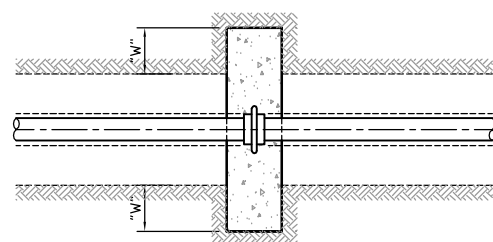


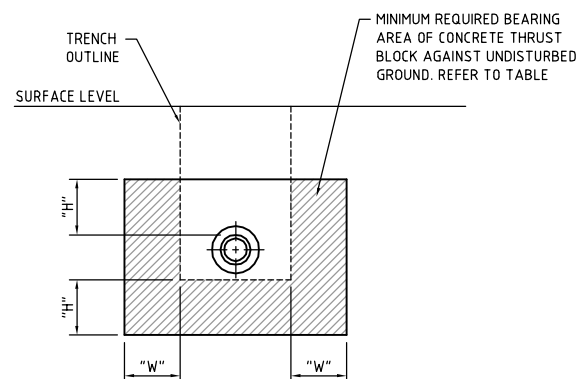
**STOP VALVE THRUST BLOCKS
ELEVATION**

SCALE 1:20



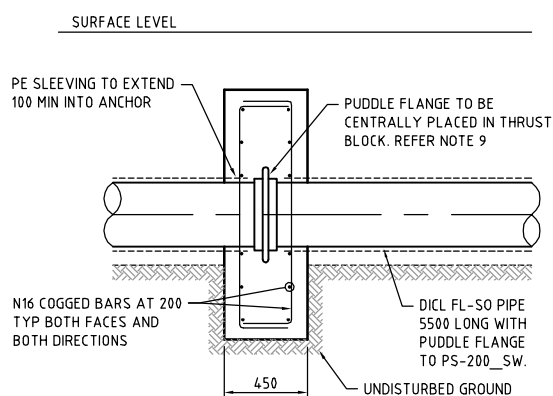
**DETAILS OF AREA TO BE CAST AGAINST
UNDISTURBED GROUND - PLAN**

SCALE 1:20



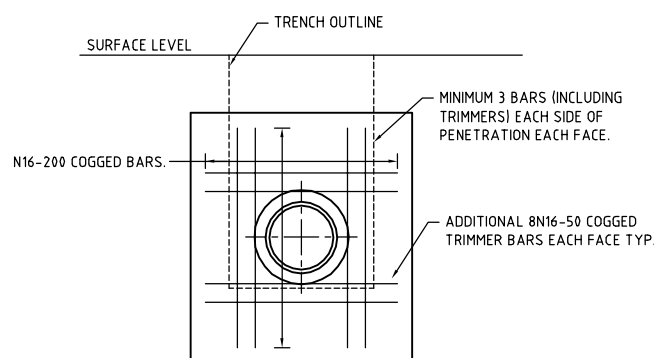
**DETAILS OF AREA TO BE CAST AGAINST
UNDISTURBED GROUND - ELEVATION**

SCALE 1:20



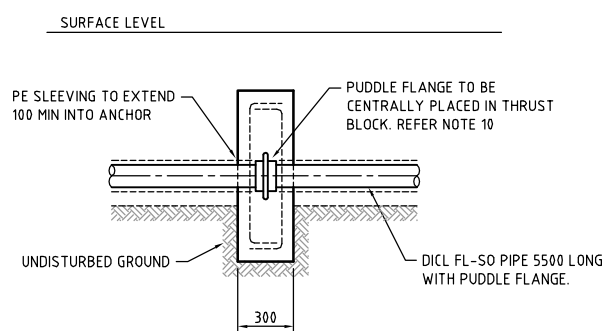
**THRUST BLOCK DETAILS FOR DN200,
DN250 AND DN300 STOP VALVES**

SCALE 1:20



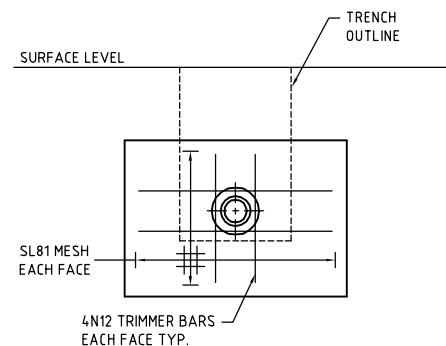
**DN200, DN250 AND DN300 VALVE
THRUST BLOCK REINFORCEMENT DETAIL**

SCALE 1:20



**THRUST BLOCK DETAILS FOR DN100
AND DN150 STOP VALVES**

SCALE 1:20



**DN100 AND DN150 VALVE
THRUST BLOCK REINFORCEMENT DETAIL**

SCALE 1:20

THRUST BLOCK AREAS & DIMENSIONS FOR STOP VALVES (m²)

