


## NOTES:

- CATHODIC PROTECTION IS GENERALLY ONLY REQUIRED FOR DOGLEGS LARGER THAN DN200.  
**FOR MORE SIGNIFICANT LOCATIONS, EG. MAJOR ROAD OR CREEK CROSSINGS, DN100 & DN150 DOGLEGS MAY REQUIRE CATHODIC PROTECTION. REFER NOTE 3.**
- THE DOG LEG DESIGN SHALL BE APPROVED BY SA WATER PRIOR TO UNDERTAKING THE CATHODIC PROTECTION DESIGN.
- THE DESIGNER SHALL CONSULT THE SA WATER CATHODIC PROTECTION SPECIALIST FOR CONFIRMATION OF REQUIREMENTS.
- IF THE ADJOINING PIPE IS AC, PVC OR PE, STANDARD INSULATED FLANGED JOINTS AND TEST POINTS ARE NOT REQUIRED.
- SACRIFICIAL CP SYSTEM SHALL BE DESIGNED TO PROVIDE A POTENTIAL MORE NEGATIVE THAN 0.85 V WITH RESPECT TO A COPPER/ COPPER SULPHATE REFERENCE ELECTRODE AND SHALL HAVE A MINIMUM DESIGN LIFE OF 10 YEARS IN ACCORDANCE WITH AS2832.2.
- INSTALL STUDS ON THE PIPELINE FOR TEST POINT CONNECTIONS AND SACRIFICIAL ANODE CONNECTION AT THE LOCATIONS SHOWN ON THE DESIGN DRAWING AND IN ACCORDANCE WITH SA WATER DRG. 75 10.
- WHERE THE PIPE IS:
  - SINTAKOTE MSCL AND THE SINTAKOTE HAS BEEN REMOVED,
  - NON SINTAKOTE MSCL,**THE PIPE TOGETHER WITH CABLE CONNECTION POINTS AND EXTENSION PIPES AT EACH END SHALL BE PROTECTED BY WRAPPING WITH BITUMEN MASTIC TAPE SYSTEM IN ACCORDANCE WITH SA WATER SPECIFICATION TS 18.**
  - FLANGED DICL,**THE PIPE SHALL NOT BE COVERED BY A THE PROTECTIVE PE SLEEVE. THE PIPE TOGETHER WITH CABLE CONNECTION POINTS AND EXTENSION PIPES AT EACH END SHALL BE PROTECTED BY WRAPPING WITH BITUMEN MASTIC TAPE SYSTEM IN ACCORDANCE WITH TS 18.**
- THE CABLES SHALL BE LAID OVER THE BITUMEN MASTIC TAPE SYSTEM.
- THE CONTRACTOR SHALL IDENTIFY THE CATHODIC PROTECTION TEST POINT BY EITHER:  
**FOR IMPROVED AREAS,** IN A CAST IRON STREETBOX, IN ACCORDANCE WITH SA WATER DRG. 75 19. (REFER 4005-30007-01 FOR STREET BOX INSTALLATION).  
OR  
**FOR UNIMPROVED AREAS,** ON A 90 x 90 PAR WOODEN POST, IN ACCORDANCE WITH SA WATER DRG. 75 10
- AT THE ANODE A LENGTH OF DN40 PVC CONDUIT SHALL BE INSTALLED VERTICALLY, STARTING FROM DIRECTLY ABOVE THE ANODE AND FINISHING OPEN ENDED IN A FIBREGLASS GROUND BOX INSTALLED DIRECTLY ABOVE THE ANODE. WHERE THE ANODE IS INSTALLED IN THE ROADWAY A CAST IRON STREETBOX BE USED.
- CABLE FROM THE ANODE TO THE CONNECTION JUNCTION BOX SHALL PASS UNBROKEN VIA THE GROUND BOX OR STREETBOX.
- FOR FLANGE CABLE BONDING DETAILS REFER SA WATER DRG 75-10.
- OPTIONS AVAILABLE FOR FITTINGS FOR CONNECTION TO PIPELINE (FLANGE/ SOCKET/ SPIGOT ENDS). REFER 4005-30005-09 AND APPROVED ITEMS CATALOGUE.
- PRIOR TO CPC, CATHODIC PROTECTION POTENTIAL MEASUREMENTS AT TEST POINTS AND ANODE CURRENTS SHALL BE RECORDED.
- THE CONTRACTOR SHALL PROVIDE THE FOLLOWING AS CONSTRUCTED DOCUMENTATION TO THE SA WATER CATHODIC PROTECTION SPECIALIST:
  - THE CATHODIC PROTECTION POTENTIAL MEASUREMENTS AT TEST POINTS AND THE ANODE CURRENTS RECORDED AFTER COMMISSIONING THE SYSTEM.
  - AN 'AS CONSTRUCTED' DRAWING SHOWING ANODES, TEST POINTS, BONDING AND INSULATED FLANGES INCORPORATING DETAILED LOCATION OF ALL ITEMS.

| REVISION PANEL |          |     |                       |     | DESIGN PANEL       |                      | <br>This drawing is the property of the<br>SOUTH AUSTRALIAN<br>WATER CORPORATION<br>and shall not be copied or modified<br>in part or in whole without authorization. | SA WATER STANDARD DRAWINGS       |  | A3                 | 1        |
|----------------|----------|-----|-----------------------|-----|--------------------|----------------------|--|----------------------------------|--|--------------------|----------|
| REV            | DATE     | DRN | DETAILS               | APR | CURRENT REV        | AUTHORISED:          |  | WATER SUPPLY CONSTRUCTION MANUAL |  | SHT SIZE           | REVISION |
|                |          |     |                       |     |                    |                      |  | CATHODIC PROTECTION              |  |                    |          |
|                |          |     |                       |     |                    |                      |  | FOR WATER MAINS                  |  |                    |          |
|                |          |     |                       |     |                    |                      |  | TYPICAL DETAILS                  |  |                    |          |
| 1              | 31/03/16 | MS  | 2016 STANDARDS REVIEW | TG  |                    |                      |  |                                  |  |                    |          |
|                |          |     |                       |     | DESIGNED: 25/09/15 | AUTHORISED: 31/03/16 |  |                                  |  | TOTAL SHEETS:      |          |
|                |          |     |                       |     | RJP                | T.GALEK              |  |                                  |  | SUPERSEDES: H6, H7 |          |
|                |          |     |                       |     | DRAWN: 16/11/15    | SIGNATURE:           |  |                                  |  | DRAWING NUMBER     |          |
|                |          |     |                       |     | MS                 |                      |  |                                  |  | 4005-30010-02      |          |
|                |          |     |                       |     | REVIEWED: 21/03/16 |                      |  |                                  |  | PREFIX             | SHEET    |
|                |          |     |                       |     | TG                 |                      |  |                                  |  | NUMBER             |          |