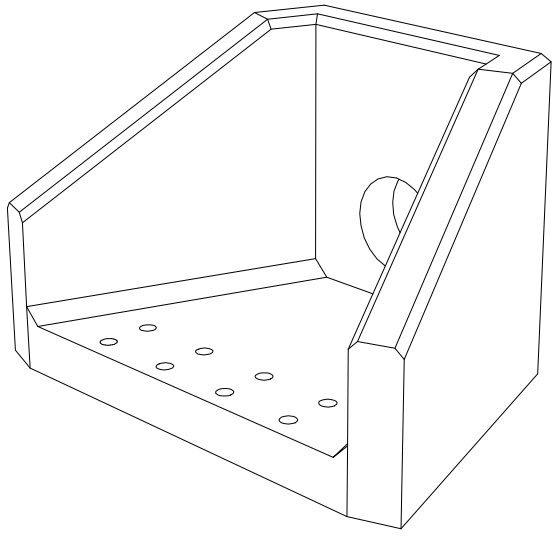
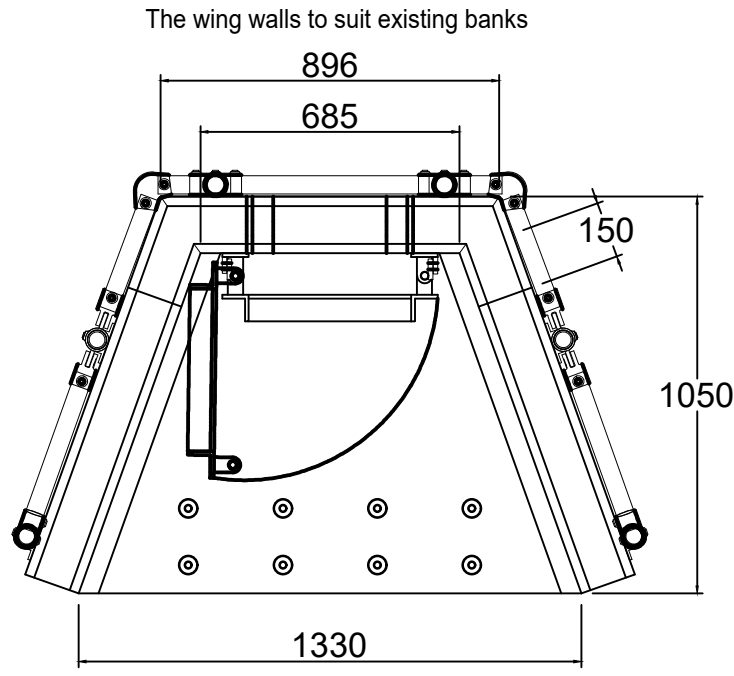
