

Acoustics Consultant:	NAGATA ACOUSTICS, Inc. (Room Acoustics)
	Ron Rumble Pty, Ltd. (Noise Control)
Architect:	Bligh Voller Nield
Owners:	Queensland Conservatorium Griffith University
Sound & Communications:	Conel Wagner Pty Ltd.
Construction Cost:	\$ 22.8 Million ASD

The Queensland Conservatorium of Music (QCOM) belongs to the Griffith University, Brisbane, Australia. The new building for the QCOM was built in 1996 on the site of the 1988 Expo in Southbank,. The new building has an auditorium with 630 seats, lesson rooms, studios and workshop for the Lyric Opera of Queensland (LOQ).

The Queensland Conservatorium of Music Theater is used not only for concerts and rehearsals by QCOM, but also for opera and musical productions by LOQ. The orchestra shell, stage risers and acoustic banners are installed to fulfill the requirements both as a concert hall and a lyric theater.

**Orchestra shell** : Single-body heavy shell slides forward to the proscenium on rails, and forms a "shoe-box" style concert space (in the concert mode) with 630 seats. For lyric performance, the orchestra shell is retracted, the stage curtains are deployed on stage, and the proscenium opening is narrowed with a suspended panel and rotating side panels.

**Stage risers** : One hundred square meters of floor just in front of the proscenium is raised to stage level as a frontal part of a stage for concert mode It is lowered beneath the audience floor level and used as an orchestra pit in the lyric mode.

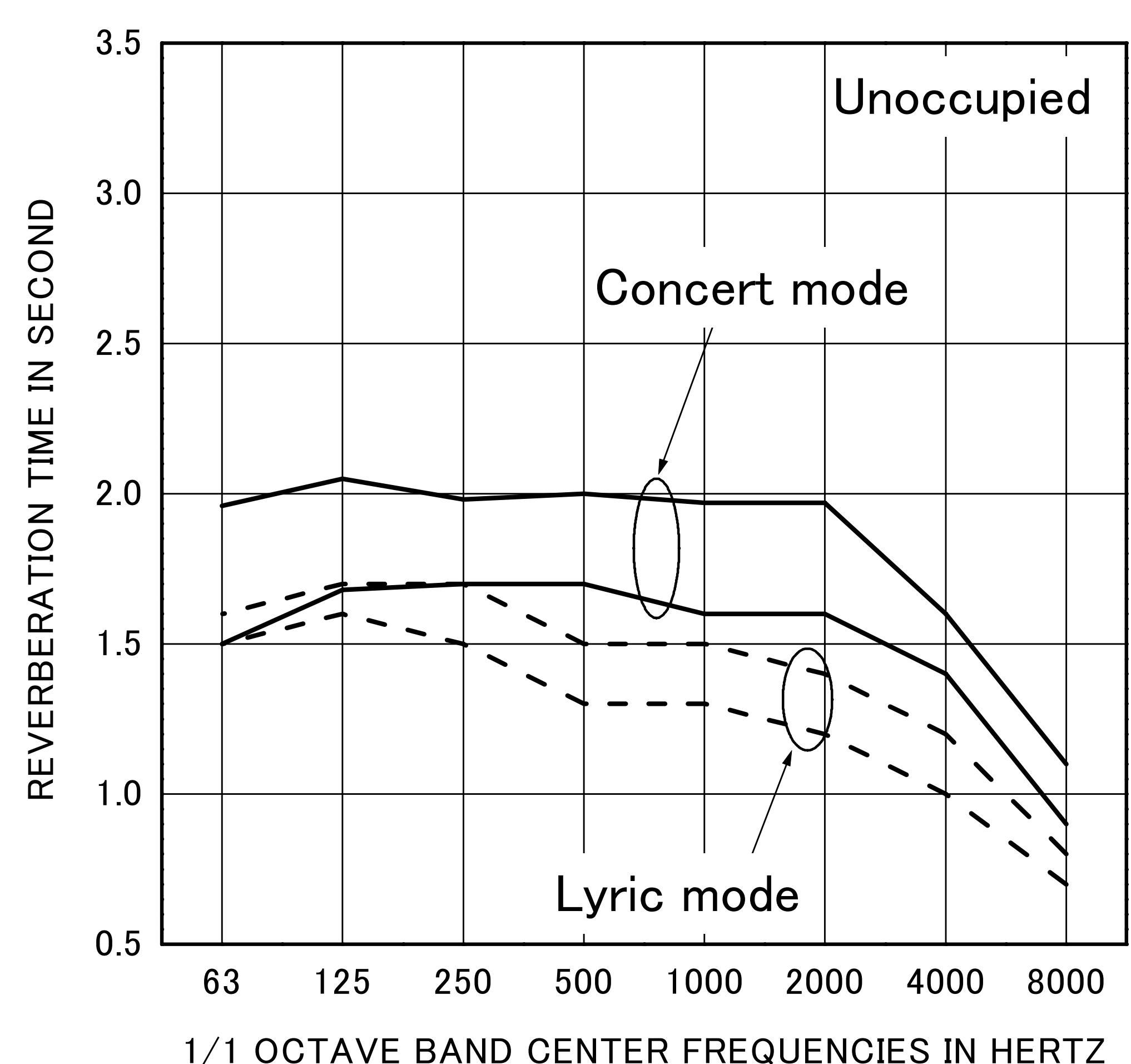
**Variable Acoustics** : The orchestra shell, side walls and ceiling have reflective finishes with various sizes of corrugation for sound diffusion. Acoustic banners of 200 m<sup>2</sup>, glass- wool panel covered with cloth, are lowered along the sidewalls for tuning the acoustics. Seven small doors (4 m<sup>2</sup> per a door) are arranged on the orchestra shell for acoustical fine tuning in the stage space. Absorptive materials are exposed when the doors are opened.

