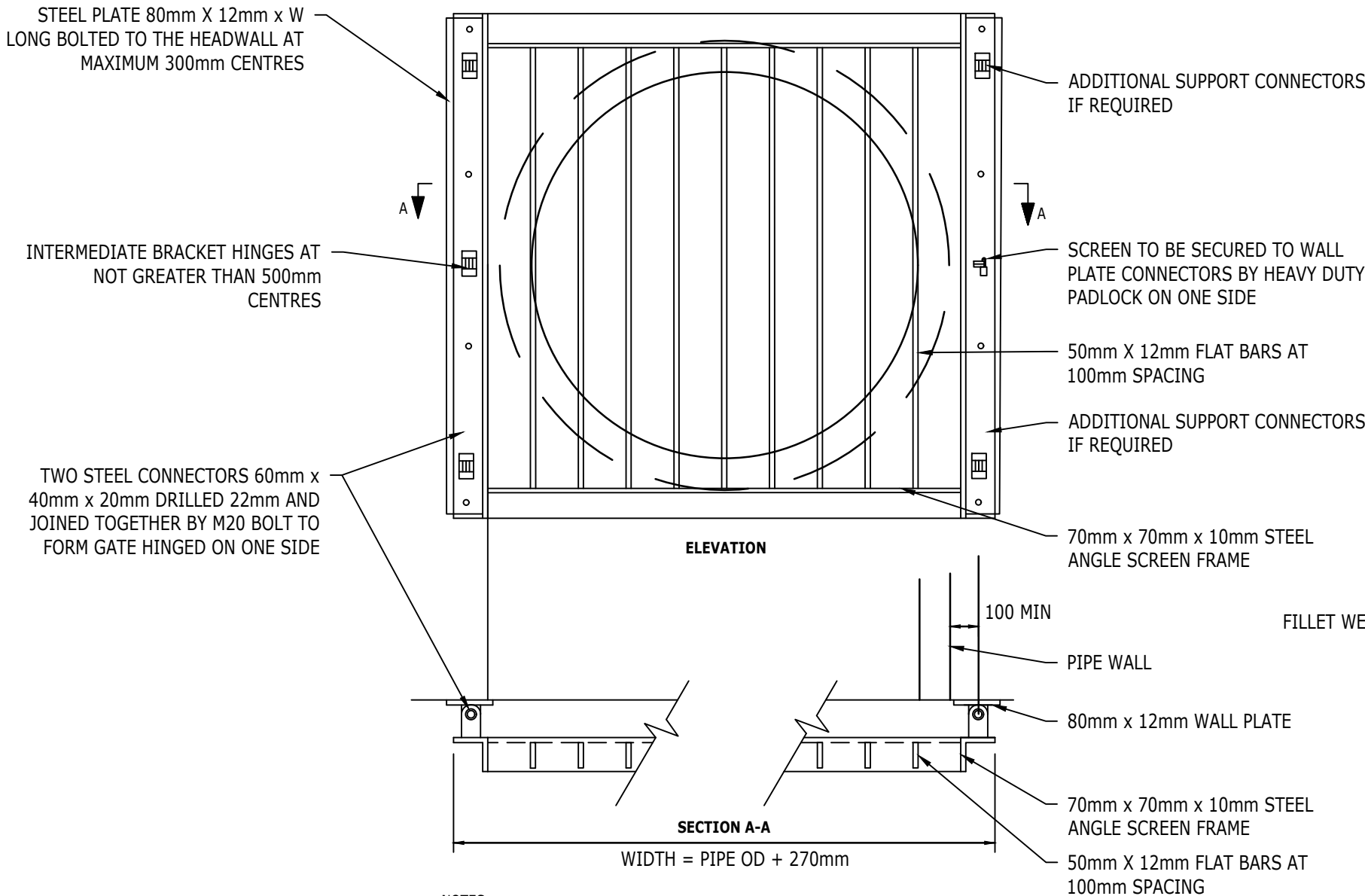