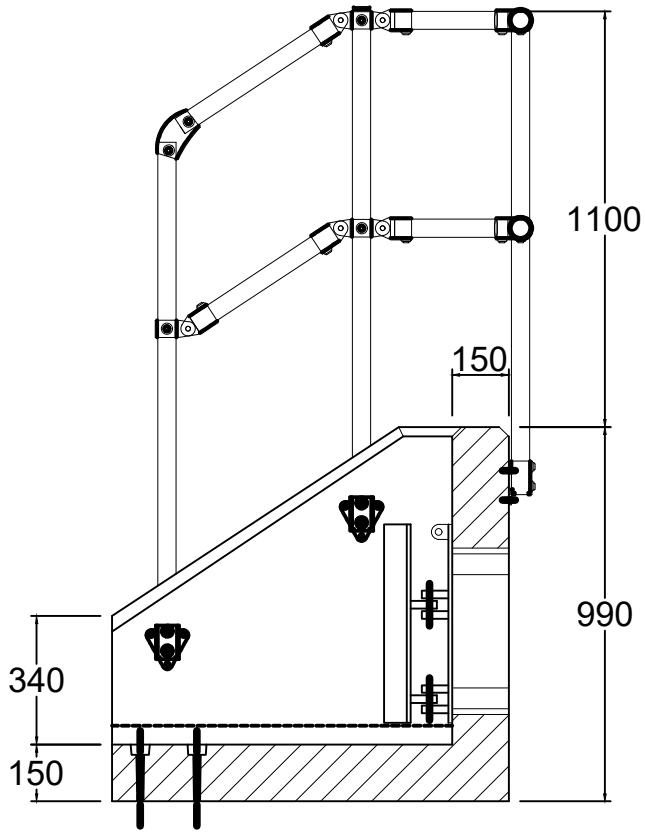
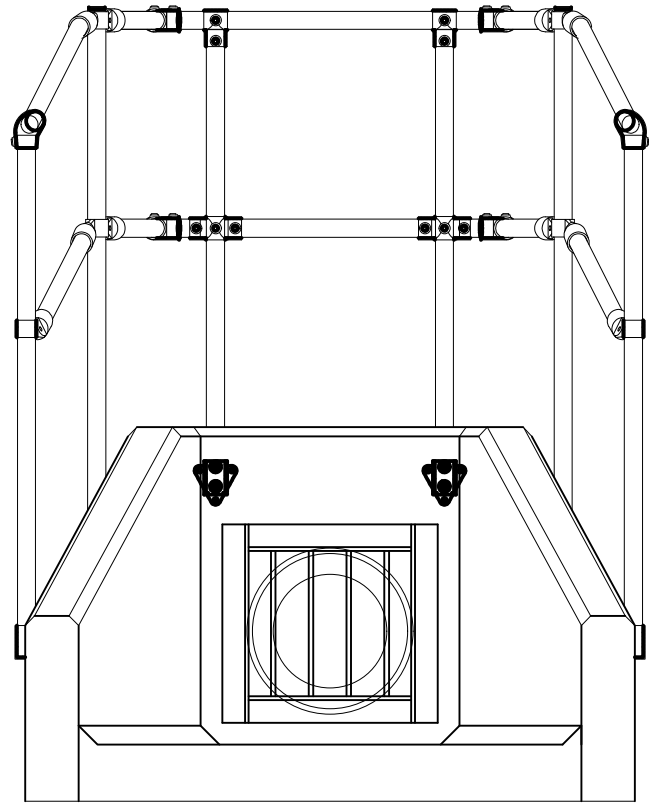


