

1. All dimensions in millimetres unless otherwise stated.
2. See Drawing No. SBC/STD/1100/01 for details of kerbs, channels and edgings, haunch bedding and mortar.
3. See Drawing No. SBC/STD/700/01 to 07 for details of pavement specification and construction thickness.
4. See Drawing No. SBC/STD/500/02 for gully construction details outlet options.
5. See Drawing No. SBC/STD/500/03 for details of connection to carrier drain and outfall to drainage ditch.
6. Plastic gullies are not permitted.
7. Grating and frame to be BS EN124 Class D400 and HA 102/00 Type R compliant, with captive hinges, set to close against oncoming traffic. With a 435 x 435 clear opening and 150mm deep frame.
8. Grating and frame to be set 15mm below finished road level.
9. Gully frame to be bedded on, and haunched with polyester resin mortar and positioned centrally over gully pot and abutting with the kerb face.
10. Gully grating and frame to be laid to the crossfall of the finished surface.
11. The concrete surround to gullies shall fill the whole void between the gully pot and the face of the excavation. The concrete should be compacted by vibrating poker to remove all voids.
12. The minimum depth from the top of the grating to the top of the gully outlet is to be 575 to 525 when the connecting pipe is under a carriageway.
13. Backfill material shall be placed and compacted in accordance with the requirements of the Manual of Contract Documents for Highways Works Volume 1, Series 600. - Method compactions (Table 6/4).
14. The maximum trench width shall be applied up to a depth of 300mm above the crown of the pipe.
15. Brickwork to be engineering brickwork Class B to BS EN 771-1:2011 using a gauged Class 1 (3:1) sand / cement mortar to CL 2402 of SHW mortar designation (i).
16. The depth of mortar joints in brickwork and under the ironwork shall be between 5mm and 15mm. Any fine adjustment in level should be carried out in special class B bricks of reduced thickness. Where proprietary cementitious materials or epoxy resins are used the mortar bedding depths should be in accordance with the manufacturer's recommendations.
17. Subject to the approval of the Transport Development Management team at SBC, as an option to a brickwork or pre-cast concrete gully sealing slab, a concrete cast in-situ seating integral with the pot surround may be used (refer to Alternative Seating Arrangement detail). The aperture in these seatings shall not be greater than the minimum opening dimensions of the gully frame. All concrete shall have a smooth finish to class F2 or U3.
18. All gully connections less than 1-2m cover to receive concrete surround to its connection with the carrier system. Gully connections will include a maximum of three bends.
19. All pipe joints require 18mm fibreboard.
20. For shared surface roads or gullies unavoidably positioned within the limits of a pedestrian crossing, in addition to the requirements set out in Note 7, the gully grating shall be 'pedestrian friendly'.
21. Granular pipe bed and surround and backfill material to be compacted in accordance with the SHW Series 600, Table 6/4, in layers not exceeding 150mm before compaction. Compaction shall be undertaken by hand or light mechanical plant.

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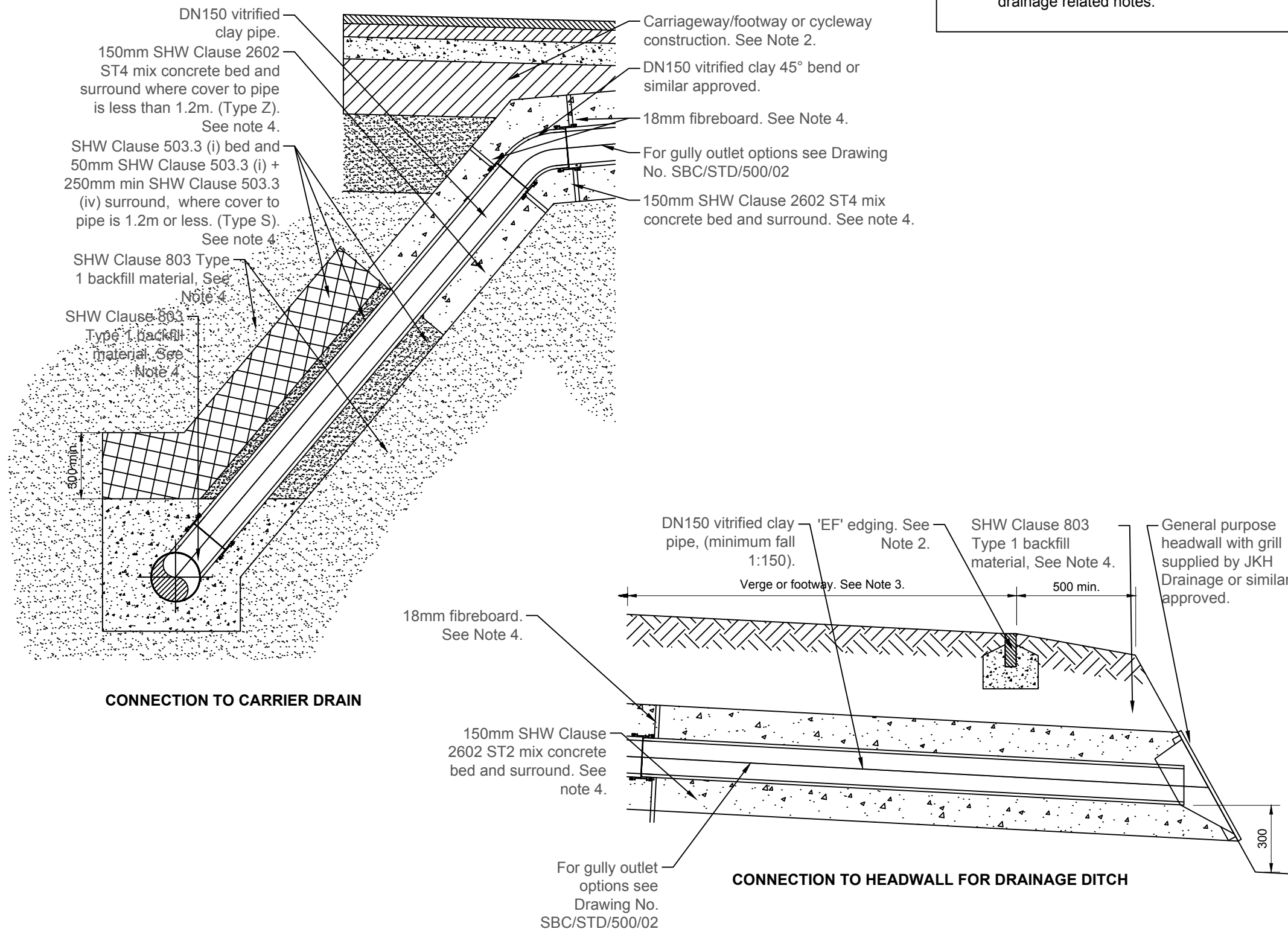
J Humm,  
Head of Highways & Transport

Client: Swindon Borough Council

### GULLY NOTES

Designed DW	Scale NTS	Date MAR 2017	Revision
Drawn MA	Drawing no.		A
Checked SG	SBC/STD/500/01		





## NOTES

1. All dimensions in millimetres unless otherwise stated.
2. See Drawing No. SBC/STD/1100/01 for details of kerbs, channels and edgings, haunch bedding and mortar.
3. See Drawing No. SBC/STD/700/01 to 07 for details of pavement specification and construction thickness.
4. See Drawing No. SBC/STD/500/01 for all drainage related notes.

