



BANKSTOWN AIR TRAFFIC CONTROL TOWER NO. 2

HERITAGE
MANAGEMENT PLAN

37 Tower Road,
Hobart Airport,
Tasmania

February 2021

prepared for



prepared by

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Cover image: Bankstown ATC tower no. 2, 2016: east and north elevations
(Lovell Chen)

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EXECUTIVE SUMMARY

This Heritage Management Plan (HMP) for Bankstown Air Traffic Control (ATC) tower no. 2 at Bankstown Airport was commissioned by Airservices Australia (Airservices), which owns the building and leases the land on which it is located from Bankstown Airport Ltd (BAL), the airport lessee company for Bankstown Airport. The 39-year lease expires in 2034.

Bankstown ATC tower no. 2 is included in the Commonwealth Heritage List (ID: 106118), which is established under the Environment Protection Biodiversity Conservation Act 1999 (EPBC Act). This HMP has been prepared in accordance with Schedule 7A of the Commonwealth Environment Protection Biodiversity Conservation Regulations, 2000: 'Management Plans for Commonwealth Heritage Places'. The overarching objective of Schedule 7A of the EPBC Act is to provide frameworks to inform the future conservation and management of the cultural heritage values of places included in the Commonwealth and National Heritage lists. This document also follows the principles and processes set out in best practice guidelines, including the Burra Charter (2013).

Overview of the asset

Bankstown ATC tower no. 2 was designed in 1967-68 by the Commonwealth of Australia Department of Works (NSW branch) for the Department of Civil Aviation (DCA). It was built in 1969 and commissioned in 1970. The tower comprises a rectangular, four-storey base structure in reinforced concrete with varicoloured face brick cladding. The north and south elevations are 6.9m wide and the east and west elevations are 7.95m wide. The base structure is surmounted by a cantilevered walkway and an octagonal cabin with outward canted steel-framed windows. The cabin roof is 16.7m above ground level.

The tower is largely intact externally and internally. The freestanding radio equipment and power house/lighting control rooms, which are contemporary with the tower, are also substantially intact as built.

Findings

Bankstown ATC tower no. 2 is of significance to Australia for demonstrating the principal characteristics of control towers of the post-World War II era (CHL criterion D).

The subject building is a representative and substantially intact example of a standardised ATC tower dating from the first phase of post-World War II design in air traffic control facilities (1950s to late 1960s). It is one of a group of control towers built to essentially the same operational and technical standards and specifications across Australia and Papua New Guinea from the 1950s until the late-1960s. Its design is derived from the 1950s ATC towers (Sydney, Essendon, Hobart, Launceston, Brisbane and others). This design approach was repeated and refined and by the mid-1960s the architectural presentation of towers, particularly those at secondary and general aviation airports, had fallen into a pattern, characterised by square plan towers of reinforced concrete surmounted by octagonal cabins with outward-canted windows raised on part-chamfered service and duct drums.

While a late example of this standard type, Bankstown is distinguished from the majority of surviving equivalents through its relative intactness. Other than for the modification of windows at the upper level on the east elevation and the addition of an escape stair to the south elevation, the building is intact externally. Internally it also retains the majority of its plan form and fabric, and some original plant and machinery, including compressors and air handling units in the air conditioning plant room. This equipment is standardised, and not unique to the Bankstown ATC tower. The tower is, however, unusual in retaining its original timber-framed console, albeit modified.

The other contemporary buildings/spaces within the Airservices compound, including the radio equipment room, power house/airport lighting room are also largely intact.

The Bankstown tower was built at the end of the 1960s, a time of significant investment and development at Bankstown Airport and is of local historical significance in this context.

Recommendations

The core recommendations of this HMP are summarised below:

Conservation

The key features requiring conservation include:

- The external presentation of the building, as a tall (in the airport context), free-standing structure which is recognisable as a control tower primarily as a consequence of its elevated octagonal cabin;
- The rectangular four-level base structure built of reinforced concrete surmounted by an octagonal cabin with outward-canted windows raised on a part-chamfered service and duct drum;
- The building's functional, utilitarian design aesthetic which is evocative of its construction during the first post-World War II phase of ATC tower development; and
- Unimpeded lines of sight from the cabin to the apron and runways.

Management

Key management considerations include the following:

- Airservices should comply with all applicable legislation in the management of the ATC tower's Commonwealth heritage values, including the EPBC Act and the Airports Act 1996;
- In the event that Bankstown Airport is sold by the Commonwealth, Bankstown ATC tower no. 2 should be nominated for inclusion in the NSW State Heritage Register in order to ensure the ongoing protection of its identified Commonwealth heritage values;
- Programs of priority maintenance, remedial works and cyclical maintenance should continue to form the basis for ongoing care of the significant built fabric at Bankstown ATC tower no. 2;
- In preference the modified section of the strip window to the east elevation of the ATC tower, third level, should be returned to its original form;
- A training program should be instigated to raise awareness of the heritage significance of Bankstown ATC tower no. 2 among key members of the Airservices and BAL staff;

- In the event of disposal by Airservices one or more new uses may be considered for Bankstown ATC tower no. 2. The priority consideration in contemplating new uses for the building is to avoid or minimise the potential for impacts on the tower's Commonwealth Heritage values, and, related to this, to minimise adverse impacts on its external presentation. Strategies for change to significant elements and attributes are provided at Policy 14, Chapter 6 of this report; and
- The radio equipment room building and the power house, as contributory elements within the Airservices compound, should be retained if possible. In the event they are required to be replaced, new structures should be of a scale and presentation that is complimentary to the ATC tower. In preference, new built form should be located on the sites of the existing buildings and be no more than two levels in height.

Table 1. Table of abbreviation and acronyms

Abbreviation/ acronym	Full name/title
ABCB	Australian Building Codes Board
ADHQ	Air Defence Headquarters
AES	Airport Environment Strategy].
ALC	Airport Lessee Company
ALR	Airport Lighting Room
ARFF	Aircraft Rescue and Firefighting
ATC	Air Traffic Control
ATCT	Air Traffic Control Tower
Airports Act	<i>Airports Act, 1996</i>
BAL	Bankstown Airport Limited
Burra Charter	<i>Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013</i>
CHL	Commonwealth Heritage List
DCA	Department of Civil Aviation
DITRD	Department of Infrastructure, Transport and Regional Development
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Australia)
FAC	Federal Airports Corporation
Heritage Act	<i>NSW Heritage Act, 1977</i>
HMP	Heritage Management Plan
HMS	Her/His Majesty's Ship
HMS	Heritage Management Strategy
ICAO	International Civil Aviation Organisation
LALC	Local Aboriginal Land Council
LEP	Local Environment Plan
MER	Mechanical Equipment Room
MFS	Master Facility Schedule
MONAB	Mobile Naval Air Base
MP	<i>Bankstown Airport Master Plan and Airport Environment Strategy 2014</i>
NCC	National Construction Code
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NPWS	National Parks and Wildlife Service
Ops & Admin Buildings	Integrated Operations and Administration Building
RAAF	Royal Australian Air Force
RER	Radio Equipment Room
RN	British Royal Navy
RNE	Register of the National Estate
USAAF	United States Army Air Force
WAAAF	Women's Auxiliary Australian Air Force

1.0 INTRODUCTION

This Heritage Management Plan (HMP) has been prepared for Airservices, the Commonwealth agency responsible for the management of civilian air space in Australia. It addresses the Air Traffic Control (ATC) tower at Bankstown Airport (also known as Sydney Metro Airport Bankstown). The ATC tower, and its associated power house and radio equipment room, is generally referred to here as Bankstown ATC tower no. 2 (the first ATC tower at Bankstown has been demolished). Bankstown ATC tower no. 2 is owned and operated by Airservices. It is located on land leased from Bankstown Airport Ltd (BAL), the Airport Lessee Company for Bankstown, which signed a long-term Commonwealth lease agreement on 1 July 1998. Bankstown ATC tower no. 2 is included in the Commonwealth Heritage List (CHL) as Place ID: 106118. It was gazetted by the Commonwealth Environment Minister for inclusion in the CHL on 24 November 2015.

This HMP has been prepared in accordance with 'Airservices Heritage Strategy 2021-2023', to enable Airservices to meet its obligations under the *Environment Protection and Biodiversity Conservation Act, 1999 (EPBC Act)*. The *EPBC Act* imposes obligations on Commonwealth agencies to protect and maintain the environment, including the cultural heritage values of assets that they own or lease. The *EPBC Act* also establishes the CHL, a list of places managed or owned by the Australian Government each of which satisfy at least one of the nine Commonwealth Heritage list criteria. All places with Commonwealth Heritage values are afforded statutory protection under the *EPBC Act*.

