

A1

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600 mm x 600 mm clear opening cover complying with BS EN 124 and BS 7903 See Clause E2.32 of Sewerage Sector Guidance Appendix C

Minimum clear access 600mm x 750mm

Precast concrete slab complying with E2.30 Corbel slab to E2.30.2

Mortar bedding and haunching to cover and frame to Clause E6.7.

Minimum 1 course of class B engineering bricks or precast concrete cover frame seating rings (1:3 cement/sand). 675 mm maximum to first ladder run from cover level.

900 mm minimum clear access behind ladder.

Shaft diameter to be minimum of 1200 mm.

Precast concrte slab complying with E2.30

Chamber height (minimum 2000 mm).

Precast concrete chamber sections complying with Clause E2.29 jointed with mortar, plastomeric or elastomeric seal conforming to BS EN 1917 and BS 5911-3 Chamber wall to be minimum 125mm

Lifting eyes in concrete rings to be pointed.

DN/ID to Clause B5.2.12

GEN3 Concrete surround 150 mm thick.

Surface of benching and channel formed monolithically with high-strength concrete base or a proprietary liner.

Self cleaning toe holes to be provided where channel exceeds 600mm wide

Precast concrete base unit
Inverts to be formed using channel pieces.

Distance between top of pipe and underside of precast section to be minimum 50 mm to maximum 300 mm.

150 mm to underside of channel.

Section

Ladder complying with BS EN 14396 See Clause E2.37 of Sewerage Sector Guidance Appendix C.

Access opening above step irons.

Joint to be within chamber wall to permit satisfactory joint and subsequent movement.

See Figure B.13 and Clause E6.6.2 for rocker pipe details

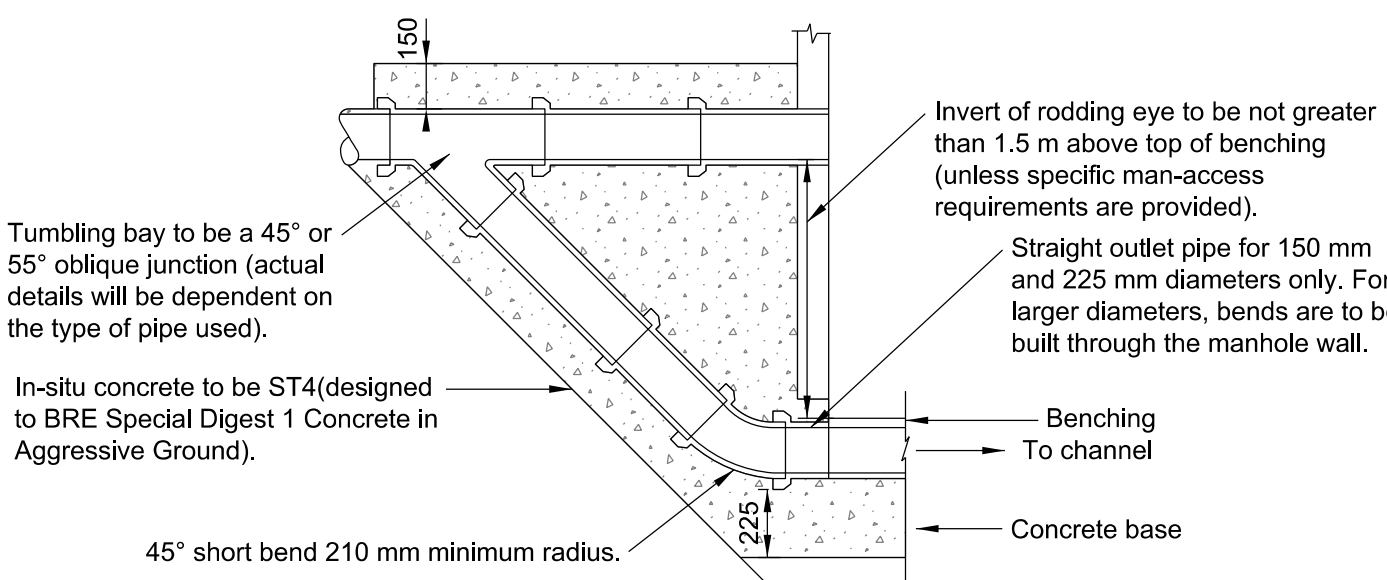
Minimum width of benching to be 225mm.

Pipe joint with channel to be located min 100mm inside face of manhole.

Plan

Typical Manhole Detail Type A1 Depth from Cover Level to Soffit of Pipe 3m to 6m

Scale 1:25



Typical Ramped Backdrop Detail

Scale 1:25

600 mm x 600 mm clear opening cover complying with BS EN 124 and BS 7903. See Clause E2.32 of Sewerage Sector Guidance Appendix C.