Revisions



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## CONNECTIONS TO CARRIER DRAINS AND HEADWALL

Designed DW	Scale NTS	Date MAR 2017	Revision
Drawn MA	Drawing no. SBC/STD/500/03		A
Checked SG			



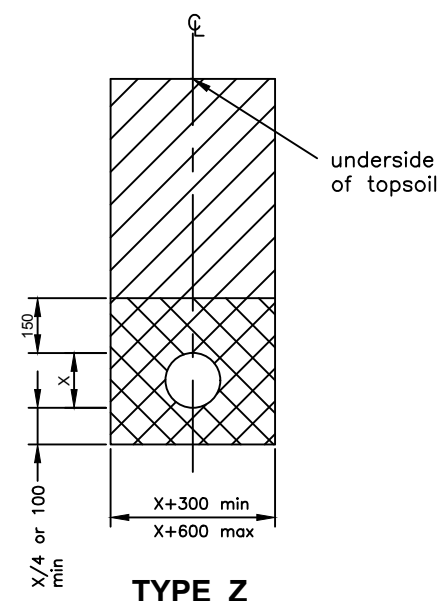
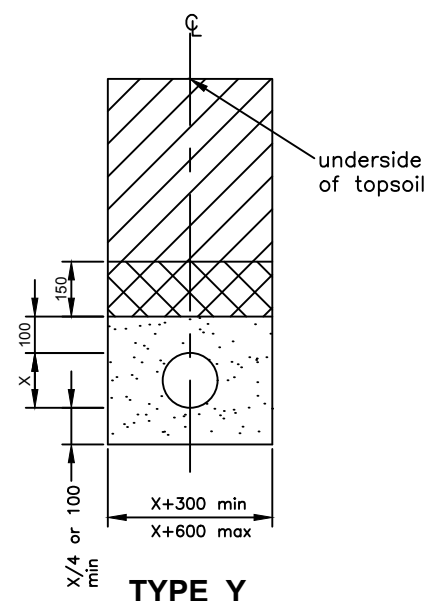
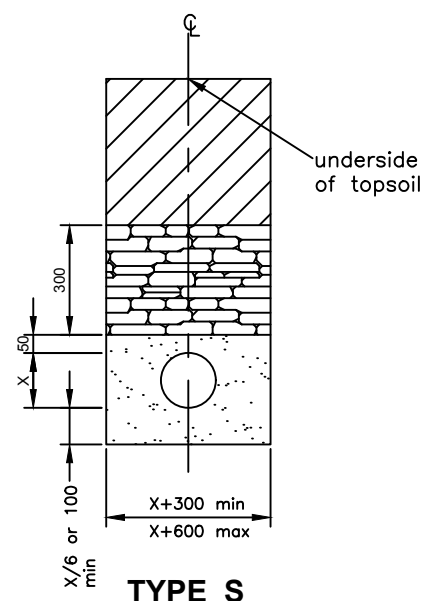
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. EXCAVATED MATERIAL SHALL BE SPREAD EVENLY OVER THE EXISTING VERGE TO A MAXIMUM DEPTH OF 50mm AND SPREAD WITH GRASS SEED IN ACCORDANCE WITH APPENDIX 30/5 OR DISPOSED OF AS INDICATED ELSEWHERE IN THE CONTRACT.
3. WHERE EXCAVATION INTO THE EXISTING CARRIAGEWAY IS REQUIRED, THE EXCAVATION SHALL BE OF SUFFICIENT DEPTH AND WIDTH TO ACCOMMODATE THE KERB TYPE SPEECHEID IN APPENDIX 11/1. ALSO REFER TO DRAWING No.HCC10/M/010
4. UNLESS SPECIFIED ELSEWHERE,THE FLUSH PC4 KERB SHALL BE A 125x150 CS2 SQUARE CHANNEL.
5. 600x600x50 PC CONCRETE SLABS MAY BE USED AS A BASE INSTEAD OF THE 500 WIDE IN-SITU CONCRETE.
6. ALTHOUGH THE UNLINED AND CONCRETE-LINED GRIPS ARE SHOWN AT 90° TO THE CARRIAGEWAY ON THIS DRAWING, THE ACTUAL ANGLE MAY BE UP TO 30° FROM THIS IF NECESSARY DUE TO THE VERGE GRADIENT. REFER TO THE SCHEME DRAWINGS FRO ACTUAL LAYOUT OF GRIPS.

[illegible]

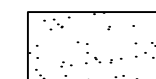
Client: Swindon Borough Council

## DRAINAGE GRIPS

Designed DW	Scale NTS	Date Mar 2017	Revision  <b>A</b>
Drawn MA	Drawing no.		
Checked SG	SBC/STD/500/04		



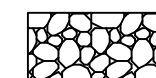
### KEY



granular material to S.H.W. Clause 503.3(i)



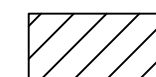
concrete to S.H.W. Clause 503.3(iii)



