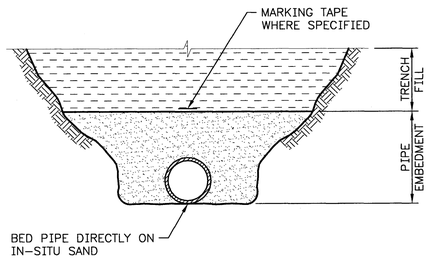
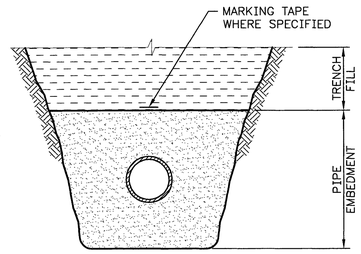


TYPE 'A' SUPPORT
(TRENCH IN SAND STRATA)



TYPE 'B' SUPPORT
(TRENCH STRATA OTHER THAN SAND)

MATERIAL AND COMPACTION REQUIREMENTS FOR PIPE EMBEDMENT AND TRENCH FILL		
ZONE	MATERIAL	COMPACTION
PIPE EMBEDMENT	EMBEDMENT MATERIALS SHALL COMPRISE SAND AND SHALL: (A) BE FREE OF ORGANIC MATERIALS; (B) BE FREE OF MATERIALS THAT WOULD BE HARMFUL TO A PIPE OR ITS PROTECTIVE COATING; (C) NOT CONTAIN PARTICLES LARGER THAN 7 MM; (D) NOT CONTAIN MORE THAN 12% FINES BY WEIGHT; (E) BE IMPORTED IF THE ABOVE CRITERIA CANNOT BE MET.	PIPE EMBEDMENT MATERIALS AND VALVE PIT FOUNDATIONS SHALL BE COMPACTED TO A DENSITY RATIO OF NOT LESS THAN 92% OF MAXIMUM MODIFIED DRY DENSITY AS DETERMINED BY AS1289.5.2.1, AS1289.5.8.1 AND AS1289.5.4.1.
TRENCH FILL (TRAFFICABLE AREAS)	TRENCH FILL SHALL COMPRISE SAND AND SHALL: (A) BE FREE OF ORGANIC MATERIALS; (B) NOT CONTAIN PARTICLES LARGER THAN 37.5 MM; (C) NOT CONTAIN MORE THAN 12% FINES BY WEIGHT; (D) BE IMPORTED IF THE ABOVE CRITERIA CANNOT BE MET.	TRENCH FILL SHALL BE PLACED IN LOOSE LAYERS NOT EXCEEDING 250 MM THICKNESS AND SHALL BE COMPACTED TO A DENSITY RATIO OF NOT LESS THAN 95% OF MAXIMUM MODIFIED DRY DENSITY AS DETERMINED BY AS1289.5.2.1, AS1289.5.8.1 AND AS1289.5.4.1. BASE-COURSE AND SUB-BASE MATERIALS SHALL BE REINSTATED AND COMPACTED TO A MINIMUM MODIFIED DENSITY RATIO OF 95%.
TRENCH FILL (NON-TRAFFICABLE AREAS)	TRENCH FILL SHALL BE EXCAVATED MATERIAL AND SHALL: (A) BE FREE OF ORGANIC MATERIALS; (B) NOT CONTAIN PARTICLES LARGER THAN 200 MM; BE IMPORTED IF THE ABOVE CRITERIA CANNOT BE MET.	TRENCH FILL SHALL BE PLACED IN LOOSE LAYERS NOT EXCEEDING 300 MM THICKNESS FOR CLAY/COHESIVE MATERIALS OR 400MM LOOSE THICKNESS FOR SAND/GRAVEL/COHESIONLESS MATERIAL AND SHALL BE COMPACTED TO A MINIMUM DENSITY RATIO OF 92% OF MAXIMUM MODIFIED DRY DENSITY AS DETERMINED BY AS1289.5.2.1, AS1289.5.8.1 AND AS1289.5.4.1. THE FINAL 200 MM OF BACKFILL MATERIAL IN PARKS, GARDENS AND BUSHLAND SHALL BE THE TOPSOIL MATERIAL REMOVED AND STOCKPILED DURING STRIPPING.

FOR INFORMATION ONLY
NOT USED FOR CONSTRUCTION

ONLY THE MINIMUM DESIGN REQUIREMENTS ARE SHOWN ON THIS DRAWING. ADEQUACY OF SITE SPECIFIC DESIGN AND PREPARATION OF DRAWINGS INCORPORATING NECESSARY CONSTRUCTION DETAILS TO MEET NECESSARY REGULATORY REQUIREMENTS AND STANDARDS SHALL REMAIN THE RESPONSIBILITY OF THE DESIGN/CONSULTING ENGINEER.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH EG20-1-1.
3. PIPE EMBEDMENT AND TRENCH FILL SHALL COMPRISE MATERIAL WHICH IS NOT READILY SOLUBLE IN WATER AND IS NOT INJURIOUS TO THE PIPE IN ANY WAY.
4. IMPORTED MATERIAL SHALL BE DERIVED FROM SOURCES WHICH HAVE ALL THE NECESSARY APPROVALS BY LANDOWNERS AND GOVERNMENT AUTHORITIES.
5. WHERE APPROVED ONLY AGGREGATE FINER THAN 14 MM SHALL BE USED AS BEDDING MATERIAL FOR LENGTHS OF TRENCH REQUIRING EXTENSIVE DEWATERING. AFTER INSTALLATION OF THE PIPE AND PRIOR TO BACKFILL OF MATERIAL, SAND SHALL BE WASHED INTO THE VOID SPACES OF AGGREGATE BEDDING. ALTERNATIVELY THE AGGREGATE BEDDING MAY BE COVERED WITH APPROPRIATE GRADE GEOTEXTILE FABRIC IN ORDER THAT POTENTIAL FOR SAND MIGRATION FROM ABOVE IS MINIMISED.
6. NO HEAVY VIBRATING COMPACTION EQUIPMENT SHALL BE USED OVER OR WITHIN 5 METRES OF THE PIPELINE.

SCALE : DIAGRAMMATIC

ISSUE	DATE	GRID	REVISION	DRN	REC	APPD

DESIGN SURVEY NONE | VERTICAL DATUM NONE | COORDINATE SYS NONE | ASCON SURVEY NONE | DES REF | DES CALC | DES CHD | DRN S. LEWIS | Q.C. CHD P. MIRCO | NORTH POINT

INFRASTRUCTURE DESIGN BRANCH

RECOMMENDED 19/8/15
SENIOR ENGINEER, WDCS
APPROVED 19/8/2015
PRINCIPAL ENGINEER, WDCS

WATER CORPORATION

WATER SUPPLY DISTRIBUTION
STANDARD DRAWINGS
PIPELINE COVER, BEDDING AND BACKFILL
SHEET 2 OF 2

FILE | PROJECT | PLAN EG20-1-2 | CAD | ISSUE A | ORIGINAL SHEET SIZE A1 | MF 20 AUG 2015

566
810

© THIS DRAWING IS THE PROPERTY OF THE WATER CORPORATION. IT SHALL NOT BE COPIED WITHOUT PERMISSION.

CAD MANAGEMENT_NOT READ ONLY\WDCS\STANDARD DRAWINGS\DS 60\EG20\EG20-1-2 A 10:27 19/08/2015 cleavea0/WS18911