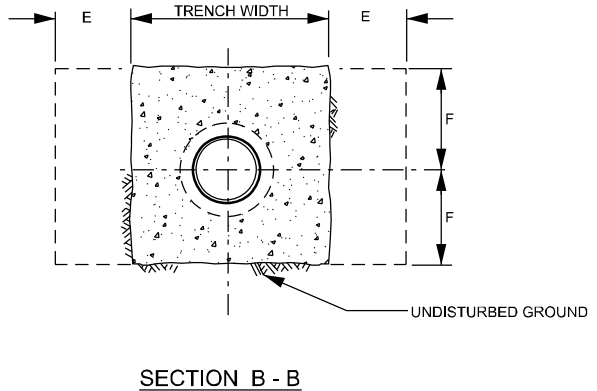
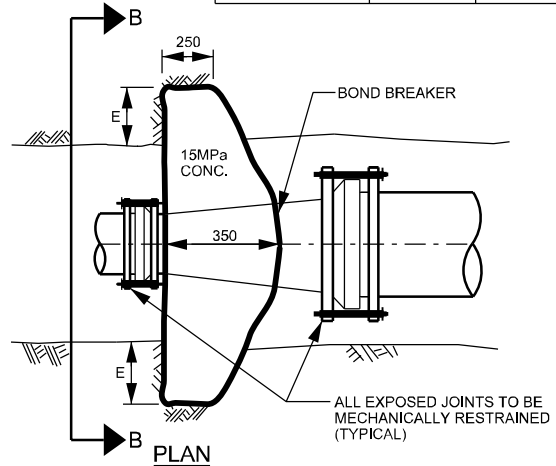


| PIPE<br>CONC. | 90 BENDS |     |     |     |
|---------------|----------|-----|-----|-----|
|               | 150      | 200 | 250 | 300 |
| G             | 250      | 300 | 350 | 500 |
| H             | 150      | 200 | 300 | 300 |



| REDUCERS      |     |     |               |     |     |
|---------------|-----|-----|---------------|-----|-----|
| PIPE<br>CONC. | E   | F   | PIPE<br>CONC. | E   | F   |
|               |     |     |               |     |     |
|               | 250 | 150 | 300X150       | 450 | 200 |
| 150X100       | 350 | 150 | 300X200       | 350 | 200 |
| 200X100       | 250 | 150 | 300X250       | 200 | 200 |
| 250X100       | 450 | 150 |               |     |     |
| 250X150       | 350 | 150 |               |     |     |
| 250X200       | 250 | 150 |               |     |     |

**NOTE**

1. BLOCKING IS NOT PERMITTED ON NEW INSTALLATIONS.
2. PIPE GREATER THAN 300mm REQUIRES MECHANICAL RESTRAINTS WITH SHOP DRAWING SUBMISSION.
3. ASSUME BEARING AT 190kPa (CLEAN DRY SAND, FAIRLY DRY ETC.).
4. FOR POOR CONDITIONS (SOFT CLAY) LARGER BLOCKING MAY BE REQUIRED.
5. ALL CONCRETE TO BE 15MPa.
6. BASED ON WATER TEST PRESSURE OF 1000 kPa.
7. ALL DIMENSIONS ARE IN MILLIMETRES.



**PUBLIC WORKS  
STANDARD DRAWING**

REV. DATE: NOVEMBER 2011

**HORIZONTAL BLOCKING  
90 DEGREE BENDS AND REDUCERS  
FOR CONNECTION TO EXISTING WATERMAIN ONLY**

|                                  |                                 |
|----------------------------------|---------------------------------|
| APPROVED BY<br><b>A.P.</b>       | DRAWN BY<br><b>AINLEY GROUP</b> |
| STD. DWG. NUMBER<br><b>1-5-6</b> | SCALE<br><b>N.T.S.</b>          |