DN	OD	DESIGN PRESSURE HEAD	TEST PRESSURE HEAD	THRUST	SOIL AHP	REQUIRED BEARING AREA	NUMBER ANCHORS	H	W
(mm)	(mm)	(m)	(m)	(kN)	(kPa)	(m ²)		(mm)	(mm)
100	122	120	150	17.2	50	0.344	1	200	300
100	122	120	150	17.2	100	0.172	1	200	200
100	122	120	150	17.2	200	0.086	1	200	200
150	177	120	150	36.2	50	0.724	1	300	400
150	177	120	150	36.2	50	0.724	2	300	200
150	177	120	150	36.2	100	0.362	1	300	200
150	177	120	150	36.2	200	0.181	1	300	200
200	232	120	150	62.2	50	1.243	1	300	600
200	232	120	150	62.2	50	1.243	2	300	300
200	232	120	150	62.2	100	0.622	1	300	300
200	232	120	150	62.2	200	0.311	1	300	200
250	286	120	150	94.5	50	1.889	1	300	900
250	286	120	150	94.5	50	1.889	2	300	400
250	286	120	150	94.5	100	0.945	1	300	400
250	286	120	150	94.5	100	0.945	2	300	200
250	286	120	150	94.5	200	0.472	1	300	200
300	345	120	150	137.5	50	2.749	1	350	1200
300	345	120	150	137.5	50	2.749	2	350	600
300	345	120	150	137.5	100	1.375	1	350	600
300	345	120	150	137.5	100	1.375	2	350	300
300	345	120	150	137.5	200	0.687	1	350	300

NOTE: SINGLE THRUST BLOCK TO BE USED WHEREVER POSSIBLE.

NOTES:

- ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
- THRUST BLOCKS DESIGNED TO WITHSTAND A DESIGN PRESSURE OF 120m AND A TEST PRESSURE OF 150m HEAD OF WATER.
- THE ALLOWABLE HORIZONTAL BEARING PRESSURE (AHP) OF UNDISTURBED NATURAL SOIL TO BE DETERMINED BY A SUITABLY EXPERIENCED GEOTECHNICAL ENGINEER PRIOR TO CASTING THRUST BLOCKS.
- CAST THE THRUST AREA OF ALL THRUST BLOCKS AGAINST A CLEAN FACE OF UNDISTURBED NATURAL SOIL.
- DO NOT USE THRUST BLOCKS AS SPECIFIED IN THIS DRAWING IN SOILS WHERE AHP<50kPa.
- ALL DI FITTINGS AND PIPES TO BE WRAPPED IN POLYETHYLENE SLEEVING. TAPE 700 LONG PE SLEEVING TO END OF DICL PIPE TO BE ENCASED 150 FROM THE SOCKET FACE TO OVERLAP PE SLEEVED DICL PIPE. WHEN CONNECTING TO PVC PIPE (WITHOUT PE SLEEVE) TAPE 700 LONG PE SLEEVE TO PVC PIPE. POLYETHYLENE SLEEVING TO PS-320_SW.
- ALL DICL PIPES SHALL BE TO FLANGE CLASS U.N.O ALL DICL FITTINGS SHALL BE CLASS PN35.
- DI FLANGES SHALL BE TO AS4087 CLASS 16. BOLTS AND WASHERS SHALL BE GRADE 316SS.
- PUDDLE FLANGE SHALL BE FACTORY FITTED BOLT ON FULL THRUST RESTRAINT TYPE IN ACCORDANCE WITH AS2280.
- CONCRETE SHALL BE CLASS N25 TO PS-357_SW SLUMP SHALL BE IN THE RANGE OF 80mm TO 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.
- CONCRETE SHALL ACHIEVE A MINIMUM COMPRESSIVE STRENGTH OF 25MPa OR BE CURED FOR 28 DAYS PRIOR TO APPLICATION OF THRUST LOADS.
- THRUST BLOCK DESIGNS SHOWN ON THIS DRAWING ARE NOT SUITABLE FOR USE IN AGGRESSIVE OR CONTAMINATED SOILS.
- DO NOT LOCATE STOP VALVES, HYDRANTS OR ANCHOR BLOCKS IN DRIVEWAYS.
- NUMBER AND LOCATION OF ANCHOR BLOCKS SHALL BE RECORDED ON WORK AS CONSTRUCTED DRAWINGS.

**Sydney
WATER**

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APPROVED

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MANAGER E & ES

ENGINEERING & ENVIRONMENTAL SERVICES

B

THRUST BLOCK DIMENSIONS REVISED

PJG

29/02/12

A

ORIGINAL ISSUE

PJG

31/01/12

LETTER

DETAILS OF ISSUE / AMENDMENT

APP'D

DATE

DEEMED TO COMPLY DRAWINGS

**ANCHORAGE DETAILS
DICL AND PVC WATER MAINS ≤ DN300
STOP VALVES**

DTC

1115

ISSUE

DATE

B

29/02/12