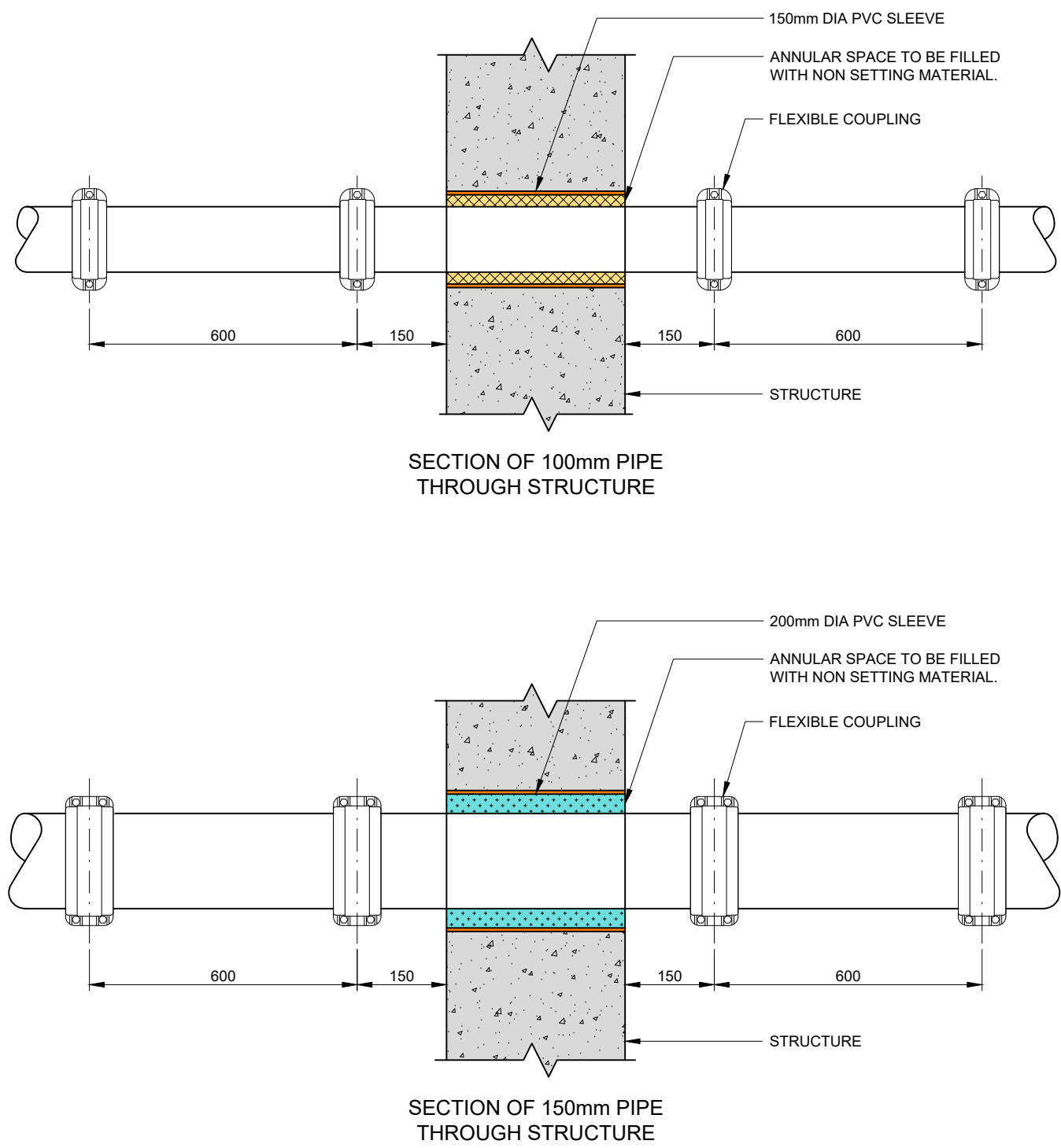
