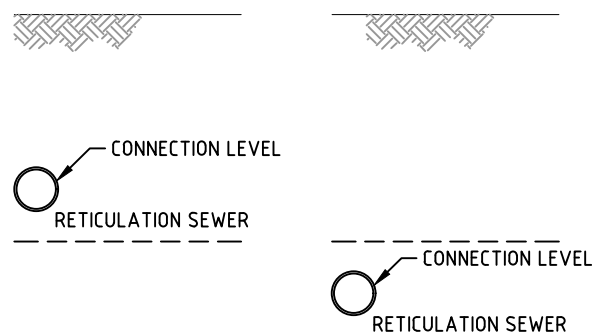
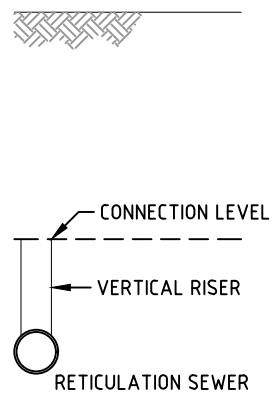


GENERAL NOTES:

- THE LOCATION OF PROPERTY CONNECTION POINTS WILL BE DETERMINED BY THE STATUS OF DEVELOPMENT OF THE LOT.
- PROPERTY CONNECTION POINTS ON VACANT LOTS SHALL BE LOCATED TO ACHIEVE THE MINIMUM DEPTH OF SEWERS, AS SHOWN IN DEPTH OF CONNECTION POINTS AND USE OF RISERS.
- OFFSET BOUNDARY DISTANCES SHALL BE SPECIFIED BY COUNCIL.
- WHERE NOT SPECIFIED, PROPERTY CONNECTION POINTS SHALL BE LOCATED:
 - 5m FROM THE SIDE BOUNDARY UNLESS THE POSITION OF THE DRIVEWAY IS KNOWN, IN WHICH CASE THE PROPERTY CONNECTION SEWER SHALL BE LOCATED CLEAR OF THE DRIVEWAY; AND
 - ON THE LOWER SIDE OF THE PROPERTY; OR
 - ON THE OPPOSITE SIDE OF THE LOT TO THE DRIVEWAY CROSSING, IF KNOWN, WHERE THE FALL ACROSS THE LOT IS SMALL.
- WHEN SEWERS ARE CONSTRUCTED ALONG THE SIDE OF THE LOT, THE CONNECTION POINT SHALL BE LOCATED 2m FROM THE FRONT OR REAR BOUNDARY, DEPENDING ON THE DIRECTION OF THE FALL.
- PROPERTY CONNECTION SEWERS SHALL BE CONSTRUCTED WITH SUFFICIENT HORIZONTAL STRAIGHT PIPES OR 300mm MINIMUM SO THAT THE PROPERTY CONNECTION FITTING IS LOCATED INSIDE THE LOT TO BE SERVICED.
- THE CONNECTION POINT SHALL BE LOCATED:
 - CLEAR OF OBSTRUCTION E.G. RETAINING WALLS, TREES, TREE ROOTS AND SURFACE IMPROVEMENTS E.G. DRIVEWAYS AND PAVED AREAS;
 - WHERE IT IS EASILY ACCESSIBLE FOR FUTURE MAINTENANCE;
 - WHERE THE CONNECTION LOT OWNER'S SANITARY DRAIN CAN BE CONSTRUCTED CLEAR OF EXISTING OBSTRUCTIONS AND SURFACE IMPROVEMENTS;
 - WHERE THE CONNECTING SANITARY DRAIN CAN BE CONSTRUCTED CLEAR OF ANY KNOWN FUTURE DEVELOPMENT E.G. SWIMMING POOL, DRIVEWAY ETC.;
 - TO AVOID UNNECESSARILY DEEP EXCAVATION >1.5m WHERE PRACTICABLE;
 - WITH CONSIDERATION TO ANY PREFERENCES OF LOT OWNERS;
 - A MINIMUM OF 2m FROM THE NEAREST SANITARY FIXTURE; AND
 - A MINIMUM OF 2m AWAY FROM ANY CORNER OF THE BUILDING.
- WHERE SPECIFIED BY COUNCIL, DESIGNERS MAY BE REQUIRED TO NOMINATE THE TYPE OF PROPERTY CONNECTION SEWERS ON THE DESIGN DRAWINGS.
- THERE ARE TWO BASIC METHODS OF PROVIDING THE PROPERTY CONNECTION POINT AT THE REQUIRED LOCATION AND DEPTH. THE FOLLOWING METHODS APPLY TO BOTH THE IO INTERFACE METHOD AND THE BURIED INTERFACE METHODS:
 - RUN-IN
 - VERTICAL RISER (JUMP-UP)
- WHERE PERMITTED BY COUNCIL, CONSIDERATION MAY BE GIVEN TO 'TYPE 7 SPUR' OR 'Y' PROPERTY CONNECTIONS I.E. THOSE PROVIDING FOR CONNECTION OF TWO LOTS WHERE COST SAVING WOULD RESULT AND THE LOT OWNERS WOULD NOT BE DISADVANTAGED. NO MORE THAN TWO (2) LOTS SHALL BE CONNECTED TO A SINGLE POINT ON THE RETICULATION OR PROPERTY CONNECTION SEWER, REFER TO PLAN WSC-SEW-004.
- PROPERTY CONNECTION SEWERS SHALL BE A MAXIMUM OF 10m IN LENGTH OR AS DIRECTED BY COUNCIL, MEASURED FROM THE SEWER TO THE BOUNDARY OF THE LOT TO BE SERVICED.
- WHERE LONGER PROPERTY CONNECTION SEWERS ARE REQUIRED, THEY SHALL BE DESIGNED AND CONSTRUCTED TO THE SAME STANDARDS AS SEWERS AND SHALL BE PROVIDED WITH MAINTENANCE ACCESS. END-OF-LINE CROSSINGS OF ROADS UP TO 25m IN LENGTH MAY BE CLASSIFIED AS PROPERTY CONNECTION SEWERS.
- A PROPERTY CONNECTION SEWER SHALL TERMINATE INSIDE THE LOT TO BE SERVICED.

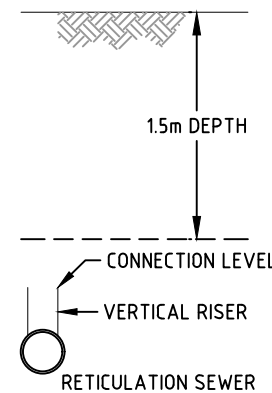


CASE (A)¹
RETICULATION SEWER AND CONNECTION LEVEL AREA BOTH < 1.5m



CASE (C)^{3&5}
CONNECTION LEVEL < 1.5m AND RETICULATION SEWER > 1.5m (RISER REQUIRED UP TO 1.5m)

CASE (B)²
RETICULATION SEWER AND CONNECTION LEVEL AREA BOTH > 1.5m (NO RISER)



CASE (D)^{4&5}
CONNECTION LEVEL AND RETICULATION SEWER > 1.5m (RISER REQUIRED UP TO CONNECTION LEVEL)

DEPTH OF CONNECTION POINTS AND USE OF RISERS DETAIL

DETAIL NOTES:

- THE MINIMUM DEPTH OF POINT OF CONNECTION TO THE RETICULATION SEWER SHALL BE THE CALCULATED LEVEL FOR THE MAXIMUM LOT DRAINAGE AND COMPLIANCE WITH SOFFIT REQUIREMENTS.
- WHERE LOT CONTROL WARRANTS THE SEWER BEING DEEPER THAN 1.5m, THE POINT OF CONNECTION SHALL BE CONSTRUCTED AT THAT LEVEL OR DEEPER. A VERTICAL RISER (JUMP-UP) SHALL NOT EXTEND HIGHER THAN THAT LEVEL.
- IN CASES WHERE THE RETICULATION SEWER IS DEEPER THAN 1.5m AND THE REQUIRED PROPERTY CONNECTION LEVEL IS LESS THAN 1.5m, A VERTICAL RISER (JUMP-UP) SHALL BE CONSTRUCTED TO A DEPTH OF NOT MORE THAN 1.5m BELOW FSL.
- IF THE RETICULATION SEWER IS VERY DEEP AND THE PROPERTY CONNECTION LEVEL REQUIRED IS DEEPER THAN 1.5m, A RISER SHALL BE CONSTRUCTED TO THE REQUIRED PROPERTY CONNECTION LEVEL.
- BOTH CASE (C) AND (D) MITIGATE THE LIKELIHOOD OF UNSAFE PRACTICES BEING ADOPTED BY PLUMBERS AND REDUCES THE LIFE CYCLE COSTS OF THE SANITARY DRAIN TO THE LOT OWNER.

TABLE 1 - MINIMUM COVERS OVER SEWERS

LOCATION	MINIMUM COVER TO TOP OF SEWER (mm)
PUBLIC AND PRIVATE LOTS NOT SUBJECT TO VEHICULAR LOADING	600 - NEW DEVELOPMENTS 450 - EXISTING DEVELOPMENTS
PRIVATE LOTS ZONED RESIDENTIAL SUBJECT TO VEHICULAR LOADING	750
FOOTWAY, NATURE STRIPS, INDUSTRIAL AND COMMERCIAL LOTS, SEALED ROAD PAVEMENTS OTHER THAN MAJOR ROADS SUBJECT TO VEHICULAR LOADING	900
UNSEALED ROAD CARRIAGEWAYS	1200
MAJOR ROAD CARRIAGEWAYS	1200
FUTURE ROAD, RAIL AND TRAM PAVEMENTS	1200

TABLE 2 - MINIMUM PIPE SIZES FOR RETICULATION AND PROPERTY CONNECTION SEWERS

SEWER	MINIMUM SIZE DN (mm)
PROPERTY CONNECTION SEWERS SERVICING SINGLE OCCUPANCY RESIDENTIAL LOTS	150
RETICULATION SEWERS SERVICING RESIDENTIAL LOTS, DUAL OCCUPANCY AND GRANNY FLATS PROPERTY CONNECTION SEWER SERVICING COMMERCIAL AND INDUSTRIAL LOTS ≤ 300 m ²	150
RETICULATION SEWER SERVICING COMMERCIAL AND INDUSTRIAL LOTS AND OTHER LOTS WHERE LARGE FLOWS MAY BE EXPECTED	225

TABLE 3 - PROPERTY CONNECTION SEWER GRADE TOLERANCES

CATEGORY	DESIGN GRADE	MINIMUM ACCEPTABLE GRADE
DN 100	1.65% (1 IN 60)	15% FLATTER, 15% STEEPER
DN 150	1.2% (1 IN 83)	15% FLATTER, 15% STEEPER

ISSUE	AMENDMENTS	DRAWN	DATE



DRAWN **M. MOLINA**

SCALE **N.T.S.**

SHEET SIZE: **A3**

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WINGECARRIBEE SHIRE COUNCIL

GENERAL NOTES AND CONNECTION DETAILS - SHEET 1

DATE: 02/05/2017	PLAN No: WSC-SEW-001	SHEET 01 OF XX	ISSUE: A
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