Visible & Infrared Survey Telescope for Astronomy
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Drawing Title: **Primary mirror (Figuring & Polishing)**

Drawing Number: **VIS-DWG-ATC-02020-0001**

Issue: **B**

Date: **2 October 2003**

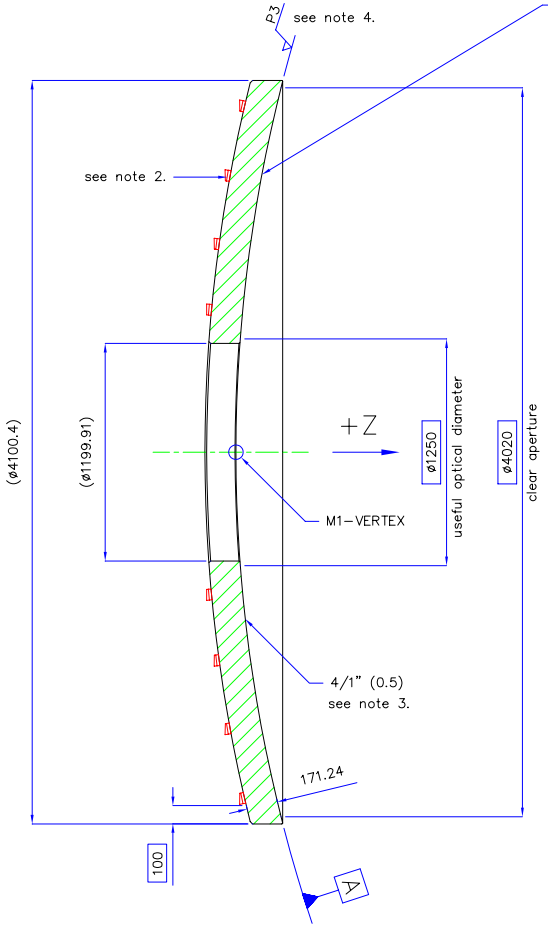
Drawing Modified By:	**Derek Woolard**		PP John Murray
Drawing Checked By:	**John Murray** **Richard Bennett** **Eli Atad**	**Signature and Date:**	John Murray 8/10/03 8/10/03 10/10/03
Drawing Approved By:	**Eli Atad** **Simon Craig** **Ian Egan**	**Signature and Date:**	10/10/03 8/10/03 10/10/03
Drawing Released By:	**Alistair McPherson**	**Signature and Date:**	10/16/03

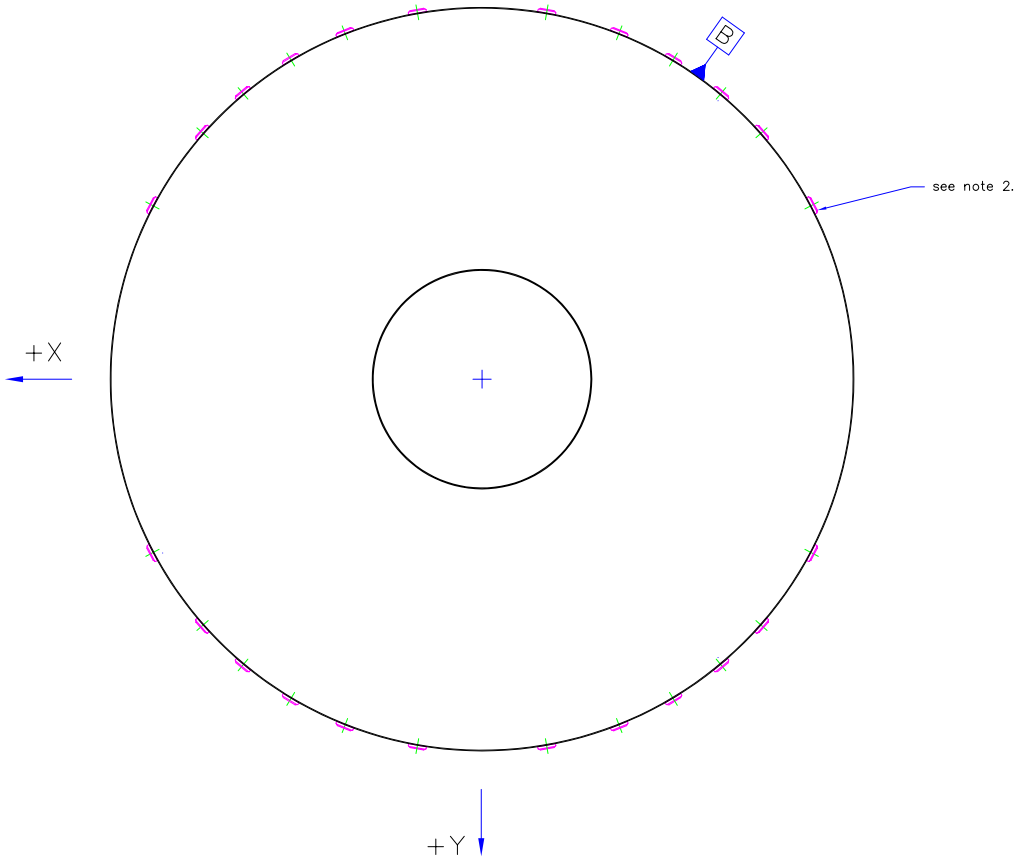
This sheet is for internal QA purposes. This drawing will not be released unless all boxes on this sheet are signed and dated

Change Record

Issue	Date	Section(s) Affected	Description of Change/Change Request Reference/Remarks
A	31/01/02		New drawing first issue
B	2/10/03		Changes as per VIS-CRE-ATC-02020-0011. Dimensions for O/D, bore and thickness changed to actual measured values. Note 6 changed. Equation for mirror surface added.

The sag of the hyperboloid is defined as $z = (r^2/R)/(1+\sqrt{(1-(1+k)r^2/R^2)})$
Where $r^2 = x^2 + y^2$
R = 8094
Conic constant $k_{M1} = -1.129792+1.455.10^{-5}(R_{M1\ measured} - 8094)$





Notes :-

1. This drawing to be read in conjunction with VIS-SPE-ATC-02020-0001
2. Positions of axial and lateral support pads defined in VIS-ICD-ATC-02000-03000
3. Centring Tolerances
   The specification of centring tolerances is in accordance with ISO 10110-6
4. Micro Roughness
   The specification of the surface micro roughness is in accordance with ISO 10110-8
   The Micro roughness of the polished surface shall be random and ≤ 2nm rms
5. Surface Flaws
   The specification of the surface flaws is in accordance with ISO 10110-7
   For any area of $12m^2$ it applies : 5/2 x 1.0
   For single scratches on any area of 5m located inside the useful optical area it applies : 5/1 x 1.0
   For single scratches on any area of $0.5m^2$ located inside the useful optical area it applies : 5/2 x 0.4

THIRD ANGLE PROJECTION DIMENSIONS IN MM	**UK Astronomy Technology Centre** Royal Observatory, Blackford Hill, Edinburgh EH9 3HJ	
Last Mod Drawing changed in accordance with change requestform		
CTD Nos. VIS-CRE-ATC-02020-0011		
Material VIS-DWG-ATC-02010-0001	Weight 5520 Kg	
Finish	Rel'd 01 Feb 2002 amm	
Tolerances As stated	App'd 01 Feb 2002 ea	Issue
	Mod'd 23 July 2003 dw	**B**
Part no.	Drawn 31 Jan 2002 jm	
Title Primary mirror (Figuring & Polishing)	Sheet **1** of **1** Drawing no. **VIS-DWG-ATC-02020-0001**	