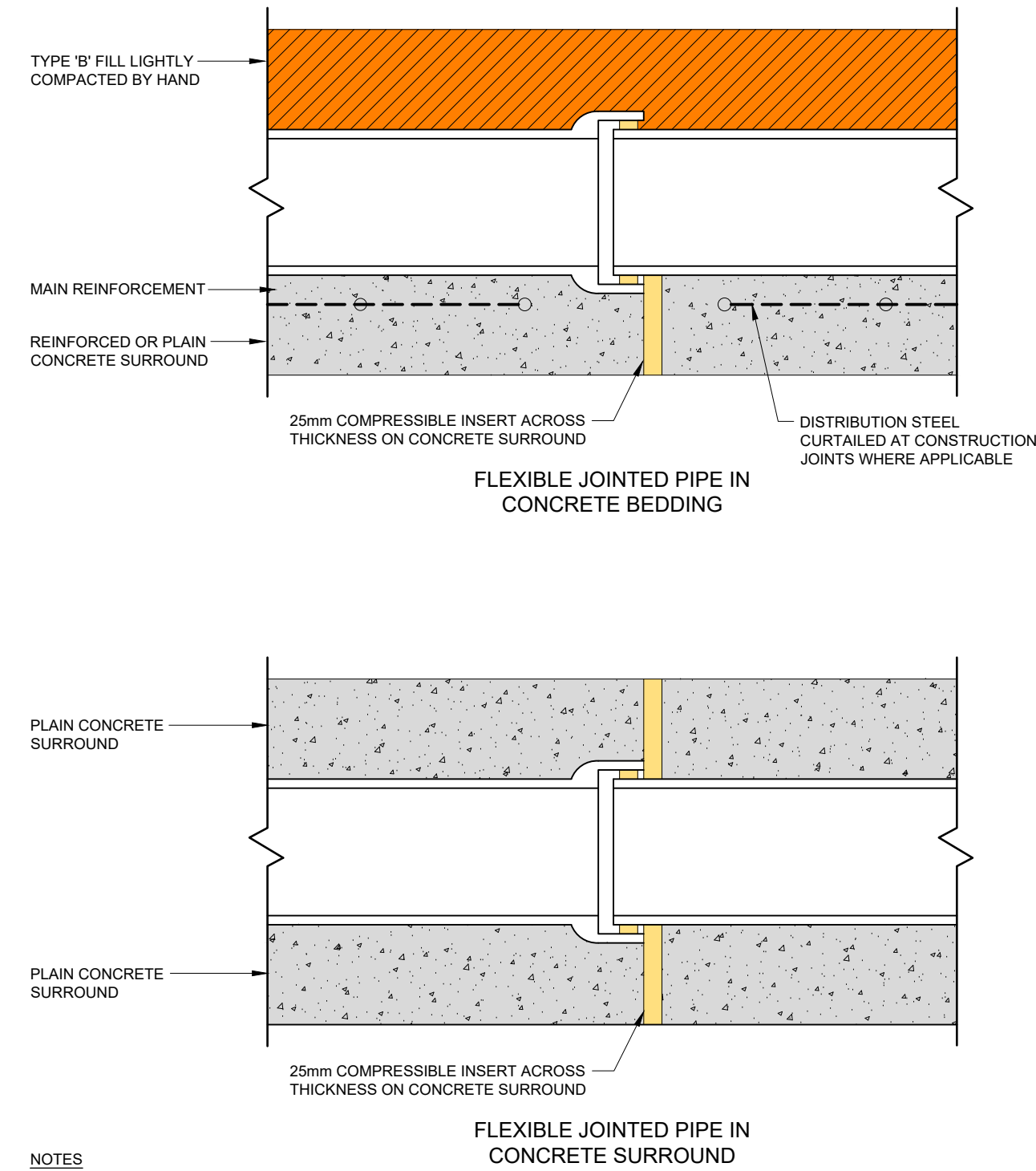




