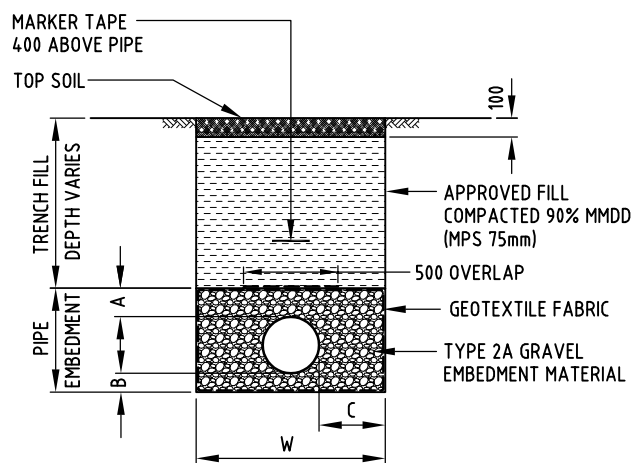


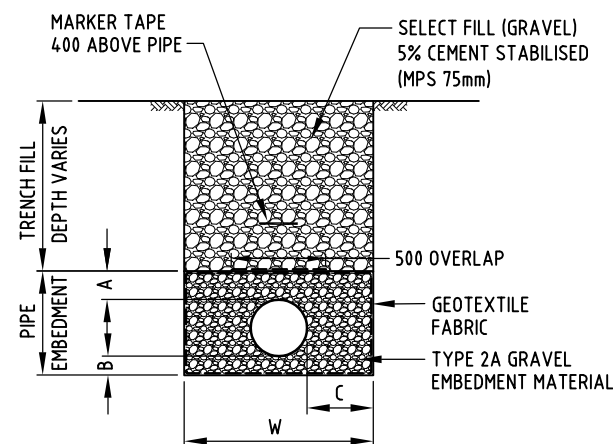
**TRENCH DETAIL 1**

GENERAL AREA UP TO AND INCLUDING DN300



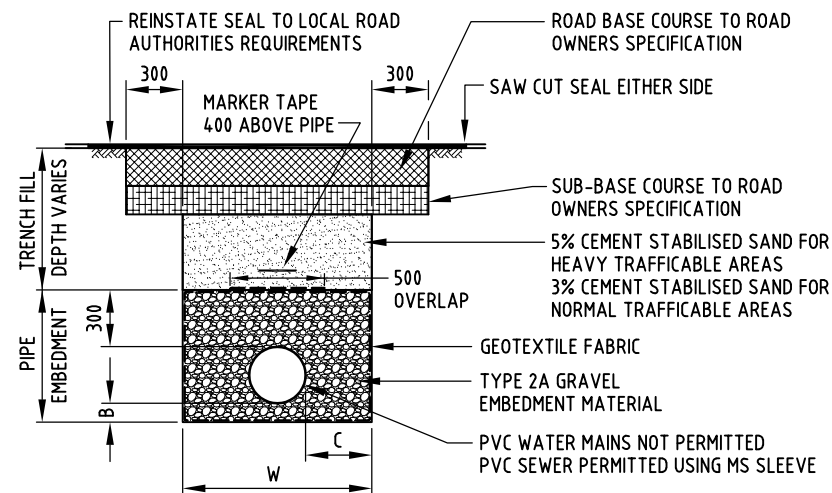
**TRENCH DETAIL 2**

GENERAL AREA



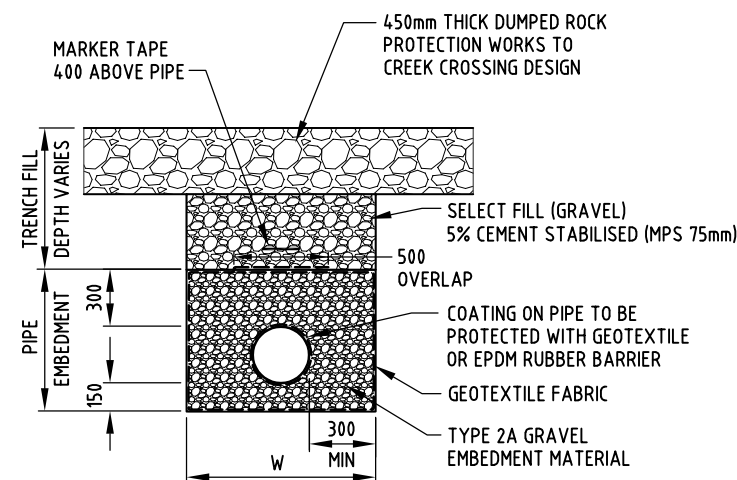
**TRENCH DETAIL 4**

DRAIN CROSSING



**TRENCH DETAIL 3**

ROAD CROSSING



**TRENCH DETAIL 5**

CREEK CROSSING

MINIMUM COVER	ROAD RESERVE OR NORMAL TRAFFICABLE AREAS CREEK CROSSING OPEN UNLINED DRAINS	750mm
	NON-TRAFFICABLE AREA (EASEMENT, PARK, ETC.)	600mm
	NTG MAJOR ROADS OR HEAVY TRAFFICABLE AREAS	1500mm
	NOTE: PVC NOT TO BE USED UNDER ROADS.  STRUCTURAL SLAB WILL BE REQUIRED OVER PIPE BEDDING IF ABOVE MINIMUM COVER CANNOT BE MAINTAINED.	