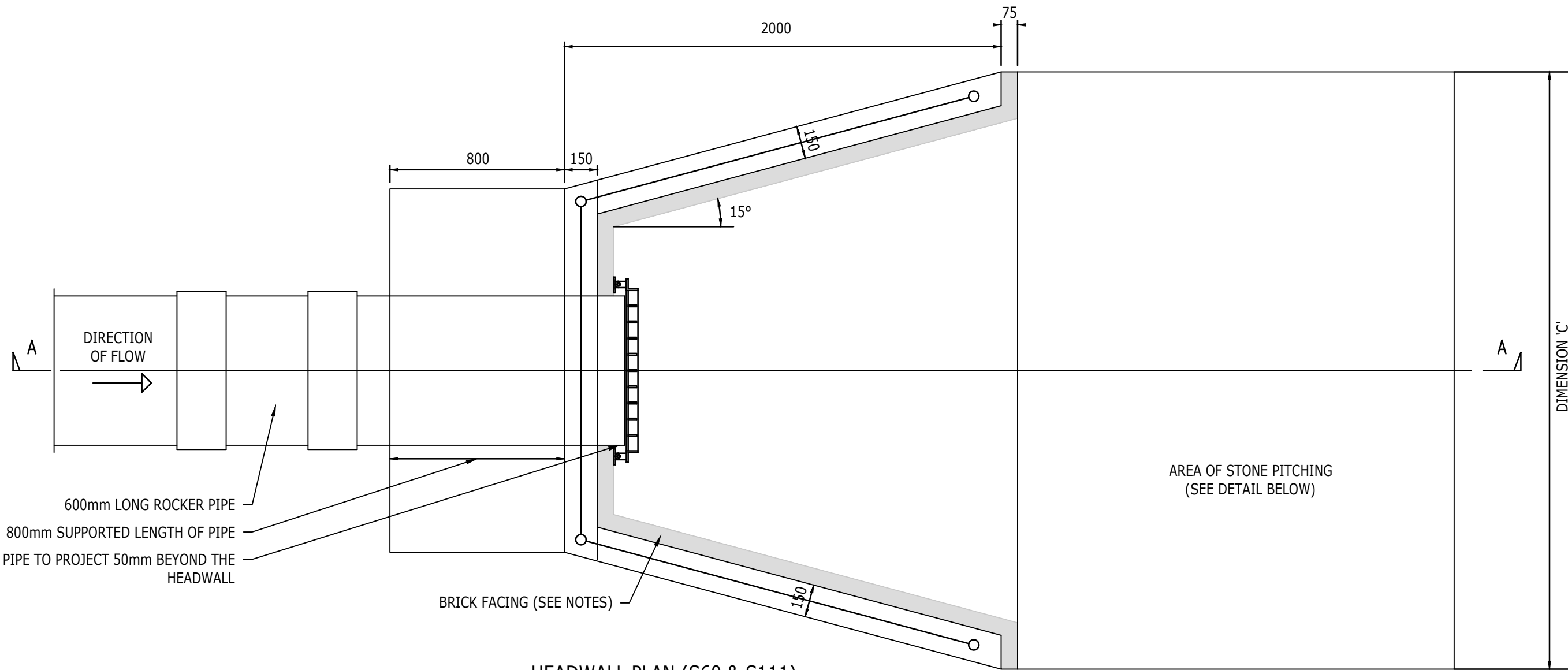