Althon Headwall SFA6B



Note: Isometric drawing is for reference only, details may not accurately represent actual design - please see detailed views for technical information

Hand rails to be IPM Ball Standard hand railing
Hand rails to be 42.2mm O/D Diameter and be galvanised steel and supplied to provide protection around headwall. Bars and connections supplied to to suit final headwall layout

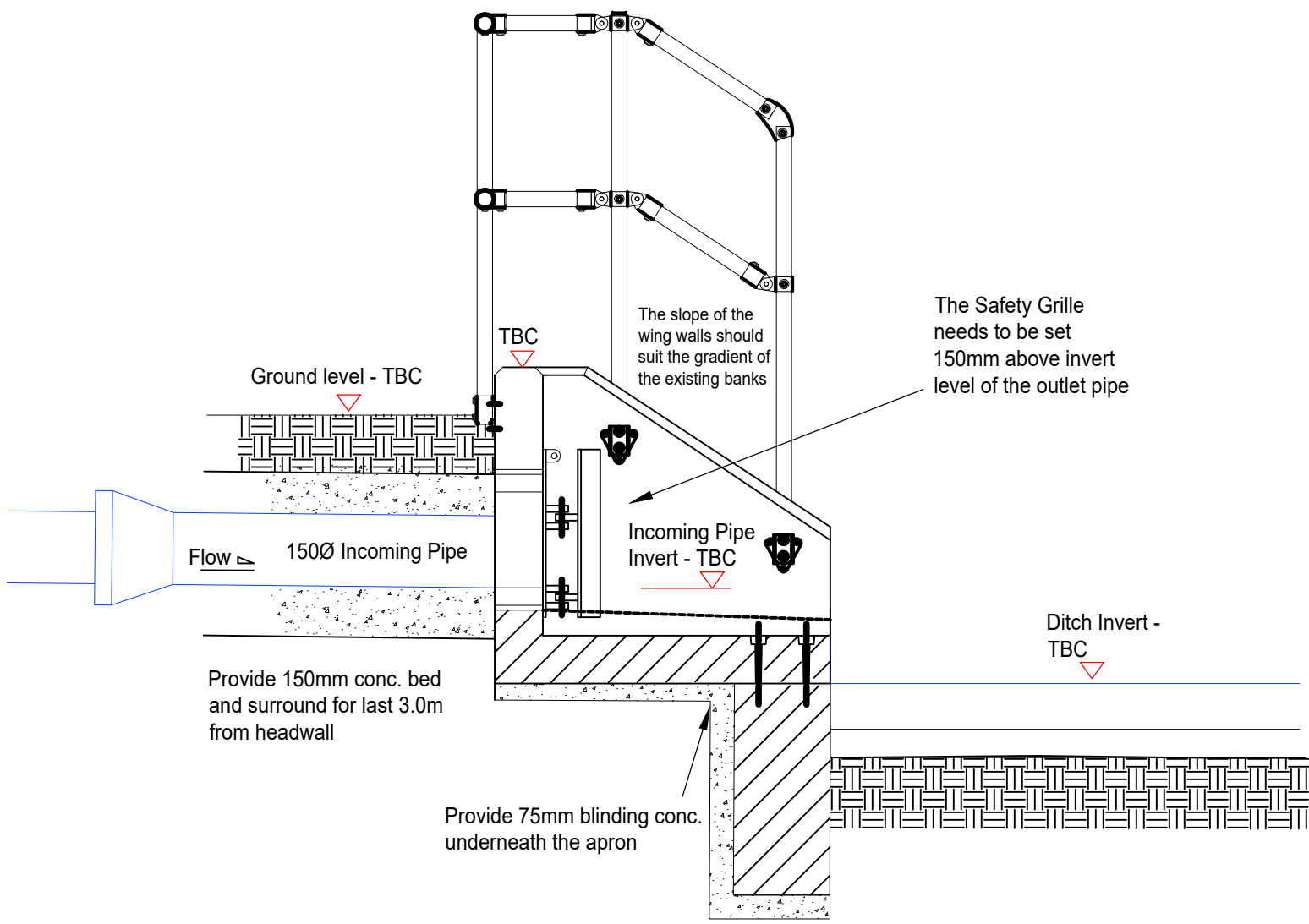


- Codes for Adoption / Sewers for Scotland Outfall Safety Grille - SFA1 300
1. In accordance with Figure C.6 Typical Outfall Safety Grille - for outfalls of 350mm diameter of greater - Sewers for Adoption 7th Edition
 2. Material Grade is to be: BS EN 10025 S275
 3. All mild steel to be hot dipped galvanized after fabrication
 4. Galvanizing to BS EN: 1461
 5. Welding to BS EN 1011-2:2001
 6. Hinged on one side with padlock facility
 7. Weight Approx: 37.5kg

Headwall HW1

Headwall 150mm Ø
Incoming Pipe

Headwall HW1 - 150mm Ø Incoming Pipe



TWITTER, THREE, RETWEET and the Twitter logo are trademarks of Twitter, Inc. or its affiliates.
LinkedIn, the LinkedIn logo, the IN logo and InMail are registered trademarks or trademarks of LinkedIn Corporation and its affiliates in the United States and/or other countries.

Bryan G Hall Ltd. Registered in England & Wales Co No. 4104802

This drawing is copyright and shall not be reproduced nor used for any other purpose without the written permission of the Bryan G Hall Ltd. This drawing must be read in conjunction with all other related drawings and documentation.

It is the contractors responsibility to ensure full compliance with the Building Regulations. Do not scale from this drawing, use figured dimensions only. It is the contractors responsibility to check and verify all dimensions on site. Any discrepancies to be reported immediately. IF IN DOUBT ASK.

Materials not in conformity with relevant British or European Standards/Codes of practice or materials known to be deleterious to health & safety must not be used or specified on this project.

