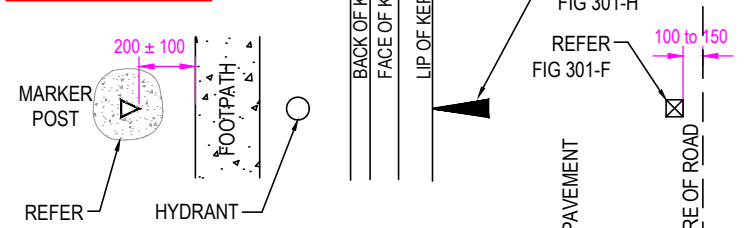
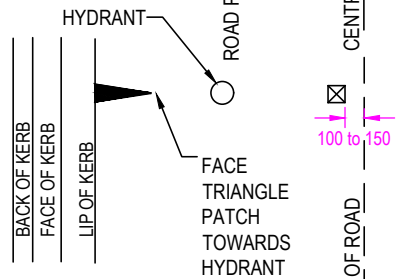


FIGURE 301-A: MARKER POST INSTALLATION (SECTION VIEW)

HYDRANT IN ROADWAY ABUTTING OPEN SPACE



HYDRANT IN URBAN ROADWAY



VALVE IN ROADWAY ABUTTING OPEN SPACE

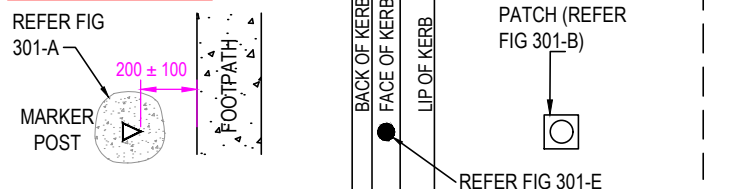
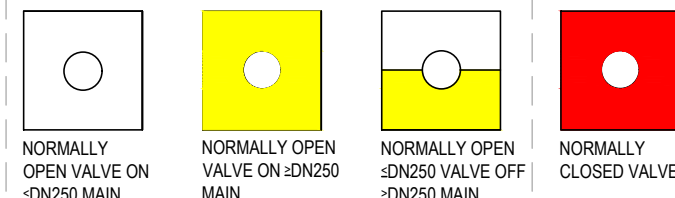


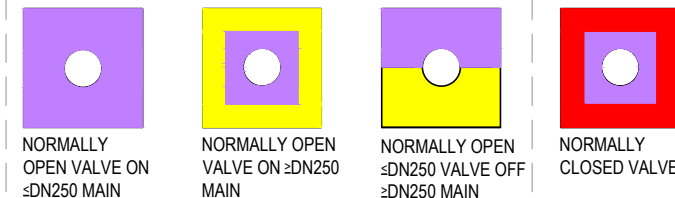
FIGURE 301-D: MARKER INSTALLATIONS EXAMPLES (PLAN VIEW)

FIGURE 301-B: VALVE SURROUND COLOURING

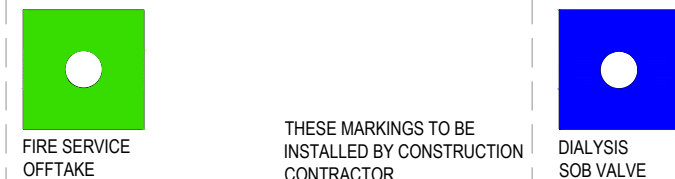
DRINKING WATER VALVES



NON-DRINKING WATER VALVES



OTHER VALVES



THESE MARKINGS TO BE INSTALLED BY CONSTRUCTION CONTRACTOR

NOTES Regarding Figure 301-B:

