

TABLE 112-A: FRONT BOUNDARY MINIMUM OFFSETS

SEWERAGE ASSETS	>2.0m WIDE FOOTPATH	≤2.0m WIDE FOOTPATH
≤ DN375 SEWER + IS, MS or MC	≥ 1.5m (Ref FIG 112-A2)	≥ 1.0m (REF FIG 112-A1)
≤ DN375 SEWER + MH	≥ 1.3m (Ref FIG 112-A3)	
DN450 to DN600 SEWER ≤ 4m DEEP	≥ 1.5m (Ref FIG 112-A4)	DISPENSATION REQ'D
≥ DN675 SEWER or > 4m DEEP	NEGOTIATE OFFSET WITH STAKEHOLDERS	

TABLE 112-B: SEWER LIMITATIONS WITHIN RESERVES

SEWER LOCATION	REQUIREMENT
FOOTPATH, NATURE STRIP or ROAD SHOULDER	REFER TABLE 112-A and FIGURES 112-A1 to A4
PUBLIC OPEN SPACE	REFER FIGURE 112-A5
UNDER ROAD PAVEMENT or MEDIAN STRIP	WATER AGENCY APPROVAL REQ'D

NOTES Regarding Offsets in the Road Reserve:

- A. Locate cover and frame on the side of the MH indicated in Figure 112-A1 to A4 where practical, wholly within the footpath or wholly within the nature strip.
- B. These minimum offsets take precedence over minimum clearance requirements.
- C. Sewers under Road Pavement (If approved), shall be located parallel to the road kerb and centrally in the median strip or the outermost traffic lane.

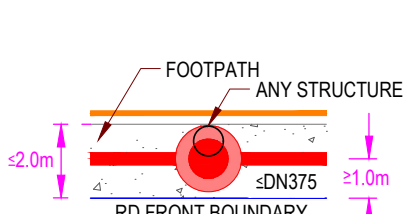


FIGURE 112-A1: FRONT OFFSET FOR ≤DN375 SEWERS WHERE ≤2.0m TO EDGE OF FOOTPATH

LOCATE COVER FURTHER FROM FRONT BOUNDARY

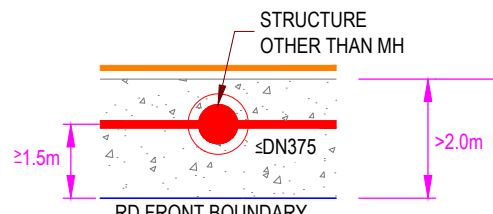


FIGURE 112-A2: FRONT OFFSET FOR ≤DN375 SEWERS WITHOUT MH WHERE >2.0m TO EDGE OF FOOTPATH

RESERVE SEWERS

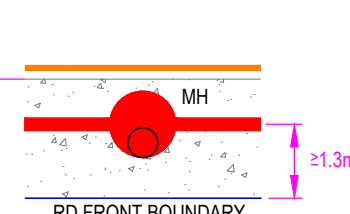


FIGURE 112-A3: FRONT OFFSET FOR ≤DN375 SEWERS WITH MH WHERE >2.0m TO EDGE OF FOOTPATH

LOCATE COVER CLOSER TO FRONT BOUNDARY

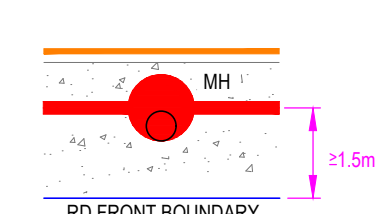


FIGURE 112-A4: FRONT OFFSET FOR DN375 to DN600 and ≤4m DEEP SEWERS
LOCATE COVER CLOSER TO FRONT BOUNDARY.

NEGOTIATE OFFSET OF SEWERS ≥DN600 or SEWERS >4m DEEP ON A CASE BY CASE BASIS.

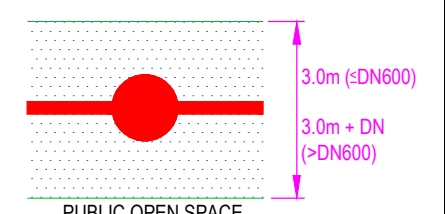
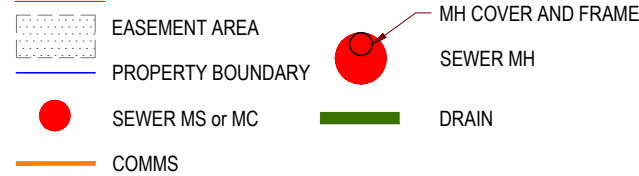


FIGURE 112-A5: EASEMENT WIDTHS FOR PUBLIC OPEN SPACE SEWERS
LOCATE SEWERS CENTRALLY IN EASEMENT

LEGEND



NOTES Regarding All Offsets and Easements:

- Table 112-A and 112-C offsets take precedence over retaining wall minimum clearance requirements in green fields developments, provided the sewer is constructed prior to construction of the retaining wall.
- Apply the same easement and offsets for the entire alignment. Easements and Offsets shall not stagger unless necessary.
- Adopt the easement and offset required for the largest structure.

