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THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

Parliamentary Standing Committee on Public Works

REPORT
relating to the proposed construction of an
ORCHESTRAL STUDIO
AND
MUSIC CENTRE
at
Brisbane, Queensland

(SECOND REPORT OF 1975)

C O N T E N T S

	<u>Paragraph</u>
The Reference	1
The Committee's Investigation	4
The Need	7
Committee's Conclusion	13
The Proposal	
Historical Aspects	14
The Site	15
Proposed Art and Cultural Centre Complex	17
Risk of Flooding	18
Committee's Conclusion	19
Environmental Impact	20
Committee's Conclusion	22
Objectives	23
Design	27
Space Allocation	28
Vehicle Accommodation	32
Future Development	34
Construction	
Planning	36
Structure and Finishes	40
External Finishes	45
Internal Finishes	46
Special Finishes	48
Fire Protection	50
Hydraulic Services	51
Electrical Services	52
Mechanical Services	55
Committee's Recommendation	58

Paragraph

Estimate of Cost

59

Programme

61

Recommendations and Conclusions

62

Perspective of Orchestral Studio and Music Centre

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PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

ORCHESTRAL STUDIO AND MUSIC CENTRE
BRISBANE

R E P O R T

By resolution on 21 November 1974, the House of Representatives referred to the Parliamentary Standing Committee on Public Works for investigation and report to the Parliament, the proposal to construct an orchestral studio and music centre at Brisbane, Queensland.

The Committee have the honour to report as follows:

THE REFERENCE

1. The proposal referred to the Committee is for the construction of a building designed to provide facilities for an orchestral studio and music centre for the Queensland Branch of the Australian Broadcasting Commission.
2. The complex will consist of a large music studio with the remainder of the building to be built beside and around the studio with two levels for offices and technical operational areas and amenities and a third level to accommodate building service equipment.
3. The estimated cost of the project when referred to the Committee was \$2,325 million.

THE COMMITTEE'S INVESTIGATION

4. The Committee received written submissions and drawings from the Australian Broadcasting Commission and the Department of Housing and Construction and took evidence from their representatives at a public hearing in Brisbane on 3 and 4 February 1975. The Committee also received submissions and took evidence from a representative of the Brisbane City Council and six private citizens. In addition, three written submissions were received.

5. Prior to the public hearing the Committee inspected the site for the proposed work and the existing accommodation of the Queensland Symphony Orchestra.

6. The Committee's proceedings will be printed as Minutes of Evidence.

THE NEED

7. The work proposed in this reference is intended to provide suitable accommodation for the Queensland Symphony Orchestra which presently consists of 65 musicians permanently employed by the A.B.C. The orchestra gives public concerts in Brisbane and other parts of Queensland and occasionally tours into New South Wales. The orchestra also makes an important contribution to A.B.C. Radio programmes.

8. The introduction of FM radio will require a greater output from the Queensland Symphony Orchestra as a contribution to the A.B.C. National Programme demanding the upgrading of equipment and sound quality standards.

9. This proposal will also relieve accommodation and operational pressures on the existing A.B.C. complex at Toowong where the music library is presently located.

10. Since 1962, the orchestra has been accommodated in leased premises (formerly the Theatre Royal) in Elizabeth Street, Brisbane. This building

is unsuitable for the needs of the orchestra for a number of reasons:

- it is not possible to eliminate interference from extraneous noise during rehearsal and recording operations;
- structural limitations do not permit TV production in the studio, thereby inhibiting the expansion of local production;
- the ownership of the property has changed hands and the present owners are proposing redevelopment of the site in about 3 years. In the meantime, a monthly tenancy to the A.B.C. applies.

11. In addition, the Musicians Union has lodged a formal complaint with the A.B.C. regarding the unsatisfactory standard of accommodation.

12. It was evident during the Committee's inspection of facilities at Finance House that the Queensland Symphony Orchestra is unable to fulfil effectively its role of recording and broadcasting material of the highest artistic standard due to the inadequacies of these facilities.

13. Committee's Conclusion There is a need for a new studio and associated facilities for the Queensland Symphony Orchestra.

THE PROPOSAL

14. Historical Aspects The Committee were told that the site for the proposed studio was first offered in December 1971 and design documentation commenced in August 1972. The site has been jointly agreed by the Department of Housing and Construction and the Australian Broadcasting Commission and was acquired in March 1973. The proposal was admitted to Design List 'C' in May 1973 (i.e. design development was authorised to the point of reference to the Public Works Committee) at an estimated cost of \$1.9 million.

After the Public Works Committee Act was amended raising the minimum amount of works for reference to the Committee from \$750,000 to \$2 million, the proposal was subsequently approved for full documentation, i.e. for admittance to Design List 'A', in November 1973. However, by November 1974 the estimated cost of the project exceeded \$2 million and it became necessary for it to be referred to the Public Works Committee. For these reasons, the project is at a much later stage than normally would be the case when referred to the Committee. It is now ready to go to tender within a month or two.

15. The Site The site is at 51 Ferry Street, West End, which is approximately 3 km from the Brisbane G.P.O. It has a frontage of 65.5m to Ferry Street and 96.4m to Riverside Drive with a total area of approximately 6,381m².

16. Located above the bank of the Brisbane River the complex will be almost directly opposite the A.B.C. Broadcast Studio Complex at Toowong. Access to the site will be from Ferry Street and vehicle movements to the A.B.C. Toowong complex will be via the Grey Street Bridge (also known as the William Jolly Bridge). A public bus service operates through the area, but the Committee were informed that because of the need to transport instruments, musicians generally rely on private transport. Adequate on site parking will be incorporated into the landscaped site development plans. An old dwelling on the site, which is considered to be of no value, will be demolished.

17. Proposed Art and Cultural Centre Complex The Committee are unable to agree with a suggestion put forward by the Brisbane City Council that the studio and music centre be incorporated in the proposed Art and

Cultural Centre Complex at South Brisbane. As the building is not a public auditorium and is designed for recording purposes only, the A.B.C. could see no advantage in relocating its studio to another site, which the Committee noted, the Council was unable to make available immediately. The South Brisbane site presented greater noise problems and a higher flood level than the Ferry Street site. Relocation of the studio at this late stage in its development would put the project back two to three years.

18. Risk of Flooding Following the serious flooding of Brisbane in January 1974, the Committee were informed that a special investigation had been undertaken into the implications of this flooding on the design of the proposed building on the Ferry Street site. The study resulted in the design being modified to raise the lowest floor level of the building by .305m (1 ft) which would then be 1.219m (4 ft) high above the surrounding ground level and which would be .823m (2.7 ft) above the flood peak of January 1974. The investigation also revealed that, prior to the completion of the Wivenhoe Dam in the early 1980s, should the highest known flood be even repeated, it would flood the building to a depth of .762m (2.5 ft) above ground floor level. The Wivenhoe Dam is to be built for water storage and flood mitigation purposes. The highest known flood occurred in 1893 and has been calculated to have a recurrence interval of 100 - 200 years. Flooding the building to a depth of .762m (2.5 ft) would cause damage to fixtures and finishes but the building structure would be unaffected. However, the Committee were assured that after the Wivenhoe Dam is completed a recurrence of even the largest known flood would not affect the building. In addition, the Committee were provided with a detailed list of some seventeen Australian Government buildings which have been built on flood prone land in the Brisbane area and of these, five have been extended during the past five years.

19. Committee's Conclusion The site selected is suitable for the proposed complex and there is only a small risk of the complex being seriously affected by flooding.

20. Environmental Impact The Committee believe that the work proposed in this reference will have no adverse effects on the local environment for the following reasons:

- the type of building proposed will not conflict with other activities in the immediate area but will tend to enhance the nature of the surrounding development;
- site activities will not affect public transport and the relocation of the operational units concerned from their present location will tend to assist reduction of city traffic;
- parking space for official vehicles, visitors and staff will be provided on site. Traffic movements will be predominantly in off-peak hours for rostered staff and musicians;
- the structure will be integrated into a landscaped development of the site which will complement projected local government improvements to the riverside area.

21. During the inspection, the Committee observed a large number of well developed sub-tropical trees and heavy undergrowth on the site. The Committee note with satisfaction that a horticultural consultant had been engaged with a view to preserving as many trees as possible.

22. Committee's Conclusion There will be no adverse effects on the local environment. Retention of the trees on the site and an elevated placement of the proposed building will provide an attractive landscape.

23. Objectives The proposed building is designed to provide all the facilities for an orchestral studio and music centre to meet the requirements of the Queensland Branch of the Australian Broadcasting Commission. The complex will consist of an orchestral studio and technical facilities to permit the highest quality sound recording and broadcasts with adjacent areas to supplement limited television production. The preparation of limited colour television music programmes will be a secondary but very important function of the complex.

24. Rehearsal rooms will be provided for small and medium sized music groups or individual performers from within the Queensland Symphony Orchestra and for visiting artists.

25. Office type accommodation will be provided for the management of the Queensland Symphony Orchestra and also for the Queensland Music Department of the A.B.C., including the music library. Storage areas will be provided for musical instruments, technical equipment and all general equipment used in the production of radio and television programmes. The studio will be capable of accommodating an invited audience and may be used for limited television production.

26. The functional operations of the complex can be divided into those pertaining to:

- (i) The Queensland Symphony Orchestra - These include
 - (a) rehearsals by the full orchestra, groups or individuals and by visiting orchestras;
 - (b) radio recording or orchestral programmes;
 - (c) T.V. recording of orchestral programmes by the introduction of outside broadcast mobile T.V. equipment;
 - (d) Queensland Symphony Orchestra managerial and office type functions which require close liaison with the players, the conductor and visiting personnel.
- (ii) Music Department - The function of the Music Department apart from a normal office type operation, will bear a relationship to some semi-technical areas in the building. The Department will require the use of the small practice rooms and play-back facilities in some of their offices.
- (iii) Other Functions - It is anticipated that the orchestral studio as well as the practice rooms will be used by other groups making recordings for the A.B.C. These other functions will be rehearsals by outside music groups or individual artists in the practice rooms and possibly recording and T.V. programmes in the orchestral studio.

27. Design The proposed building will have as its main feature a large music studio approximately 12.2m high with a floor area of $544m^2$. The remainder of the building will be built beside and around the studio with two levels for offices and technical operational areas and amenities, and a third level with some office space, but which in the main will accommodate building service equipment. The total gross floor area will be $4243m^2$.

28. Space Allocation The major part of the ground floor level will be occupied by the studio, together with the associated storage areas necessary for its operations. These latter areas must of necessity be closely functionally related to the studio because of the movement of large instruments, technical equipment etc.
29. The general reception area and office for the orchestral administrative staff, plus the practice rooms used by musicians preparatory to performance, will also be at this level.
30. The first floor will contain the sound control and other operational areas associated with recording and broadcasts from the studios. It will also contain some offices and all the amenities, service and recreation areas for the musicians and any operative staff associated with A.B.C. music production.
31. The A.B.C. Music Department and Music Library will occupy the office space available on the second floor. The larger amount of space available here will provide for the service function of the building such as central air conditioning, air handling equipment etc.
32. Vehicle Accommodation A loading dock will be provided to allow easy "wheel on - wheel off" access for the handling and movement of heavy musical instruments and other production equipment such as television cameras. As the studio will also be used for limited T.V. production, sheltered parking will be needed for the T.V. Outside Broadcast Unit, the associated recording unit and one additional support vehicle.
33. Site layout planning allows parking spaces for 70 vehicles, which is considered adequate for the needs of the complex.

34. Future Development The proposed building, and its vehicle parking area constitute the total development of the site. The accommodation to be provided for the members of the orchestra allows for an increase from the present 65 musicians to a larger orchestra of some 90 players. This expansion is expected to follow the development of the City of Brisbane.

35. The music studio proposed is to provide not only a rehearsal hall for the orchestra, but will function as a music studio for general music production for broadcasting and recording purposes. By adopting a multiple shift operation, the time capacity of production in the studio should be adequate for at least 25 years.

CONSTRUCTION

36. Planning In view of the site areas available, relative to the required building accommodation as well as the car parking requirements, the building will be organised in such a manner as to minimise the site cover (the building will cover 36% of the site), yet retain an essentially low scale which will highlight the river bank setting and the existing trees on the site.

37. The organisational structure will be based on a north-south spine for the movement of goods and instruments between service areas and studios. This spine will serve as a divider between service and personnel areas. The service areas will be fed by a goods bay to the east and the personnel areas by the main entrance foyer to the west.

38. This organization was determined in relation to the site access points and the nature of the surrounding environment, in particular the views to the south and west, and the industrial areas to the north and east.

39. The major vertical circulation requirement will be provided by an open internal stair serving as a focus to the foyer and linking the major spatial elements of the building. A goods/passenger lift will be provided for the movement of musical scores between the library and level 1 areas, as well as the loading bay. It will also serve a small canteen on level 2. Its provision will enable use of the building by physically handicapped musicians.

40. Structure and Finishes The building will be of in situ reinforced concrete construction supported on piles. The structure will be based on a grid of 4m longitudinally and varying from 4m to 8m transversely. The floor to floor height will be 3.7m with the exception of the orchestral studio and large practice room.

41. The orchestral studio and large practice room will be of isolated construction with the outer walls of in situ reinforced concrete and the inner walls of braced masonry supported off independent piling.

42. The building will be roofed with metal roofing over a concrete slab. The orchestral studio roof will be supported by trusses of sufficient depth to accommodate a ceiling loft for use in the installation and maintenance of equipment.

43. The footings will consist of piles located on a structural grid with an average diameter of 600mm and average depth of 12.2m.

44. All external walls will be of in situ reinforced concrete construction and generally internal infill walls will be of concrete block.

45. External Finishes All reinforced concrete will have an applied finish of multi-coat render with integral colouring on a fine broken texture. Roofing will be of coloured metal decking. The sun control blades will be built up from aluminium sections anodised to the same colour

as the aluminium window frames. Special double glazing will be provided to the windows of the small practice rooms for acoustic reasons. All other windows will be single glazed. External paving will be of two types. Where hard paving is required this will be of in situ reinforced concrete paving slabs with exposed aggregate finish. In car park areas, the paving will be of pierced concrete paving slabs which permit grass to grow in the openings.

46. Internal Finishes In order to reduce noise generation, wool carpet will be used extensively on floors in habitable areas of the building. Otherwise, in stores and other ancillary areas, granolithic or vinyl tiles will be used, with ceramic tiles to toilet areas. Floors to orchestral studio and large practice room will be mosaic parquetry.

Wall surfaces will be as follows:

- moulded plaster and carpet acoustic treatment to the orchestral studio and large practice room;
- alternating panels of carpet and particle board in studio control suites to achieve correct acoustic responses and triple glazing between suites and the studio and large practice room;
- linings of Queensland timber to small practice rooms, sound locks, reception/foyer, passages, offices, soloist and conductors rooms with acoustic backing as required;
- rendered in situ concrete as used externally to columns and east walls in reception/foyer areas;
- vinyl sheeting on plaster to locker and rest rooms;
- painted concrete or blockwork to passages, stores and stairs;
- ceramic tiles to toilets and make-up room.

47. Timber boarding will be used for ceilings of the more important habitable and circulation spaces. Ancillary rooms, such as locker rooms and toilets will have plasterboard ceilings. Stores and other service spaces will have painted off-form concrete. Special acoustic ceilings are proposed for the orchestral studio and large practice room in the form of moulded plaster shapes with modelled plasterboard to the small practice, soloist and conductors rooms.

48. Special Finishes The orchestral studio, large practice room, control suite, small practice rooms, dub-edit, music arranger, soloist and conductors rooms will have special finishes to create a specific acoustic climate and give a high degree of acoustic isolation. These rooms will be designed in order to eliminate external noise such as traffic, factories and aircraft which could interfere with the successful function of the building.

49. Any noise created by the function of the building will be below the ambient level of outside traffic noise. Preservation of as much of the existing site vegetation as possible will also serve to reduce external noise levels.

50. Fire Protection At the request of the A.B.C., the building is to be equipped with automatic sprinklers. The alarms from sprinklers and smoke detectors are to be connected to the Fire Brigade. Hydrants, small bore hose reels and portable fire extinguishers will be installed to normal departmental standards. An additional exit to the orchestral studio for fire emergency use only, has been requested by the Brisbane Fire Authorities. This exit will be situated in the north wall of the studio adjacent to the north-east corner, with two pairs of internal acoustic doors, a sound lock and external doors with the exit towards the lane on the east.

51. Hydraulic Services The existing services on the site serve only an existing residence and are inadequate for the proposed building complex and will be replaced with new connections to the existing mains. All sanitary fixtures will be connected to the existing main. A new stormwater line will be provided to the river and a supplementary water main will be extended from Montague Road to the site to increase the supply.

52. Electrical Services Discussions have been held with the Brisbane City Council regarding power supply. The existing electrical supply will be augmented by the local authority with the provision of a substation within the building. The substation equipment will be supplied, installed and maintained by the Brisbane City Council and will have a capacity of 1000 kVa.

53. Light and power services will be installed throughout to suit the requirements of the A.B.C. General lighting will be designed to provide illumination in accordance with Australian Standard CA30-1965. Special lighting incorporating fluorescent and incandescent fittings will be provided in studios, control rooms and other areas as requested by the A.B.C. Ducts to accommodate telephone, A.B.C. and other communication wiring will be provided.

54. One fully automatic passenger/goods lift of the electro-hydraulic type will be provided to serve all floors, having a capacity of 750 kg and travelling at .38/.50 m/s. The design has been based on providing vertical transport for the sheet music trunks and any incapacitated persons using the building.

55. Mechanical Services All areas specified to be air conditioned will be supplied by air conditioning plant in the central plant room. The air will be distributed by a low pressure multi-zone system.

56. The estimated refrigeration load is 630 kW. The system will consist of two 350 kW centrifugal chillers and two cooling towers, with chilled water circulated to the air handling plants. Electric heating will be provided as necessary for the air heating coils.

57. Close attention has been paid to vibration isolation of all machinery to reduce noise transmission to "quiet areas". Attenuators will be installed in ducts and additional sound silencing will be provided to outlets in noise sensitive areas.

58. Committee's Recommendation The Committee recommend the construction of the work in this reference.

ESTIMATE OF COST

59. The estimated cost of the work when referred to the Committee was \$2,325 million made up as follows:

	\$
Building work	1,190,000
Mechanical services	535,000
Electrical services	260,000
Civil and other works	340,000
	2,325,000

60. During the public hearing, the Committee were informed that the projected estimated cost of the project at the time tenders are expected to be called will be \$2.8 million.

PROGRAMME

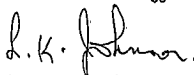
61. The A.B.C. requirement is for occupancy of the building by the end of 1976. Construction will require 75 weeks after acceptance of a tender. After approval to proceed is given, tenders could be invited early in 1975 to give completion at the end of 1976.

RECOMMENDATIONS AND CONCLUSIONS

62. The summary of recommendation and conclusions of the Committee is set out below. Alongside each is shown the paragraph in the report to which it refers.

Paragraph

1. THERE IS A NEED FOR A NEW STUDIO AND ASSOCIATED FACILITIES FOR THE QUEENSLAND SYMPHONY ORCHESTRA. 13
2. THE SITE SELECTED IS SUITABLE FOR THE PROPOSED COMPLEX AND THERE IS ONLY A SMALL RISK OF THE COMPLEX BEING SERIOUSLY AFFECTED BY FLOODING. 19
3. THERE WILL BE NO ADVERSE EFFECTS ON THE LOCAL ENVIRONMENT. RETENTION OF THE TREES ON THE SITE AND AN ELEVATED PLACEMENT OF THE PROPOSED BUILDING WILL PROVIDE AN ATTRACTIVE LANDSCAPE. 22
4. THE COMMITTEE RECOMMEND THE CONSTRUCTION OF THE WORK IN THIS REFERENCE. 58
5. THE ESTIMATED COST OF THE WORK WHEN REFERRED TO THE COMMITTEE WAS \$2.325 MILLION. 59
6. THE PROJECTED ESTIMATED COST OF THE PROJECT AT THE TIME TENDERS ARE EXPECTED TO BE CALLED WILL BE \$2.8 MILLION. 60


(L.K. Johnson)
Chairman

Parliamentary Standing Committee on Public Works,
Parliament House,
CANBERRA, A.C.T.

27 February 1975.