TYPICAL PIPE THROUGH STRUCTURE
DETAIL No. PH-044



NOTES

1. REFER TO STANDARD DETAIL No PH-047 FOR SPECIFICATIONS OF BEDDING MATERIALS.

2. REFER TO STANDARD DETAIL No PH-046 FOR CONCRETE MIXES.

PIPE BEDDING DETAILS
DETAIL No. PH-051

Suitability Code (as defined in BS1192)

Work In Progress (WIP)

S0 - Initial Status or WIP

Shared (Non-Contractual)

S1 - Suitable for Co-ordination
S2 - Suitable for Information
S3 - Suitable for Review & comment
S4 - Suitable for Stage Approval
S5 - Not Used
S6 - Suitable for AIM Authorisation
S7 - Suitable for AIM Authorisation

WIP to Published (Non-Contractual)

D1 - Suitable for Costing
D2 - Suitable for Tender
D3 - Suitable for Contractor Design
D4 - Suitable for manufacture/procurement

Published Documentation (Contractual)

A1, A2, A3, Etc - Approved and accepted as stage complete
B1,B2,B3, Etc, - Partially signed off with minor comments from the Client

Published for AIM Acceptance

CR - As Construction Record Documentation

NOTES

1. FOR ALL CLASS 'A' BEDDING

THE CONCRETE (REINFORCED OR PLAIN) SHOULD BE IN ACCORDANCE WITH 'STANDARD CONCRETE MIXES FOR DRAINAGE WORK' DETAIL. THE CONCRETE MUST BE ALLOWED TIME TO GAIN STRENGTH BEFORE IT IS SUBJECTED TO VIBRATION FROM MECHANICAL RAMMERS OR TO LOADING FROM TRAFFIC OR CONSIDERABLE HEIGHTS OF BACKFILL. THE MINIMUM TIME ALLOWANCE WILL DEPEND ON THE MIX, THE TYPE OF CEMENT, THE TEMPERATURE AND THE DEGREE OF LOADING TO WHICH THE BEDDED PIPE IS LIKELY TO BE SUBJECTED. ALL FACTORS NEED TO BE TAKEN INTO ACCOUNT, BUT AS A GENERAL GUIDE IT IS SUGGESTED THAT, APART FROM PLACING AN INITIAL 150mm TO 300mm LAYER OF BACKFILL OVER THE PIPE, THE MAIN BACK FILLING SHOULD NOT BE COMMENCED UNTIL AT LEAST 24 HOURS AFTER PLACING OF THE CONCRETE HAS BEEN COMPLETED AND THE HEAVY RAMMER SHOULD NOT BE USED NOR TRAFFIC LOADS IMPOSED UNTIL 72 HOURS AFTER CONCRETING. WHERE IT IS ESSENTIAL TO REDUCE THE TIME ALLOWANCE TO A MINIMUM, ONE OR MORE OF THE FOLLOWING SPECIAL PRECAUTIONS CAN BE TAKEN.

(A) RAPID HARDENING CEMENT (B) A STRONGER MIX (C) HEATING METHODS IN COLD WEATHER (D) STEEL BRIDGE PLATES WHERE TRAFFIC PASSES OVER TRENCH

PRIOR TO USE OF ANY OF THESE METHODS, THE ENGINEERS APPROVAL, SHALL BE OBTAINED.

2. GRANULAR BEDDING TYPE 'A'

FOR ROCK AND COARSE GRAINED SOILS - IDEALLY BROKEN STONE OR GRAVEL TO PREVENT THE INTRUSION OF FINE-GRAINED SOILS, SUCH AS CLAYS, SILTS OR FINE SANDS INTO THE BEDDING, ESPECIALLY UNDER WET CONDITIONS. ADD TO THE GRANULAR MATERIAL ABOUT ONE PART OF THE FREE-DRAINING COURSE SAND TO TWO PARTS OF MIXTURE OF SIMILAR PARTICLE SIZE. ALTERNATIVELY, A LAYER OF WELL COMPACTED SAND OR ALL IN MIXTURE OR WEAK CONCRETE MAY BE LAID ON THE TRENCH BOTTOM BEFORE PLACING THE DEPTH 'Y' (SEE NOTE 4) OF TYPE 'A' MATERIAL. IF A CONCRETE LAYER IS USED, INCREASE 'Y' AS FOR ROCK. SANDS CONTAINING AN EXCESS OF FINE PARTICLES SHALL BE AVOIDED FOR THE TYPE 'A' MATERIAL, SINCE THEY ARE DIFFICULT TO PLACE AND COMPACT PROPERLY.