REAR PRIVATE PROPERTY SEWERS

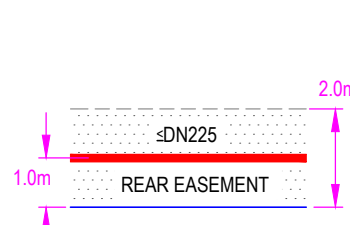


FIGURE 112-B1: REAR OFFSET FOR SEWER ONLY

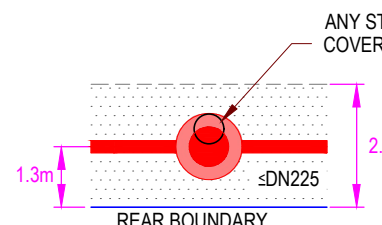


FIGURE 112-B2: REAR OFFSET FOR SEWER + STRUCTURE
LOCATE COVER FURTHER FROM REAR BOUNDARY

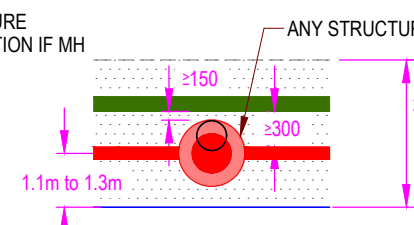


FIGURE 112-B3: REAR OFFSET FOR SEWER + DRAIN
LOCATE COVER FURTHER FROM REAR BOUNDARY

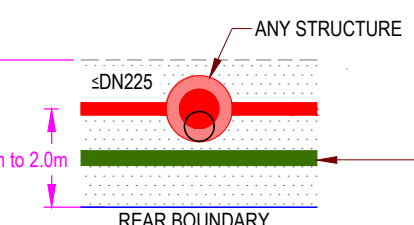


FIGURE 112-B4: REAR OFFSET FOR DRAIN + SEWER
LOCATE COVER CLOSER TO REAR BOUNDARY

LOCATE SHALLOWER SERVICE NEARER REAR BOUNDARY

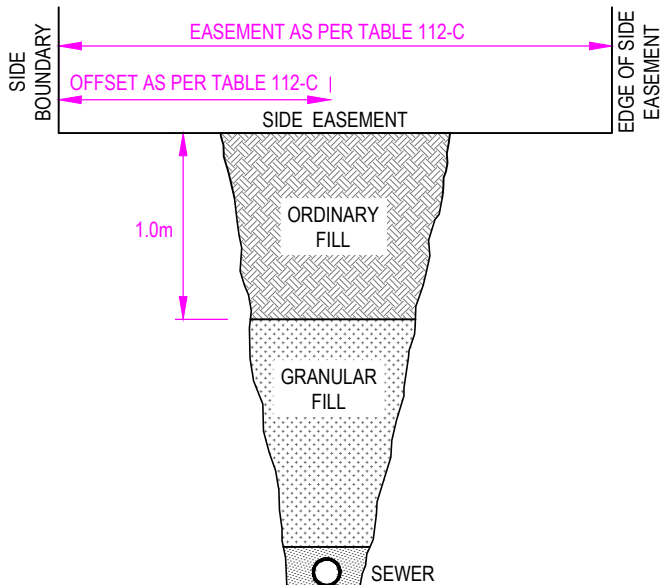


FIGURE 112-C: SIDE BOUNDARY BACKFILL REQUIREMENTS (ELEVATION)

NOTES Regarding Side Easements and Sewers:

- 1. Side easements not typically allowed.
- 2. Dispensation is required to locate sewers adjacent to side boundaries in private property.
- 3. Locate a maintenance structure at both ends of side easement sewers.

TABLE 112-C: REAR & SIDE BOUNDARY PRIVATE PROPERTY EASEMENTS & OFFSETS

EASEMENT ASSETS	EASEMENT WIDTH	SEWER OFFSET
REAR SEWER + IS	2.0m	1.0m
REAR SEWER + MS, MC, MH	2.5m	1.3m
SIDE SEWER (NO STRUCTURE)	2.5m	1.3m
IF SEWER CLOSER TO PROPERTY BOUNDARY		
SEWER + DRAIN	3.0m	1.1m to 1.3m
IF DRAIN CLOSER TO PROPERTY BOUNDARY		
DRAIN + SEWER	3.0m	1.8m to 2.0m

NOTES Regarding Rear & Side Easements and Offsets:

- The key priorities used to determine the offsets are as follows:
 - Maintain minimum clearance between drains and sewers (300 between pipes, 150 between a structure and pipe).
 - Maximise distance of sewers from property boundaries and easement edges.
 - Preferred that the shallower of the drain or sewer be located nearest the property boundary in combined easements.
- Drainage pits and sewer maintenance structures shall have a minimum longitudinal clearance of 500.
- The provided offsets are relevant where Sewers ≤DN225 and Drains ≤DN300. Should dispensation be provided for larger pipes and offsets shall be determined as per the priorities described in note 1.
- Where these offsets cannot be adopted and the Drainage authority's requirements also met, consult with the Water Agency and Drainage authority to achieve a compromise.

SIDE PRIVATE PROPERTY SEWERS NOT TYPICALLY ALLOWED. DISPENSATION REQUIRED

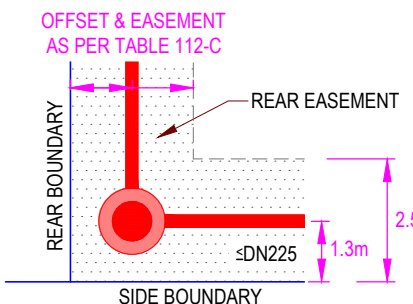


FIGURE 112-C1: SIDE OFFSET, SEWER ONLY.
REAR & SIDE SEWER INTERSECTION SHOWN
LOCATE STRUCTURE AT REAR INTERSECTION

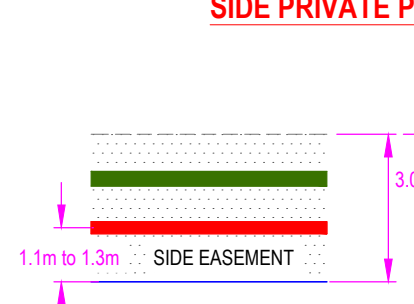


FIGURE 112-C2: SIDE OFFSET FOR SEWER + DRAIN
NO STRUCTURE PERMITTED IN SIDE EASEMENT

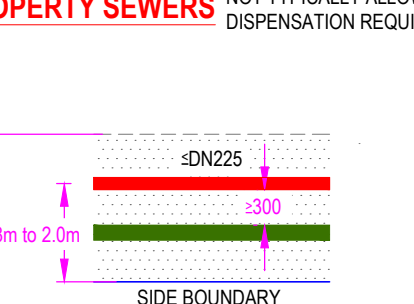


FIGURE 112-C3: SIDE OFFSET FOR DRAIN + SEWER
NO STRUCTURE PERMITTED IN SIDE EASEMENT

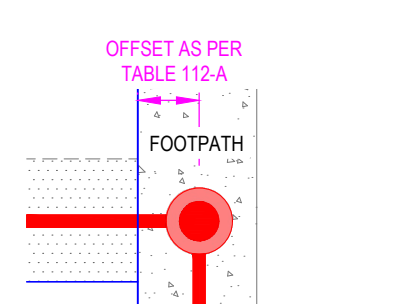


FIGURE 112-C4: SIDE AND ROAD RESERVE SEWER INTERSECTION
LOCATE STRUCTURE AT END OF SIDE SEWER IN ROAD RESERVE

REV	DESCRIPTION	DATE	APPROVED
2	PUBLISHED FIRST ISSUE	SEP 20	CP / GA / RL
1	PRE-PUBLISHED DRAFT	10/19	CP / GA / ST

DESIGNED: R. JAGGER	DATE: OCTOBER 2019
DRAWN: R. JAGGER	DATE: OCTOBER 2019
CHECKED: NAME DATE	APPROVED: NAME DATE
<input checked="" type="checkbox"/> CWW G. ANTHONSEN SEP 20	<input checked="" type="checkbox"/> CWW S. TRIKHA SEP 20
<input checked="" type="checkbox"/> SEW C. PAXMAN SEP 20	<input checked="" type="checkbox"/> SEW D. STEWART SEP 20
<input checked="" type="checkbox"/> YVW N. GERHARD SEP 20	<input checked="" type="checkbox"/> YVW R. LEON SEP 20
ISSUED 2020	VERSION 1

MELBOURNE RETAIL WATER AGENCIES

MRWA SEWERAGE STANDARDS

EASEMENTS AND OFFSETS

NOT TO SCALE		
MRWA-S-112		
Planning	Design	Construction
✓	✓	✓