**Reverberation time** : The reverberation time is reduced from 2.0 second to 1.6 second by retracting the orchestra shell. And the reverberation time varies by 0.3 second with acoustic banners both for concert mode and lyric mode.

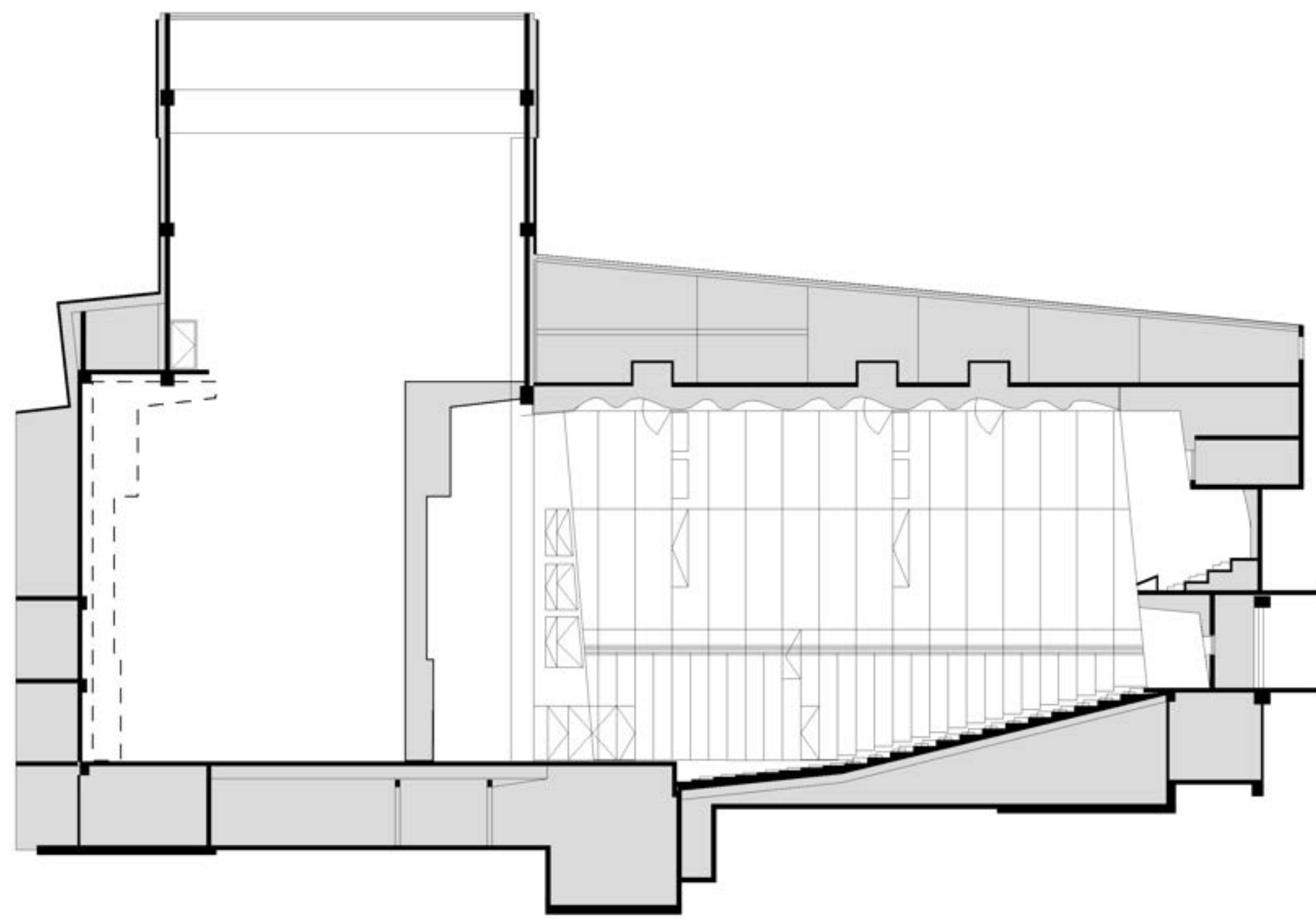
The conservatorium is very appreciated by students, staff and patrons - from a brief instruction by the University that the Theater would only be for teaching and "home" use it is now more a public facility, as well all thought it would be.