3. SELECTED FILL TYPE 'B'

UNIFORM READILY COMPACTABLE MATERIAL FREE FROM TREE ROOTS, VEGETABLE MATTER, BUILDING RUBBISH AND FROZEN SOIL AND EXCLUDING CLAY LUMPS RETAINED ON A 75mm (3 INCH) SIEVE AND STONES RETAINED ON A 25mm (1 INCH) SIEVE. REFER ALSO TO THE DRAINAGE SPECIFICATION.

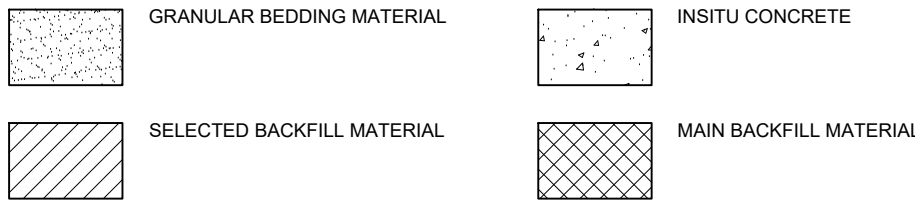
4. DIMENSION 'Y'

IS EQUAL TO 1/8th Bc OR MINIMUM OF 100mm UNDER BARRELS AND 50mm MINIMUM UNDER SOCKETS, WHICHEVER IS GREATER (400mm MAX.)

5. DIMENSION Bc

IS EQUAL TO THE OUTSIDE DIAMETER OF THE PIPE

IN ROCK OR MIXED SOILS CONTAINING ROCKS BANDS, BOULDER, LARGE FLINTS OR STONES OR OTHER IRREGULAR HARD SPOTS DIM 'Y' = .25 Bc AND 150mm MINIMUM UNDER SOCKETS (400mm MAX.)



PIPE BEDDING NOTES
DETAIL No. PH-047

MANHOLE COVER SPECIFICATION

COVER TYPE 'A1'
INTERNAL USE SOLID BOTTOM DOUBLE SEAL & LOCKING INFILL COVER & FRAME WITH 900x750 CLEAR OPENING STAINLESS STEEL EDGED, AND FILLED WITH C25 CONCRETE & FLOOR FINISH
FACTA CLASS A - EN124 CLASS A15

COVER TYPE 'B1'
EXTERNAL USE SOLID TOP COVER & FRAME WITH 900x600 CLEAR OPENING
FACTA CLASS B - EN124 CLASS B125

COVER TYPE 'B2'
EXTERNAL USE SOLID TOP COVER & FRAME WITH 600x600 CLEAR OPENING
FACTA CLASS B - EN124 CLASS B125

COVER TYPE 'B3'
EXTERNAL USE SOLID TOP COVER & FRAME WITH 450x450 CLEAR OPENING
FACTA CLASS B - EN124 CLASS B125

COVER TYPE 'B4'
EXTERNAL USE SOLID TOP COVER & FRAME WITH 600x600 CLEAR OPENING, DOUBLE SEAL & LOCKING
FACTA CLASS B - EN124 CLASS B125

COVER TYPE 'C1'
EXTERNAL USE INFILL COVER & FRAME FOR BLOCK PAVING WITH 750x450 CLEAR OPENING
FACTA CLASS C - EN124 CLASS C250

COVER TYPE 'C2'
EXTERNAL USE INFILL COVER & FRAME FOR BLOCK PAVING WITH 600x450 CLEAR OPENING
FACTA CLASS C - EN124 CLASS C250

COVER TYPE 'C3'
EXTERNAL USE INFILL COVER & FRAME FOR BLOCK PAVING WITH 450x450 CLEAR OPENING
FACTA CLASS C - EN124 CLASS C250

COVER TYPE 'C4'
EXTERNAL USE SOLID TOP COVER & FRAME WITH 600x600 CLEAR OPENING
FACTA CLASS C - EN124 CLASS C250

COVER TYPE 'C5'
EXTERNAL USE INFILL COVER & FRAME FOR BLOCK PAVING WITH 300x300 CLEAR OPENING
FACTA CLASS C - EN124 CLASS C250