1.1 Background and brief

This report follows a heritage assessment of ATC towers throughout Australia undertaken by Lovell Chen for Airservices in 2007 (Stage 1) and 2009 (Stage 2). Stage 1 comprised a desktop review of the 28 control towers either owned or leased by Airservices to determine whether any of the towers had potential heritage values, and the nature, extent and level of those values. Of the towers assessed, 13 were identified as having heritage values of a nature and level indicative of Commonwealth Heritage Value. Further detailed assessment of the 13 ATC towers was undertaken as Stage 2 of the project. The Detailed Heritage Assessment for Bankstown ATC tower no. 2 concluded that the tower met CHL criterion 'D' at a level that was indicative of Commonwealth heritage value as a representative and substantially intact example of a standardised ATC tower form dating from the first phase of post-World War II design in Australian air traffic control facilities (1950s-late 1960s).

The primary objectives of this HMP are to:

- Confirm the cultural heritage significance of Bankstown ATC tower no. 2;
- Provide policies for the conservation of the building and Airservices compound as a whole, taking into account the care of significant fabric, the appropriate management of hazardous materials and the ongoing use and management of Bankstown ATC tower no. 2; and
- Provide a heritage framework to inform future management of the place, including guidance on new works and development.

1.2 Identification of the place

Bankstown Airport is located approximately 25km south-west of Sydney's CBD. The airport covers an area of 313 hectares, with three parallel runways oriented approximately north-west to south-east. There is a business park to the north of the runways (Figure 1 and Figure 2), within the confines of the airport. Riverwood Golf Course is to west of the airport, between Tower Road and the Georges River. Bankstown is a general aviation, parcel freight and niche passenger aviation airport, with 236,010 air movements during 2016 (calendar year).¹

Figure 1 Plan of Bankstown Airport with the approximate location of the control tower indicated

Source www.melway.com.au/online-maps



Figure 2 Aerial view of Bankstown Airport with the control tower indicated, May 2017

Source www.nearmap.com.au



1.2.1 Airservices compound, Bankstown Airport

Bankstown ATC tower no. 2 is located on Tower Road, to the west of the runways (Figure 1). The secure area leased by Airservices measures approximately 2,300 square metres, and includes: the ATC tower to the south-east of the compound; a radio equipment room and power house to the west of the tower; and a conjoined power house and airport lighting room to north of the compound (Figure 3). There is a car park (partially secure) to the north of the power house. The Airservices lease comprises Lot 103 in DP 852861 (Part).



Figure 3 Aerial photograph of Bankstown ATC tower complex, May 2017: the approximate boundary of the Airservices lease is indicated

Source www.nearmap.com

1.3 Methodology and document structure

This HMP broadly follows the principles and processes set out in the *Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013 (Burra Charter)* and its Practice Notes. The *Burra Charter* establishes a standard of practice for those involved in assessing, managing and undertaking works to places of cultural significance.

Specifically, the report has been prepared in accordance with Schedule 7A of the Commonwealth *Environment Protection Biodiversity Conservation Regulations, 2000*: 'Management Plans for Commonwealth Heritage Places'. As a Commonwealth Heritage place, a HMP must be prepared for Bankstown ATC tower no. 2 that addresses a range of issues identified in the Regulations to the *EPBC Act*, at Schedules 7A and 7B. The purpose of these issues is to ensure that the plan meets the Commonwealth Heritage Management Principles set out in the Regulations.

Table 2 below sets out the *EPBC Act* Regulations requirements for management plans, and provides a comment about how the requirements are satisfied in the present HMP.

Table 2 *EPBC Act*
Regulation requirements for
management plans

<i>EPBC Act</i> Regulations, 2000, Schedule 7a	Relevant section(s) of this HMP
(a) establish objectives for the identification, protection, conservation, presentation and transmission of the Commonwealth Heritage values of the place	Objectives to identify and conserve the cultural heritage significance of Bankstown ATC tower no. 2 were informed by best practice guides, notably the <i>Burra Charter</i> . These objectives are discussed at Section 1.3, and chapters 5 and 6 of this HMP.
(b) provide a management framework that includes reference to any statutory requirements and agency mechanisms for the protection of the Commonwealth Heritage values of the place	Statutory requirements and agency mechanisms for the protection of the Commonwealth Heritage values of Bankstown ATC tower no. 2 are identified in chapter 5, with particular reference to the <i>EPBC Act</i> and the <i>Airports Act, 1996 (Airports Act)</i> .
(c) provide a comprehensive description of the place, including information about its location, physical features, condition, historical context and current uses	A description of Bankstown ATC tower no. 2 is at Chapter 3. A contextual history at Chapter 2 refers to notable changes to the building over time.
(d) provide a description of the Commonwealth Heritage values and any other heritage values of the place	An assessment of significance, including a description of the Bankstown ATC tower no. 2's Commonwealth Heritage values, is at Chapter 4.
(e) describe the condition of the Commonwealth Heritage values of the place	Condition (built fabric) is addressed at Section 5.5. The historical values of the ATC tower, as well as its rarity and representative values, are embodied in the physical fabric of the place.
(f) describe the method used to assess the Commonwealth Heritage values of the place	The assessment of the Commonwealth Heritage values of Bankstown ATC tower no. 2 was based on an understanding of the place (site history, Chapter 2 and physical description, Chapter 3).

EPBC Act Regulations, 2000, Schedule 7a	Relevant section(s) of this HMP
(g) describe the current management requirements and goals, including proposals for change and any potential pressures on the Commonwealth Heritage values of the place	The operation of the place as a control tower, and issues arising in relation to anticipated change at the place are addressed in Chapter 6, see particularly Section 6.4, 'Use, adaptation and change'.
(h) have policies to manage the Commonwealth Heritage values of a place, and include in those policies, guidance in relation to the following:	A suite of conservation policies and management guidelines have been prepared to appropriately manage the identified Commonwealth Heritage values of Bankstown ATC tower no. 2 (see Chapter 6).
(i) the management and conservation processes to be used	See 'General policies', Section 6.2
(ii) the access and security arrangements, including access to the area for indigenous people to maintain cultural traditions	See Policy 18, Chapter 6
(iii) the stakeholder and community consultation and liaison arrangements	See Policy 6, Chapter 6 (A draft of this HMP was placed on public exhibition from 14 February to 14 March 2018, through an advertisement in a newspaper with national circulation, and the websites of Airservices and Lovell Chen. No submissions were received in response to the advertising.)
(iv) the policies and protocols to ensure that indigenous people participate in the management process	See Policy 6, Chapter 6
(v) the protocols for the management of sensitive information	See Policy 7, Chapter 6
(vi) the planning and management of works, development, adaptive reuse and property divestment proposals	See Policies 11, 12, 13 and 14, Chapter 6
(vii) how unforeseen discoveries or disturbance of heritage are to be managed	See Policy 21, Chapter 6
(viii) how, and under what circumstances, heritage advice is to be obtained	See Policies 5 and 9, Chapter 6. See also 'User Guide' at Appendix C
(ix) how the condition of Commonwealth Heritage values is to be monitored and reported	See Section 6.6.4, Chapter 6
(x) how records of intervention and maintenance of a heritage places register are kept	See Policy 16, Chapter 6
(xi) the research, training and resources needed to improve management	See Policy 19, Chapter 6

<i>EPBC Act Regulations, 2000, Schedule 7a</i>	Relevant section(s) of this HMP
(xii) how heritage values are to be interpreted and promoted	See Policy 20, Chapter 6
(i) include an implementation plan	Strategies for the implementation of policies are included at Section 6.6
(j) show how the implementation of policies will be monitored	See Section 6.6
(k) show how the management plan will be reviewed	See Policy 8, Chapter 6

1.4 Statutory heritage controls

1.4.1 *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)

Bankstown ATC tower no. 2 is included in the Australian Heritage Council's CHL as a Listed Place (Place ID: 106118), and is significant as a representative and substantially intact example of a standardised ATC tower form dating from the first phase of post-World War II design in Australian air traffic control facilities (1950s to late 1960s). The citation is included at Appendix A.

The ATC tower is the only building/element at Bankstown Airport which is included in the CHL. However, the provisions of the *EPBC Act* provide protection of the Commonwealth Heritage values of all places which are either entirely within a Commonwealth area or are owned or leased by the Commonwealth or a Commonwealth Authority, including but not limited to places which are in the CHL.² Under the *EPBC Act*, actions that have, or are likely to have, a significant impact on a matter of national environmental significance, including Commonwealth Heritage values, require approval from the Australian Government Minister for the Environment (the Minister). The Minister will decide whether assessment and approval is required under the *EPBC Act*.³

The management of heritage places at federally-leased airports is required to comply with both the *EPBC Act* and its regulations, and the *Airports Act* 1996 (see Section 5.2).

Prior to the preparation of this HMP, Airservices fulfilled its obligation to manage and conserve Bankstown ATC tower no. 2 by providing a 'User Guide' for the tower to all relevant contractors and staff (see Appendix C). The User Guide was drafted by Airservices in 2014, and informed by the outcomes of the Detailed Heritage Assessment prepared by Lovell Chen in 2009 as part of the national assessment of ATC towers. The User Guide includes guidance for contractors and staff about obligations relating to the management of the tower's heritage values and attributes. It was updated following the completion of this HMP (draft).