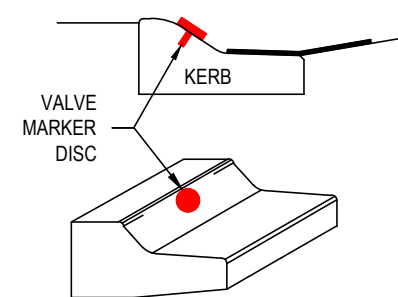
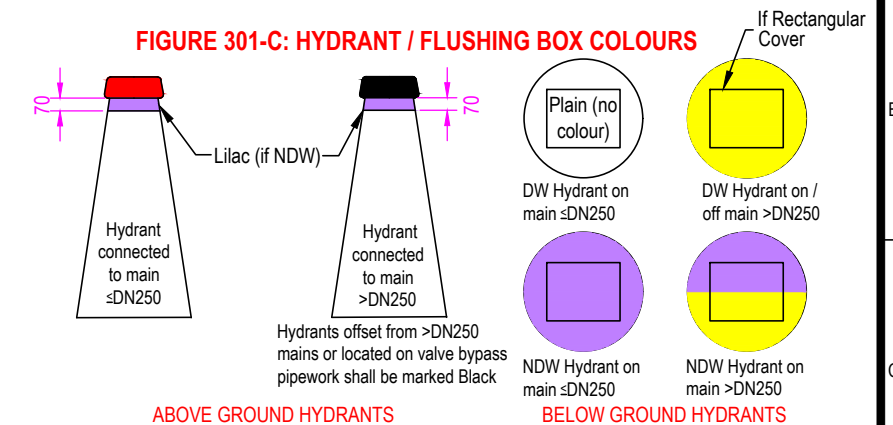
- Colour patch to be performed thermoplastic road marking product as per AS4049.2.
- The substrate shall be thoroughly cleaned or roughened and chemically treated as required to achieve a strong bond between the marking and substrate.
- Ensure divide line between colours is orientated correctly to indicate the size / status of the main on either side of the valve.

TABLE 301-B: HYDRANT / FLUSHING BOX COLOURS

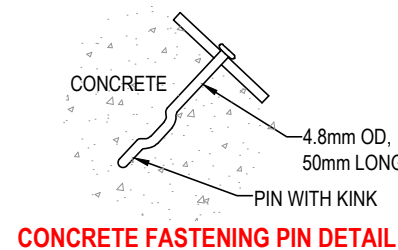
SYSTEM	LEVEL	CONNECTED TO ≤DN250 MAIN	CONNECTED TO >DN250 MAIN
DW	BELOW GROUND	PLAIN (NO COLOUR)	YELLOW
DW	ABOVE GROUND	RED TOP	BLACK TOP
NDW	BELOW GROUND	LILAC LID	½ LILAC & ½ YELLOW
NDW	ABOVE GROUND	LILAC BELOW RED TOP	LILAC BELOW BLACK TOP

ABOVE GROUND HYDRANTS TO BE MARKED AS PER FIGURE 305-C.

FIGURE 301-C: HYDRANT / FLUSHING BOX COLOURS



KERB FASTENING POSITION FOR LONE VALVES WHERE THERE IS A KERB



CONCRETE FASTENING PIN DETAIL

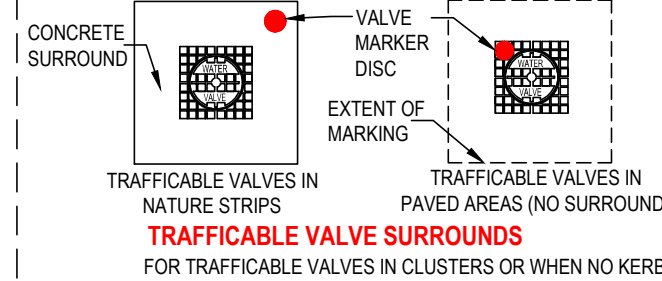
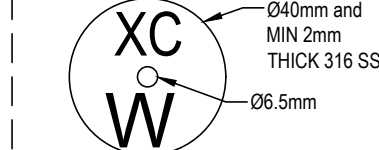
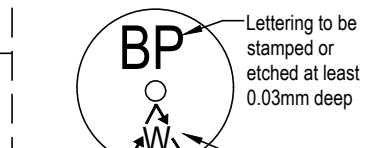


FIGURE 301-E: VALVE MARKER DISCS

DO NOT FIT DISCS TO BLUE STONE



DISC EXAMPLE: DRINKING WATER CROSS CONNECTION VALVE



DISC EXAMPLE: NON DRINKING WATER BYPASS VALVE

Where necessary, recycled water may be indicated with a separate dedicated disc.