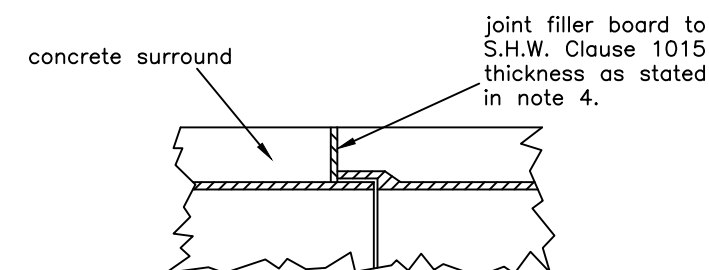
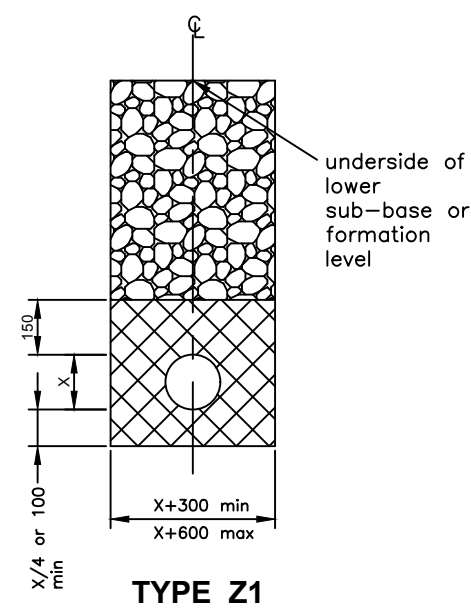
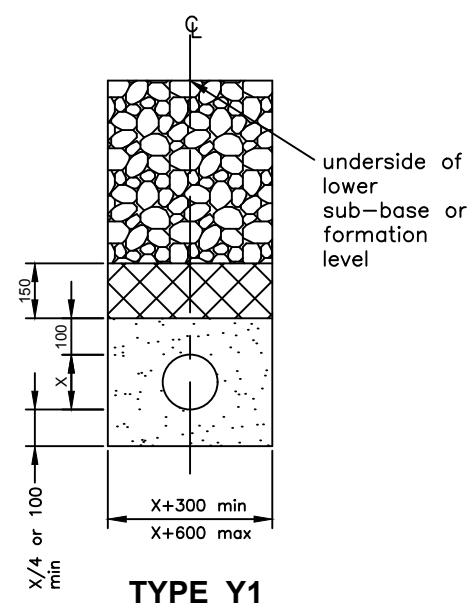
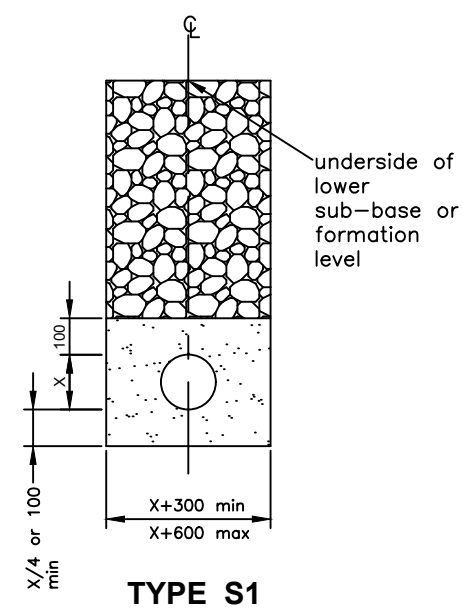
granular material Type 1 sub-base to S.H.W. Clause 803 compacted in accordance with Clause 612, table 6/4 method 6



Class 8 material to S.H.W. Clause 503.3(iv)



general fill material to S.H.W. Clause 505.2



### JOINT DETAIL FOR PIPE SURROUND ON TYPE Z AND Z1 DRAINS

### NOTES

1. Refer to Appendix 5/1 for pipe and bedding alternatives.
2. Dimension 'X' denotes the external diameter of the pipe.
3. The joint detail for pipe surround on Type Z and Z1 drains is for flexible joints only.
4. For pipes with a nominal diameter below 450mm, the thickness of compressible joint filler board shall be 18mm. For pipes with a nominal diameter of 450mm or greater, but not exceeding 1200mm, the thickness of joint filler board shall be 36mm. For pipes exceeding 1200mm nominal diameter, the thickness of joint filler board shall be 54mm.
5. Refer to SBC/STD/1100/05

### Revisions



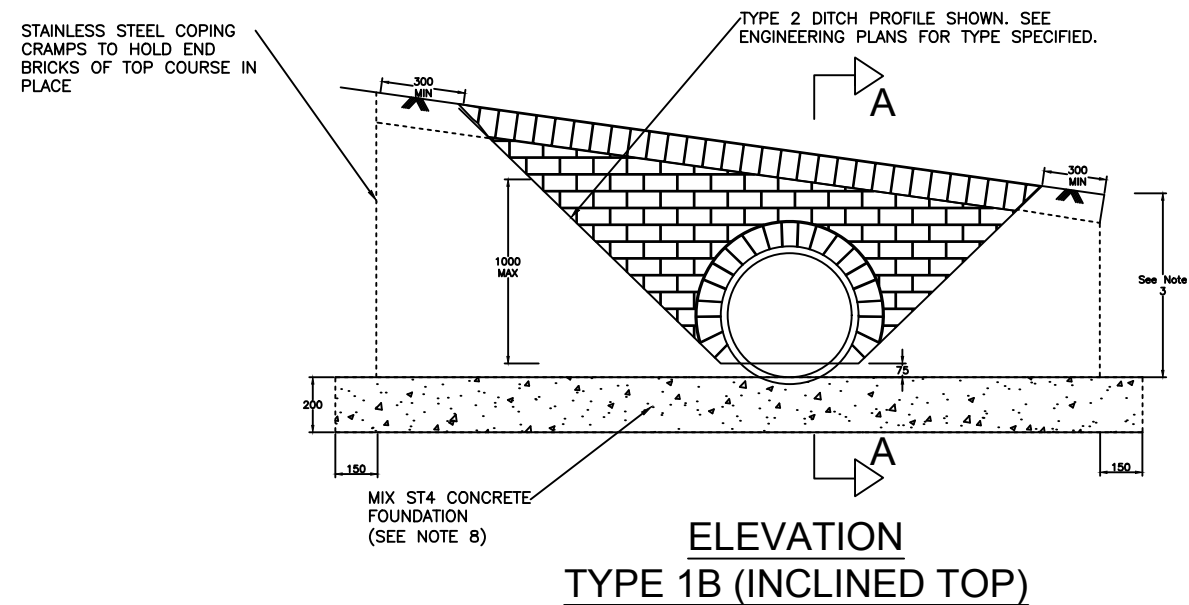
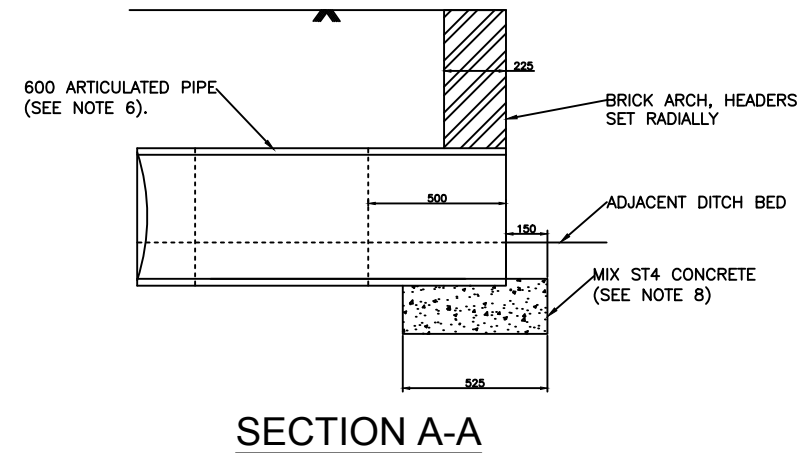
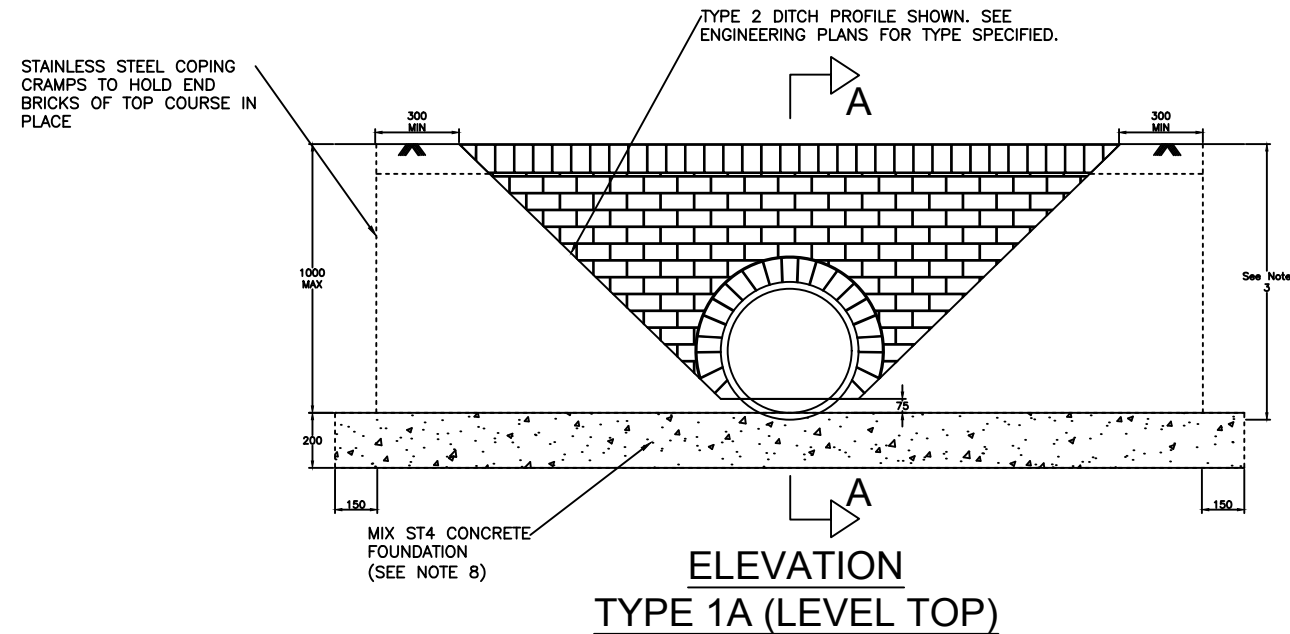
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### BEDDING AND TRENCH DETAILS

