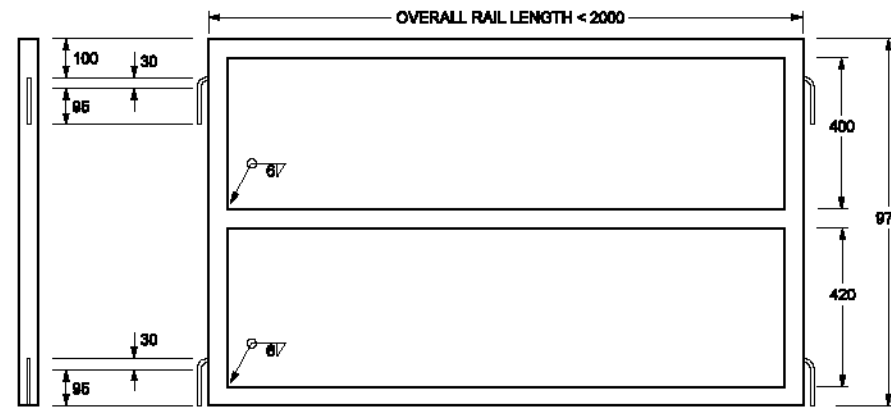
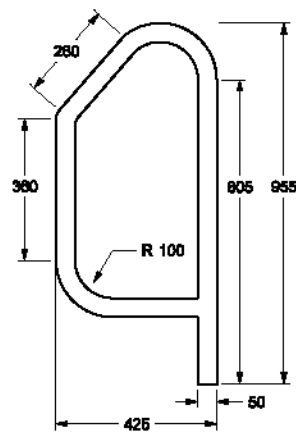


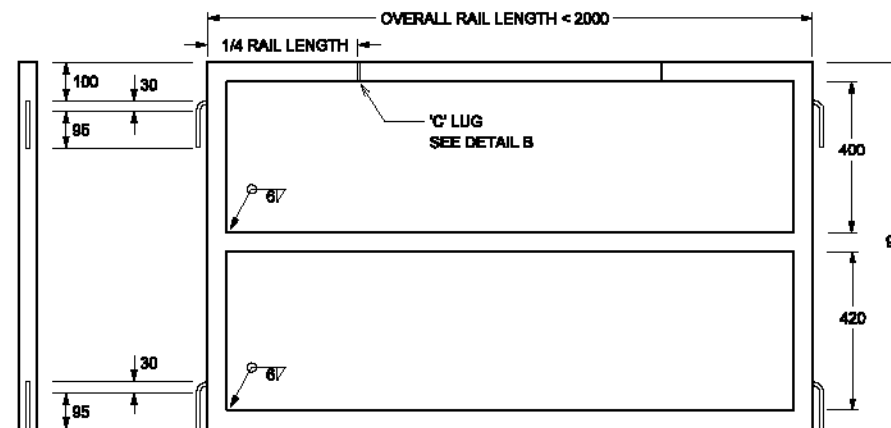
FRONT GUARDRAIL
(Permanently Fixed)



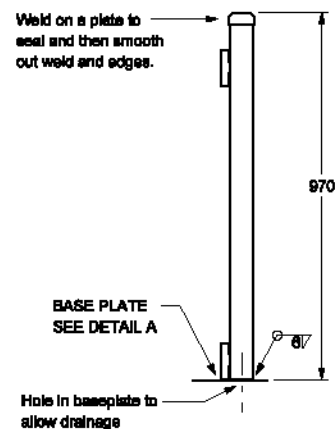
SIDE GUARDRAIL



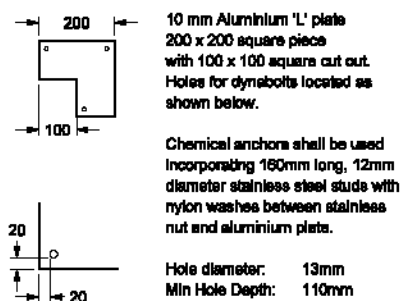
HAND RAIL
(Permanently Fixed)



