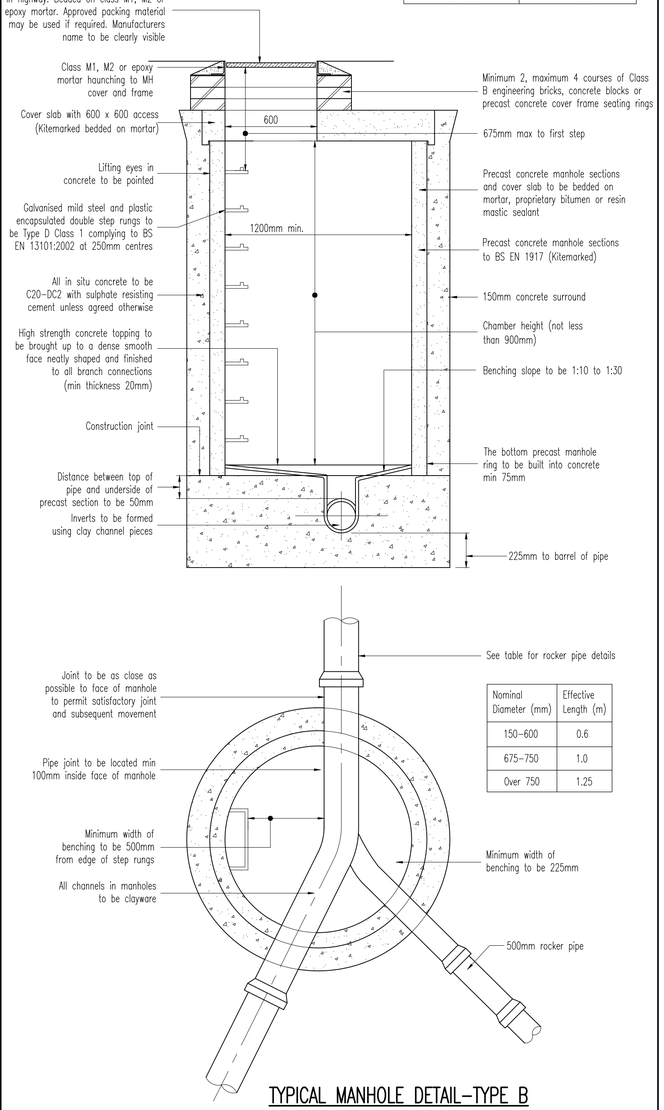
ø Of largest pipe in manhole (mm)	Minimum internal ø of manhole (mm)
Less than 375	1200
375–450	1350
525–700	1500
750–900	1800

NOTE:
If 3 or more pipes enter the manhole the ring diameter should be increased to one size greater than that shown on the table
(If in doubt refer to ARP schedule)



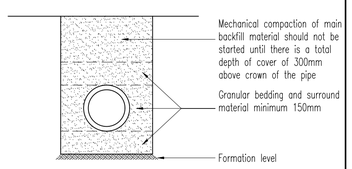
Nominal Diameter (mm)	Effective Length (m)
150–600	0.6
675–750	1.0
Over 750	1.25

TYPICAL MANHOLE DETAIL–TYPE B

CODE FOR ADOPTION (2020)
Max depth from ground level to soffit of pipe 3.0m
The design of the manhole will need to comply with the undertakers safety policy

Any trench box/sheeting to terminate 150mm above crown of pipe to prevent displacement of granular material. Boxing/sheeting to be removed progressively during placement of main backfill

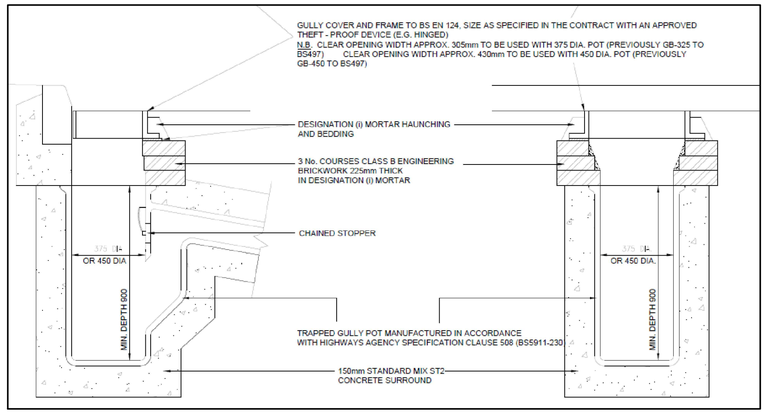
Sidefill material to be placed evenly on both sides of pipes taking care to work the material under the lower quadrant of the pipe ensuring the pipe is not lifted. Both sides of the trench should be filled simultaneously to avoid horizontal movement of the pipe



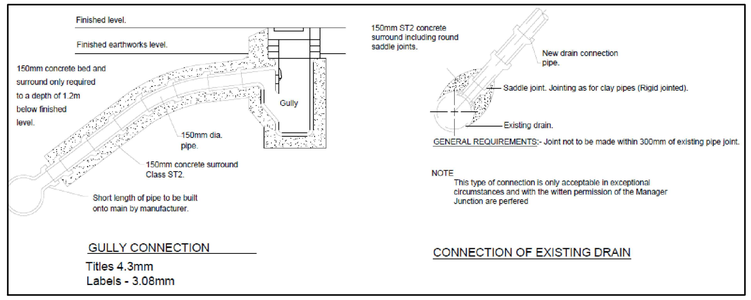
Trench width = pipe dia + 300mm

TYPICAL DETAIL THROUGH CLASS S1 BEDDING (1:20)

Refer to Kirklees Council Standard Detail reference: HD/SD/12/04B



Refer to Kirklees Council Standard Detail reference: HD/SD/05/20B



Refer to Kirklees Council Standard Detail reference: HD/SD/05/03B

Processed granular bedding and sidefill materials for flexible pipes.

Pipe nominal bore (mm) see note (d)	Nominal maximum particle size (mm)	Materials specified in British Standards see note (a)
100	10	10mm nominal single size
Over 100 to 150	15	10–14mm nominal single size or 14mm to 5mm graded
Over 150 to 300	20	10–14mm or 20mm nominal single size or 14mm to 5mm graded or 20mm to 5mm graded
Over 300 to 500	20	14 or 20mm nominal single size or 14mm to 5mm graded or 20mm to 5mm graded
Over 550	40	14 – 20mm or 40mm nominal single size or 14mm to 5mm graded or 20mm to 5mm graded or 40mm to 5mm graded

Notes:

(a) Processed granular materials to include aggregates to BS 882, air–cooled blast furnace slag to BS1047 and lightweight aggregates to BS 3797

(b) For the purpose of this table, PE pipe of 630mm O.D. can be regarded as having nominal bores of over 550mm, irrespective of wall thickness.

(c) Nominal bore is used in preference to DN because of the different nominal size classifications for flexible pipes

Minimum recommended trench widths for structured wall pipes in poor ground conditions

Native Soil Modulus between 3 and 4 Mpa
Typical Soil Classifications : Very loose gravel, loose sand, medium dense clayey silty sand, firm clay

Nominal Pipe Diameter (mm)	150	225	300	375	450	525	600	750	900
Minimum Trench Width (mm)*	450	525	600	750	900	1050	1200	1500	1800

* A vertical trench face has been assumed to allow a modulus of 7 Mpa to be achieved for the pipe bedding and sidefill material.

Other assumed values: Depth of cover = 6.0 metres (max)
Traffic Loading = Main Road
Pipe stiffness = SN8

Note. Where the native soil modulus is below 3Mpa or the depth of cover exceeds 6 metres guidance should be sought from the pipe manufacturer regarding structural design and installation details.

N O T E S

1. All highway works are to be constructed in accordance with the Kirklees Metropolitan Council Highways Standard Details.
2. All highway works are to be subject of a Section 38 Agreement of the Highways Act 1980.
3. Any coated base material in the carriageway left exposed for more than seven days to be sealed using bituminous sealing grit.
4. Highway boundary to be indicated by back edgings laid flush or change of material on private drives.
5. All vertical faces of joints involving flexible materials shall be treated with an approved joint sealant. This includes ironwork and precast products. Overbanding shall not be accepted.
6. Any final surfacing to be discussed with Kirklees Metropolitan Council.
7. Unsealed and loose material such as crushed stone, gravel or pebbles is not acceptable to the adoptable highway.
8. Do not scale from this drawing.

SUBJECT TO THE APPROVAL OF ALL RELEVANT AUTHORITIES

Rev	By	Date	Revision	Chk	Apvd
/	IC	14.11.25	Issued for approval	MI	MI

ARP ASSOCIATES
Chartered Consulting Engineers
Northwest House ● 5 & 6 Northwest Business Park ● Servia Hill, Leeds ● LS6 2QH
☎ 0113 245 8498 ✉ 0113 244 3864 ✉ leeds@arpassociates.co.uk ⊕ www.arpassociates.co.uk

TITLE TYPICAL HIGHWAY CONSTRUCTION DETAILS SHEET 3 OF 3

PROJECT COCKLEY HILL, KIRKHEATON

CLIENT GLEESON HOMES

DRAWING STATUS PRELIMINARY

Scale AS SHOWN @ A1 | Date NOV 25 | Drawn IC | Chk. MI

Drg. No. 2298/03/04.03 | Rev /