

# Close Out Report LSC 21 July 1999

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Core Optics Compensation, Ancillary Optics  
and Photodiodes - Tanner

Lasers - Savage

Core Optics - Camp

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LIGO Scientific Collaboration Lasers and Optics Working Group

# Core Optics Compensation, Ancillary Optics and Photodiodes

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## Core Optic Thermal Compensation

X 10 for both Sapphire (20 ppm/cm) and Silica (1ppm/cm)

Laser based actuator of BS, and both input mirrors

Dark fringe sensing

## Ancillary Optics

LiNbO<sub>3</sub> PM in low power beams (before power stage or in MZ)

Isolators - point spherical compensation

## Thermal Modeling

Mode Cleaner - Beausoleil and Tanner

## Photodiodes

1 Watt and 100 MHz

Revised Reference Design from Zucker by Friday  
and will take responsibility for costing

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# Core Optics

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LIGO Sapphire program

Glasgow, Syracuse & Stanford  
Crystalline Core Optics

Pathfinder II - Sapphire Development Program  
Jordan Camp

2002(1/2) - 2003 Branch Point Between Silica and Sapphire  
Camp is responsible for Reference Design and Costing

c vs a - Axis analysis by December 1999

Beyersdorf, Whitcomb, Zucker, Alexandrovski, Route,  
and Gustafson

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# Laser Reference Design and Costing

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Schedule worked backwards through FDR, PDR and DDR

Preliminary WBS

Costing analysis begun

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*Note 1, Linda Turner, 08/17/99 07:58:17 PM*  
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