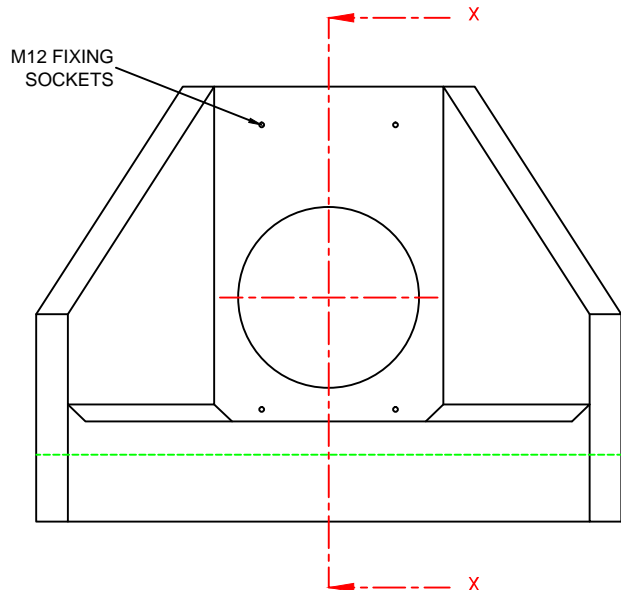
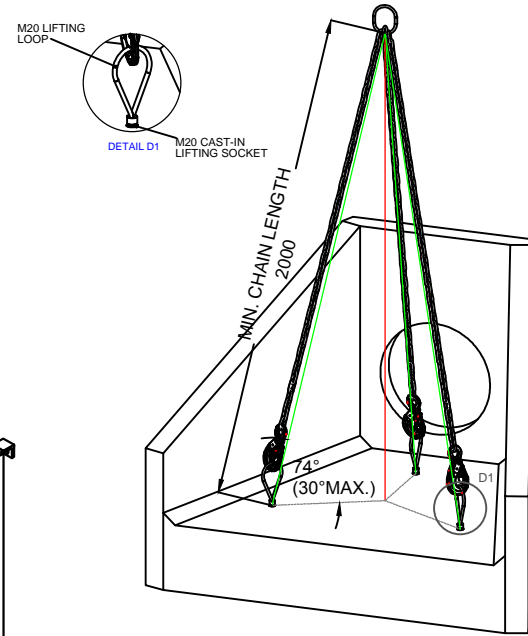
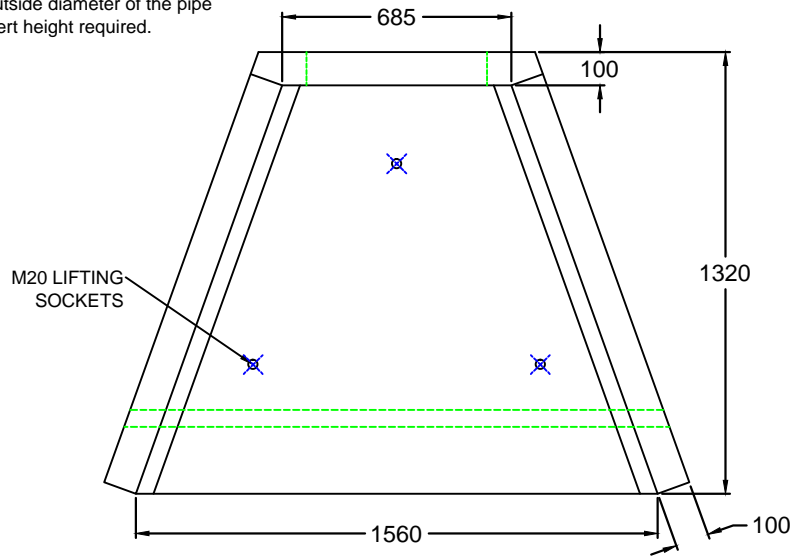
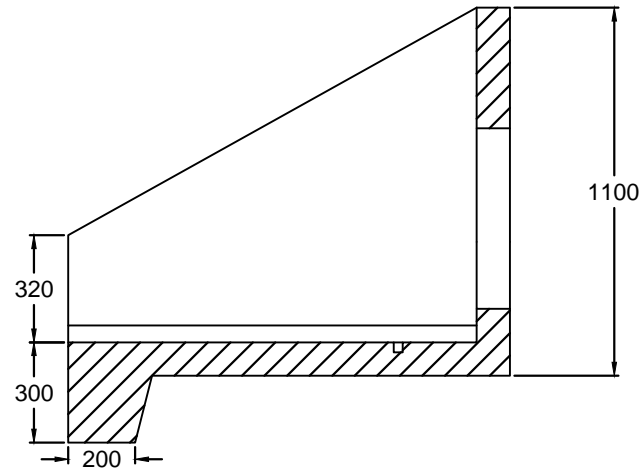


Opening in back wall cast to suit the outside diameter of the pipe at invert height required.



**DETAIL D2**  
Grating manufactured from 40 x 10 flat at 75mm centres. Fully welded and hot dip galvanized.



DO NOT SCALE DRAWING

**SECTION X-X**



**NOTES:**  
\* All dimensions in mm U.O.S  
\* 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 100mm 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/m<sup>3</sup>+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/mm<sup>2</sup>  
C. Characteristic 28 day cube strength = 50N/mm<sup>2</sup>  
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

**Finishing**  
C. 

Class	Top	Sides	Rear	Rear of back wall
A	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. JKH 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/m<sup>2</sup>.  
D. Weight of soil = 18kN/m<sup>2</sup>.  
E. Angle of internal friction = 30°.  
F. Design Life: >50 years

Min Cover	Cover (mm)	Min Cover	Max Cover
All Faces	33	28	38
Exposure Classification	Exposure induced by Chlorides	Exposure induced by Chlorides	Exposure induced by Chlorides
X1	X2	X3	X4

**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 without reaming.  
I. Galvanising is carried out after fabrication to BS EN: ISO 1461.

**Handrail Specification**  
A. Koe Klamp Galvanised Size 8 Fittings.  
B. Size 8 48.3mm OD 3.2mm Wall Thickness Galvanised Medium Duty Tube to BS EN 10255.  
C. 360Nm Design Load as stated in BS 8118, BS 6180, BS 6399 & BS 7518, Civil Engineering Specification for the Water Industry (CESWI).  
D. Other design loads available on request  
E. GRP/FRP Handrails also available.



ADDRESS: JKH LIMITED  
HAMPS TEAD AVENUE  
MILDENHALL  
IP28 7AS  
TEL: 01638 713795  
FAX: 01638 882507  
EMAIL: info@jkh.co.uk  
WEBSITE: www.jkh.co.uk

**PROPRIETARY & CONFIDENTIAL**

The information contained in this drawing is the property of JKH Drainage Units Limited. Any reproduction in part or as a whole without the written permission of JKH Drainage Units Limited is strictly prohibited.

DRAWING TITLE / PROJECT:

**600 SERIES SPILLWAY  
HEADWALL**

CLIENT:	N/A
SCALE:	NTS
DRAWING DATE:	04/04/2019
HEADWALL WEIGHT:	1150kg
GRATING WEIGHT:	30kg
TOTAL WEIGHT:	1180kg
DRAWN BY:	DH
CHECKED BY:	JP
DRAWING No:	600-1100 Headwall