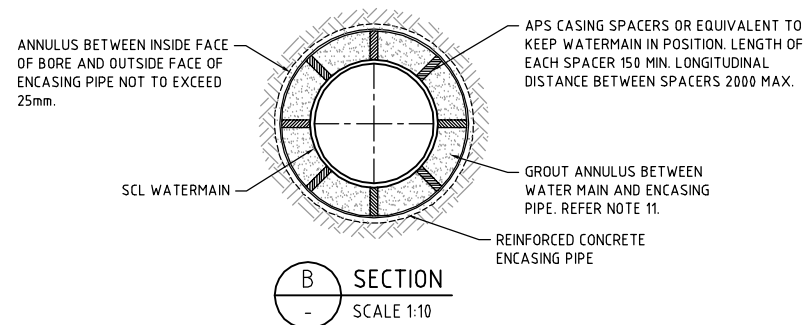


NOTES:

- ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
- CROSSING TYPE 3 NOT SUITABLE FOR INSTALLATION IN AGGRESSIVE SOILS.
- THRUST RESTRAINT PROVIDED BY CONCRETE ENCASEMENT. ULTIMATE LIMIT STATE BASED ON TEST PRESSURE OF 150m HEAD OF WATER. THIS DESIGN MAY ONLY BE USED WHERE DIMENSION "L1" IS LESS THAN 2500 AND THE MINIMUM LENGTH FOR DIMENSIONS "V1" AND "X1" ARE ACHIEVED AS SPECIFIED IN THE CONCRETE REINFORCEMENT DETAILS AND THE WATER MAIN IS LAID ABOVE THE STANDING GROUNDWATER TABLE.
- STEEL PIPE JOINTS TO BE EITHER PLAIN ENDS WITH WELDING COLLAR, BUTT WELDED OR SLIP-IN TYPE WELDED JOINTS.
- SHOW DIMENSIONS "W1", "V1", "V2", "Z1", "L1" IN DESIGN AND WORK AS CONSTRUCTED DRAWINGS.
- TAPE 700 LONG PE SLEEVING TO FITTING 150 FROM THE SOCKET FACE TO OVERLAP PE SLEEVED DCL PIPE.
- CONCRETE TO BE NORMAL CLASS N25 TO PS-357_SW. SLUMP SHALL BE 80mm - 120mm. MAXIMUM NOMINAL AGGREGATE SIZE SHALL BE 20mm.
- ALL REINFORCEMENT SHALL BE TO AS4671 SHAPE-D, STRENGTH GRADE= 500MPa, DUCTILITY CLASS-N.
- MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 70mm.
- DO NOT APPLY ANY THRUST LOADS FOR AT LEAST 28 DAYS AFTER POURING CONCRETE.
- GROUTING MIX TO BE 1:1 (SAND:CEMENT) WITH A WATER :CEMENT RATIO 1:0.67 BY WEIGHT USING FINE WELL ROUNDED SAND. PLASTICISERS MAY BE USED.
- FORM ALL CONSTRUCTION JOINTS. SCABBLE JOINT TO EXPOSE AGGREGATE TO 5mm DEPTH AND WIRE BRUSH CLEAN PRIOR TO FORMING. SOAK EXISTING CONCRETE SURFACE WITH WATER AND REMOVE ALL EXCESS WATER IMMEDIATELY PRIOR TO PLACING CONCRETE.

CONCRETE ENCASEMENT REINFORCEMENT DETAILS FOR 45° VERTICAL BENDS AND 90° HORIZONTAL BEND						
MAIN SIZE	"L1" MIN	"V1" MIN	"X1" MIN	MAIN REO (T&B)	SIDE REO (T&B)	"D" MIN
DN100	0-2500	500	500	3N20	NIL	150
DN150	0-2500	750	500	4N24	NIL	200
DN200	0-2500	750	750	5N20	NIL	250
DN250	0-2500	1000	1000	5N20	2N16	300
DN300	0-2500	1500	1000	5N24	2N16	300

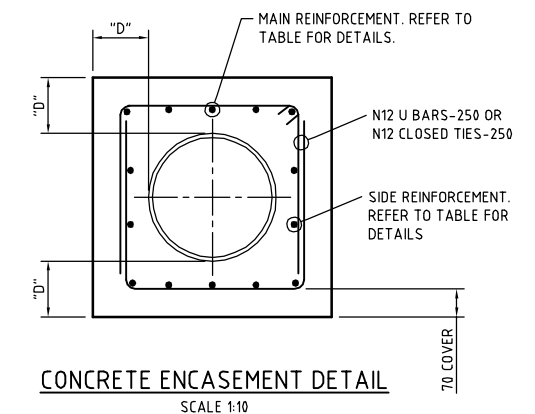
REFER NOTE 3



STEEL WATER MAINS		REINFORCED CONCRETE ENCASED PIPE	
PIPE SIZE (DN)	OUTSIDE DIAMETER (OD)	NOMINAL SIZE (DN)	INTERNAL DIAMETER (ID) MIN
150	168	225	229
200	219	300	292
250	273	375	369
300	324	450	445

ROCKER PIPE DIMENSIONS		
PIPE SIZE (DN)	"R" MIN	"R" MAX
150	300	450
200	400	600
250	500	750
300	600	900

STEEL PIPE DIMENSIONS		
PIPE SIZE (DN)	OUTSIDE DIAMETER (OD)	WALL THICKNESS (WT)
150	168	5.0
200	219	5.0
250	273	5.0
300	324	5.0



Sydney
WATER

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APPROVED

PETER GILLMAN
MANAGER E & ES

ENGINEERING & ENVIRONMENTAL SERVICES

A
LETTER

ORIGINAL ISSUE

DETAILS OF ISSUE / AMENDMENT

PJG

31/01/12

APP'D

DATE

DEEMED TO COMPLY DRAWINGS

**MAJOR ROADWAY CROSSING
WATER MAINS ≤ DN300
TYPE 2 - TRENCHLESS INSTALLATION
SCL MAIN IN ENCASED PIPE**

DTC

1121

ISSUE

DATE

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31/01/12