1.4.2 *NSW Heritage Act 1977 (NSW)*

Bankstown ATC tower no. 2 is not included in the NSW State Heritage Register. Bankstown Airport is likewise not included in the NSW State Heritage Register.

The ruins of a former Air Defence Headquarters (ADHQ Sydney, No. 1 Fighter Section Headquarters, 1FSHQ, Bankstown Bunker, RAAF No 1 Installation Bankstown) at Condell Park, which abuts Bankstown Airport to the east, is included in the NSW State Heritage Register (Listing Number 01857). The 'Bankstown Bunker' came into operation in January 1945, and formed part of Australia's defence network during the latter stages of World War II. It relates to the use and development of Bankstown Airport as a defence facility during World War II.

1.4.3 *Environmental Planning and Assessment Act 1979 (NSW)*

'Bankstown Aerodrome' in the suburb of Georges Hall within the City of Canterbury-Bankstown is included in the Bankstown Local Environmental Plan (Bankstown LEP Schedule 5, item I18), established under the *Environmental Planning and Assessment Act, 1979*. The details for the listing are incomplete. The 'statement of significance' for the Aerodrome is, 'Evidence of regional strategic importance of Bankstown in the 1940s'. The LEP entry – included at Appendix A – makes no reference to the ATC tower.

1.5 Limitations

1.5.1 Aboriginal cultural heritage

Consideration of the potential for Aboriginal cultural heritage associations with the Bankstown ATC tower no. 2 site, and Bankstown Airport generally, for this HMP was limited to a desktop audit of known Aboriginal cultural heritage. Outcomes of this process are summarised in the Register of the National Estate (RNE) citation for the place, as follows:

The setting in which the Airport lies would have been a favourable location for Aboriginal habitation, prior to European arrival. With a nearby permanent water source and a diverse range of food on the river banks and surrounding hinterland it is likely that this area would have been well utilised by Aboriginal communities. However, the Airport has been extensively disturbed over many decades. The whole of the Airport has been cleared of its original, native vegetation and only shrub regrowth occurs in isolated pockets along the Airport boundary. In addition extensive regrading has been undertaken over the majority of the site to make it suitable for its present purpose. The potential for the occurrence of Aboriginal sites and artefacts is therefore considered to be low. Discussions with representatives of the Gandangarra Local Aboriginal Land Council (LALC) have confirmed this preliminary assessment.

A search of the NSW National Parks and Wildlife Service (NPWS) Aboriginal Sites Register did not identify any known Aboriginal sites within the Airport.

The National Native Title Tribunal has confirmed that there are no sites in the vicinity of the Airport listed on the National Native Title Register, Register of Native Title Claims or on the Register of Indigenous Land Use Agreements ...⁴

Given that the potential for the ATC tower to be of significance to Indigenous people can reasonably be anticipated to be low, it is not considered that there is a requirement for the Local Aboriginal Land Council to be consulted as a stakeholder in the event that significant change is proposed at the subject site (see discussion of legislative requirements at Section 5.2 and stakeholders at Section 5.5.).

1.5.2 Social values assessment

No formal appraisal of social values, as might be informed by a community consultation process, was undertaken in the course of this HMP.

Accepting this, ATC towers are by their nature generally not public places and it is considered unlikely the place would be the focus of widespread community attachment. As for any workplace, it is possible the place could be the subject of sentiment for current and former Airservices employees.

2.0 HISTORY

Bankstown Airport has been Sydney's secondary airport since 1940, with the primary airport located at Mascot.⁵ The present ATC tower at Bankstown was commissioned in 1970. This chapter addresses Bankstown's origins as an airfield and its subsequent uses and development. The objective of the history is to establish an historical and operational context to inform an understanding of the ATC tower.

A set of sequential aerial photographs of the airfield, dating to 1930, 1943, 1951 and 1970, is at Section 2.5.

2.1 'Remarkably free from faults from an aviation viewpoint' (1929)

There has been uncertainty about the suitability of Mascot as the location of Sydney's primary airport for almost a century. For almost as long, there has been discussion about Bankstown as an alternative. The debate dates to at least as early as 1929, when a proposal was put to the Parliamentary Standing Committee on Public Works for extensions to be carried out to Mascot, at a cost of £70,000. The proposal was driven, in large part, by increasing use of Mascot for training and private flying (general aviation), and associated concerns about air safety.

As part of the debate, other potential sites were put forward, including a dairy farm at Bankstown, south-west of Sydney's CBD (Figure 11).⁶ The site covered an area of 637 acres (257 hectares) and was described as:

... remarkably free from faults from an aviation viewpoint, as in addition to being almost flat, it [had] a gradual slope necessitating very little beyond clearing to create an almost perfect natural landing ground.⁷

Further to these attributes, the site included:

... a mile of waterfrontage to the George's River, where the water is more than 28 feet deep, and at its narrowest part, six chains wide. A straight stretch of more than a mile of perfectly calm water provides a splendid facility for amphibious craft. The formation of the land and the rich sandy loan of which it is composed tend to strengthen its claim ... it is well grassed and for the greater part cleared of undergrowth.⁸

The dimensions of the site were considered to have 'ample room for the 'get-away' for any type and weight of machine' (a 'get away' refers to a strip of either prepared or unprepared land used for aircraft to take off from and land on). Aside from the topographical advantages of the land, the site at Bankstown was seen to be easily accessible by rail, bus, road and foot – it was only 12 miles (19.3 kilometres) from the Sydney General Post Office. Furthermore, the scale of the site would rival that of airports in major European cities such as Berlin in Germany and Croydon in England.⁹ Another advantage was that it was being offered for a price that would save £10,000 from the £70,000 grant for the Sydney Airport expansion plans. This £10,000 saving also took into account the construction of hangars, machine shops and 'get aways'.¹⁰

At that time, however, the option to develop Bankstown as an alternative site for a primary Sydney airport was set aside in favour of upgrades and extensions at Sydney.¹¹

2.2 Development by the RAAF (1940-1945)

The outbreak of World War II in 1939 once again raised the need for a secondary airport in Sydney. The need for young commercial pilots to be trained to replace those, older and more experienced pilots who had been sent to war meant that Sydney Airport was coming under strain.¹² Additionally, the Royal Australian Air Force (RAAF) required a training ground for pilots.¹³ The congestion at Mascot caused authorities to consider it to be used as a major commercial airport only, and that instructional and private flying should be abandoned¹⁴ –there were a number of reports of near collisions at Mascot between commercial passenger planes and smaller instructional planes during this period.¹⁵ Two sites were proposed, one near Liverpool and the site at Bankstown that had been considered ten years earlier.

On 2 December 1940, the RAAF formally established a base at Bankstown, known as No.2 Aircraft Park.¹⁶ The site was selected, in part, for its proximity to the Clyde Engineering Works at Granville, which enabled access for aircraft maintenance and repairs. In 1942, the de Havilland company, a subsidiary of a British-owned aircraft manufacturer, commissioned and constructed a factory at the Bankstown Airport. In total, 212 de Havilland Mosquito aircraft, a fast, lightweight fighter bomber, were built at Bankstown Airport during World War II.¹⁷

The WWII layout of the northern part of the airport site, including operations and administration area, was defined by a chevron arrangement, with a central north-south axis (now Airport Avenue) leading to the runway and the ATC tower at the apex.¹⁸ This arrangement provided view lines across the runways to the de Havilland area to the south.¹⁹

Figure 4 Bankstown Airport 1945, view looking east from the north-west of the airport

Source Flickr, Jim Dixey Collection, courtesy Tony Drury, accessed 13 June 2016



Bankstown Airport would continue to be used as a RAAF air force base throughout the war. On 10 September 1941, the Women's Auxiliary Australian Air Force (WAAAF) began training at Bankstown. Also in 1941, two new hangars were constructed. The RAAF also built a semi-underground facility for radio transmissions and operational military planning known as the Bankstown Bunker (the remnants of this facility, located in Condell Park directly to the east of the airport, are included in the NSW State Heritage Register, see Chapter 1).²⁰ The airfield was also camouflaged.

In 1942, the United States Army Air Force (USAAF) sent a number of their squadrons to the Bankstown Airport, with Airacobra fighters, to assist with the fighter defence of Sydney and to utilise the repair and service facilities of the Clyde Engineering Works.²¹ Towards the end of the war, in January 1945, the British Royal Navy (RN) took control of the airport from the RAAF and commissioned HMS Nabberley, a Mobile Naval Air Base (MONAB) (Figure 4). The RN constructed a number of new buildings including accommodation huts, hangars and ancillary buildings. HMS Nabberley assisted with the return of Allied prisoners of war from camps in Singapore and Hong Kong when the Japanese surrender signalled the end of the war. The RN returned the site to the RAAF on 31 March 1946.²²

2.2.1 Bankstown ATC tower 1

The first ATC tower at Bankstown is believed to have been built by the RAAF in the early 1940s. The tower was integrated with a single-storey gabled fire station – possibly an early example of an integrated aircraft rescue and firefighting (ARFF)/ATC complex in Australia (Figure 5 and Figure 6).