Bryan G Hall Limited has not checked or verified, and shall therefore not be liable for any inaccuracies which may be attributable to any base plan(s) reports, data or information provided by the client, or purchased by the consultant on the client's behalf, that may have been utilised within this drawing.

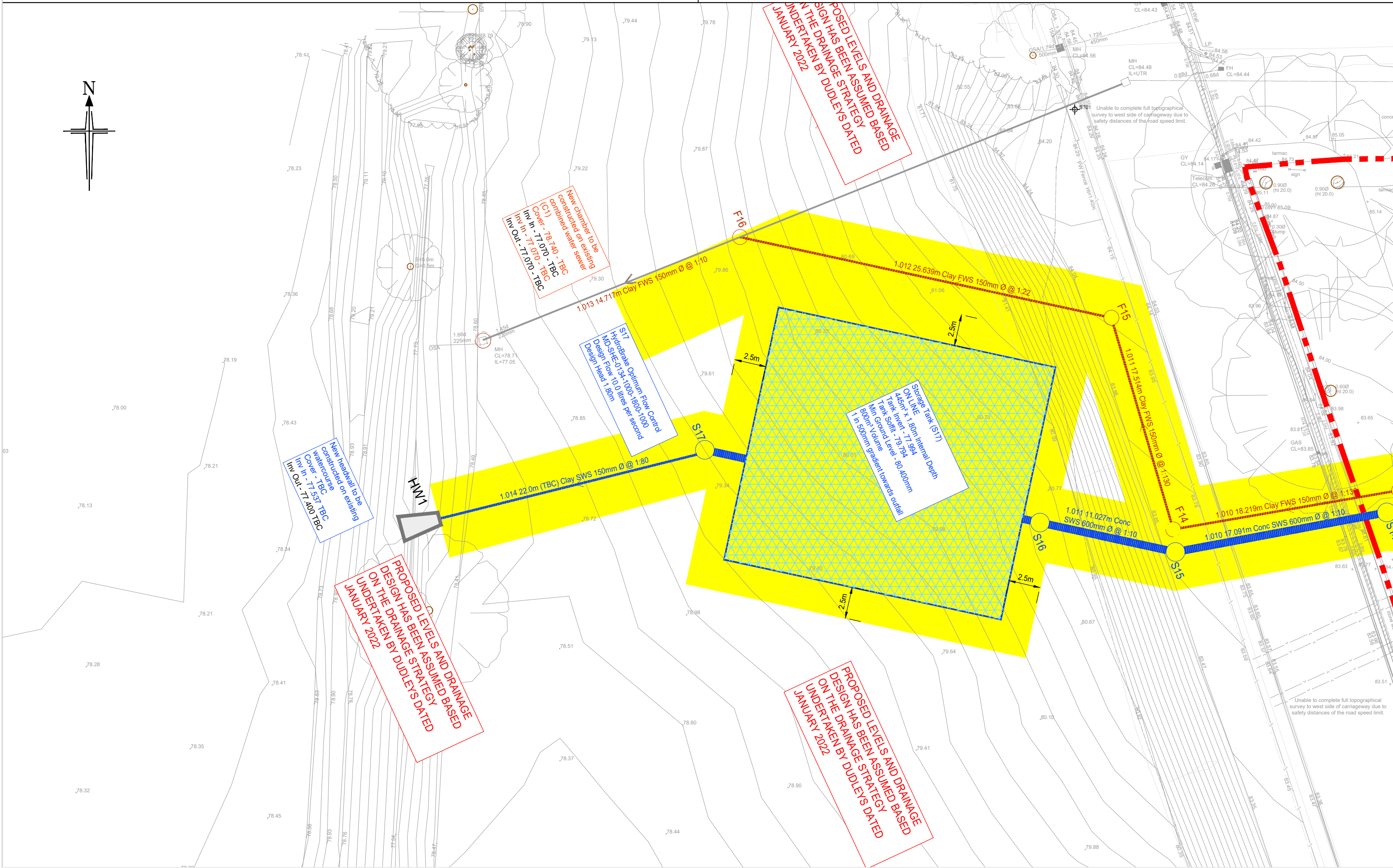
Bryan G Hall Limited shall not be liable for the use of this or any associated document, for any purpose, by any person other than that for which they were provided.

