

Tank	Incoming MH	Invert Level	Bed Level
Northern	MH S12	82.247	82.197
Southern	MH S55	84.800	84.300

NOTES:

- All dimensions in mm
- All measurements ± 1mm

Specification Information

- Opening in back wall cast to suit outside diameter of the pipework
- Invert level of pipe can be set to your specification

Headwall Installation

Units should be bedded on minimum 200mm thick well compacted Class 6A selected well graded granular material.
 *Manual of contract documents for Highway Works: Volume (MCHW1) specification for Highway Works, Series 600 (Nov.09).
 Sit the headwall level or with a slight fall 1:50 from pipe to spill mouth.

Handling

- Weight of concrete is based on 2.4 tonne/m³+5% is recommended for sizing lifting equipment.
- All lifting points shall be used as specified below
- Unit to be lifted as per lifting diagram

Concrete

- Mix ref: Self-compacting DC4/DS4 Mix
- Lifting strength based on 2 cubes = 20N/mm²
- Characteristic 28 day cube strength = 50N/mm²
- Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.

Reinforcement

- Reinforcement to BS EN 13369
- Scheduling, dimensioning, bending & cutting to BS8666
- Cage to be machine tied with steel wire

Manufacture

- Manufacture to BS EN 15258:2008 precast concrete products - Retaining wall elements, Factory Production Control certificate number: 0086-CPR-650448 & BS EN 13369
- Tolerances to BS EN 13369 clause 4.3.1.1
- Finishing:

Class	Top	Sides	Base	Rear of back wall
A	A	A	A	Self-Levelled

- Marking: Units shall be indelibly marked to show:
- Mould reference code
- De-mould date
- Job reference number & unique product number
- Unit weight (kg)

Design

- Concrete design to EC2
- Althon have designed the concrete units only, the site conditions should be assessed for suitability by the scheme designer
- Units are designed to withstand a vertical live load surcharge of 10kN/m²
- Weight of soil = 18kN/m³
- Angle of internal friction = 30 Deg.
- Design Life: >100 years

Min Cover	Cover Block Size (mm)	Min Cover Size (mm)	Max Cover Size (mm)
All Faces	55	50	60

Exposure Classification	Exposure induced by Carbonation	Corrosion induced by Chloride	Freeze/thaw attack	Chemical attack
All Faces	XC3/4	XD3	XF4	XA3

Fabrication Specification

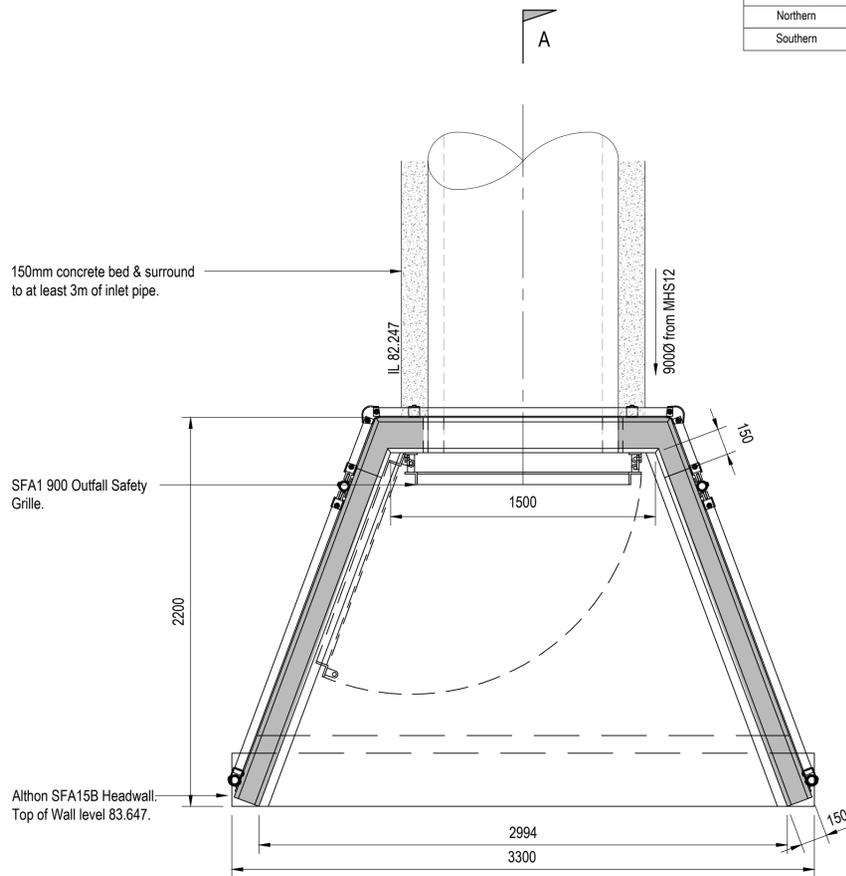
- Manufacture IAW EN 1090-2 EXC CLASS 1
- Material grade is to be: BS EN 10025 S275
- Welding carried out IAW EN 1090-2 PARA 7.5.4 - 7.5.18
- All fillet and butt welds to have a minimum throat thickness of 6mm & joints to be fully welded where possible.
- Ensure vertical flats are fully welded both sides where possible.
- All sharp edges and burrs are to be removed.
- Remove all weld spatter.
- Holes by punching are permitted with reaming.
- Galvanising is carried out after fabrication to BS EN ISO 1461

Handrail Specification

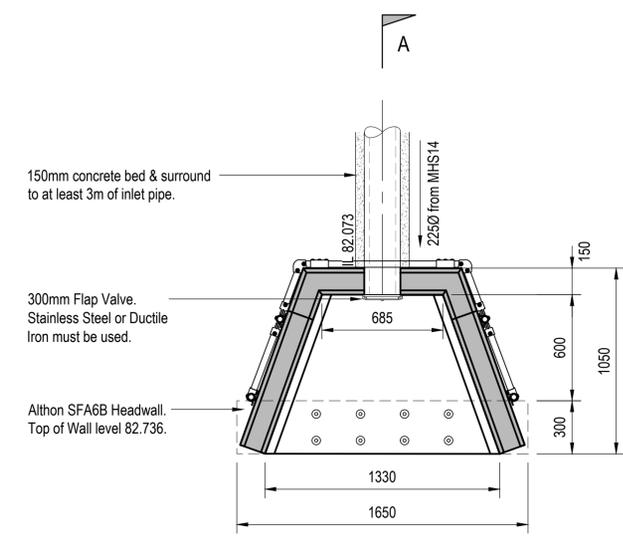
- Kee Klamp® Galvanised Size 8 Fittings
- Size 8 48.3mm OD 3.2mm Wall Thickness Galvanised Medium Duty Tube to BS EN 10255
- 360N/m Design Load at stated in BS 8118, BS 6180, BS 6399 & BS 7818, Civil Engineering Specification for the Water Industry (CESWI) 7th Edition Clause 2.60 Handrails & Balusters & The Engineering Equipment and Materials Users' Association (EEMUA) Publication 105 7th Edition Factory Stairways, Ladders and Handrails
- Other design loads available on request
- GRP/FRP Handrails also available

Safety grille

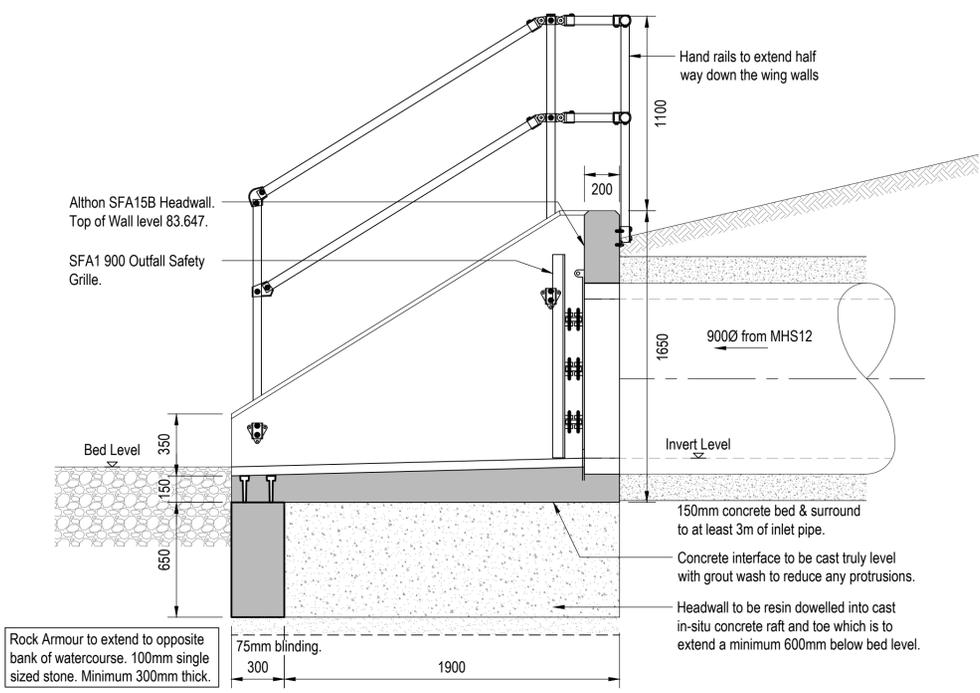
- Grating manufactured from 70 x 70 angle with 60 x 12 flat at 100mm centres.
- Fully Welded and hot dip galvanised.
- Material: Mild Steel.
- Hinged on one side with padlock facility.



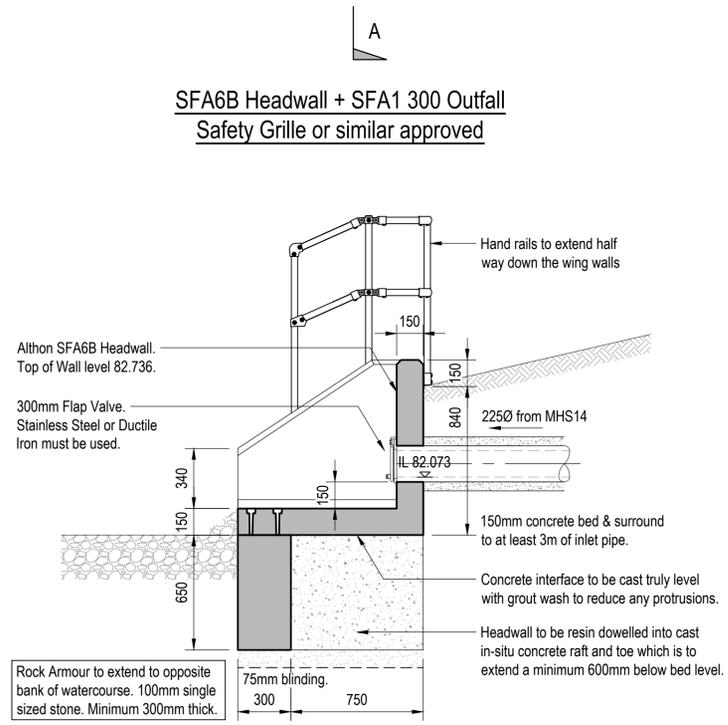
**SFA15B Headwall
3 Sided Kee Klamp
SFA1 900 Outfall Safety Grille**



**SFA6B Headwall + SFA1 300 Outfall
Safety Grille or similar approved**



Section A-A



Section A-A

- This drawing and notes are based on those provided by Althon. Althon
- Althon or equivalent headwalls are to be used.
- Notes are for guidance only, and chosen manufacturers' details and installation details should be referred to.
- It is assumed that a PCC headwall will be used, therefore no other details are provided.
- IWNL is to approve in writing, the chosen headwall supplier and details. It is to be the contractor's responsibility to obtain this approval before construction.
- All adoptable sewer works and materials to be in accordance with "Design and Construction Guidance", the relevant British/European standards and IWNL's standards/requirements/addendum and be kite-marked.
- Sulphate resistant cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- The last 3m of pipework is to have full concrete bed and surround.
- Backfilling around the headwalls must be done in a carefully controlled manner to prevent movement of the headwall. Suitable non-cohesive material is to be used, below topsoil level.

P02	Updated to include southern tank.	GT	PWAH	24.02.2025
P01	First Issue.	CTB	TB	06.06.2024
REV	DESCRIPTION	SIG	CHK	DATE

HARRON HOMES
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 HEADWALL DETAILS

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ECE PROJECT No	SCALE AT A1	STATUS	SUITABLE FOR
48867	1:20	S0	Initial
DRAWING NUMBER		REV	
48867 - ECE - XX - XX - DR - C - 0027	Project	Originator	Zone
	Level	Type	Role
			Number