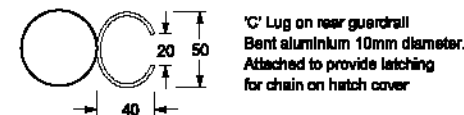
REAR GUARDRAIL



SUPPORT POST



(not to scale)
DETAIL A



(not to scale)
DETAIL B

Notes:

Guardrails and Piping

- 1 Guardrails must comply with AS 1657-1992
- 2 All piping shall be Aluminium.
- 3 All piping shall be seamless, welded or drawn welded manufacture. Split pipe shall not be used.
- 4 All pipes are to be sealed to prevent ingress of moisture. If bottom most end is not sealed (to allow drainage), wall thickness of the pipe shall be minimum of 4mm.
- 5 All dimensions are in mm unless stated otherwise.
- 6 All welds to AS/NZS 1865
- 7 Given dimensions apply to most pumpstations, but should be checked on site before fabrication.
- 8 All materials shall be of the following minimum properties

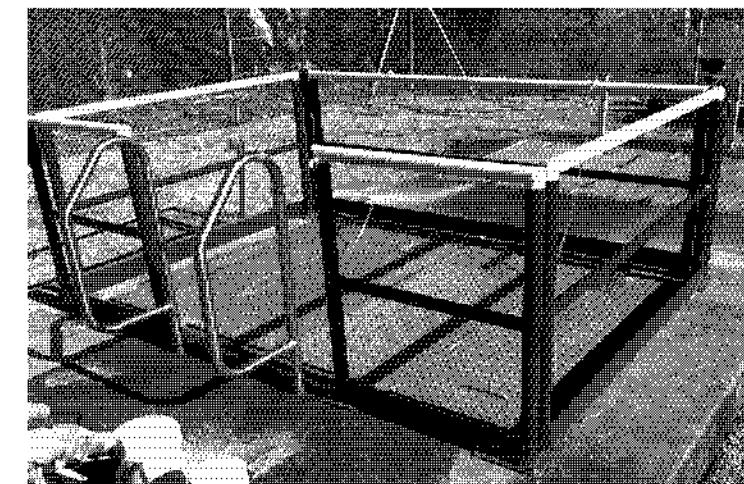
ALUMINIUM		
COMPONENT	ALUMINIUM SHAPE	MIN TENSILE YIELD STRESS (N/qa)
Posts	60mm OD Tube x 2.0 mm wall thickness	172
Top Rail	58mm OD Tube x 2.0 mm wall thickness	110
Intermediate Members	38mm OD Tube x 2.0 mm wall thickness	110
Toe Board	60mm OD Tube x 2.0 mm wall thickness	110

Handrails

- 1 Handrails shall be constructed to bent 50mm OD Aluminium tube with 2.0 mm wall thickness.
- 2 The handrails shall be cemented directly into the surface.

General Layout

- 1 Two front handrails 570mm apart.
- 2 Two front guardrail sections 760mm apart to form the access area at the edge where the hatch opens.
- 3 A single rear guard rail is placed between two support posts, along the edge where the hatch cover is hinged.
- 4 The 'C' lugs on the rear guard rail can be used to secure the hatch open.
- 5 The side guardrails connect between the left and right support posts and front guardrails using the incorporated protrusions and slots.
- 6 Galvanised steel handrail layout shown for information.



NO	DESCRIPTION	DRN	DATE	CKD	APPD
AMENDMENTS					



DES	P. BUTCHER
DRN	D. OORIDGE
CKD	P. BUTCHER
APPD	J. PUDNEY
SCALE	1:20
ISSUED	APR 2008
ALL DIM.	IN mm
DRAFTING STANDARD TO A.S.1100	

SEWER PUMP STATIONS
Guardrails, Handrails
and Support Posts
Aluminium

A3	DRAWING NUMBER	W2-3-04B	
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY	