^{1,2} (mm)
	Existing pipe size		
	≤DN 200	>DN 200 to ≤DN 375 ³	
Water pipes ≤DN 375 ³	300	600	150
Electricity conduits and cables	1000	1000	225
Gas pipes Telecommunication conduits and cables Stormwater drains	300 ⁴	600	150
Wastewater pipes ⁵	1000/600	1000/600	500
Kerbs	300 ⁶	300 ⁶	N/A

NOTES:

- Clearances apply in all situations except welded steel water pipes where the distance from the nearest point of another utility service to the centre line of a welded steel water pipe shall be not less than half the required minimum trench width for the water pipe plus 600 mm (to provide access for welding). In special cases, Sydney Water may consider reduced minimum clearances for which specific requirements will be advised.
- If the existing water pipe is concrete encased or if the existing and/or proposed utility services are to be concrete encased, then the minimum clearances shall be measured from the outside of the encasement.
- For water pipes larger than DN 375, advice on clearances is to be sought from Sydney Water.
- For installations such as poles, pits and small structures, clearances to a water pipe may be reduced to not less than 150 mm for distances along the pipe of up to 2 m provided the structure is not likely to be destabilised by maintenance excavation work on the water pipe.

5. Wastewater pipes should always cross under water pipes. In cases where there is no alternative and the wastewater pipe must cross over the water pipe, construction shall be in accordance with Sydney Water's Standards. When a wastewater pipe is to be located adjacent to and at the minimum vertical clearance depth below the level of a water pipe (i.e. 500 mm), maintain minimum 1000 mm horizontal clearance between pipe barrels. The minimum horizontal clearance of 1000 mm may be progressively reduced to 600 mm as the difference in levels is increased to 750 mm.
6. Clearances from kerbs shall be measured from the outside of the barrel of the water pipe to the nearest point of the kerb.

Wastewater pipes and stormwater drains

Proposed services	Minimum horizontal clearance between services¹ mm		Minimum vertical clearance between services¹ mm
	Existing pipe size		
	≤DN 200	>DN 200 to ≤DN 375	
Water pipes ²	1000/600	1000/600	500
Electricity conduits and cables	500	1000	225/300 ³
Gas pipes Telecommunication conduits and cables Stormwater drains Wastewater pipes	300	600	150/300 ³

NOTES:

1. If the existing wastewater pipe is concrete encased or either the existing and/or proposed utility services are to be concrete encased, then the minimum clearances shall be measured from the outside of the encasement.
2. Water pipes should always cross over wastewater pipes. In cases where there is no alternative and the water pipe must cross under the wastewater pipe, construction should be in accordance with Sydney Water standards. When a water pipe is to be located adjacent to and at a difference in level equivalent to the minimum vertical clearance above the level of a wastewater pipe (i.e. 500 mm), maintain minimum 1000 mm horizontal clearance between pipe barrels. The minimum horizontal clearance of 1000 mm may be progressively reduced to 600 mm as the difference in levels is increased to 750 mm.
3. A minimum vertical clearance of 300 mm applies if the size of either the existing or proposed service is >DN 300.