



TABLE TO SELECT APPROPRIATE BEDDING TYPE

TYPE OF SOIL	APPROXIMATE BEARING CAPACITY KN/m ²	BEDDING TYPE
HARD SOIL/ROCK	>200	A
NORMAL SOIL	100-200	B
LOOSE SOIL	<200	C
CLAY	>75	C
	<75	D
PEAT/MASHY AREAS	<75	D

DETAIL OF TRENCH FOR D.I PIPES

DIA(Ø) (mm)	WIDTH(W) (m)	DEPTH(H) (m)
80	0.60	0.95
100	0.60	0.95
150	0.60	1.00
200	0.60	1.20
250	0.60	1.25
300	0.60	1.30
350	0.75	1.35
400	0.90	1.40
450	0.90	1.45
500	0.90	1.50
600	1.10	1.60

DETAIL OF TRENCH FOR P.V.C PIPES & PE PIPES

DIA(Ø) (mm)	PVC		PE	
	WIDTH(W) (m)	DEPTH(H) (m)	WIDTH(W) (m)	DEPTH(H) (m)
63	0.30	0.90		
90	0.45	1.10	0.30	1.00
110	0.45	1.20	0.40	1.12
125	-	-	0.40	1.14
140	-	-	0.40	1.15
160	0.60	1.20	0.45	1.17
180	-	-	0.45	1.19
200	-	-	0.45	1.21
225	0.60	1.30	0.50	1.24
250	-	-	0.50	1.26
280	0.60	1.30	0.60	1.29

NOTE:

- ALL DIMENSIONS ARE IN MILLIMETRES.
- FOR NORMAL SOIL BACKFILLING MATERIAL SHALL BE SOIL (TYPE 1 MATERIAL) HAVING THE MAXIMUM DRY DENSITY UNDER STANDARD CONDITIONS OF PROCTOR COMPACTION NOT LESS THAN 1600KG/M³. WITH THE PROPERTIES OF PLASTIC LIMIT LESS THAN 15, LIQUID LIMIT LESS THAN 40 AND CBR > 20. EXCAVATED SOIL CAN BE USED AS BACK FILLING MATERIAL IF THEY CONFORM TO THE REQUIRED SPECIFICATION MATERIAL TO BE COMPACTED TO A DRY DENSITY NOT LESS THAN 98% OF MAXIMUM DRY DENSITY .
- FOR PIPES IN SOFT OR PEATY GROUND THE GRANULAR BEDDING SHALL BE COMPLETELY SURROUNDED BY A GEOTEXTILE AS SHOWN IN THE DRAWING AND AS DIRECTED BY THE ENGINEER TO PREVENT THE INGRESS OF FINES GEOTEXTILE FABRIC SHALL BE WOVEN POLYPROPYLENE THERMALLY BONDED HAVING FOLLOWING PROPERTIES
WEIGHT 150 G/M (MINIMUM) (ASTM D5261)
TENSILE STRENGTH 9KN/m (MINIMUM) (ASTM D4595) @ 5% ELONGATION
PERMEABILITY 30L/m²/S (MINIMUM) (BS 6906/3)(100mm WATER HEAD)
PORE SIZE (0₉₀) <300 MICRONS (BS 6906/2)



CLIENT:
MINISTRY OF ENVIRONMENT
AND ENERGY

CONSULTANCY SERVICES FOR DESIGN OF WATER SUPPLY FACILITIES IN Ha.HORAFUSHI, Hdh.HANIMAADHOO,Sh.MILANDHOO,R.UNGOOFAARU,Lh.NAIFARU,Dh.KUDAHUVADHOO ,Th.GURAI DHOO AND Ga.VILLINGILI , MALDIVES

DESIGN
ENGINEER

DRAWN

CHECKED
DESIGN CHIEF

APPROVED

SL.NO

DRWING NO

DESCRIPTION



GREENTECH CONSULTANTS (Pvt.) Ltd IN ASSOCIATION WITH
DEVELOPMENT COLLABORATION PARTNERSHIP (Pvt.) Ltd MALDIVES
AND OPTIMUM SOLOUTIONS (Pvt) Ltd, MALDIVES

TITLE:
TYPICAL DRAWING FOR BEDDING TYPES DI/PE/PVC PIPES
HOARAFUSHI

DATE

DRG.NO: HOARAFUSHI/STD/02
SCALE: NOT TO SCALE