Designed DW	Scale NTS	Date MAR 2017	Rev
Drawn MA	Drawing no. SBC/STD/500/05		
Checked SG			



## NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. BRICKWORK SHALL BE IN FLEMISH BOND HIGH DENSITY TYPE CLASS B SOLID CLAY ENGINEERING BRICKS TO BS EN 771-1 AND CLAUSE 2406 LAID ON CLASS (i) MORTAR TO CLAUSE 2404.
3. WALL DIMENSIONS SHALL BE AS STATED IN APPENDIX 5/1.
4. UNLESS OTHERWISE SPECIFIED BACKFILL AROUND HEADWALL SHALL BE IN ACCORDANCE WITH CLAUSE 507.7.
5. FOR ANY DITCH PROTECTION ADJACENT TO HEADWALL REFER TO ENGINEERING PLANS.
6. THE PIPE CONNECTING TO THE HEADWALL SHALL HAVE AN ARTICULATED SECTION ALL AS CLAUSE 507.17.
7. JOINT FINISH TO EXPOSED BRICKWORK SHALL BE 'BUCKET HANDLE'.
8. ALL CEMENT USED IN INSITU CONCRETE SHALL BE CII(A OR B) OR CIII A OR B TO BS 8500-2, TABLE 1 AND ANNEX A.