The ATC tower comprised a square two-storey base surmounted by a square cabin with outward canted windows and with the cabin and upper level of the base painted in red and white checks (this was standard RAAF colouration).²³ Access was via an external staircase on the north-east side of the building.

The ATC tower and ARFF station was demolished some time after 1974.



Figure 5 The RAAF tower at Bankstown (now demolished), 1966: view looking north-east

Source Civil Aviation Historical Society

Figure 6 The RAAF tower at Bankstown (now demolished), 1974: view looking north-west

Source Civil Aviation Historical Society



2.3 Post-World War II development

In 1945, Bankstown was one of several sites considered for development as Sydney's international airport. The primary reason for its perceived unsuitability was the limitations of its runway approaches, a fact borne out in 1974 with the closure of Runway 05-23.

In 1948, the Department of Civil Aviation (DCA) assumed responsibility for the management of Bankstown Airport, and the following year the DCA ordered the Royal Aero Club of New South Wales – a part of the Royal Federation of Aero Clubs of Australia and the principal trainer of commercial pilots in New South Wales – to relocate from Sydney Airport to Bankstown Airport.²⁴ The Royal Aero Club was considered to be one of the most prestigious flying clubs in New South Wales, and was provided with a generous land allocation at a low rent for club activities, including a clubhouse, a tennis court and a gun club. In the same year, the now empty RAAF barracks and common facilities were repurposed for use as a camp for migrants and displaced persons – the migrant camp closed in 1956.²⁵

In the post-World War II period, Bankstown Airport and its hinterland remained a major centre for aircraft construction and servicing. The de Havilland Aircraft Company continued to be a presence at the site – in 1959, de Havilland became part of Hawker Siddeley Aviation and formed Hawker de Havilland. Another manufacturer, the Bristol Aeroplane Company, set up operation at Bankstown Airport in 1954.²⁶

The airport was also called into occasional service for military needs. With the outbreak of the Korean War in 1950, recruitment for the armed forces increased. During this period RAAF conscripts were required to complete six month training stints, and these were carried out at Bankstown Airport; the recruits were housed at the former WAAAF and RAAF barracks.

The airport continued to be dedicated to private flying and training, with no commercial operators at the site. By the mid-1960s, Bankstown was widely recognised as the headquarters of general aviation in New South Wales, and one of the major centres in Australia. The use of Bankstown Airport increased dramatically during this period: annual air traffic movements rose from 100,000 to 280,000 between 1962 and 1967,²⁷ and the decade between 1969 and 1979 saw an increase of almost 75 per cent in general aviation activity in Australia.²⁸ This exponential increase was a major factor in the replacement of the World War II-era ATC tower in 1968-70 (see below).

Upgrades and improvements to the airport during this period included the installation of street lighting; a paved runway in 1952; and runway lighting in 1965. By this time there were three sealed parallel runways at the airport – 941m-long, 1,190m-long and 914m-long (Figure 13).

2.3.1 Bankstown ATC tower 2

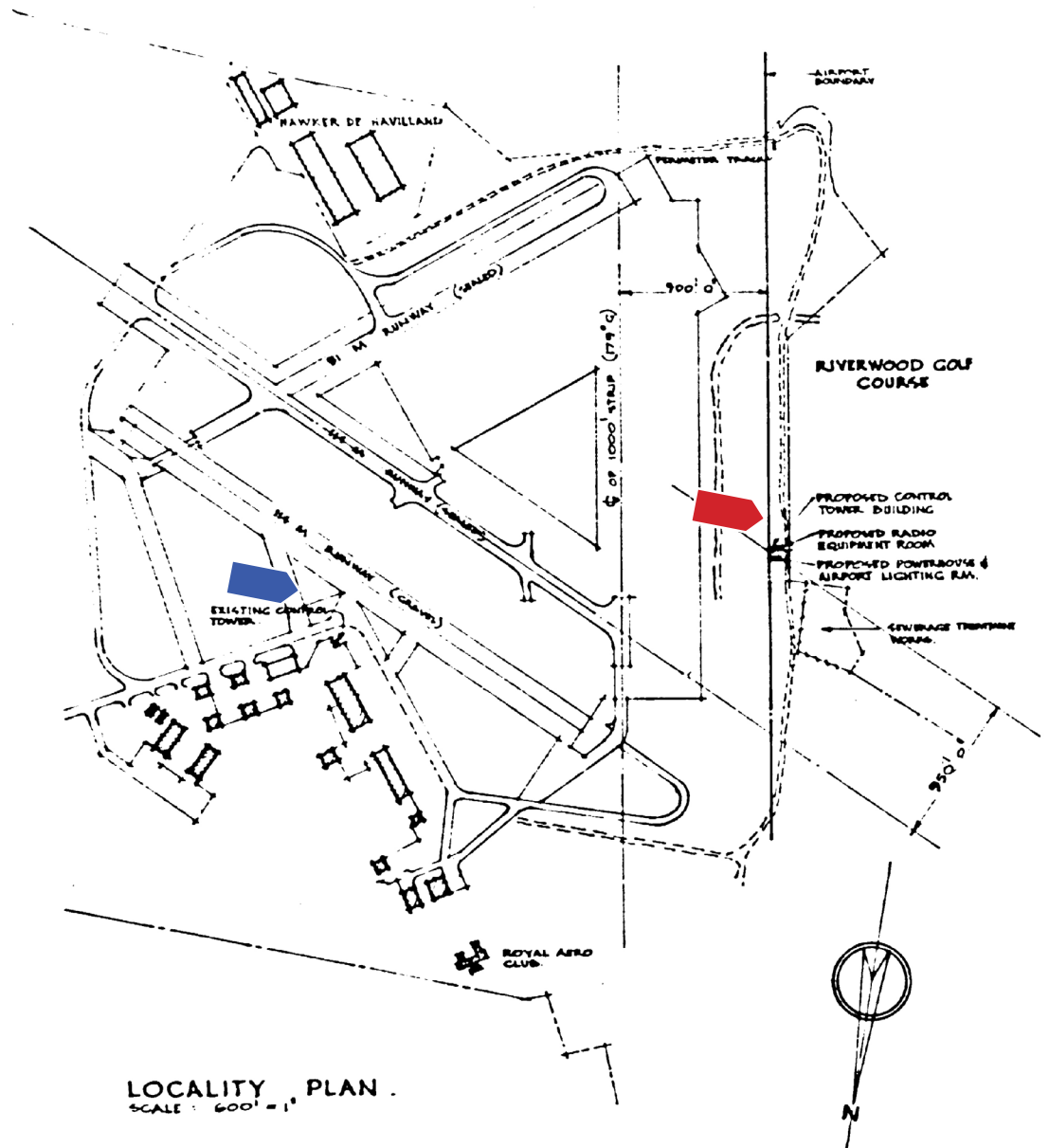
On 5 July 1968, the DCA announced that a new ATC tower, with associated powerhouse and equipment would be built at Bankstown Airport on the western side of the airport. The late-1960s and early-1970s was a period of significant expansion at the airport, including the introduction of a new road to the west of the airport, between the apron and the Georges River Golf Course (then Riverwood Golf Course). The road was named Tower Road, suggesting that the primary driver for its introduction may have been to provide access to the new ATC tower. Architectural drawings prepared by the Commonwealth of Australia Department of Works (NSW branch) for the DCA, dated, 1967 and 1968, provide evidence of the planning of the new facility, which was physically isolated from the developed area at the north of the airport (Figure 7 and Figure 8).

In its siting and facilities, the new tower conformed to DCA's Master Facility Schedule (MFS) no. 18 (issue 2, May 1967), specifying requirements for standard facilities in control towers and stating principles to be observed in the preparation of control tower unit facility schedules. From the mid-1960s, there was increasing standardisation of facilities and equipment associated with towers through the introduction of the MFS (1 and 2, dated 1964 and 1967 respectively). Although MFS issues 1 and 2 included no direction on design, the architectural presentation of towers, particularly those at secondary and general aviation airports, had also fallen into a pattern, characterised by predominantly square plan towers of reinforced concrete surmounted by octagonal cabins with outward-canted windows raised on part-chamfered service and duct drums. This was a format that had been established by the previous generation of 1950s towers. As discussed at Chapter 3, these characteristics and qualities are evident at the Bankstown facility.

The new ATC facility was built for a cost of \$260,000 and was commissioned in 1970.