Precast concrete slab complying with E2.30. Corbel slab complying with E2.30.2

600mm x 750mm cover slab opening

Lifting eyes in concrete rings to be pointed

Surface of benching and channel formed monolithically with high-strength concrete base or a proprietary liner.

GEN3 Concrete surround 150 mm thick.

Self-cleaning toe holes to be provided where channel exceeds 600 mm wide.

Precast concrete base unit 150 mm to underside of channel

Section

Joint to be within chamber wall to permit satisfactory joint and subsequent movement.

Pipe joint with channel to be located min 100mm inside face of manhole.

Ladder complying with Clause E2.37 of Sewerage Sector Guidance Appendix C.

Access opening above

Minimum width of benching for landing area to be 450mm from the edge of the ladder to the edge of the channel (See Clause B5.2.29)

Plan

Typical Manhole Detail Type A2 Max Depth from Cover Level to Soffit of Pipe 3.0m

Scale 1:25

Joint to be within chamber wall to permit satisfactory joint and subsequent movement.

Pipe joint with channel to be located min 100mm inside face of manhole.

Ladder complying with Clause E2.37 of Sewerage Sector Guidance Appendix C.

Access opening above

Minimum width of benching for landing area to be 450mm from the edge of the ladder to the edge of the channel (See Clause B5.2.29)

Plan

Mortar bedding and haunching to cover and frame to Clause E6.7.

Minimum 1 course of Class B engineering bricks or precast concrete cover frame seating rings.

675 mm maximum to first step rung from cover level.

Precast concrete chamber sections complying with Clause E2.29 jointed with mortar, elastomeric or plastomeric seals. Chamber wall to be minimum 125mm.

900mm minimum clear access behind ladder.

Chamber height (minimum 2000 mm)

Benching slope to be 1:10 to 1:30.

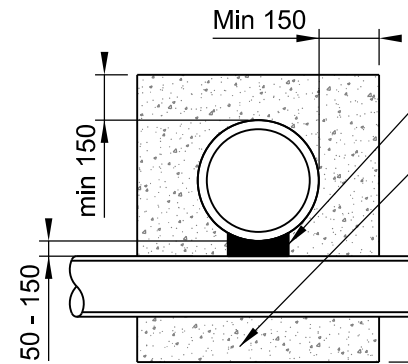
Distance between top of pipe and underside of precast section to be minimum 50 mm to maximum 300 mm.

Inverts to be formed using channel pipes

See figure B.13 and Clause E6.6.2 for rocker pipe details

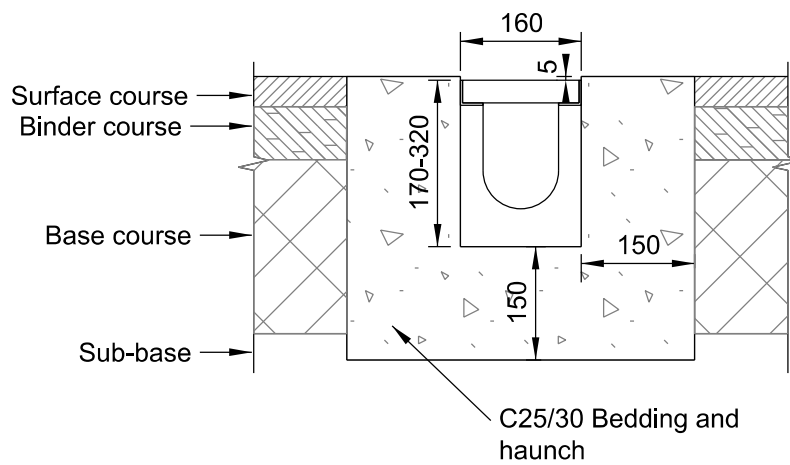
Minimum width of benching to be 225mm

Manhole access to be provided so that it is sited over the step irons.