Revisions



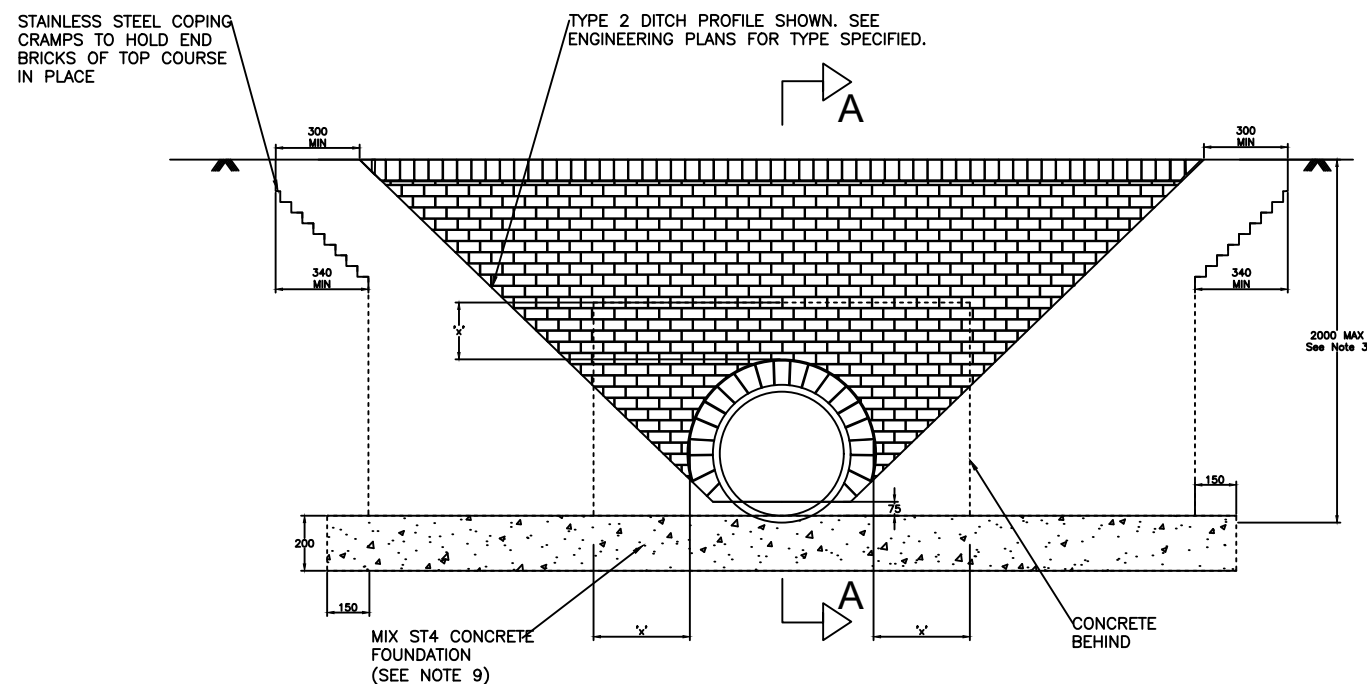
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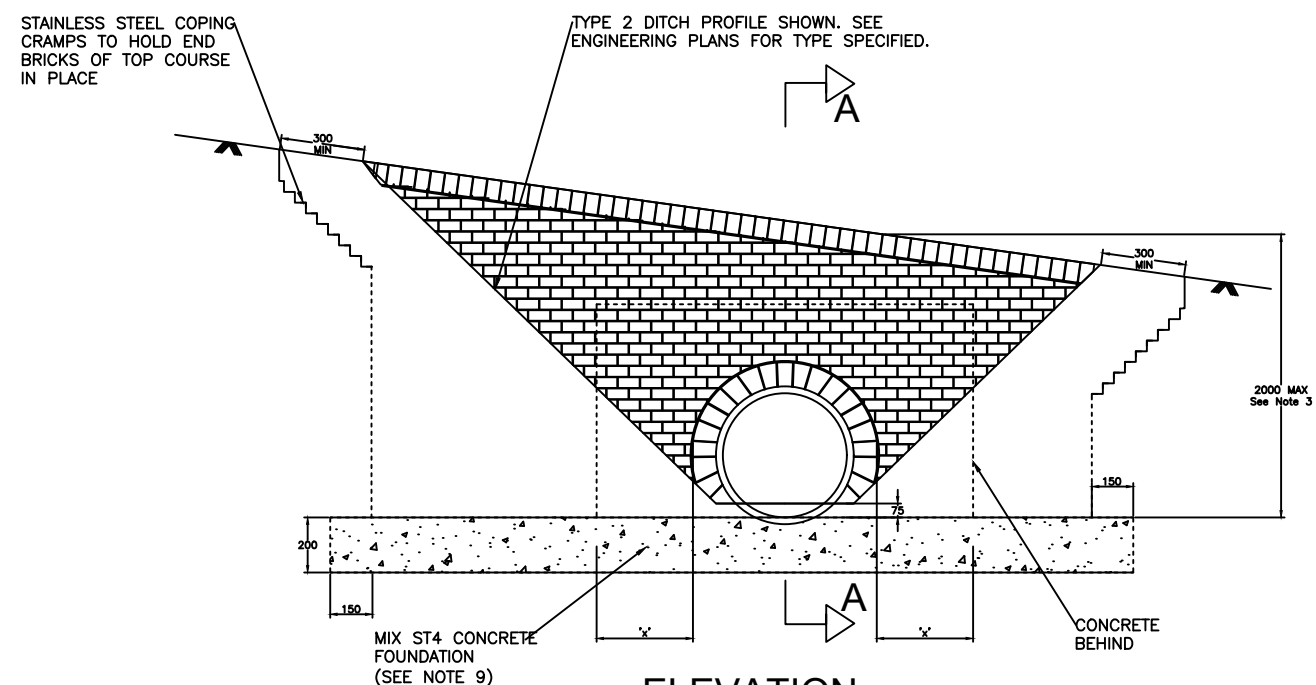
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**HEADWALL  
TYPE 1A & 1B**  
  
BRICKWORK NOT EXCEEDING  
  
1.0m IN HEIGHT

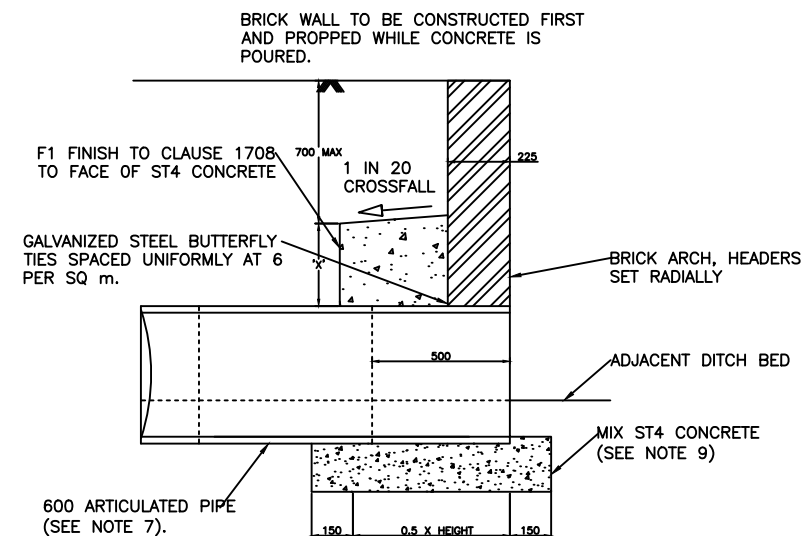
Designed DW	Scale NTS	Date Mar 2017	Revision
Drawn MA	Drawing no. SBC/STD/500/06		A
Checked SG			



**ELEVATION  
TYPE 2A (LEVEL TOP)**



**ELEVATION  
TYPE 2B (INCLINED TOP)**



**SECTION A-A**

## NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. BRICKWORK SHALL BE IN FELMISH BOND HIGH DENSITY TYPE CLASS B SOLID CLAY ENGINEERING BRICKS TO BS EN 771-1 AND CLAUSE 2406 LAID ON CLASS (i) MORTAR TO CLAUSE 2404.
3. WALL DIMENSIONS SHALL BE AS STATED IN APPENDIX 5/1.
4. UNLESS OTHERWISE SPECIFIED BACKFILL AROUND HEADWALL SHALL BE IN ACCORDANCE WITH CLAUSE 507.7.
5. FOR ANY DITCH PROTECTION ADJACENT TO HEADWALL REFER TO ENGINEERING PLANS.
6. FOR HEADWALL NOT EXCEEDING 1000 IN HEIGHT CONCRETE BACKING MAY BE REPLACED WITH BRICKWORK BONDED INTO FACEWORK.
7. THE PIPE CONNECTING TO THE HEADWALL SHALL HAVE AN ARTICULATED SECTION ALL AS CLAUSE 507.17.
8. JOINT FINISH TO EXPOSED BRICKWORK SHALL BE 'BUCKET HANDLE'.
9. ALL CEMENT USED IN INSITU CONCRETE SHALL BE CII(A OR B) OR CIII A OR B TO BS 8500-2, TABLE 1 AND ANNEX A.