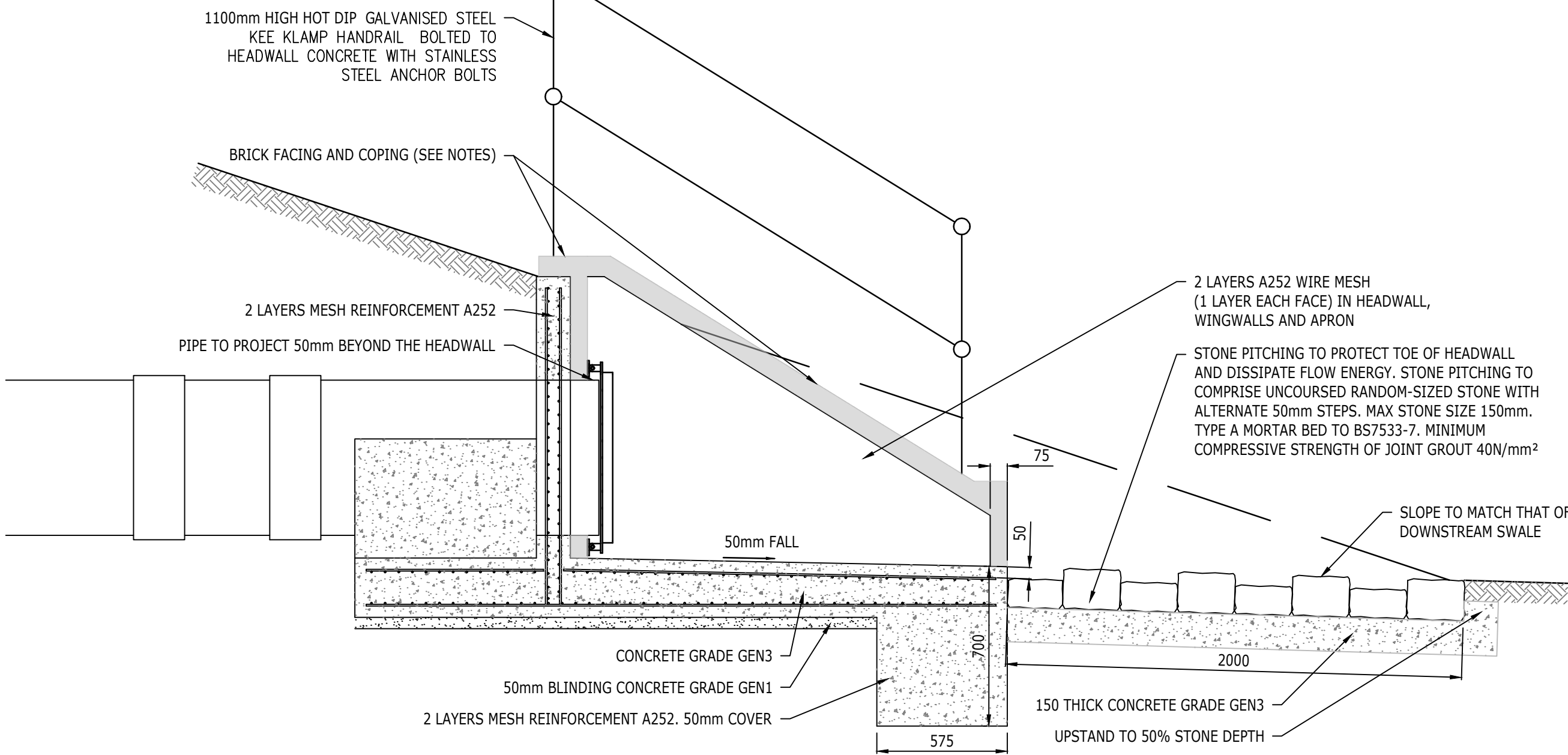


NOTES:  
1. \* WIDTH (W) TO SUIT PIPE OUTSIDE DIAMETER.  
2. MILD STEEL FABRICATION TO BE HOT DIP GALVANISED TO BS EN 1461.