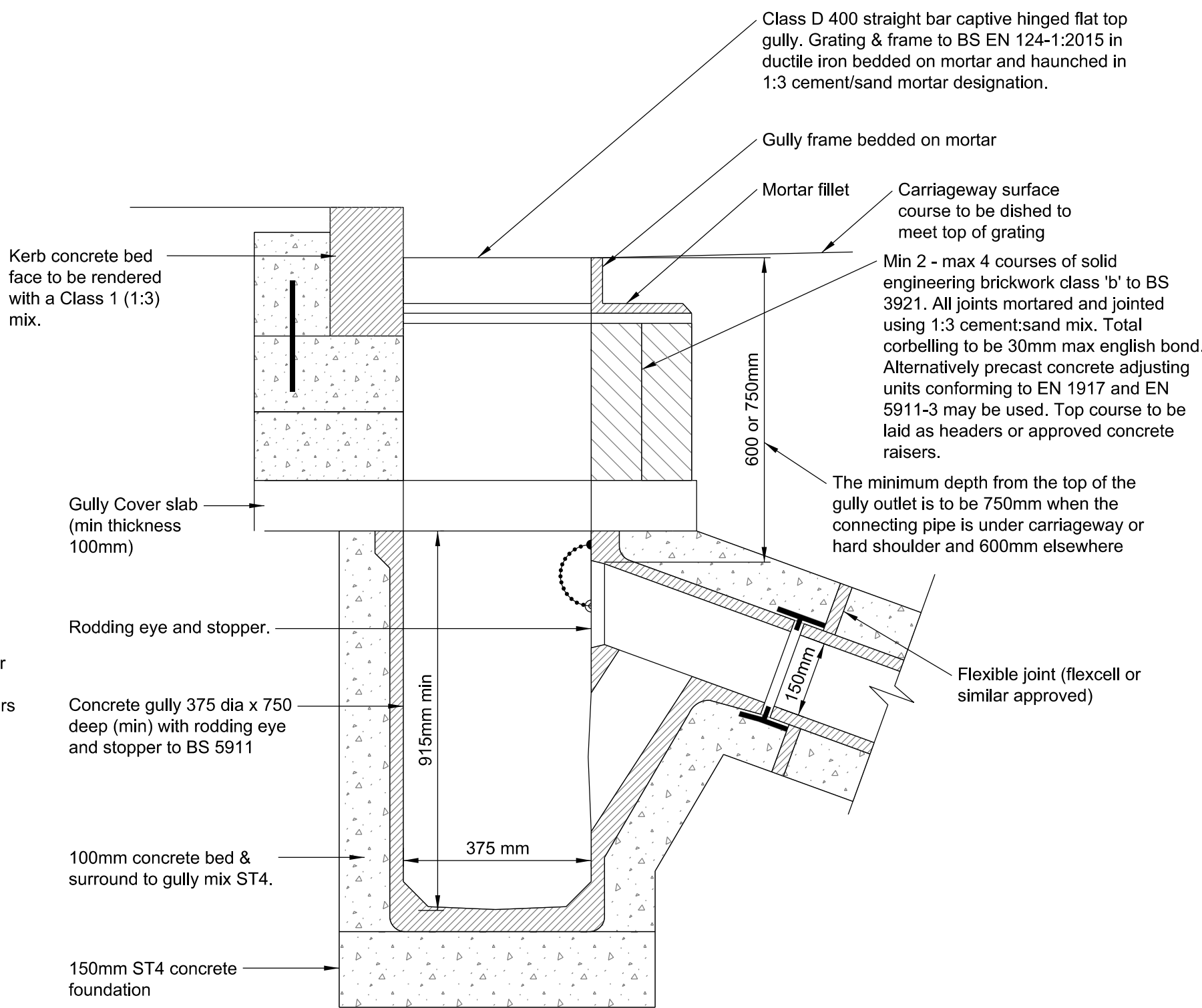
Pipe Crossing Detail

Scale 1:25



Typical Linear Drainage Detail Within Carriageway Area

Scale 1:10



Typical Trapped Road Gully

Scale 1:10

Notes:

- For Phase 1 drainage layout refer to drawing A61-ARUP-XX-XX-DR-CH-115 and drainage schedule A61-ARUP-XX-XX-RP-CH-0103.
- For Phase 2 drainage layout refer to drawing A61-ARUP-XX-XX-DR-CH-205 and drainage schedule A61-ARUP-XX-XX-RP-CH-0203.
- Linear drainage channels and CKD units shall be installed in accordance with the manufacturers details.

O02	26/11/21	SM	HJ	CW
Updated for Phase 2				
P01	08/10/21	KK	HJ	CW
Stage 4 Issue				
Rev	Date	By	Chkd	Appd

ARUP

Admiral House, Rose Wharf,
78 East Street, Leeds, LS9 8EE
Tel +44(0)113 242 8498 Fax +44(0)113 242 8573
www.arup.com

Client
**South Yorkshire Passenger
Transport Executive**

Project Title
A61 Corridor

Drawing Title
**Standard Details
Sheet 1**

Scale at A1
As shown

Role
Civil - General

Suitability
S1 - Fit for co-ordination

Arup Job No 253511-00	Rev P01
Name A61-ARUP-XX-XX-DR-CH-141	