

1. TRENCH FLOOR PREPARATION:

- ENSURE THAT THE TRENCH FLOOR IS SMOOTH AND FIRM, AND WITHIN THE DESIGN **TRENCH FLOOR** LEVEL LIMITS OF 100 mm MINIMUM TO 150 mm MAXIMUM BELOW THE BOTTOM OF THE PIPE, PRIOR TO PLACING ANY BEDDING.
- IF THE TRENCH FLOOR IS IN FIRM NATURAL SOIL AND AN EXCAVATOR IS BEING USED, IT WILL NORMALLY BE SUFFICIENT TO TRIM IT SMOOTH WITH THE EXCAVATOR BUCKET.
 - IF THE TRENCH FLOOR IS IN ROCK, PRIOR TO PLACING ANY BEDDING, BACKFILL BETWEEN PEAKS OVER 30 mm HIGH WITH SAND COMPACTED TO 100% OF SMDD#.
 - IF THE TRENCH FLOOR HAS BEEN OVER-EXCAVATED BELOW DESIGN TRENCH FLOOR LEVEL, (PRIOR TO PLACING ANY BEDDING), BACKFILL WITH SAND COMPACTED TO 100% OF SMDD# TO ACHIEVE THE DESIGN TRENCH FLOOR LEVEL.
 - REMOVE LOOSE SOIL OR ROCK RUBBLE FROM THE FLOOR OF THE TRENCH.
 - IF THE TRENCH FLOOR WHOLLY OR PARTIALLY CONSISTS OF: VERY SOFT CLAY, LOOSE SAND, OLD OR NON-ENGINEERED FILL, OR REFUSE, OR HAS ISOLATED OUTCROPS OF ROCK IN IT, OR HAS BEEN DISTURBED BY GROUNDWATER INFLOW, SPECIALIST GEOTECHNICAL ADVICE SHALL BE SOUGHT.

2. BEDDING PLACEMENT:

- DO NOT COMPACT THE BEDDING - SIMPLY RAKE OR SCREED TO GRADE. DIG OUT POCKETS TO CLEAR THE PIPE SOCKETS.
AVOID WALKING DOWN THE CENTRE OF THE BEDDING DURING PLACING OR AFTER IT HAS BEEN PLACED.

3. PIPE INSTALLATION:

- PLACE THE PIPE FIRMLY ON THE BEDDING, HOME IT, AND CHECK THAT IT IS IN CONTACT WITH THE BEDDING UNIFORMLY ALONG ITS BARREL.
- FOR SMALL DIAMETER PIPES, LIFT THE END OF THE PIPE AND VISUALLY INSPECT THE CONTACT WITH THE BEDDING. FOR LARGER OR HEAVIER PIPES, CHECK THE CONTACT WITH THE BEDDING BY ATTEMPTING TO PASS A HAND UNDER THE PIPE.
 - IF IT IS FOUND THAT THE PIPE BARREL DOES NOT HAVE UNIFORM CONTACT WITH THE BEDDING, PACK IN ADDITIONAL EMBEDMENT SAND.