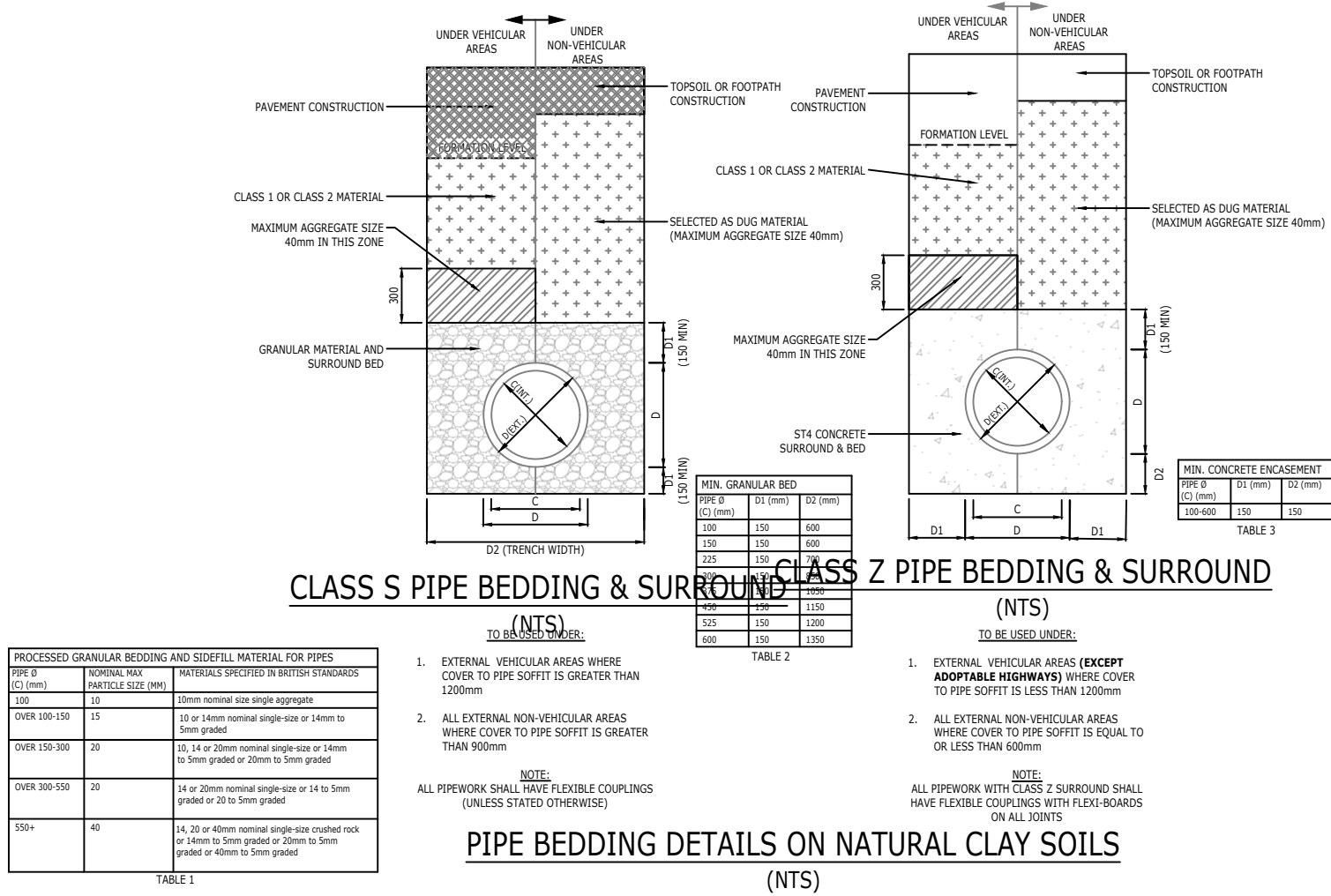
TYPICAL HEADWALL SAFETY GRILL



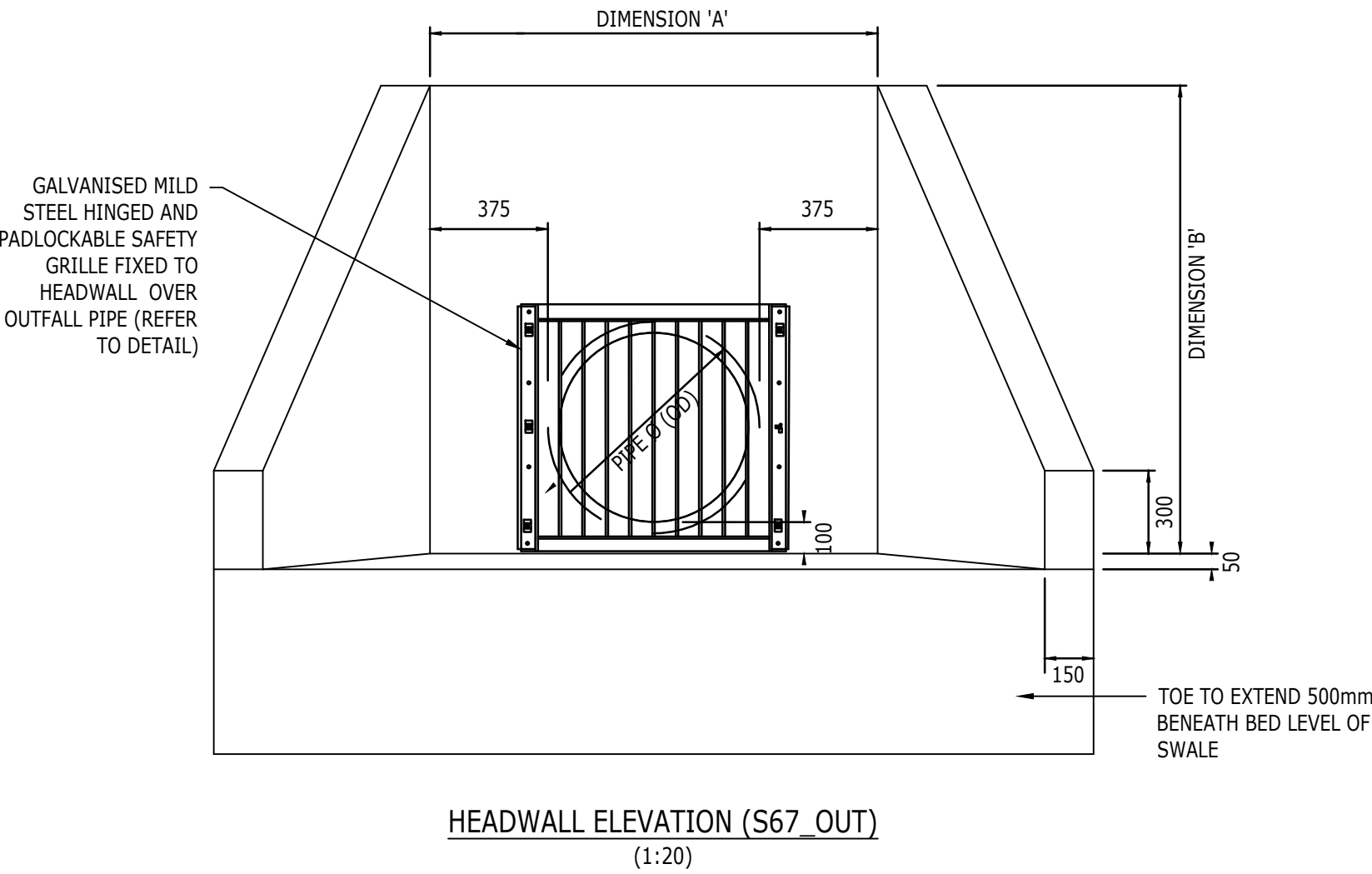
HEADWALL PLAN (S60 & S111)  
(1:20)



HEADWALL SECTION A-A  
(1:20)



PIPE BEDDING DETAILS ON NATURAL CLAY SOILS  
(NTS)



HEADWALL ELEVATION (S67 OUT)  
(1:20)

| HEADWALL DIMENSION TABLE - (ALL DIMENSIONS IN mm) |             |                            |                            |                            |
|---------------------------------------------------|-------------|----------------------------|----------------------------|----------------------------|
| HEADWALL                                          | PIPE INVERT | PIPE DIAMETER <sup>1</sup> | DIMENSION 'A' <sup>2</sup> | DIMENSION 'B' <sup>2</sup> |
| 1.1                                               | 4.411       | 600                        | 1350                       | 1000                       |
| 1.2                                               | 4.248       | 525                        | 1275                       | 925                        |
| 1.3                                               | 4.374       | 375                        | 1125                       | 775                        |
| 1.4                                               | 4.201       | 450                        | 1200                       | 850                        |
| 2.1                                               | 4.83        | 450                        | 1200                       | 850                        |
| 2.2                                               | 4.81        | 375                        | 1125                       | 775                        |
| 2.3                                               | 4.795       | 450                        | 1200                       | 850                        |
| 3.1                                               | 4.377       | 450                        | 1200                       | 850                        |
| 3.2                                               | 4.164       | 450                        | 1200                       | 850                        |
| 4.1                                               | 3.255       | 525                        | 1275                       | 925                        |
| 4.2                                               | 3.249       | 525                        | 1275                       | 925                        |
| 5.1                                               | 3.221       | 525                        | 1275                       | 925                        |
| 5.2                                               | 2.948       | 525                        | 1275                       | 925                        |

<sup>1</sup> INTERNAL DIAMETER  
<sup>2</sup> FIGURES STATED ASSUME USE OF POLYPIPE RIDGISEWER

NOTES

- This drawing is to be read in conjunction with all other Bright Plan Civils drawings, and with all relevant Architect's and Engineer's drawings and specification. Any discrepancies found are to be reported immediately to the Engineer.
- Bright Plan Civils accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.
- Do not scale, work to figured dimensions only. All dimensions are in millimeters unless noted otherwise and all levels are in metres from the topographic survey datum.
- Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.
- All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
- The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. Bright Plan Civils logos and company information must be removed from copies if information is re-used.

RESIDUAL HAZARDS

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following:

- Uncharted buried services. Contractor to use CAT prior to excavating.
- Working in live carriageway. Contractor to implement traffic management to ensure safety of the workforce and public.
- Working in live sewers. Contractor to ensure operatives are familiar with the dangers of working in live sewers.
- Excavations close to existing structures. Contractor to prepare method statement to ensure stability of existing structures.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement

HEADWALL CONSTRUCTION NOTES:

- CONCRETE TO HEADWALL SHALL BE CLASS GEN3
- WIRE MESH REINFORCEMENT A252 TO CLAUSE 1008 AND BS 4483:1998. MINIMUM COVER 50mm, MAXIMUM LAP 250
- WINGWALLS SHALL NOT PROJECT INTO SWALE
- ALL ST CONCRETE SHALL BE TO S.H.W. CLAUSE 2802
- CLASS F2 FINISH ON EXPOSED FACES TO SHW CL 1708. CLASS F1 FINISH ON OTHER FACES TO SHW CL 1708. CLASS F2 FINISH ON UPPER FACES TO SHW CL 1708
- HEADWALL TO BE FACED WITH A 2 BRICK SKIN OF CLASS B ENGINEERING BRICKS LAID WITH 1:3 CEMENT:SAND MORTAR IN STRETCHER BOND WITH A BRICK-ON-EDGE COPING TO THE TOP OF THE WING AND REAR WALLS AND THE CIRCULAR OPENING FOR THE PIPE TO BE FORMED WITH ROWLOCK ORIENTATED BRICK BATS. SHOT-FIRED GALVANISED MILD-STEEL FRAME TIES TO FIX BRICK SKIN TO CONCRETE HEADWALL STRUCTURE AT 300mm CENTRES EVERY OTHER COURSE.

All adoptable drainage works to be constructed as detailed in Sewers for Adoption, 7<sup>th</sup> edition

| Rev. | Amendments | Date |
|------|------------|------|
| -    | -          | -    |



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Drawing Status **FOR APPROVAL**

Client **THAKEHAM**

Project **BILSHAM ROAD  
YAPTON**

Drawing Title **S104-CONSTRUCTION DETAILS  
SHEET 1 OF 2**

Scale **NTS** Date **FEB 22** Drawn By  Checked By

Drawing No. **D1956-15-100** Rev. **-**