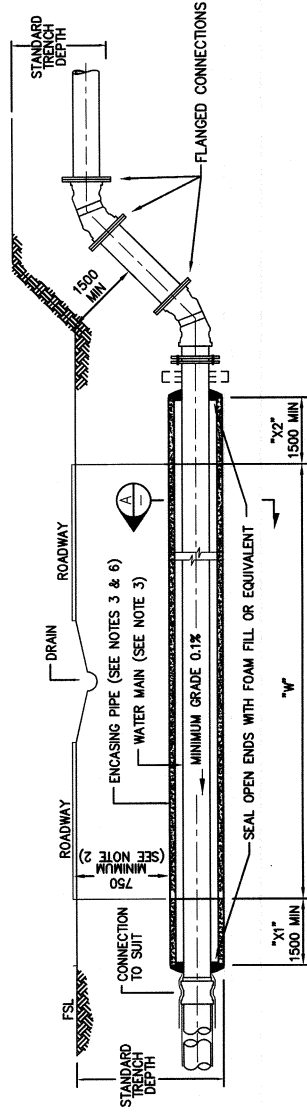
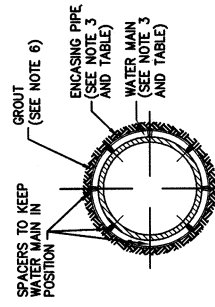


WATER MAIN PIPE (DN)	100	150	200	250	300	400	500	550	650	800
BORED ENCASING PIPE (DN) MIN	300	375	375	450	525	600	700	750	825	1000
JACKED ENCASING PIPE (DN)	N/A									
	1200 MIN. (SEE NOTE 12)									

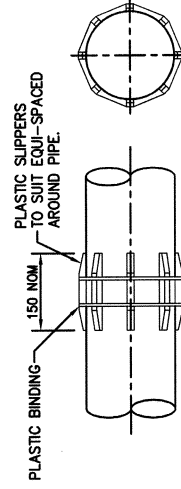


OPEN EXCAVATED OR BORED OR JACKED ENCASING PIPE METHOD



TYPICAL SECTION

ENCASING PIPE & WATER MAIN (PREFERRED INSTALLATION OPTION)



WATER MAIN SUPPORTS DETAIL

- NOTES:
- ALL DIMENSIONS IN MILLIMETRES.
 - METHODS OF INSTALLATION TO BE AS SHOWN IN DESIGN. AS DIRECTED BY THE ENGINEER, SPECIAL ARRANGEMENTS OR ROAD OWNER. DIFFICULT CONDITIONS MAY REQUIRE SPECIAL ARRANGEMENTS.
 - BORED OR JACKED ENCASING PIPE METHOD.
 - ENCASING PIPE
 - REINFORCING CONCRETE CLASS 4 BUTT JOINED WITH STEEL LOCATING BANDS, STEEL OR GRP.
 - WATER MAINS
 - CORROSION PROTECTED STEEL CEMENT LINED OR CONTINUOUS PE.
 - JACKING
 - ENCASING PIPE
 - REINFORCING CONCRETE CLASS 4 BUTT JOINED WITH STEEL LOCATING BANDS, MILD STEEL OR GRP JACKING PIPE.
 - WATER MAIN
 - STEEL CEMENT LINED WITH FUSION BONDED PE COATING.
 - DI
 - PVC
 - PE
 - GRP
 - STEEL PIPE JOINTS TO BE EITHER FLANGE ENDS WITH WELDED COLLAR, BUTT WELDED OR SLP-IN TYPE WELDED JOINTS.
 - DIMENSIONS "W", "X1" & "X2" AND LOCATION OF BULKHEADS & REINFORCING TO BE SHOWN IN DESIGN DRAWINGS.
 - FILL VOID OUTSIDE ENCASING PIPE WITH GROUT.
 - INSTALL AIR RELIEF AND ISOLATION VALVES WHERE SHOWN IN DESIGN DRAWINGS.
 - CONSTRUCTION TO BE IN ACCORDANCE WITH DESIGN DRAWINGS.
 - SEE WAT-1214 FOR DETAILS OF ENCASING AND WATER MAIN INSTALLATION.
 - JACKED ENCASING PIPE SIZED TO PERMIT PERSON ENTRY TO SUIT THE WATER MAIN JOINTING METHOD.
 - DIRECTIONAL BORING TO INSTALL PE PIPE IS ALSO ACCEPTABLE.
 - FLANGED BENDS PREFERRED IN THIS SITUATION.

MRC STANDARD DRAWINGS SUPERCEDES WSAA STANDARD DRAWINGS

DRAWING FILE NAME				COMMERCIAL SERVICES		Mackay REGIONAL COUNCIL	
M:\Engineering Services\Technical Services\Design\Projects\Standard drawings\Mackay Water\WSAA MRC\WAT CODE\A3-042888.dwg, 22/05/2009 9:37:26 AM, PrimoPDF				EXECUTIVE MANAGER MACKAY WATER & WASTE RPEQ 7506		STANDARD DRAWING BURIED CROSSINGS MAJOR ROADWAYS WATER MAINS	
WSAA NO. WAT-1212				JASON DEVITT		DRAWING No. A3-04288	
DATE OF LAST EDIT May 21, 2009				27 MAY09		AMEND. C	
LEVEL DATUM A.H.D.				JASON DEVITT		SHEET 1 OF 1	
MERIDIAN MGA-55				JASON DEVITT			
APPVD.				JASON DEVITT			
NO. DATE DESCRIPTION				JASON DEVITT			