TABLE 301-C: VALVE DISC LETTERING

LETTER(S)	VALVE TYPE
DV	DIVIDE VALVE (FOR USE IN MAINS ≥ DN375)
V	OFFTAKE OR RETICULATION VALVE
SCV	SCOUR CONTROL VALVE
HV	HYDRANT CONTROL VALVE
AV	AIR VALVE CONTROL VALVE
FV	FROG MOUTH CONTROL VALVE
BP	BYPASS VALVE
XC	CROSS CONNECTION VALVE
WO	WASHOUT

NOTES Regarding Fastening Arrangements:

- For fastening into concrete (kerb or surround): use 316 SS concrete pins, pre-drilled with 5mm min masonry bit.
- For fastening to ductile iron, drill hole, tap thread and fasten with pan head M6, 25mm (1 inch) long 316 SS metal thread screws.
- For fastening to plastic covers or surrounds, grind off plastic protrusions in area to which disc is to be fitted, drill through cover and attach disc with 316 SS, M6, 60mm long cup head bolts & 316 SS nuts and washers.



FIGURE 301-F: CATS EYE

NOTES on Figure 301-E:

- Attach to ground using hotmelt marker adhesive (bituminous) or two pack epoxy adhesive as per AS1906.3.
- Apply as per manufacturers instructions. Roughen surface with cold chisel & use wire brush to thoroughly clean surface before application.
- Cats eyes are **not** required at Acceptance of Works.
- Cats eyes are required at End of Defects.

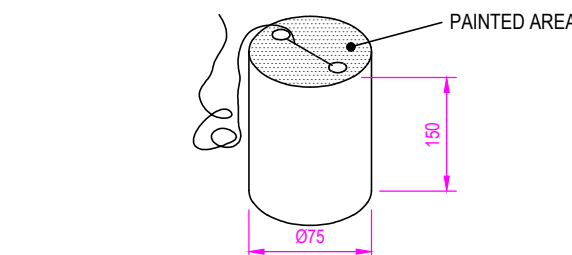


FIGURE 301-G: SPINDLE CAP FOR VALVES

NOTES on Figure 301-G:

- Required for normally shut valves (red).
  - Required for dialysis patient valves (blue).
- All dialysis shut off block valves shall be capped and have an attached waterproof label with the customer's address.

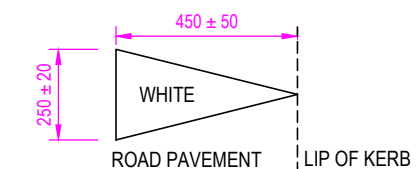


FIGURE 301-H: ROAD PAVEMENT HYDRANT REFLECTIVE PATCH

NOTES on Figure 301-H:

- Use preformed thermoplastic road marking product, white in colour as per AS4049.2 or as per water agency products catalogue.
  - Use wire brush to thoroughly clean surface before application.
  - Bond using gas torch until well adhered. Apply as per manufacturers instructions.
- Patch may be applied using vicroads approved marking paint.
- Point triangle to hydrant (if hydrant in road, point triangle towards road center).
- Patches are **not** required at Acceptance of Works.
- Patches **are** required at End of Defects.

REV	DESCRIPTION	DATE	APPROVED
3	VALVE MARKING & MINOR CHANGES	1/12/16	RJ / CP / JT
2	PUBLISHED FIRST ISSUE	04/04/12	R. JAGGER
1	PRE PUBLISHED DRAFT FOR COMMENT	12/07/11	R. JAGGER

DESIGNED	R. JAGGER	DATE	04/04/2011		
DRAWN	D. TOLENTINO	DATE	04/04/2011		
CHECKED:	NAME	DATE	APPROVED:	NAME	DATE
<input checked="" type="checkbox"/>	CWV	04/04/12	<input checked="" type="checkbox"/>	CWV	04/04/12
<input checked="" type="checkbox"/>	SEWL	04/04/12	<input checked="" type="checkbox"/>	SEWL	04/04/12
<input checked="" type="checkbox"/>	YVW	04/04/12	<input checked="" type="checkbox"/>	YVW	04/04/12

MELBOURNE RETAIL WATER AGENCIES

MRWA WATER SUPPLY STANDARDS

VALVE AND HYDRANT MARKING DETAILS (CWW and SEW ONLY)

NOT TO SCALE

MRWA-W-301

ISSUED 2012 REVISION NO. 3