Revisions



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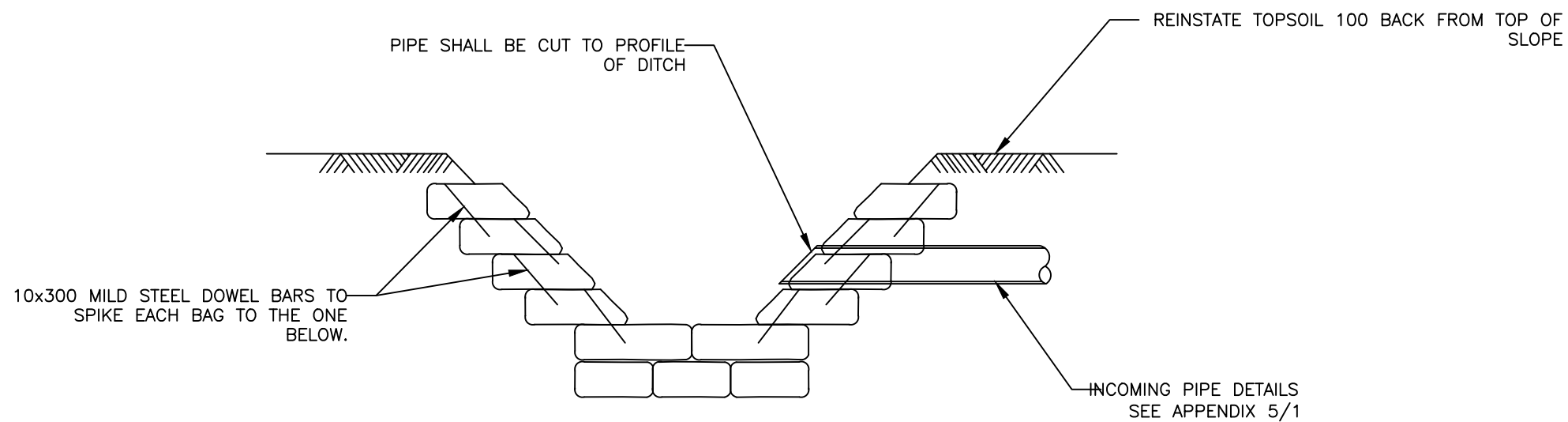
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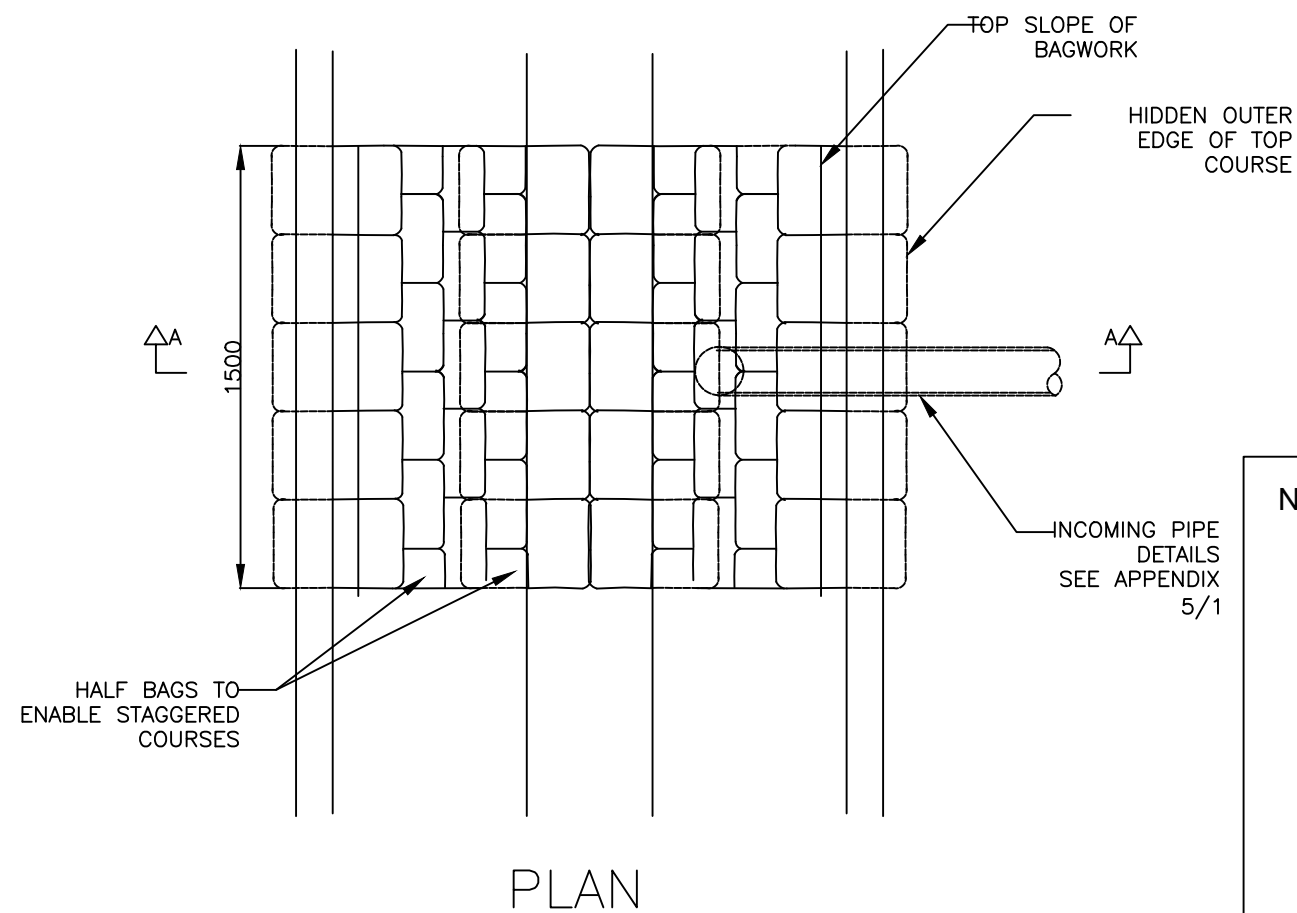
**HEADWALL  
TYPE 2A & 2B**

**BRICKWORK NOT EXCEEDING  
2.0m IN HEIGHT**

Designed DW	Scale NTS	Date Mar 2017	Revision
Drawn MA	Drawing no. SBC/STD/500/07		A
Checked SG			



SECTION A-A



PLAN

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. ALL BAGWORK SHALL BE AS CLAUSE 519.
3. ALL CEMENT USED IN CONCRETE SHALL BE CII (A OR B)-S OR CIII (A OR B) TO BS 8500 -2, TABLE AND ANNEX A.
4. ADDITIONAL LAYER OF BAGWORK TO BE INSTALLED BELOW INVERT BAGWORK. THE BAGS SHALL BE PINNED ENSURING THAT THE PINS DO NOT PASS THROUGH THE LOWER LAYER OF BAGWORK.
5. BEFORE ANY EXCAVATION OR PINNING OF BAGS IS UNDERTAKEN THE CONTRACTOR SHALL SURVEY THE AREA TO ENSURE THAT THERE ARE NO BURIED SERVICES BENEATH.

Revisions



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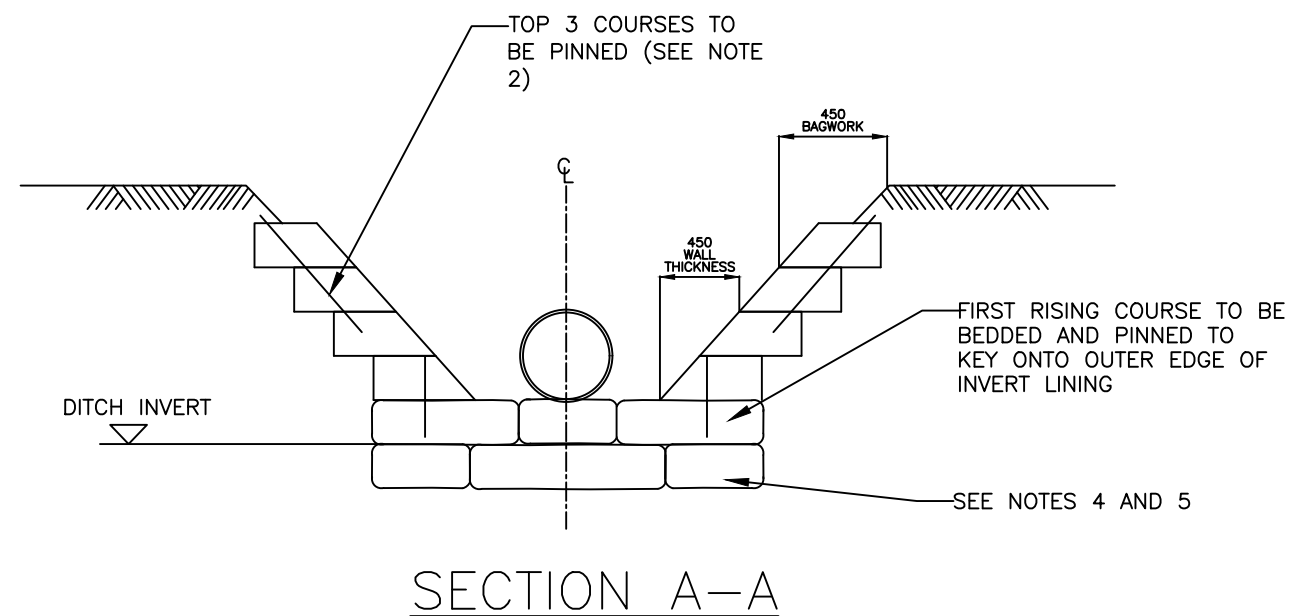
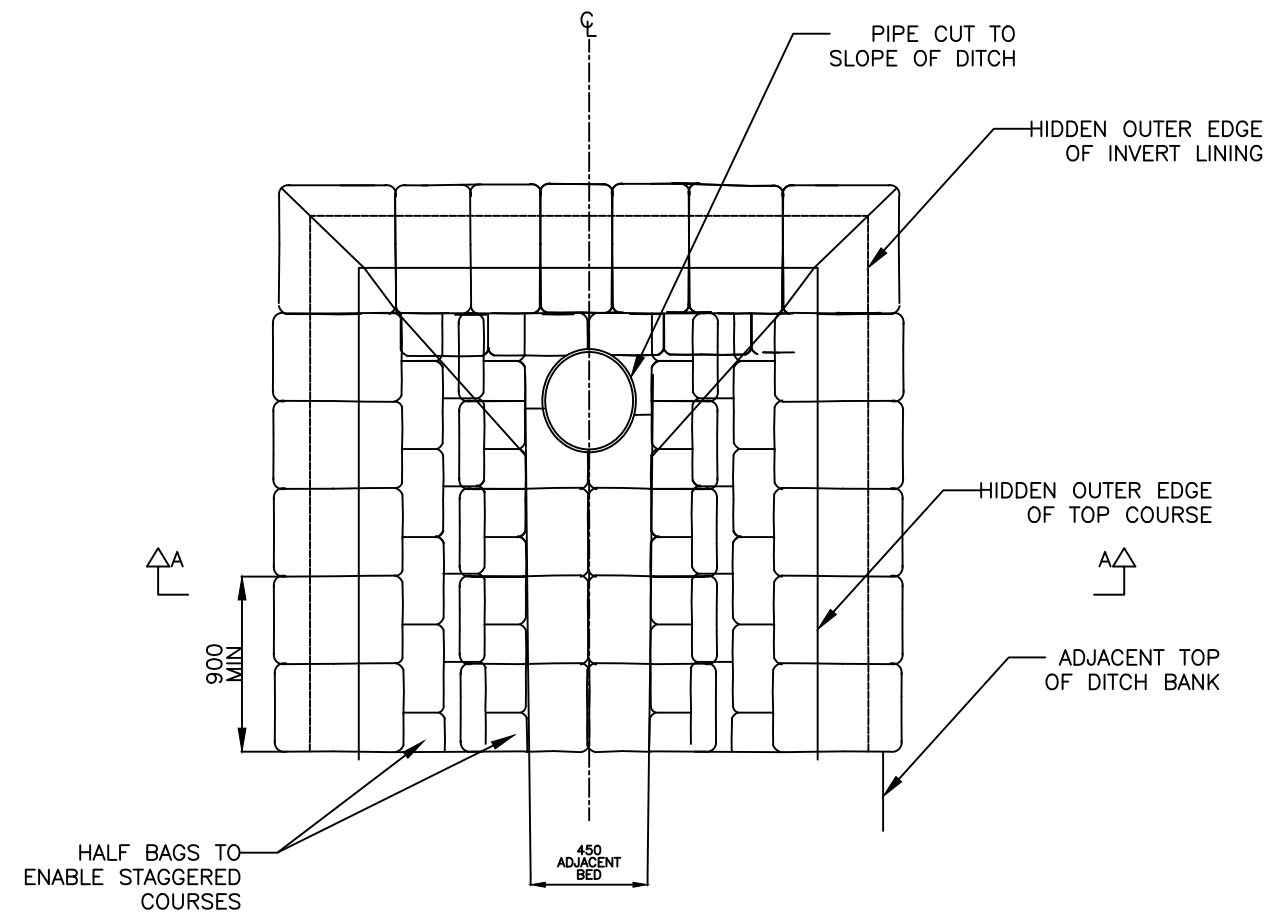
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HEADWALL TYPE 3A  
CONCRETE BAGWORK