COVER TYPE 'D1'
EXTERNAL USE SOLID TOP COVER & FRAME WITH 600x600 CLEAR OPENING
FACTA CLASS D - EN124 CLASS D400

COVER TYPE 'D2'
EXTERNAL USE SOLID TOP COVER & FRAME WITH 600 DIA CLEAR OPENING
FACTA CLASS D - EN124 CLASS D400

COVER TYPE 'D3'
EXTERNAL USE SOLID TOP COVER & FRAME WITH 800x800 CLEAR OPENING
FACTA CLASS D - EN124 CLASS D400

COVER TYPE 'D4'
EXTERNAL USE 'OPEN MESH' TOP COVER & FRAME WITH 600x600 CLEAR OPENING
FACTA CLASS D - EN124 CLASS D400

COVER TYPE 'D5'
EXTERNAL USE SOLID TOP COVER & FRAME WITH 450x450 CLEAR OPENING
FACTA CLASS D - EN124 CLASS D400

MANHOLE COVER SPECIFICATION
DETAIL No. PH-056

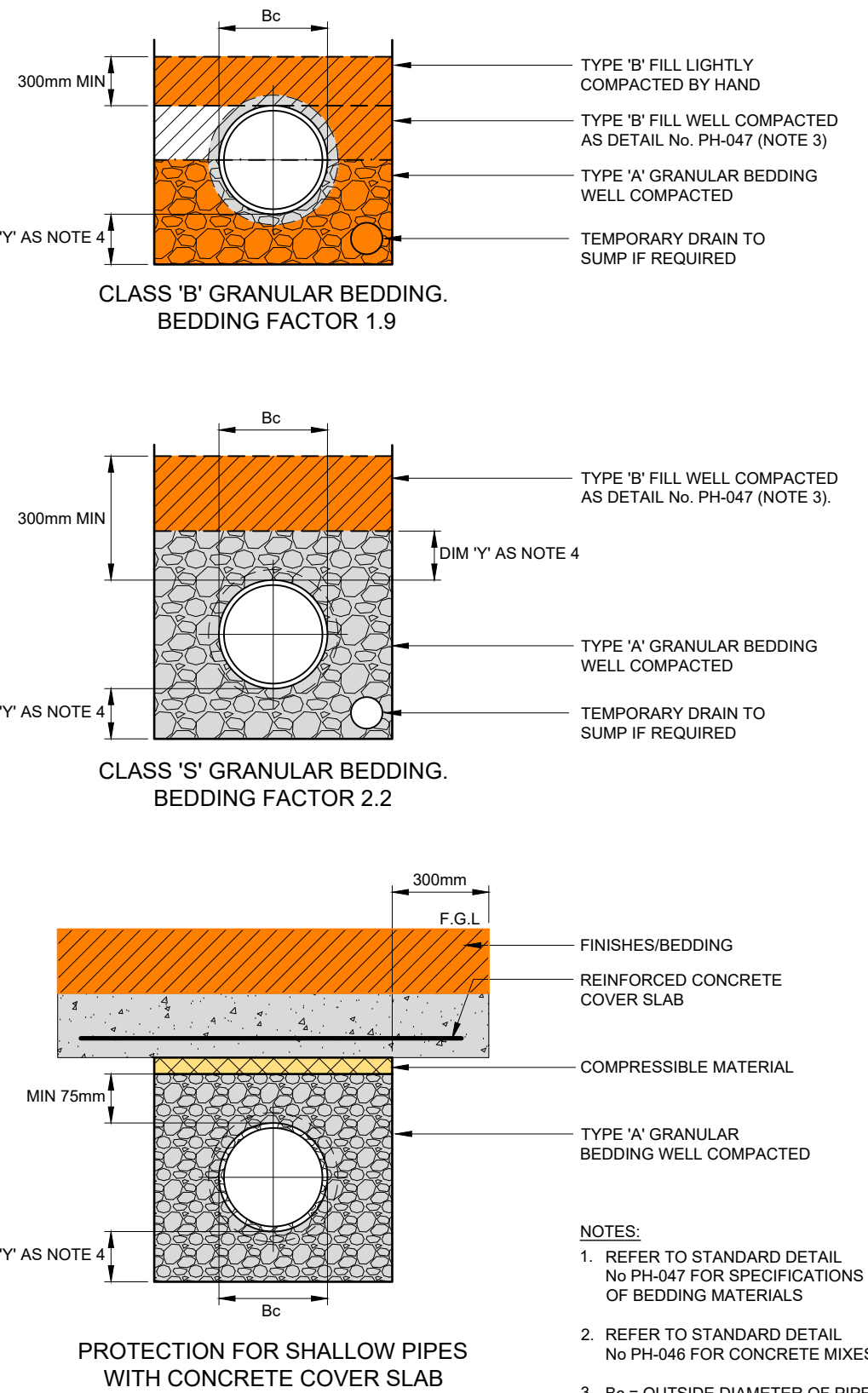
DO NOT SCALE FROM THIS DRAWING.