### BUILDING DETAILS AND ACOUSTICS DATA

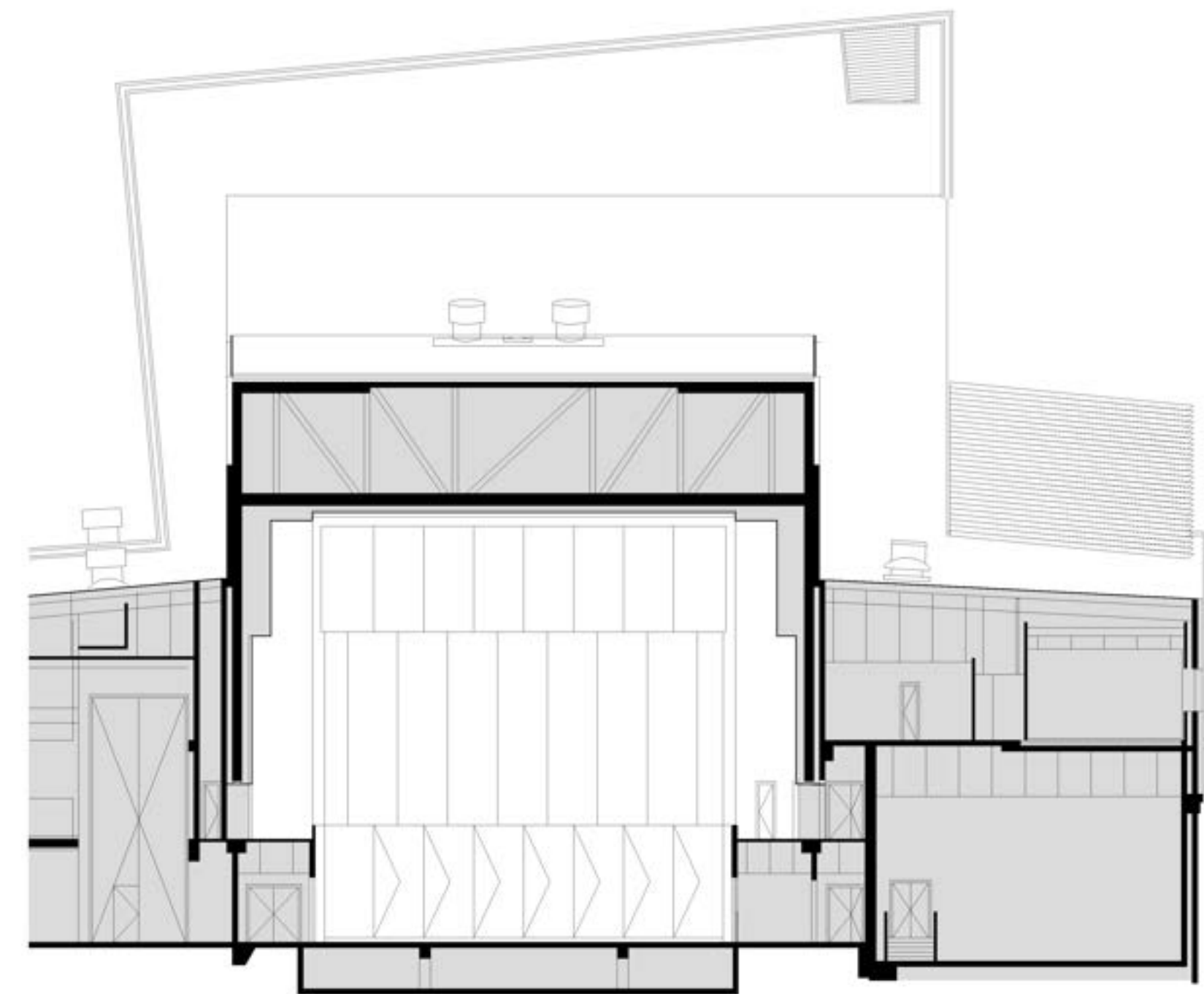
Location	16 Russell Street, South Bank, Queensland, Australia 4101
Tel	+61 7 3875 6111
Seating Capacity	630
Room Volume	9,040CM
Surface Area	2,930SM
Stage Area	160SM
Reverberation Time (Mid-Frequency)	
Unoccupied	1.3 - 2.0 sec
Occupied	1.2 - 1.8 sec
Finishing Materials	
Ceiling	: gypsum board 10 + 15 mm
Wall	: concrete, fiberglass reinforced concrete 25 mm
Orchestra shell	: CFC board 45 mm
Floor	: parquet flooring on concrete
Seat	: upholstered
Miscellaneous	: acoustic banner glass-wool 50 mm
Other Facilities	: Lecture/Recital room, Orchestra rehearsal, LOQ rehearsal
Total Cost	: \$ 22.8 Million ASD
Total Floor Area	: 8,580 SM