Designed DW	Scale NTS	Date MAR 2017	Revision
Drawn MA	Drawing no. SBC/STD/500/08		A
Checked SG			





#### NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. ALL BAGWORK SHALL BE AS CLAUSE 519.
3. ALL CEMENT USED IN CONCRETE SHALL BE CII (A OR B)-S OR CIII (A OR B) TO BS 8500 -2, TABLE AND ANNEX A.
4. ADDITIONAL LAYER OF BAGWORK TO BE INSTALLED BELOW INVERT BAGWORK. THE BAGS SHALL BE PINNED ENSURING THAT THE PINS DO NOT PASS THROUGH THE LOWER LAYER OF BAGWORK.
5. BEFORE ANY EXCAVATION OR PINNING OF BAGS IS UNDERTAKEN THE CONTRACTOR SHALL SURVEY THE AREA TO ENSURE THAT THERE ARE NO BURIED SERVICES BENEATH.

#### Revisions



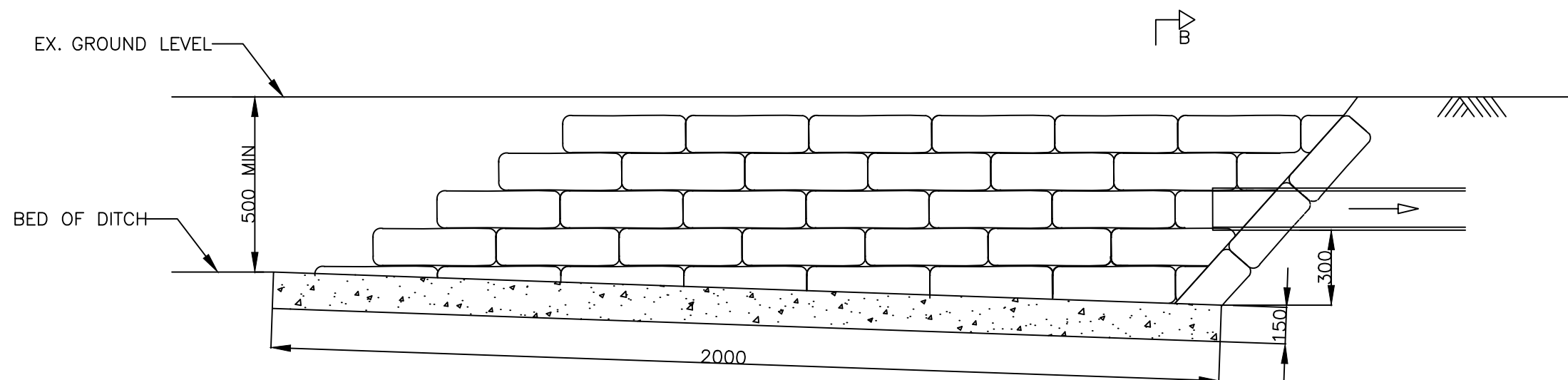
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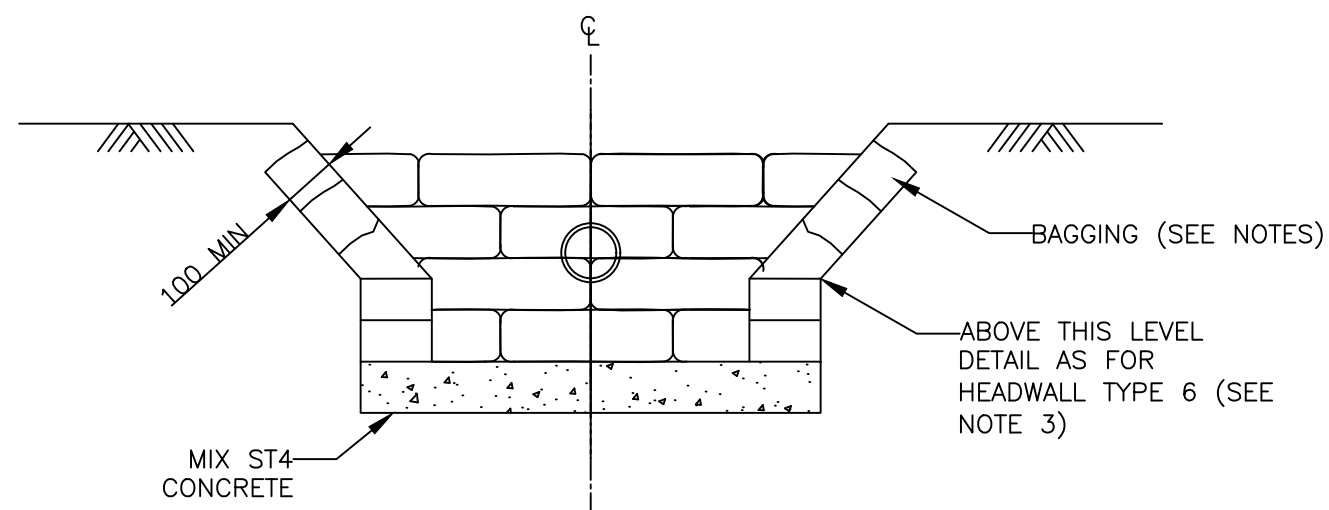
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### HEADWALL TYPE 5 CONCRETE BAGWORK

Designed DW	Scale NTS	Date MAR 2017	Revision
Drawn MA	Drawing no.		
Checked SG	SBC/STD/500/09		A



LONGITUDINAL PROFILE



SECTION B-B

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. ALL BAGWORK SHALL BE AS CLAUSE 519.
3. ALL CEMENT USED IN CONCRETE SHALL BE CII (A OR B)-S OR CIII (A OR B) TO BS 8500 -2, TABLE AND ANNEX A.
4. ADDITIONAL LAYER OF BAGWORK TO BE INSTALLED BELOW INVERT BAGWORK. THE BAGS SHALL BE PINNED ENSURING THAT THE PINS DO NOT PASS THROUGH THE LOWER LAYER OF BAGWORK.
5. BEFORE ANY EXCAVATION OR PINNING OF BAGS IS UNDERTAKEN THE CONTRACTOR SHALL SURVEY THE AREA TO ENSURE THAT THERE ARE NO BURIED SERVICES BENEATH.

Revisions



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HEADWALL TYPE 6  
CONCRETE BAGWORK  
(INCORPORATING SUMP)

Designed DW	Scale NTS	Date MAR 2017	Revision
Drawn MA	Drawing no.		
Checked SG	SBC/STD/500/10		A