4. SIDE SUPPORT AND OVERLAY PLACEMENT AND COMPACTION:

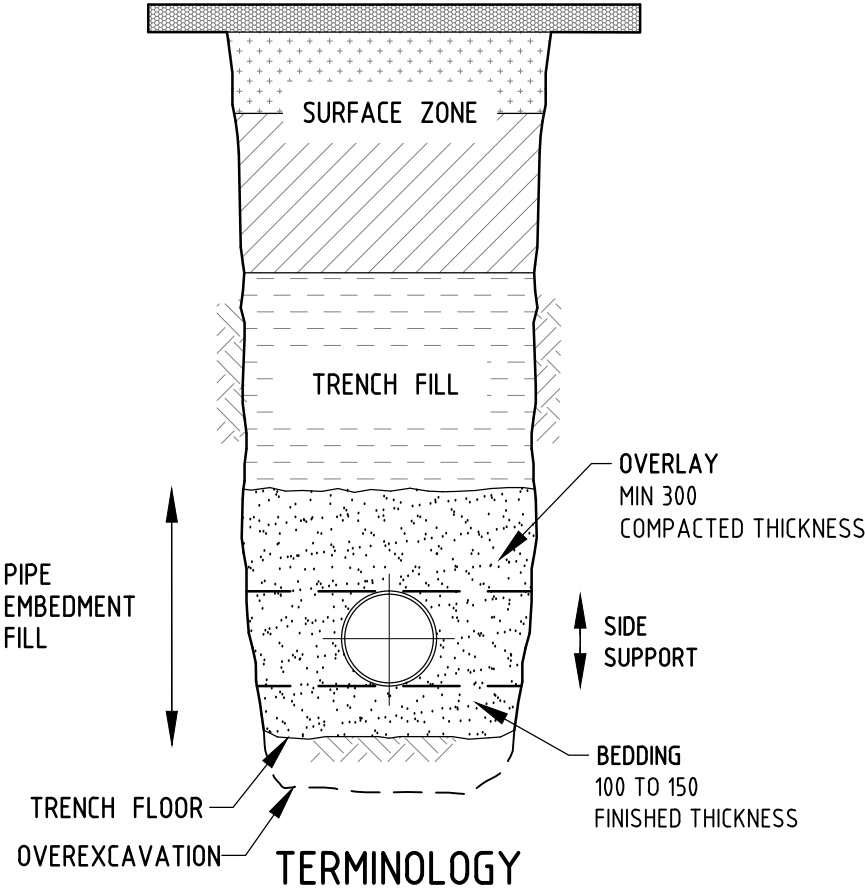
- TS4 SAND SHALL BE USED AS SIDE SUPPORT AND OVERLAY FILL MATERIAL AND PLACED IN LAYERS ON EACH SIDE OF THE PIPE. THE LAYER THICKNESS SHALL NOT EXCEED 150 mm OR HALF THE PIPE DIAMETER, WHICHEVER IS GREATER. EACH LAYER SHALL BE COMPACTED TO 95% SMDD#.
- ENSURE THE SAND IS PLACED UNDER THE CURVE OF THE PIPE WHILE LAYING.
- HAND TAMPERS OR INTERNAL VIBRATORS SHALL BE USED FOR SAND COMPACTION.

5. COMPACTION:

- COMPACTION OF FILL MATERIALS DIRECTLY ABOVE THE PIPE SHALL NOT COMMENCE UNTIL THE TOTAL DEPTH OF FILL MATERIAL ABOVE THE TOP OF PIPE IS AT LEAST 200 mm, AND ONLY HAND EQUIPMENT SHALL BE USED.
- HEAVY VIBRATING/ NON-VIBRATING COMPACTION EQUIPMENT SHALL NOT BE USED UNTIL THE MINIMUM COVER IS 750 mm.

6. REFER 4005-30002-01 & 4005-30002-02 FOR GENERAL NOTES.

7. ALL DIMENSIONS IN MILLIMETRES.



REFER NOTES 4 AND 5 ON 4005-30003-01

REVISION PANEL					DESIGN PANEL			SA WATER STANDARD DRAWINGS			A3	1
REV	DATE	DRN	DETAILS	APR	CURRENT REV	DESIGNED:	AUTHORISED:	WATER SUPPLY CONSTRUCTION MANUAL		SHT SIZE		REVISION
					AUTHORISED:	28/09/15	31/03/16	INSTALLATION OF WATER SUPPLY PIPES		TOTAL SHEETS:		
					SIGNATURE:	RJP	T.GALEK	IN ROAD RESERVES AND EASEMENTS		SUPERSEDES: 01-0010-01 (B2)		
						DRAWN: 16/11/15	SIGNATURE:	USING TS4 SAND		DRAWING NUMBER		
						MS				4005-30003-02		
1	31/03/16	MS	2016 STANDARDS REVIEW	TG		REVIEWED: 21/03/16				PREFIX		SHEET
						TG				NUMBER		