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THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

R E P O R T

relating to the proposed

SITE PREPARATION FOR FUTURE DOMESTIC TERMINALS AND
ADDITIONAL ROADWORKS IN THE NORTH-WEST BUILDING AREA

at

SYDNEY AIRPORT

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SITE PREPARATION FOR FUTURE DOMESTIC TERMINALS AND
ADDITIONAL ROADWORKS IN THE NORTH-WEST BUILDING AREA
AT SYDNEY AIRPORT

R E P O R T

By resolution on 4 October 1967 the House of Representatives referred to the Parliamentary Standing Committee on Public Works for investigation and report the proposed site preparation for future domestic terminals and additional roadworks in the north-west building area at Sydney Airport.

The Committee have the honour to report as follows:

THE COMMITTEE'S INVESTIGATION

1. The Committee received submissions and drawings from the Departments of Civil Aviation and Works and took evidence at a public hearing in Canberra from representatives of these departments and from a private witness. We inspected the Sydney Airport including the major works under construction and the areas where the works in this reference are to be carried out. While in Sydney we had informal discussions with representatives of Trans-Australia Airlines and Ansett-A.N.A.

THE PROPOSAL

2. The proposal submitted to the Committee is a further stage of the development of the north-west building area at Sydney Airport. The work, estimated to cost \$3.15 million, the last section of which is due to be completed in 1971, comprises:

- filling, and surcharging where necessary, the sites for the future domestic terminal aprons, and surcharging part of the international apron;

2.

- filling the area between the terminal complex and Cook's River and Alexandra Canal;
- enlarging the car parking area;
- extending the elevated roadway;
- integrating the airport road system with a public access route to the airport from the west; and
- removing decomposed garbage and rubbish from the area between the old and new courses of Alexandra Canal.

THE DEVELOPMENT OF SYDNEY AIRPORT

3. The present reference is the sixth major project at Sydney Airport investigated by the Committee in the past four years. The first, the extension of the north-south runway into Botany Bay, was reported on in August 1963. The other references were:

- site preparation of the north-west building area;
- provision of buildings and services for the international terminal complex and associated aircraft pavements in the north-west building area;
- construction of a new operations building and control tower; and
- provision of an improved instrument landing system at the northern end of the north-south runway.

Reports on these were tabled in September and October 1965 and all works are now under construction. The total estimated cost of the five projects when referred to the Committee was \$36 million.

4. The Committee's report on the site preparation of the north-west building area is relevant to the present reference since it discusses the need for new passenger terminal facilities and the development of a new terminal complex in the north-west sector of the airport. One of the Committee's conclusions was that there was an urgent need to completely rebuild both the international and domestic passenger terminal facilities and it was recommended that the development take place in the north-west.

5. Work on the first two stages of the new terminal complex has commenced. The site preparation for both the international and domestic terminal buildings as well as for most of the international aprons is virtually completed and piles are now being driven for the international terminal building.

SITE PREPARATION FOR THE TERMINAL APRONS

6. The master plan for the north-west area envisages two domestic terminal areas - one to the north and one to the south of the international facilities. The present reference includes the filling and surcharging of the northern apron area and the filling of the southern apron area. Also included is the surcharging of a small section of the international apron near the intersection of the taxiways.

7. The north-west area is bounded by Cook's River and Alexandra Canal in the west and north and by taxiways to the east and south. It generally is low-lying having been at one time a tidal swamp traversed by the Cook's River. The subsurface conditions are variable with mud layers occurring in places.

8. Site preparation for buildings and aircraft pavements where the subsoil contains mud layers, entails filling the area with sand and consolidating the mud layers to prevent differential settlement after construction commences. Consolidation is achieved by surcharging, which

is loading the filled area with additional sand and allowing it to stand. It is proposed to treat the northern domestic apron area in this matter. The surcharge will consist of six feet of sand which will be left in position for at least 18 months. After that the surcharging material will be used to fill the southern apron area where the subsoil is generally sand and does not require surcharging. Settlement over the northern area is expected to vary between one and three feet.

OTHER SITE WORK

9. The present reference also includes filling the area between the terminal complex and Cook's River and Alexandra Canal, and removing about 80,000 cubic yards of garbage and rubbish from the area between the old and new courses of Alexandra Canal.

10. The first part of this work is designed to eliminate any low lying swampy areas which will remain after site works in the terminal area have been completed and to prepare the area for the development of roads, car parks etc. These roads will include those serving the terminals from the west which are referred to later in this report and those from the north-eastern side of the airport on which the Committee reported in 1965.

11. The garbage deposit is to be removed before the international terminal comes into operation to avoid any subsequent possibility of obnoxious smells from this source.