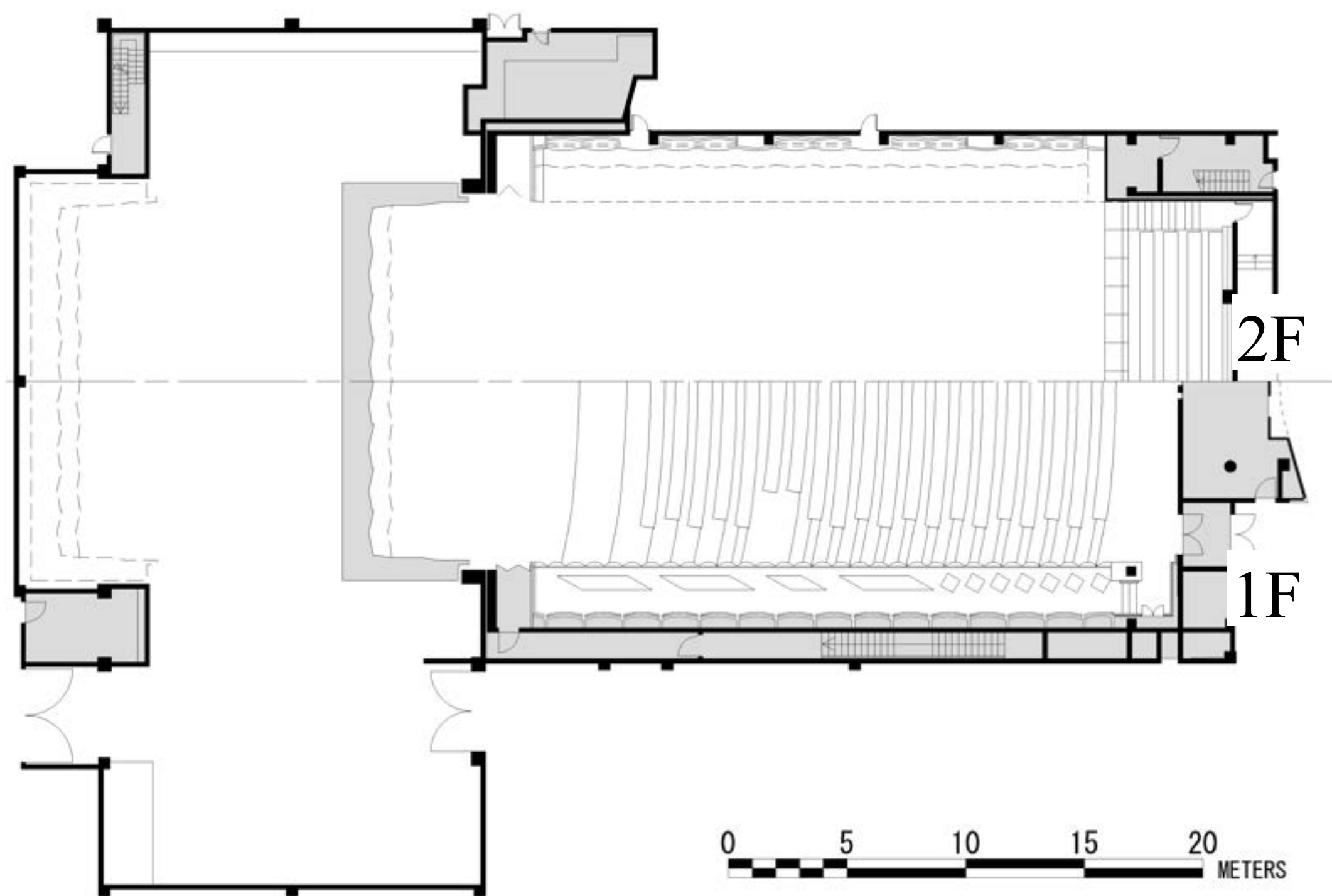
**REVERBERATION TIME**



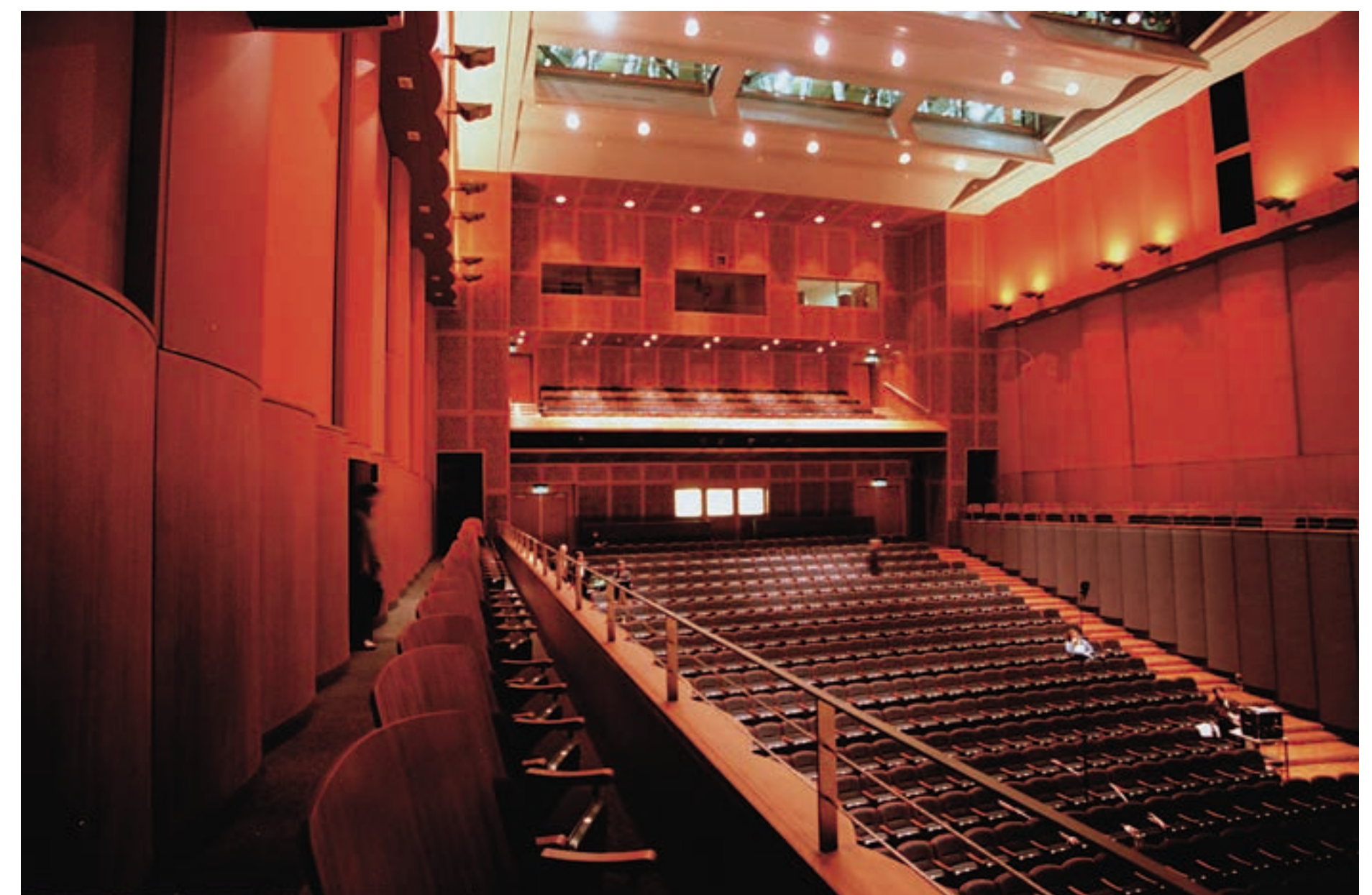
LONGITUDINAL SECTION



TRANSVERS SECTION



PLAN

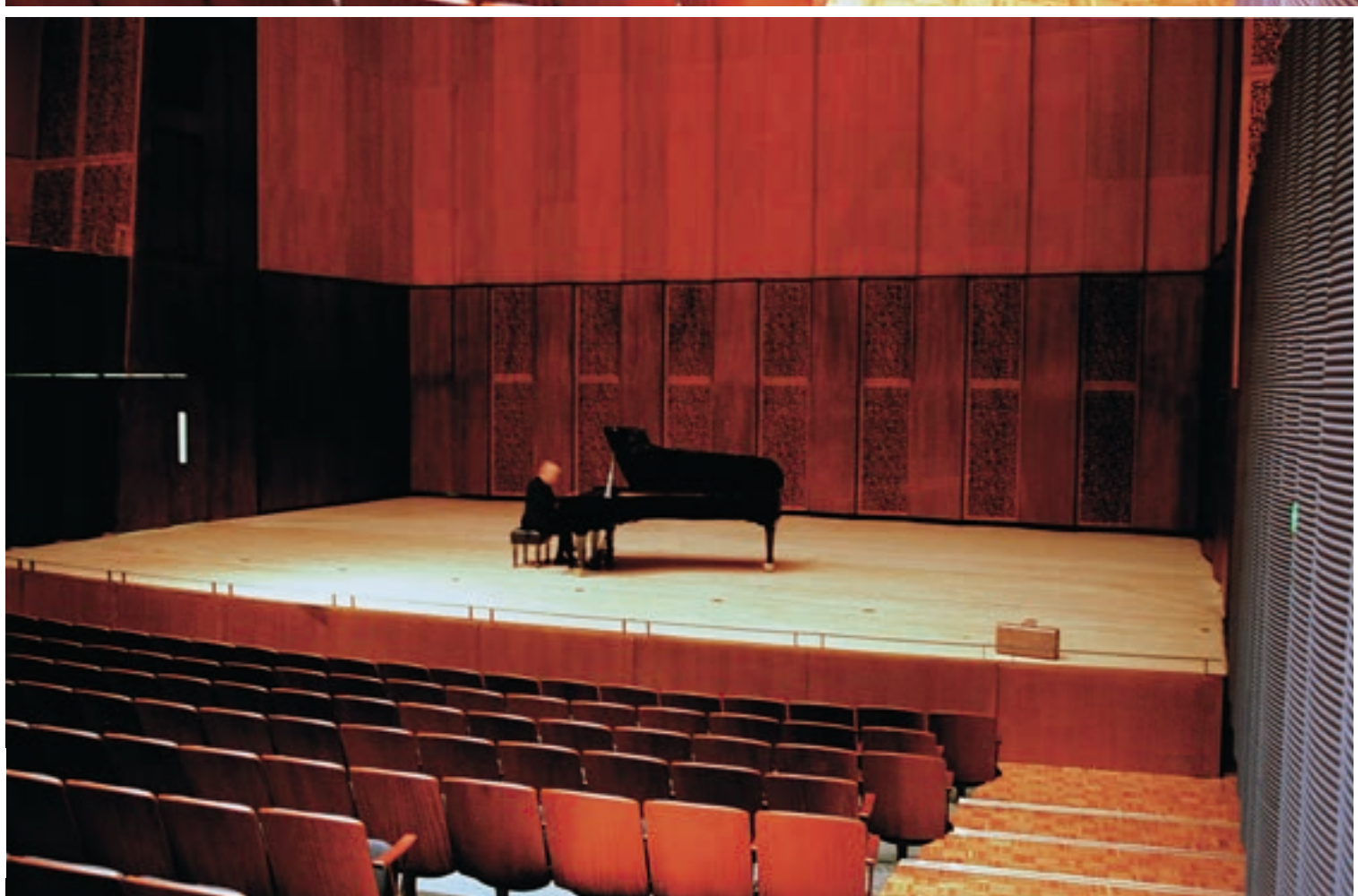


Lyric Mode

Close



Open



Close : acoustic door on orchestra shell **closed**  
(reflective)

Open : acoustic door on orchestra shell **opened**  
(absorptive)