ALL DIMENSIONS TO BE CHECKED ON SITE.

FOR REFERENCED VIEWS REFER TO SERIES OF DRAWINGS

P01 LSE 22/10/20 ISSUED FOR PRICING

rev by date description



PIPE BEDDING DETAILS
DETAIL No. PH-049

COVER SPECIFICATION

COVER TYPE 'A15-IN'
INTERNAL USE SOLID BOTTOM DOUBLE SEAL & LOCKING INFILL COVER & FRAME, STAINLESS STEEL EDGED, AND FILLED WITH C25 CONCRETE & FLOOR FINISH
FACTA CLASS A - EN124 CLASS A15
REFER TO MANHOLE TAG FOR COVER SIZE

COVER TYPE 'B125-ST'
EXTERNAL USE SOLID TOP COVER & FRAME
FACTA CLASS B - EN124 CLASS B125
REFER TO MANHOLE TAG FOR COVER SIZE

COVER TYPE 'B125-IN'
EXTERNAL USE INFILL COVER & FRAME FOR BLOCK PAVING
FACTA CLASS B - EN124 CLASS B125
REFER TO MANHOLE TAG FOR COVER SIZE

COVER TYPE 'C250-ST'
EXTERNAL USE SOLID TOP COVER & FRAME
FACTA CLASS C - EN124 CLASS C250
REFER TO MANHOLE TAG FOR COVER SIZE

COVER TYPE 'C250-IN'
EXTERNAL USE INFILL COVER & FRAME FOR BLOCK PAVING
FACTA CLASS C - EN124 CLASS C250
REFER TO MANHOLE TAG FOR COVER SIZE

COVER TYPE 'D400-ST'
EXTERNAL USE SOLID TOP COVER & FRAME
FACTA CLASS D - EN124 CLASS D400
REFER TO MANHOLE TAG FOR COVER SIZE

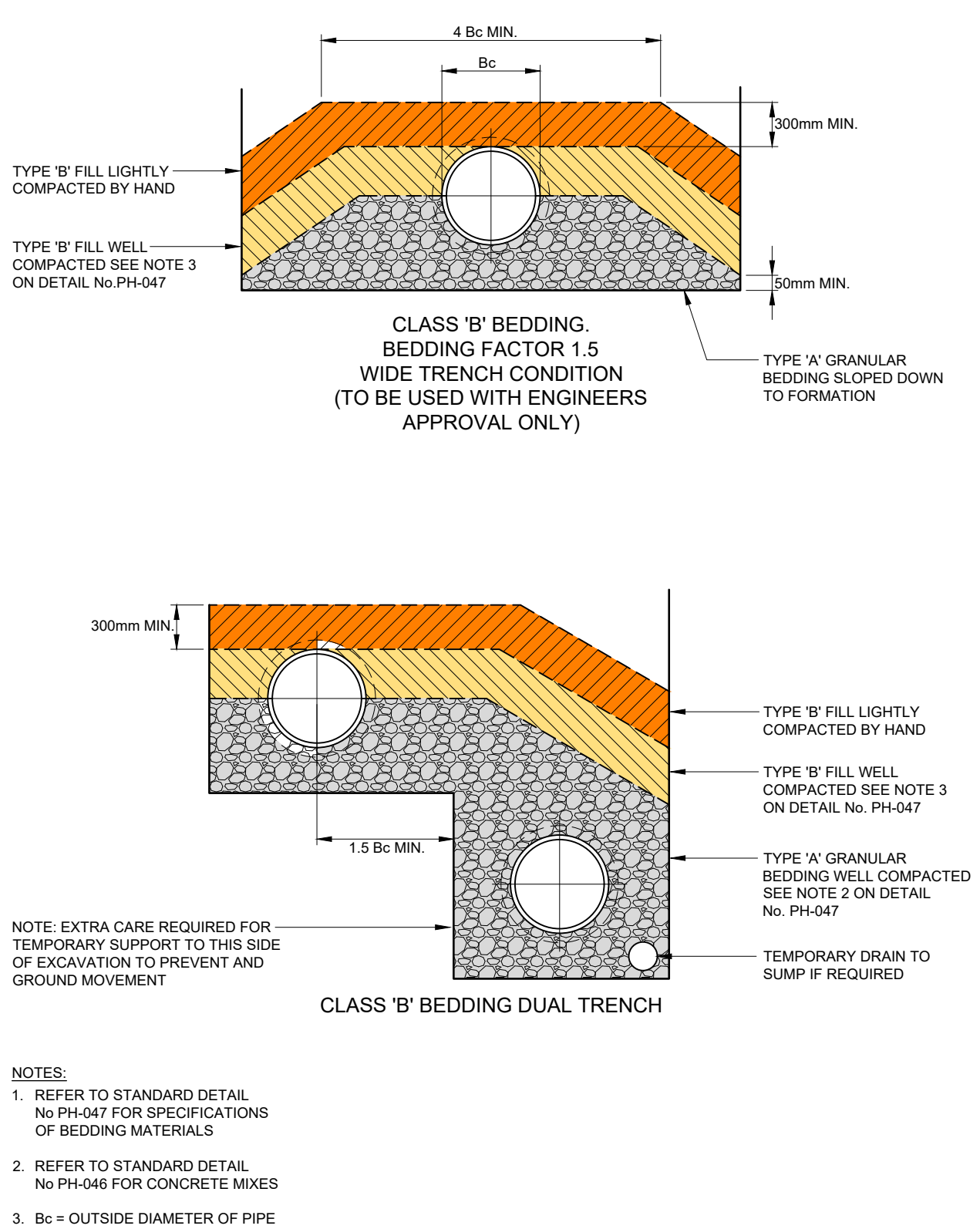
COVER TYPE 'D400-OM'
EXTERNAL USE 'OPEN MESH' TOP COVER & FRAME
FACTA CLASS D - EN124 CLASS D400
REFER TO MANHOLE TAG FOR COVER SIZE