12. Concurrently with this phase of the work, precautions are to be taken to protect the sand fill and surcharge areas to avoid the nuisance of wind blown sand. These will include the grassing of sand-filled areas not being paved immediately.

EXTENSION OF ELEVATED ROADWAY

13. The road system in the terminal area is designed to separate the incoming and outgoing passengers. An elevated road for outwards bound passengers will rise near the northern domestic terminal and return to ground level beyond the southern domestic terminal, serving on route the northern, the international and the southern terminals in that order. Road access for incoming passengers will be at ground level.

14. The proposals for the international terminal examined by the Committee in 1965 include the construction of the elevated road only as far as the international terminal with the road returning at that point by a temporary ramp to ground level on the western side of the car park. The proposal now is to complete the elevated road in one stage thereby avoiding the need for the ramp. By constructing the elevated road in one stage instead of two and eliminating the ramp there will be an overall cost saving of \$400,000. Completion of the work now will also mean less interference to vehicular traffic when the domestic terminals are being constructed.

15. The construction of the extension of the elevated roadway will be similar to the section examined by the Committee in 1965. The roadway will be 32 ft wide between kerbs, allowing for two moving traffic lanes and one parking lane and an 8 ft wide footway on the building side of the road. The superstructure will comprise pre-stressed concrete girders on concrete piers. The girders will be precast concrete units placed end to end and pre-stressed by steel tendons carried in ducts cast in the units. The piers will be of reinforced concrete cast in place and supported on piles. The roadway will be surfaced with bituminous concrete.

ROADWORKS

16. The additional roadworks in this reference will link the airport road system with an access from the west to be provided by the New South Wales Government. This will be by General Holmes Drive, Bestic Street, West Botany Street and Marsh Street, and thence by a spur road to a bridge to be constructed over Cook's River.

17. The work to be undertaken by the Commonwealth includes the construction of the eastern approaches to the bridge and the short connecting roads to tie the terminal road networks in with the bridge approaches. The additional ground level roads will be of a similar standard to the other roads in the area and will comprise 7 inches of fine crushed rock surfaced with bituminous concrete.

18. Agreement has been reached between the Commonwealth and the State Government on the location of the bridge and the distribution of costs. In accordance with normal procedure, the Commonwealth will bear the cost of that portion of the work which lies within the airport boundary.

19. The State hopes to complete the route, including the construction of the bridge, by the end of 1970 or early in 1971 and the Commonwealth expects that its roadwork will be completed by that time also. Until then, access to the new terminal area will be by a road running from the western end of the area occupied by Qantas in the north-east of the airport and along the southembank of the diverted Alexandra Canal. The present work includes a link between this road and the new bridge over Cook's River. When the western route is completed, there will be public access to the airport both from the east and west with a connecting road between the two. The bridging of the Cook's River will also permit access between the terminal and the city by way of Princes Highway.

20. It was suggested to the Committee by a private witness that the site layout in the north-west area and particularly the arrangement of internal and access roads, should be such as to allow the future development of a rapid transit or similar high speed system serving the airport. The basic question of whether a system of this type should be provided in Sydney is one for decision by the State Government and there was no evidence that such a proposal had been studied seriously.

21. We noted, however, the advice of the Commonwealth Departments concerned that the proposed developments at Sydney Airport are considered to be flexible enough to permit the airport to be served by a rapid transit system should one be contemplated in the future.

EXTENSIONS TO THE PUBLIC CAR PARK

22. It is proposed to enlarge the car park to provide initially for 1,500 cars instead of 1,000 as previously planned. The additional space is the outcome of doubts expressed by the Committee in 1965 whether parking space for 1,000 cars will be sufficient when the international terminal commences operation and of a recommendation that the proposed space be reviewed. The extra space can be provided without difficulty for there is provision ultimately for parking space for 5,000 vehicles at ground level.

THE COMMITTEE'S CONCLUSIONS

23. The Committee recommend the construction of the works in this reference.

24. During our investigation, we were mindful that in the report on the 1965 enquiry into the site preparation of the north-west building area, the Committee drew attention to the consequences of extracting sand from Botany Bay for the runway extension and to the need for care when further sand was being dredged for the site preparation project. We were interested therefore to inspect during the course of the present enquiry some of the

damage that had occurred to the foreshore of Botany Bay after the extraction of sand for the site works, and noted that the Commonwealth has contributed substantial amounts towards the cost of remedial works in the area.

25. In this light, we noted with satisfaction that the Department of Works has provided in its estimates for the 430,000 cubic yards of sand required for the proposed work to be trucked in from outside the airport area if necessary.