It remains the client's and/or its appointed contractor's responsibility to check for any discrepancies. Any anomalies discovered must be reported immediately to Bryan G Hall Limited for verification.

The locations of utilities apparatus, if shown, have been reproduced from plans supplied to Bryan G Hall Limited. Although care has been taken when duplicating this information, these locations are approximate only. No guarantee can be given by Bryan G Hall Limited for their accuracy. It is the client's or its appointed agent/contractor's responsibility to verify the exact locations on site by appropriate means prior to mechanical excavation.

- NOTES:**
- All dimensions in mm
 - All measurements $\pm$ 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**
- A. Weight of concrete is based on 2.4 tonne/m³+5% is recommended for sizing lifting equipment.
B. All lifting points shall be used as specified below
C. Unit to be lifted as per lifting diagram
- Concrete**
- A. Mix ref: Self-compacting DC4/DS4 Mix
B. Lifting strength based on 2 cubes = 20N/mm²
C. Characteristic 28 day cube strength = 50N/mm²
D. Concrete provides Design Chemical Class 4 (DC4) to special Digest 1, Table F2.
- Reinforcement**
- A. Reinforcement to BS EN 13369
B. Scheduling, dimensioning, bending & cutting to BS8666
C. Cage to be machine tied with steel wire
- Manufacture**
- A. Manufacture to BS EN 15258:2008 precast concrete products - Retaining wall elements, Factory Production Control certificate number: 0086-CPR-650448 & BS EN 13369
B. Tolerances to BS EN 13369 clause 4.3.1.1
C. Finishing:
- | | Top | Sides | Base | Rear of back wall |
|-------|-----|-------|------|-------------------|
| Class | A | A | A | Self - Levelled |
- D. Marking: Units shall be indelibly marked to show:
- Mould reference code
 - De-mould date
 - Job reference number & unique product number
 - Unit weight (kg)

- Design**
- A. Concrete design to EC2
B. Althon have designed the concrete units only, the site conditions should be assessed for suitability by the scheme designer
C. Units are designed to withstand a vertical live load surcharge of 10kN/M²
D. Weight of soil = 18kN/M²
E. Angle of internal friction = 30 Deg.
F. 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**
- A. Manufacture IAW EN 1090-2 EXC CLASS 1
B. Material grade is to be: BS EN 10025 S275
C. Welding carried out IAW EN 1090-2 PARA 7.5.4 - 7.5.18
D. All fillet and butt welds to have a minimum throat thickness of 6mm & joints to be fully welded where possible.
E. Ensure vertical flats are fully welded both sides where possible.
F. All sharp edges and burrs are to be removed.
G. Remove all weld splatter.
H. Holes by punching are permitted with reaming.
I. Galvanising is carried out after fabrication to BS EN:ISO 1461
- Handrail Specification**
- A. Kee Klamp® Galvanised Size 8 Fittings
B. Size 8 48.3mm OD 3.2mm Wall Thickness Galvanised Medium Duty Tube to BS EN 10255
C. 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
D. Other design loads available on request



Rev:	Date:	Amendment:	DRN	CHK	APR
BRYAN G HALL					
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS					
LEEDS T 0113 246 1555		NEWCASTLE T 0191 249 5100	LONDON T 0203 5532336		
Suite E15 Josephs Walk Hanover Walk LEEDS LS3 1AB		www.bryanghall.co.uk transportleeds@bryanghall.co.uk			
Client: Newett Homes					
Status:					
Scale: 1:20 Size: A1 - 594 x 841		Drawn: NB	Chkd: IE	Appvd:	
Project: Residential Development, Penistone Road, Fenay Bridge					
Title: Outfall Headwall Details Headwall 1 HW1					
Drawing No: 22/491/FS/500/010 Job No: 22-491					
Revision: - Date: 19.12.22					
Copyright Reserved Bryan G Hall Ltd.					