ST - SOLID TOP COVER
IN - INFILL TYPE COVER
OM - OPEN MESH TYPE COVER

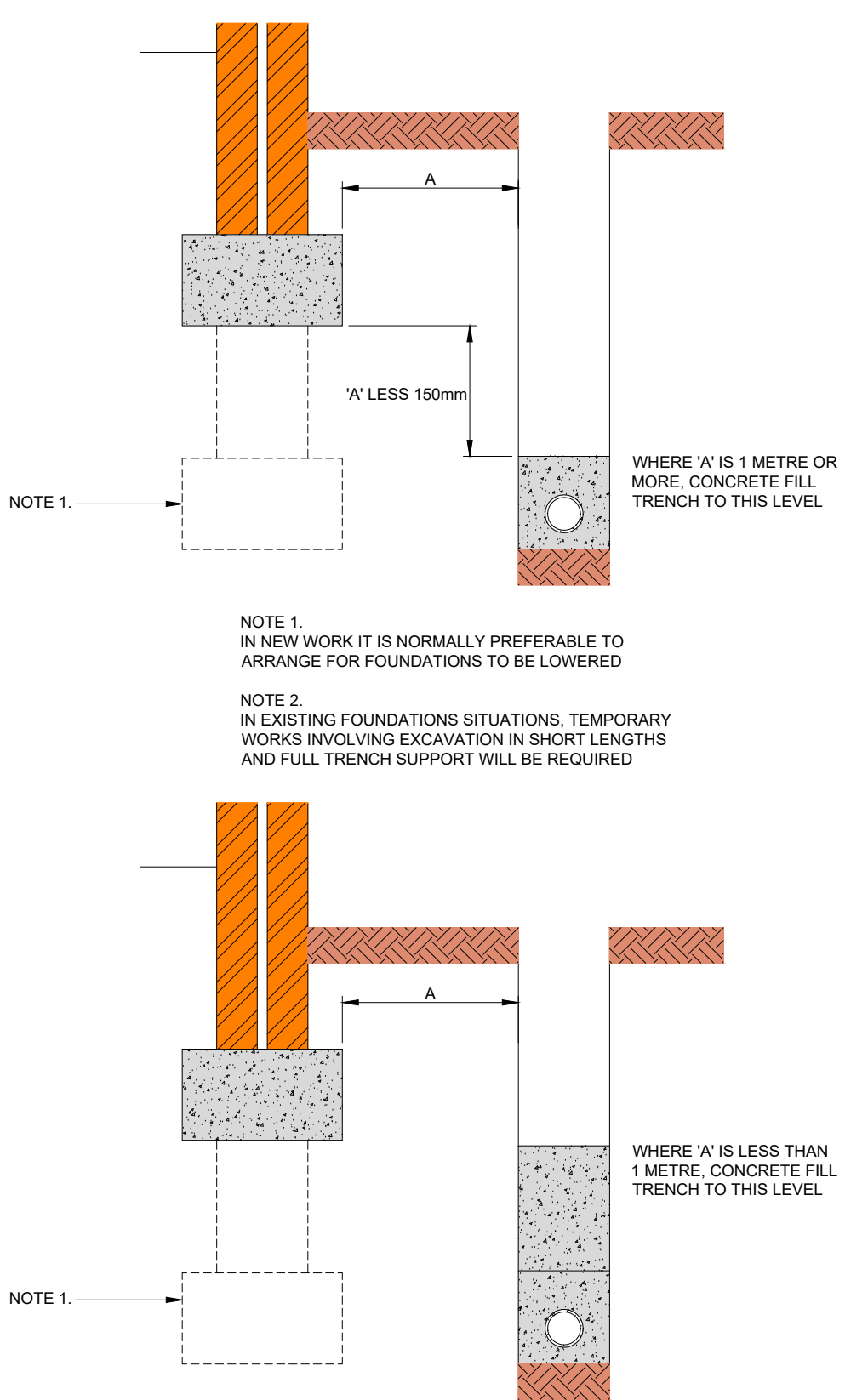
SOAKAWAY		SILT TRAP MANHOLE		PETROL INTERCEPTOR		PUMP CHAMBER		MH No	
No	SIZE	No	SIZE	No	SIZE	No	SIZE	SIZE	C.L.
C.L.		C.L.		C.L.		C.L.		I.L.	
I.L. (IN)		I.L. (IN)		I.L. (IN)		I.L. (IN)		I.L. (IN)	
I.L. (OUT)	N/A	I.L. (OUT)		I.L. (OUT)		I.L. (OUT)		I.L. (OUT)	
BASE LEVEL		BASE LEVEL		BASE LEVEL		BASE LEVEL		BASE LEVEL	
B125-ST - 450x450		B125-ST - 450x450		D400-ST - 600dia				A15-IN - 900x600	

PUMP CHAMBER COVER TO BE SPECIFIED BY PUMP CHAMBER MANUFACTURER. SUITABLE LOAD CLASS & TYPE TO SUIT SITE LOCATION.

COVER SPECIFICATION
DETAIL No. PH-056A



PIPE BEDDING DETAILS
DETAIL No. PH-050



DRAINS LAID NEAR TO FOUNDATIONS
DETAIL No. PH-057



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project Dunsbury Hill Farm Plot 4A

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