PROGRAMME

26. On the basis that an approval to proceed is given shortly after the tabling of this report, it is expected that all the work in this reference will have been completed by the end of 1971. Work in the two most critical areas, the domestic aprons, is expected to be finished at the end of 1970 in respect of the northern apron and 12 months later in the case of the southern apron.

ESTIMATE OF COST

27. The estimated cost of the work in this reference when referred to the Committee was \$3.15 million. The components of this figure are -

Further site preparation including

surcharging and filling	\$2,300,000
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Roadworks, additional car parking

area, extension of elevated roadway	850,000
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	\$3,150,000
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THE DOMESTIC TERMINALS

28. The report of the 1965 Committee on the site preparation of the north-west building area stated in part -

" We were told that the Government has not yet taken a decision on the point in time when the domestic terminals will be redeveloped

in the north-west or whether the cost of this work will be borne by the operator or by the Commonwealth as in the case of the new Melbourne (Tullamarine) and most other airports. This indecision is the cause of concern to Trans-Australia Airlines which would make substantial savings in the £700,000 expansion programme if it is decided to build new domestic terminals concurrently with, or shortly after, the international terminal.

Due to the present state of the existing facilities, and as they will become inadequate unless major costly and uneconomic extensions are made over the next five years, the Committee concluded that there is a need to commence construction of the new domestic terminals concurrently with the international terminal. There is also the fact that until the new domestic terminals are built in the north-west, airline passengers transferring in Sydney from an international to a domestic airline, or vice versa, will be faced with the problem of the separation of the respective terminals and the great inconvenience in moving from one terminal to the other. "

29. We noted that although the actual sites of the domestic terminal buildings have now been prepared and are ready for construction to commence, and notwithstanding the recommendation of the previous Committee, the Government has not yet taken a decision on the redevelopment of the domestic terminals in the north-west area or on the financial responsibility for the building work. We were told in informal discussions with airlines representatives that the airlines continue to be concerned that these decisions have still not yet been taken. The position now is that both the major domestic operators have commenced or are planning large and costly extensions of their existing facilities in the north-eastern area, not knowing how much

longer their passenger terminals will remain there and not knowing the extent of their financial obligations in the move to the new terminal area.

30. Confirming the evidence given to the Committee in 1965, we were again informed on this occasion that, on operational grounds, Sydney Airport will require a system of parallel runways by about 1975. The decision to relocate the domestic terminals in the north-west area means that the runway parallel to the existing north-south runway will be about 1,000 ft east of the latter, requiring the demolition of the present T.A.A. terminal. As the parallel runways will require up to two years to construct, it means that T.A.A. and probably Ansett-A.N.A. should both be operating from the new terminal area by 1973.

31. Working back from that date on the construction of the domestic terminals and assuming 12 to 18 months for documentation after an approval to proceed is given by Parliament and three years for construction, it was quite clear that for operational reasons alone there is a need for an early decision to be taken by the Government on the construction of the domestic terminal buildings and aprons.

32. The completion dates for the site preparation of the domestic apron areas in the present reference are such that the paving of the aprons can be completed before or concurrently with the terminal buildings providing approvals for the work to proceed are given at the appropriate times.

RECOMMENDATIONS AND CONCLUSIONS

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

Paragraph

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|----|---|----|
| 1. | THE COMMITTEE RECOMMEND THE CONSTRUCTION OF THE
WORK IN THIS REFERENCE. | 23 |
| 2. | WE NOTED WITH SATISFACTION THAT THERE IS PROVISION
IN THE ESTIMATES FOR THE SAND REQUIRED FOR THE PROPOSED
WORK TO BE TRUCKED IN FROM OUTSIDE THE AIRPORT AREA
IF NECESSARY. | 25 |

Paragraph

3. THE ESTIMATED COST OF THE WORK WHEN REFERRED
TO THE COMMITTEE WAS \$3.15 MILLION. 27
4. THE GOVERNMENT HAS NOT YET TAKEN A DECISION ON
THE REDEVELOPMENT OF THE DOMESTIC TERMINALS IN THE
NORTH-WEST AREA OR ON THE FINANCIAL RESPONSIBILITY
FOR THE BUILDING WORK. 29
5. FOR OPERATIONAL REASONS THERE IS A NEED FOR AN
EARLY DECISION TO BE TAKEN ON THE CONSTRUCTION
OF THE DOMESTIC TERMINAL BUILDINGS AND APRONS. 31

F. C. Chaney

(F.C. CHANEY)
Chairman.

Parliamentary Standing Committee on Public Works,
Parliament House,
CANBERRA.

31. October, 1967.