Figure 7 'Locality plan', 1967, indicating the locations of the existing RAAF tower (blue arrow) and the proposed control tower (red arrow)

Source Airservices Australia



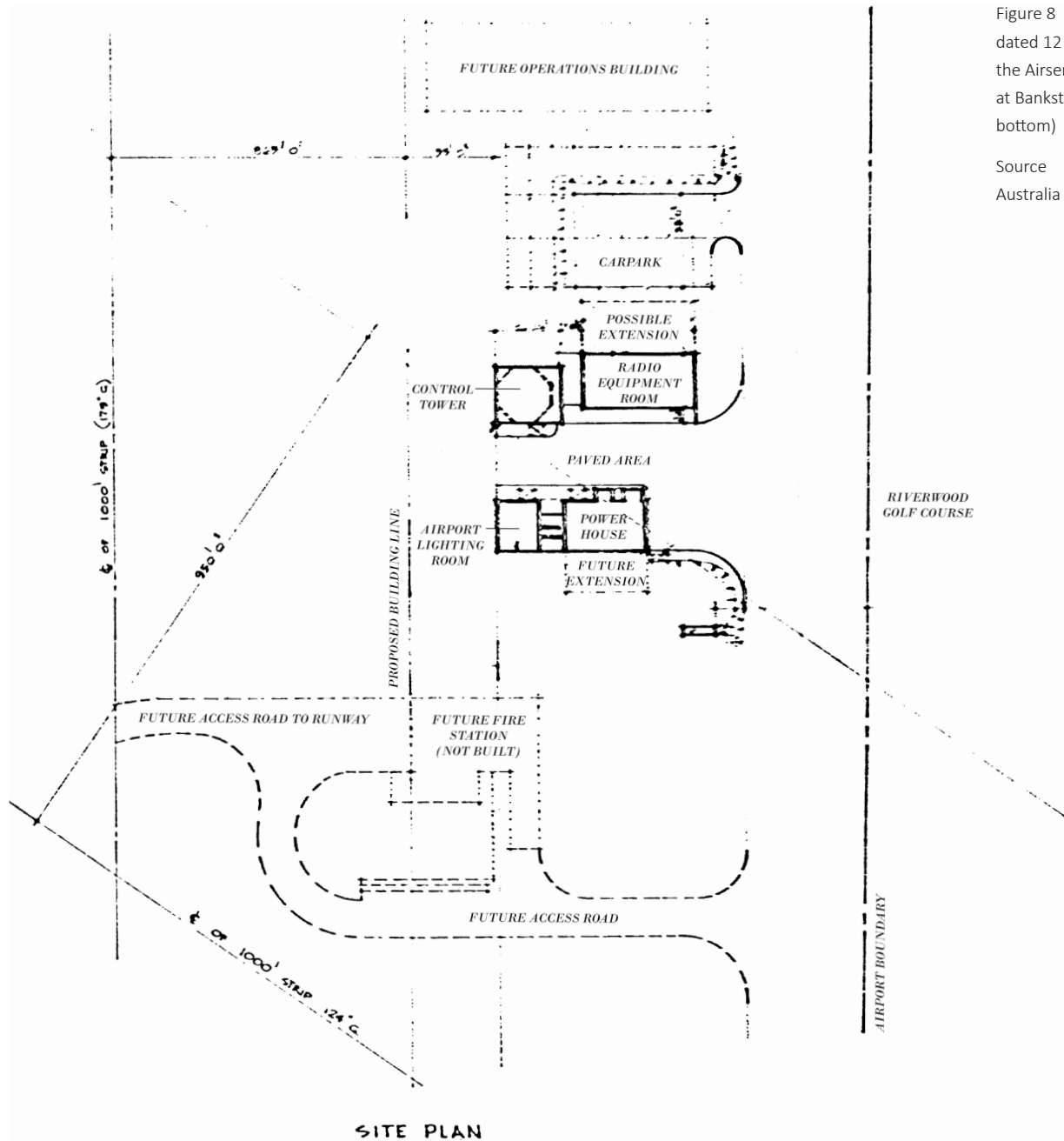


Figure 8 Site plan;
dated 12 March 1968, of
the Airservices compound
at Bankstown (north is at
bottom)

Source Airservices
Australia

Figure 9 Bankstown ATC tower no.2 looking south, 1974: the powerhouse is in the foreground

Source Civil Aviation Historical Society



Figure 10 West and north elevations of Bankstown ATC tower no. 2, 1974

Source Civil Aviation Historical Society



2.4 Diversification and development (1970s-present)

In the period since the 1970s, aircraft construction and maintenance has continued to be a major activity at the airport.²⁹ By 1979, 35 per cent of aircraft maintenance in NSW was undertaken at Bankstown Airport.³⁰ In 1987, the manufacture and maintenance of helicopters commenced at the airport, with the Black Hawk helicopter assembled from imported kits at the site. Hawker de Havilland (which had been taken over by the Commonwealth Aircraft Corporation) built the last military aircraft at Bankstown in Australia in 1992.

In 1980 the RAAF handed over the remainder of the land it controlled to the Department of Aviation. General aviation air traffic had increased to approximately 300,000 annual air movements between 1981 and 1982.³¹ Annual air movements reached a peak of 480,000 in 1989/90 and have not since been exceeded.

The Federal Airports Corporation (FAC) was established by the Commonwealth Government, under the *Federal Airports Corporation Act* 1986, to operate federally-owned airports in Australia. The FAC oversaw the staged privatisation of federal airports. The FAC assumed the operation and management of Bankstown Airport on January 1 1988, and on 1 July 1998 these responsibilities were transferred to BAL, the airport lessee company (ALC) for Bankstown.

The shift from a government-owned airport to a private business saw the development of a number of commercial premises on the site, such as the Nabberley House office and warehouse complex, as well as the expansion of aprons and taxiways. Despite aircraft maintenance and construction being a major component of activity at Bankstown Airport, much of the newly developing land associated with the site was not related to aviation. The Bankstown Grammar School was established in 1986 on Links Road. In 1989, the Royal Aero Club lost a bid to stop a request that the low, special rental rates the club had formerly enjoyed should be raised, and was forced to begin paying market rates. This, coupled with decreased government subsidisation and public interest, eventually gave cause for the club to cease operation entirely. The Royal Aero Club abandoned the airport in 1991, leaving hangars available to be leased for commercial operations.³²

In 1994, the Australian Aviation Museum was installed in premises at the south-west of the airport. By 1998, the museum was in full operation and held an extensive collection of aircraft. (The museum has now closed and is proposed to reopen in premises at Camden Airport – at the time of writing, this had yet to occur.) The remaining buildings left over from the Royal Aero Club, including a clubhouse and a hospital, were demolished in the same year.³³

The 2000s saw Bankstown Airport continue with a high volume of general aviation (private flying and training). The airport also often accommodated Erickson Skycrane Helitankers for the purpose of bushfire fighting during the Australia summer.³⁴

Today the airport occupies 313.3 hectares of land and is home to approximately 250 commercial businesses.³⁵ In 2014, the Commonwealth Government approved Bankstown Airport's 2014 Master Plan (MP), a strategic outline for the development of the airport over the next 20 years (see also Chapter 5).³⁶

2.5 Sequential aeri

The following historic aerial photographs illustrate the development of Bankstown Airport between 1930 and 1970.

Figure 11 Aerial view of the site now occupied by Bankstown Airport, 1930: the approximate extent of the present airport is indicated

Source: Spatial Services, NSW Finance, Services & Innovation





Figure 12 Aerial view of Bankstown Airport, 1943: the approximate extent of the present airport and the location of Bankstown ATC tower 1 (red arrow) are indicated

Source Spatial Services, NSW Finance, Services & Innovation

Figure 13 Aerial view of Bankstown Airport 1951: the approximate extent of the present airport and the location of Bankstown ATC towers (red arrow) are indicated

Source Flickr, Andy Brill, 26 December 2012, www.flickr.com/photos/angeljim46/8309383093/, accessed 6 June 2017





Figure 14 Aerial view of Bankstown Airport 1970: the approximate extent of the present airport and the location of Bankstown ATC tower no. 2 are indicated

Source Spatial Services, NSW Finance, Services & Innovation

3.0 PHYSICAL ANALYSIS

The following provides a description of the current Bankstown ATC tower no. 2. A key objective of the physical analysis is to identify alterations to the building as commissioned in 1970.

A site visit was conducted on 26 May 2016. Documentation referenced in the preparation of this analysis included historic photography (as reproduced in Chapter 2) and the following architectural drawings:

- Commonwealth Department of Works, New South Wales Branch
 - › Air Traffic Control Tower
 - Site plan and locality plan, M69.538B, 12 March 1968 (Figure 8)
 - Plans and sections, SS1484 and SS1485, 12 March 1968
 - Structural concrete details, NS68/96B, NS68/97B, NS68/98B, n/d
 - Door details, M68/332B, 12 March 1968
 - Details, M68/327B2 and M67/2897B, n/d
 - Cabin details, M68/397B, 12 March 1968
 - Control cabin roof details, NS69/99B, n/d
 - Window opening jacks, NM69/81B, n/d
 - Window cleaning device, NM69/82B, 12 March 1968
 - Air conditioning layout, NM68/52B, 10 November 1967
 - Plant and control diagrams, NM68/54B, 10 November 1967
 - › Power house and airport lighting room (ALR)
 - Plans, elevations, sections and details, MA68/151B, 12 August 1968
 - Structural details, NM68/100B, n/d
 - Doors, windows and miscellaneous details, M68/187B, 12 March 1968
 - Ventilation, NM6B/55(C), 10 November 1967
 - › Radio equipment room (RER)
 - Plans, elevations, sections and details, NM68/419B, 12 March 1968
 - Structural details, NS68/101B, n/d
 - Air conditioning, NM68/53B, 10 November 1967

Copies of these drawings are included at Appendix B.

All photography is by Lovell Chen unless otherwise stated.

3.1 Summary site description

The Airservices compound at Bankstown Airport is located to the west side of the airport, on Tower Road, which is contemporary with the ATC tower. The compound is approximately 900m, 'as the crow flies', from the airport's main administrative and commercial precinct to the north-east.

Aside from the tower complex, development to the east side of Tower Road includes industrial, commercial and aviation-related businesses. Helicopter Transport and Training's premises are directly to the north of the Airservices compound, and the Clamback & Hennessy flight training school is to the south. The Georges River Golf Course is on the west side of Tower Road.

The ATC tower is located on an approximately 2,000-square-metre reserve that is leased by Airservices from BAL (Figure 8). Part of the area is enclosed by a fence of cyclone and barbed wire. As well as the ATC tower, buildings within the reserve area include a free-standing single-storey radio equipment room (RER) to the west of the tower; and a conjoined power house and airport lighting room (ALR) to the north (Figure 15). A satellite dish enclosure, built in 1992, is to the east of the tower. There is a pedestrian entry to the north-west of the enclosure. A vehicular entry from Tower Road is aligned with the asphalt area between the radio equipment room and the power house.

Airservices is responsible for management of all aspects of the complex, apart from the ALR, which is the responsibility of BAL.

As a general comment, the Airservices complex at Bankstown has been subject to very few physical changes since its construction in the late-1960s.

Figure 15 View of the Airservices compound at Bankstown from Tower Road, looking south-east: the power house is in the foreground and the radio equipment room is visible to the right



3.2 Exterior

3.2.1 Air Traffic Control tower

Bankstown ATC tower comprises a rectangular (almost square) four-storey base structure in reinforced concrete with varicoloured face brick cladding. The north and south elevations are 6.9m wide and the east and west elevations are 7.95m wide. The base structure is built on raft footings, and is surmounted by a rectangular cantilevered walkway, also in reinforced concrete, around an octagonal cabin. The cabin is raised on a half-height duct and service space and octagonal cabin. A full-height staircase in reinforced concrete is on the west side of the building. The cabin roof is 16.7m above ground level.

East elevation: Narrow top hung metal-framed casement windows run almost full-width across the first second and third floor levels of the east elevation. The windows to the first and second levels are original, and have three regularly-spaced mullions (Figure 16). The arrangement is different at the third floor level, with more narrowly-spaced mullions on the north side and an arrangement identical to the two lower levels on the south side. The framing of the windows to the south side has been removed, and a larger vertically-oriented window introduced. There are no openings to the ground floor, with the exception of a vent to the west, to which a modern flue has been added. As noted above, a satellite dish enclosure was introduced at the base of the east elevation in 1992, surrounded by a fence of profiled sheet metal.

South elevation: The south elevation is blank with no openings. A modern steel fire escape connects the cantilevered walkway to the ground level. At ground level, the fire escape is enclosed in a fence of cyclone and barbed wire. A freestanding array of coolers is located to the west of the south elevation, concealing the open space between the ATC tower and RER (Figure 17).

West elevation: The west elevation features paired metal-framed casement windows lighting the internal stair to the first, second and third floors (Figure 18). The entrance to the tower is at ground level. The door is at the east end of a covered walkway formed by the overhanging eave of the RER. There is a full-height sidelight to the north of the simple timber door. An original telephone in a timber enclosure is mounted to a 'feature wall' that straddles the gap between the ATC tower and RER. The wall panel is of profiled brick; it is a rare concession to decorative detail in the otherwise rigorously utilitarian complex (sections of the wall are visible in the elevations at Figure 17 and Figure 19). The telephone is connected directly to the cabin.

North elevation: As for the south elevation, the north elevation is blank other than for access doors to the air conditioning plant room at ground floor level (Figure 19).

Figure 16 Left: East elevation as built; Right: East elevation, 2016

Source Aircservices
Australia, left (SS1485, 12
March 1968)

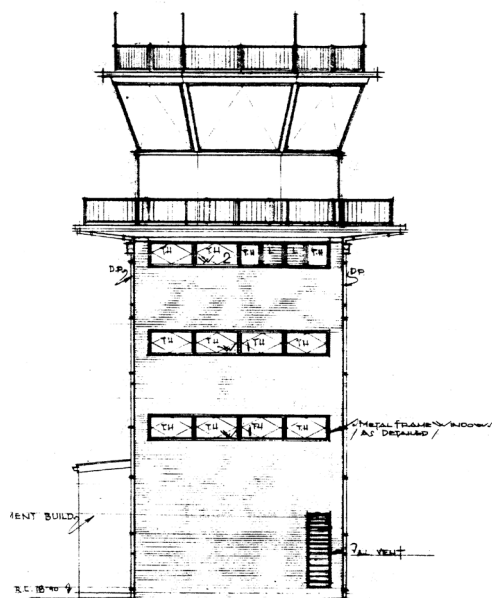
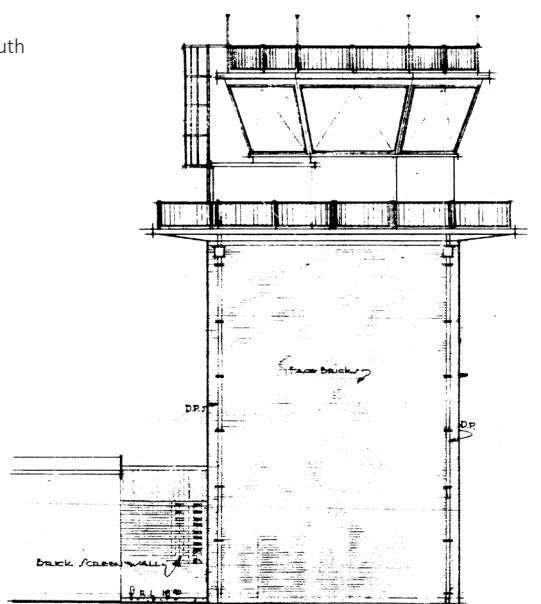


Figure 17 Left: South elevation as built; Right: South elevation, 2016

Source Aircservices
Australia, left (SS1485, 12
March 1968)



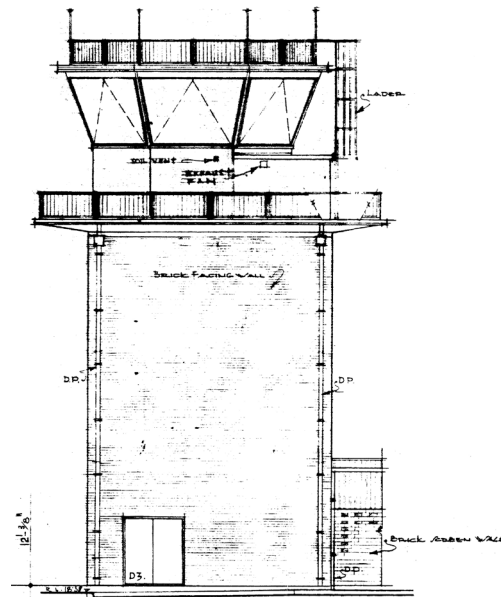


Figure 18 Left: West elevation as built; Right: West elevation, 2016

Source Airservices Australia, left (SS1485, 12 March 1968)

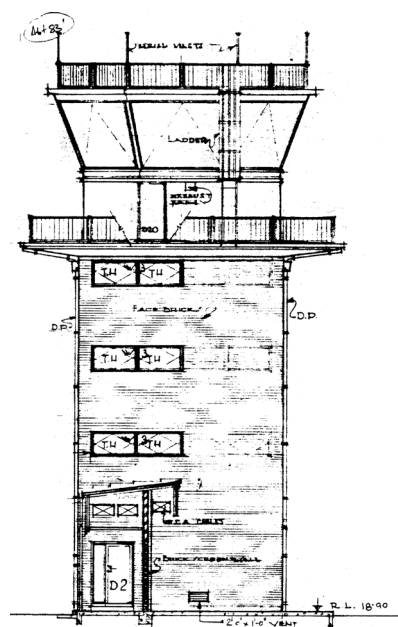


Figure 19 Left: North elevation as built; Right: North elevation, 2016

Source Airservices Australia, left (SS1485, 12 March 1968)

Cabin: The cantilevered walkway around the base of the cabin, at crawl space level, is enclosed with original painted steel balustrading. The flooring of the walkway is a waterproof membrane. A metal guide rail to carry the hydraulically-operated window cleaning platform is fixed to the solid plaster walls of the crawl space level (Figure 20). The hydraulically-operated window cleaning platform is extant. To the west elevation, a fixed metal ladder leads to the roof of the cabin.

The cabin windows are double-glazed and canted outward. In the event of an emergency, the three windows facing west can be opened externally, by means of a hydraulically operated mechanism mounted on the west-facing facet of the crawl space wall.

The flat cabin roof features a central mounted beacon (not original), and a number of antennae and aerials. Like the walkway, it is enclosed with linked steel gate panels clipped together.

Figure 20 Detail of the cabin, as viewed from the north-east



3.2.2 Radio equipment room

The RER is a single-storey brick structure clad in varicoloured brick, located to the west of the ATC tower. The RER is accessed via a pair of timber doors at the east end of the west elevation. There are five high-level rectangular window openings extending along the balance of the north elevation. The glazing is opaque, and metal bars are fixed outside. The upper section of the brick cladding to the north elevation is concealed by a deep fascia panel, clad and lined with profiled sheet metal, to form an awning. This runs the full length of the north elevation and extends to the west elevation of the ATC tower, providing weather protection and shading (Figure 21).

As built, there were no openings to the east, west or south elevations. A doorway to the west end of the south elevation was introduced prior to 1985, to provide access to a small addition – which includes a workshop and staff mess (Figure 22).

The roof of the original building has a shallow pitch. The addition at the south-west has a skillion roof, which reads as a continuation of the south slope of the original building.



Figure 21 North and west elevations of the radio equipment room

Figure 22 Radio equipment room: addition at the west end of the south elevation



3.2.3 Power House and Airport Lighting Room

The single-storey brick structure to the north of the Airservices compound accommodates a power house (to the west), the ALR (east) and a small mechanical equipment room in the centre) (Figure 23 and Figure 24). It is asymmetrical in plan, with a projecting bay at the west end of the south elevation, and two recessed porches on the south side of the building, one located between the power house and ALR, the other in the centre of the projecting bay at the south-west. The latter, smaller, porch gives access to a toilet and a 'radiator room' (dis-used). The latter forms part of the original power house, and is accessed internally.

As is the case for all buildings at the site, the power house and ALR is built of varicoloured brick, and is of utilitarian character and presentation.

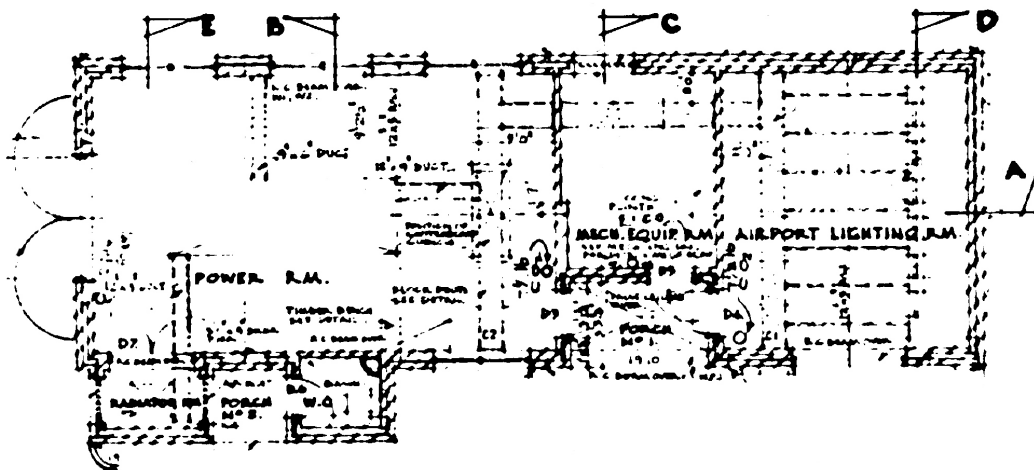
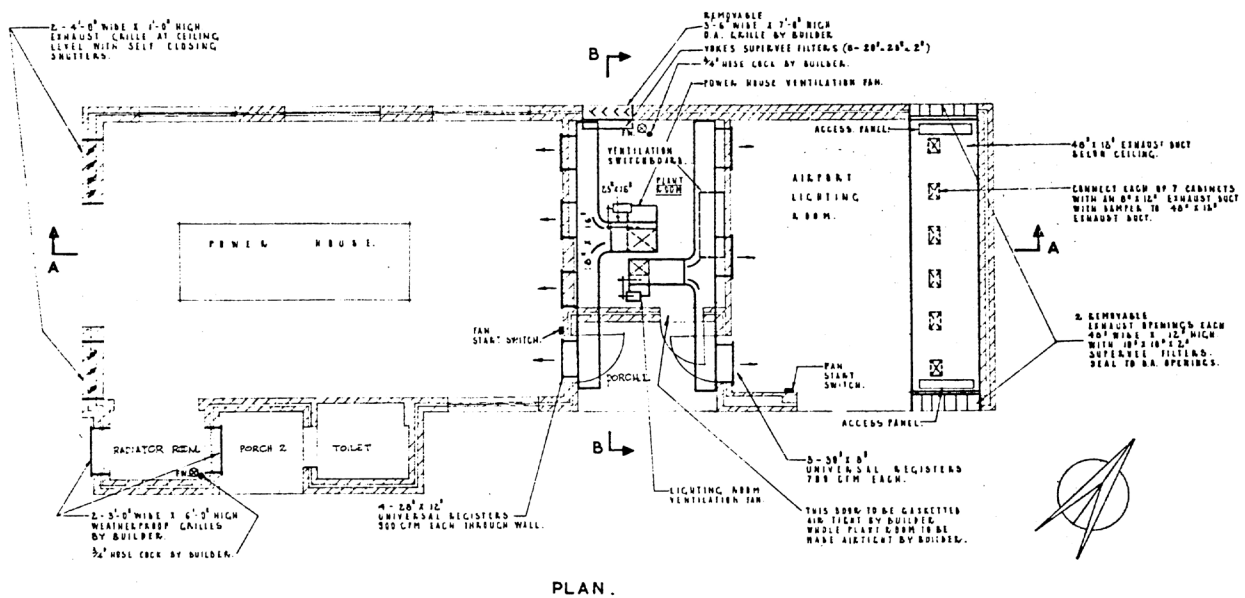


Figure 23 Power house and airport lighting room: floor plan

Source Airservices
Australia (MA68/151B, 12
August 1968)

Figure 24 Power house and airport lighting room: ventilation plan

Source Airservices
Australia (NM6B/55(C), 10
November 1967)

Figure 25 Power house and airport lighting room: north and west elevations



Figure 26 Power house and airport lighting room: south elevation (part), including porch, and east elevation



3.3 Interior

3.3.1 Air Traffic Control tower

The internal planning and fitout of the ATC tower remains largely intact as built in the late-1960s. There is a staircase to the west of the plan, and offices and staff amenities to the east. Duct voids are located to the centre of the south elevation, and to the east of the staircase, in the approximate centre of the plan. Floors throughout are generally painted concrete or vinyl tiles, and the concrete walls are painted white (Figure 27).

Approximately 60 per cent of the ground floor plan is dedicated to the air conditioning plant room, which is separated from the entrance lobby by a load-bearing concrete wall. Access to the air conditioning room is from the north. The compressors and air handling units are largely intact as installed. The ground floor is higher than levels 1-3 (c. 3.5m high as compared to c. 2.8m high).

The layout of the first, second and third floors are almost identical. A doorway to the east of the staircase leads to a lobby area that provides access to two rooms facing east. On the first and second levels there is a small store in the north-west corner, accessed from the lobby. On the third floor, a locker room has been built into this space (which was originally open), accessed through a fire door in the plaster partition wall at the top of the stairs. The original aluminium-framed windows to the east and west elevations are top-hung.

As built, the tower accommodated a switch room and technical officer's room on the first floor; the office of the officer-in-charge and check controller's room on the second floor; and a staff locker room and toilets on the third floor. These uses have generally changed over time, in response to operational and staff requirements, and there have been consequential variations to finishes, including new carpets, some dropped ceilings and the installation of vinyl skirtings. The toilets on the third floor were upgraded in 2005.

A flight of stairs from the third floor leads to the duct and walkway level. A door to the left of the stairs leads to a galley kitchen with a half-height door (to the duct space) to the east and a full-height door (to the walkway) to the west.