## EMBEDMENT MATERIAL

HOLD POINT: PROVIDE NATA TEST CERTIFICATES TO THE SUPERINTENDENT/CERTIFIER NOT LESS THAN SEVEN DAYS PRIOR TO PLACING EMBEDMENT MATERIAL IN THE EXCAVATION AND STATE THE SOURCE OF THE MATERIAL. DO NOT PLACE ANY EMBEDMENT UNTIL MATERIAL HAS BEEN APPROVED.

TYPE 1 EMBEDMENT MATERIAL: SAND FREE OF CLAY, DUST, SALT OR ORGANIC MATTER.

SIEVE SIZE	PERCENTAGE PASSING BY DRY WEIGHT	
	TYPE 1A	TYPE 1B
4.75 mm		90 - 100
2.36 mm	100	75 - 100
1.18 mm	95 - 100	45 - 95
600 um	80 - 100	20 - 80
300 um	40 - 80	5 - 40
150 um	0 - 6	0 - 6
75 um	0 - 6	0 - 6

LINEAR SHRINKAGE OF MATERIALS PASSING A 425 um SIEVE SHALL BE LESS THAN 2.5%.

TYPE 2 EMBEDMENT MATERIAL: SINGLE SIZE GRAVEL COMPRISING OF CLEAN, HARD, SOUND CRUSHED ROCK, WITH A LOS ANGELES ABRASION LOSS (LA) OF LESS THAN 30, NON-PLASTIC AND FREE OF ORGANIC MATTER.

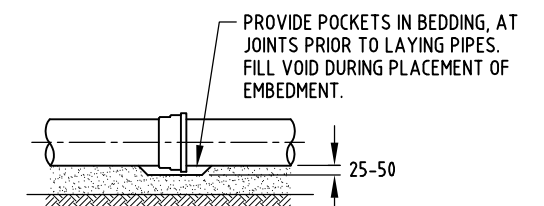
SIEVE SIZE	PERCENTAGE PASSING BY DRY WEIGHT	
	TYPE 2A (10mm SINGLE SIZE)	TYPE 2B (20mm SINGLE SIZE)
19.0 mm	100	100
9.5 mm	95 - 100	0 - 5
4.75 mm	0 - 5	0 - 1

## NOTES

- TRENCHFILL COMPACTION TO ACHIEVE 90% MMDD MIN. OR 95% UNDER ROADS.
- ALL TRENCHES ARE TO BE FULLY REINSTATED TO EXISTING NATURAL SURFACE LEVEL.
- WHERE THE WATER MAIN PASSES THROUGH TURNOUT DRAINS, TABLE DRAINS AND OPEN UNLINED DRAINAGE CHANNEL, THE FINISHED SURFACE SHALL BE REINSTATED TO MATCH EXISTING PROFILE.
- PROVIDE VERTICAL GEOTEXTILE BARRIER AT BOUNDARY BETWEEN DIFFERENT BEDDING TYPES.
- MPS - MAXIMUM PARTICLE SIZE.
- MINIMUM OVERLAP FOR GEOTEXTILE CAN BE REDUCED TO 400mm WHERE TRENCH WIDTH IS LESS THAN 500mm.
- USE RESTRAINED JOINTS UNDER MAJOR ROADS, HEAVY TRAFFICABLE AND CBD AREAS.
- TYPE 2A MATERIAL SHALL BE USED FOR DN750 OR GREATER EXCEPT FOR SINTAKOTED MSCL PIPE WHERE SUPPORTED BY MANUFACTURER.
- PLACE TRENCHFILL IN LOOSE LAYERS AND COMPACT EACH LAYER SEPARATELY. LAYERS SHALL NOT EXCEED 200mm (TRAFFICABLE AREAS) AND 300mm (NON TRAFFICABLE AREAS).
- ROAD REINSTATEMENT TO MEET ROAD OWNERS SPECIFICATIONS.
- GEOTEXTILE FABRIC TO WSA PS 355. CEMENT STABILISED SAND TO WSA PS 352 AND VIBRATED WHEN PLACED.

PIPE SIZE (DN)	MINIMUM TRENCH WIDTH (W)	EMBEDMENT DIMENSIONS		
		A	B	C
150	450 (a)	100	100	100
200	600	150	100	150
225	600	150	100	150
250	600	150	100	150
300	750	150	100	150
375	900	150	100	200
450	900	150	100	200

(a). WHERE WORKER ACCESS IS REQUIRED THE MINIMUM WIDTH SHOULD BE 600mm.



PIPE JOINT BEDDING POCKETS  
FOR JOINT PROJECTIONS (SOCKETS, FLANGES ETC.)

2 1 0	GENERAL AMENDMENTS 2022. REDRAWN, RENUMBERED, & AMENDED 2021. ISSUED FOR INFORMATION.	PW PW AW	JUNE'22 JUNE'21 OCT'18	JC JR JR	DC DC DC
NO	DESCRIPTION	DRN	DATE	CKD	APPD
AMENDMENTS					

**PowerWater**  
NORTHERN TERRITORY

DES	TM	WATER STANDARD DRAWING		
DRN	AW			
CHK	JR	MAINLAYING DN150 - DN450 TRENCHING DETAILS 1, 2, 3, 4, 5		
APPD	DC			
SCALE	N.T.S.	A3	DRAWING NUMBER W1-2-21A	2
ISSUED	OCT' 19			
ALL DIM. IN mm				
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY		