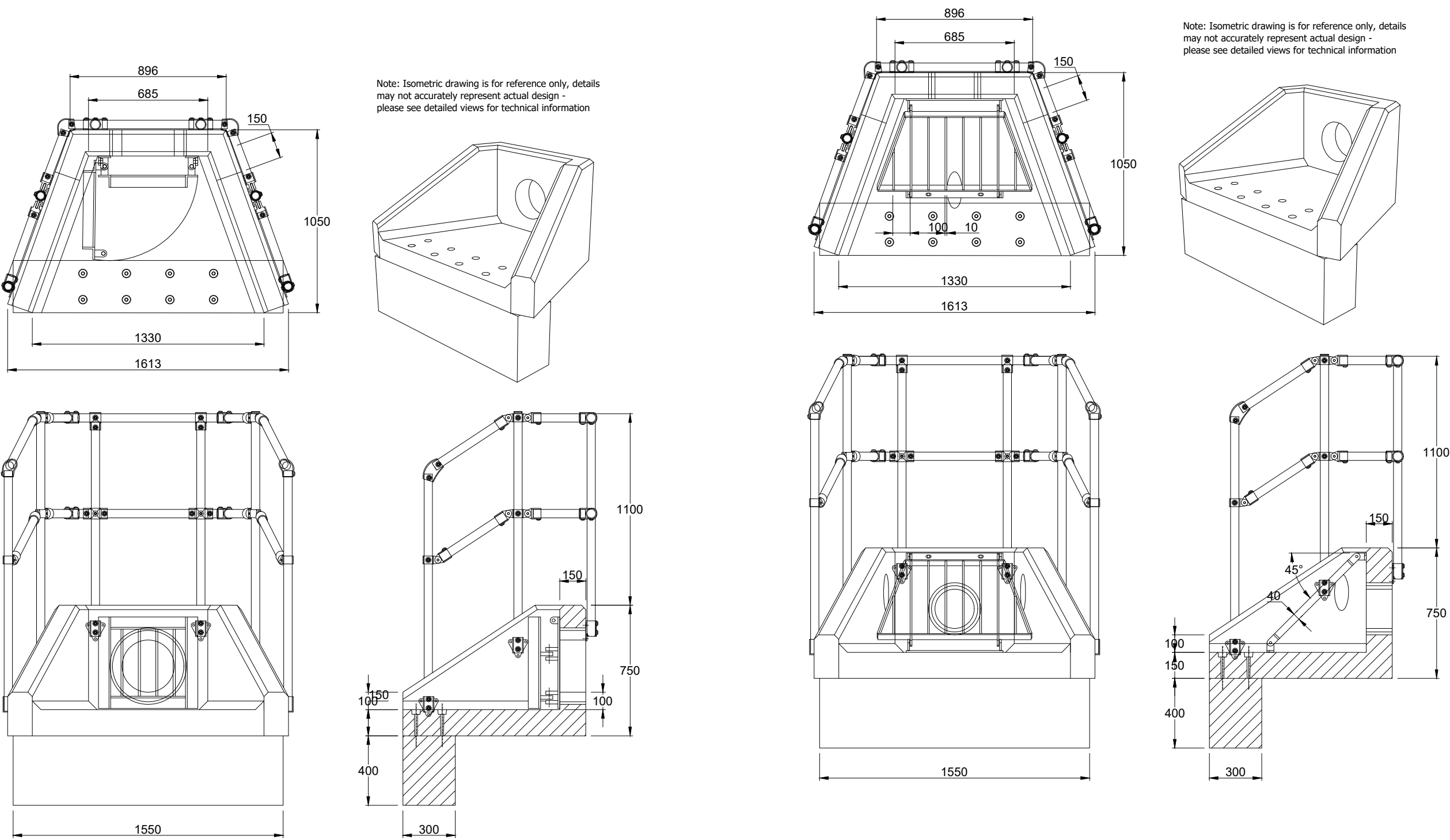
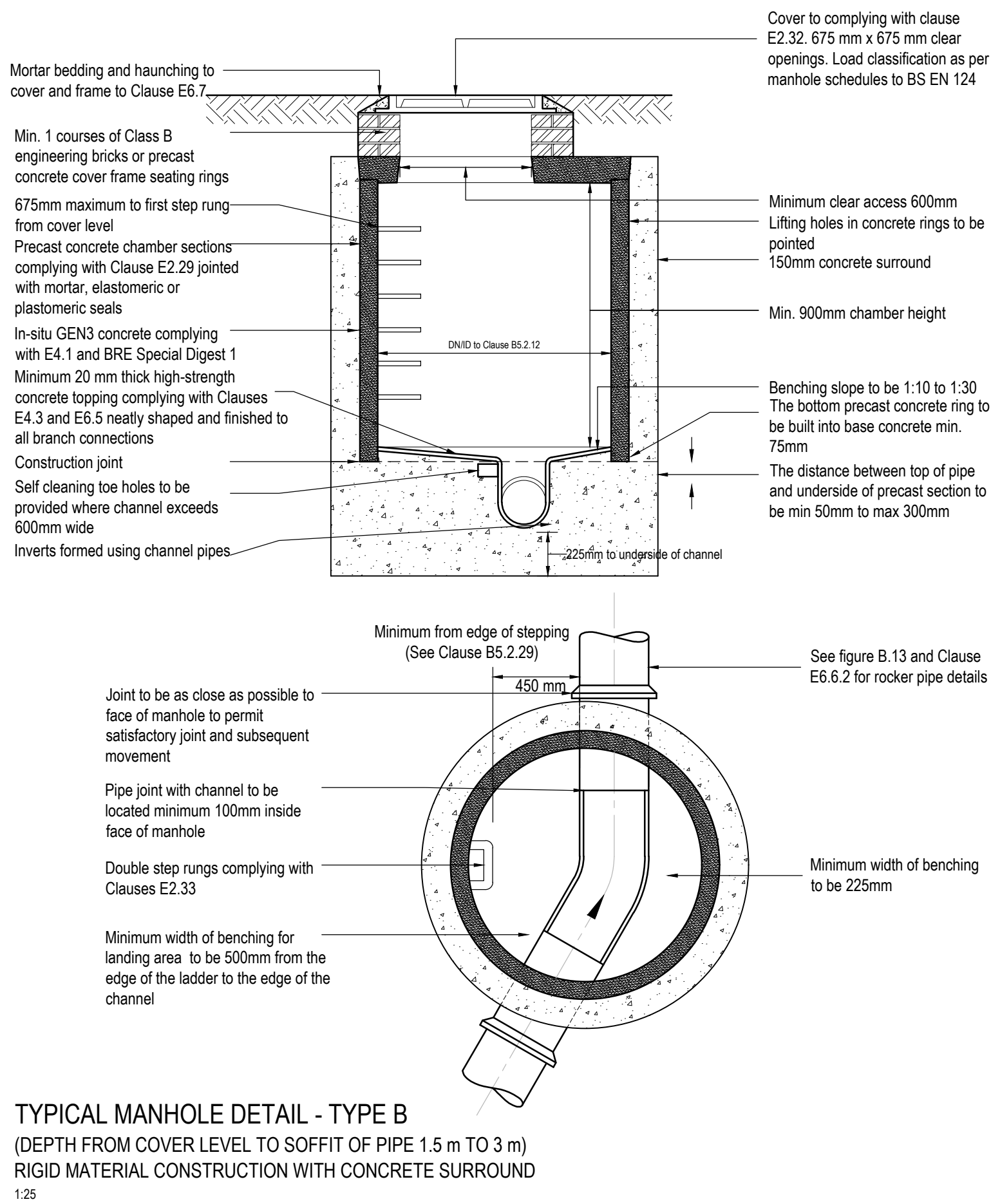




ATHLON SFA6 A HEADWALL - SLOPED GRATING
(Max Pipe Dia 300mm)
1:25

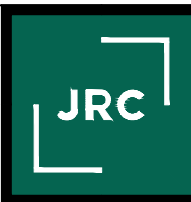
ATHLON SFA6 A HEADWALL - OUTFALL SAFETY GRILLE
(Max Pipe Dia 300mm)
1:25



TYPICAL MANHOLE DETAIL - TYPE B
(DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 1.5 m TO 3 m)
RIGID MATERIAL CONSTRUCTION WITH CONCRETE SURROUND
1:25

CDM: Significant Hazards

Health and Safety hazards are identified by the designer as abnormal in pursuance of the current Construction Design and Management regulations. It is assumed that all works will be carried out by competent & adequately resourced contractor(s) working to safe systems of work.



General Notes

- DO NOT SCALE FROM THIS DRAWING FOR CONSTRUCTION. Scaling from this drawing or obtaining dimensions electronically may not provide accurate information and should be avoided, therefore work only from figured dimensions and contact JRC Consulting Engineers.
- This drawing is to be read in conjunction with all other relevant Architect's, Engineers & Specialist drawings, details, Specification and the relevant Health and Safety Plan (as appropriate to the project). All discrepancies to be reported to the Engineer immediately for verification.

Drainage Notes - DCG

- Drawings to be read in conjunction with all design drawings and building regulations
- All levels are to Ordnance Survey datum levels
- All materials used in connection with this design must:
 - Not be detrimental to health & safety or adversely affect durability of the construction.
 - Where applicable, be compliant to current British/European Standards, Codes of Practice and good building practice.
- The planning, design and construction of sewers shall be in accordance with Design and Construction Guidance (DCG) for foul and surface water sewers offered for adoption under the Code for adoption agreements for water and sewerage companies in England.
- The minimum size of sewer where guide bars, safety chains, or other safety devices are required in manholes shall be 375mm diameter.
- All type A & B manholes should have a concrete surround. Concrete rings shall be sealed using 'tanking' and lifting eyes pointed with resin modified mortar. PPIC'S should be installed in accordance with The DCS.
- Compliance with health & safety matters on any trench/manhole is obligatory and a permit to enter a confined space is required when connecting site drainage to the existing public sewerage system. A permit to enter a confined space will be obtained from the local water company prior to the works commencing on any public sewerage system.
- Where the proposed site drainage connects to the public sewerage system either by new junction, new manhole or at an existing manhole, it will require the submission of an application for sewer connection form to the local water company prior to works commencing.
- Mt covers and frames shall be ductile iron with a minimum square opening of 600x600mm. Covers shall be double tringle for 600mm square openings and be provided with loose bolted connections. Frame depth shall be 150mm. Covers to PPIC'S shall be in accordance with the DCG.
- The use of ladders or steps in manholes, wet wells and valve chambers shall comply with the following: steel plastic encapsulated Mt single steps shall not be used in MHS of a greater depth than 1.0m. Steel plastic encapsulated double steps may be provided in MHS up to 3.0m deep. Ladders shall be provided in accordance with BS 4211 in MHS between 3.0m & 6.0m deep. MHS greater than 6.0m deep shall be specially designed and have intermediate landings. Access holes in intermediate landings shall be provided with galvanised mild steel gratings to prevent persons falling through. The design of deep manholes shall permit the use of a winch or lifting gear mounted at ground level in case of emergencies.
- Only low carbon steel or stainless-steel ladders for vertical living to manholes will be acceptable.
- Proposed adoptable sewers are only permitted to have other sewer/gully connections and other services laid at an angle of between 45 degrees and 90 degrees across the line with a vertical clearance more than 300mm.
- All ironwork to be kile marked by BSI or certified by equal inspection authority.
- Red coloured plastic marker tape at least 150mm wide shall be laid at a minimum of 200mm above the soffit of the pipe. The tape shall be printed with the words 'gravity sewer' in bold capital letters throughout its length and at intervals not exceeding 700mm and shall incorporate a corrosion resistant tracing system for non-metallic pipes.
- Minimum backdrop height shall be 1m.
- On new drainage schemes, the first manhole upstream from the connection to the existing foul water sewer shall be fitted with a suitable screen, which will remain in place until the new sewer becomes live. For type 3 manholes, outlet to be bunged with suitable stopper and chain which can be removed on completion of work.
- Adopted pipework bed/surround:

Vehicular access:	<1200 cover	Class 2 concrete
	>1200 cover	Class 3 granular
Non-vehicular access:	<900 Cover	Class 2 concrete
	>900 Cover	Class 3 granular

ALTHON HEADWALL 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 DCA/DSA Mix - Lifting strength based on 2 cubes = 20N/mm² - Characteristic 28 day cube strength = 50N/mm² - Concrete provides Design Chemical Class 4 (DCA) 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:			
- 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			
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 splatter. - Holes by punching are permitted with reaming. - Galvanising is carried out after fabrication to BS EN ISO 1461			
Handrail Specification			
- Keel Klamp® Galvanised Size 8 Fittings - Size 8 48.3mm OD 3.2mm Wall Thickness Galvanised Medium Duty Tube to BS EN 10255 360Nm 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			

C1	30.09.25	Issued For Construction	JDC	DWJP
REV.	DATE	DETAILS	BY	CHK.

Exeter Office: 01392 927330 | Web: www.jrcconsulting.co.uk

DRAWING STATUS
FOR CONSTRUCTION (SUBJECT TO TECHNICAL APPROVAL)

PROJECT
ELM GROVE
TROWBRIDGE

CLIENT
REDROW

DRAWING TITLE
PRIVATE DRAINAGE CONSTRUCTION DETAILS
SHEET 3

SCALE @ A1	SIZE	DATE
AS SHOWN	A1	SEP 25

PROJECT NUMBER	DRAWING NUMBER	REVISION
1960	2573	C1