With the exception of upgrades to finishes and fabric, and modifications to accommodate technical changes, the control cabin is intact as built. The frame of the central timber console is original (Figure 28). The canted double-glazed cavity windows are lined with felt. Demisting is by electrical metal heaters mounted at the base of the double glazing (Figure 29).

The ceiling treatment of acoustic tiles is original, and the original circular visor track mounted to the ceiling is extant, with the screen removed. Sun shading is now provided by pull down blinds fixed to the top of each of the windows. The floor is carpeted; the carpet may conceal the original rubber tiles. Archive photography dated 1974 appears to show the walls finished in perforated plasterboard; this may be concealed behind the present carpet. A metal safety bar has been installed at the top of the stairs.

Figure 27 Plant and ducts,
Level 1



Figure 28 Air traffic control
console in the cabin





Figure 29 Detail of demisting mechanism at the base of the double glazing

3.3.2 Radio Equipment Room

The planning and fitout of the RER is intact as built in the late-1960s. The original part of the building is a single volume, with original equipment racks oriented north-south. Cable ducts are concealed beneath panels to the south of the space; the balance of the floor is a concrete slab. Vinyl panels are applied throughout. There are fluorescent lights and cable trays mounted to the dropped plaster ceiling.

The space includes batteries, amplifiers and equipment of varying age. The equipment is standardised, and not unique to the Bankstown ATC tower. Access to the RER is by a pair of original timber doors to the east end of the north elevation. Natural light is provided by the five regularly spaced windows to the balance of the north elevation.

A small addition housing a workshop and staff mess was added to the south-west of the RER prior to 1985. The utilitarian and hard-wearing finishes of the addition are consistent with the original RER.

3.3.3 Power House and Airport Lighting Room

In terms of its plan form and finishes, the power house and lighting room is almost entirely unchanged since the late-1960s. The power house itself is located at the west end of the building, and the airport lighting room (ALR) is at the east end. A smaller mechanical equipment room (MER) is located in the centre. The power house and MER are accessed from the porch in the south elevation; the lighting room has a separate entry to the south. The concrete floors are painted (green) throughout, with metal panels providing access to cable ducts. Fluorescent lights are mounted to the dropped plaster ceilings. A two-tonne travelling mechanism for lifting heavy equipment spans the power house east-west (Figure 33). This was used for the replacement of the original generator (Figure 34), which, like much of the equipment in the power house and lighting room building has been replaced, including all the original units in the ALR (Figure 35).

Figure 30 Radio Equipment Room, view looking west



Figure 31 Staff mess in the addition to the south-west of the Radio Equipment Room





Figure 32 Mechanical equipment room



Figure 33 Power house, view looking east: note the two-tonne travelling mechanism for heavy equipment in the centre of the ceiling

Figure 34 Power house,
view looking west: the modern
generator is in the centre



Figure 35 Airport lighting
room



3.4 Views

The ATC tower is isolated from the main building complex at the airport – as mentioned, it is approximately 900m ‘as the crow flies’ from the site of the original ATC tower. While the tower is one of the tallest structures at the airport, it is not particularly prominent in views within the airport complex (Figure 36 and Figure 37).



Figure 36 View of the Air Traffic Control tower from the north-east



Figure 37 View looking south from Tower Road

4.0 ASSESSMENT OF SIGNIFICANCE

This chapter provides an assessment of cultural heritage values associated with Bankstown ATC tower no. 2 against the Commonwealth Heritage Criteria. The assessment (Section 4.2), which draws on evidence presented in chapters 2 and 3, is preceded by a comparative analysis. A statement of significance is at Section 4.3.

4.1 Comparative analysis

The following considers the present Bankstown ATC tower within the development of Australian control towers, as well as in an international context, since the 1920s. It draws on and incorporates material from the typological study of ATC towers in Australia and overseas prepared by Lovell Chen as part of the Stage 2 *National Control Towers Heritage Assessment* (2007-2009).

4.1.1 ATC tower development in Australia (1920s-1990s)

The first ATC towers were square timber structures raised only slightly off the ground. Contact with aircraft was purely visual, through devices including flags, flares and cane spheres mounted on a rooftop flagstaff. Towers of this type were introduced in Australia from the mid-1920s.

Following a review of air safety standards and procedures in 1938, Australia's first standardised control tower model, the Integrated Operations and Administration building (Ops & Admin Buildings), was developed. This comprised a three-storey Streamlined Moderne building with the air traffic control cabin located on the roof. The small flat-roofed cabins featured steel-framed windows with curved windows facing the apron, and although they were fitted with radio facilities, communication with aircraft was still almost exclusively visual. Three of these Ops & Admin facilities were built in Australia, at Parafield Aerodrome (Adelaide, Figure 38), Archerfield Aerodrome (Brisbane), and Mascot (Sydney). Others were planned for Essendon, Cambridge Aerodrome (Hobart) and Maylands (Perth), but were not constructed because of the outbreak of World War II.

However, the predominant model for ATC towers of this era was a raised booth, often of an improvised or informal character; the first tower at Essendon, Melbourne was a small enclosed box built into the roof of the Aero Club (Figure 39). World War II-era variations of the raised booth were built by the RAAF and USAF for rapid assembly at air bases across Australia, from the early-1940s; some of these models were transportable. Later models were often raised two or three storeys above ground level, reflecting the increased speed of aircraft by the beginning of World War II (as at Bankstown ATC tower no.1, see Chapter 2). The standard external presentation was of large red and white painted checks, for ease of visibility (see Essendon ATC tower no. 2 at Figure 39, and Hobart-Cambridge no. 1 at Figure 40). Their internal equipment comprised seats and a desk, primarily for writing or making calculations as direct radio contact was still largely being developed. There was sometimes direct telephone contact with surrounding hangars, the fuel depot, the fire brigade, hospitals and ambulance, or with pilots/crews seeking flight authorisation from the hangars or the airfield briefing room.

The acceleration in technological accomplishment and the expansion of air traffic volume brought about by World War II required international cooperation in air traffic control and this led to the establishment of the International Civil Aviation Organisation (ICAO) in 1947. For the first time, air traffic was governed by common rules and regulations (prior to the war, every country had its own system). These new rules and regulations extended to air traffic control, but they related to procedures and technical requirements and did not prescribe a particular form for air traffic control towers.

Figure 38 Parafield
Operations and Administration
Building, image date 1940

Source Civil Aviation
Historical Society



Figure 39 Essendon
Airport's first two ATC towers:
a timber-framed cabin built
into the roof the Aero Club
(foreground), and a taller
cabin on a timber frame, built
in 1946

Source Civil Aviation
Historical Society



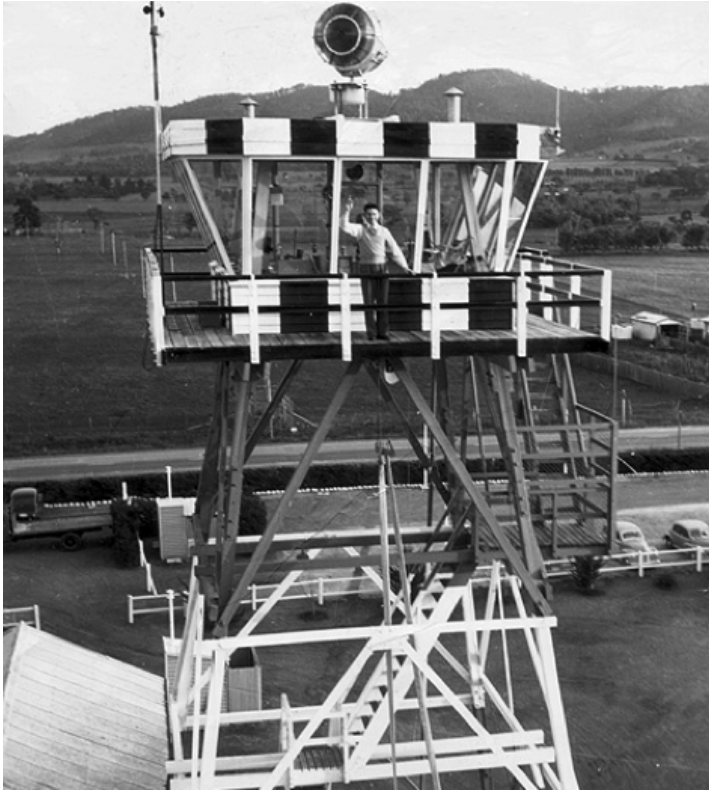


Figure 40 Hobart
Cambridge no. 1, c. 1946: on
a splayed, high trestle pylon
with a timber stair

Source Civil Aviation
Historical Society

In Australia, a number of different approaches were tried in the design of control towers, including the use of different construction materials and tower forms. By the early-1950s, a standard control tower format had emerged. It consisted of a square base, typically of between two and four storeys, below a perimeter walkway, also in reinforced concrete, around an octagonal cabin with sloping glass panels fixed in steel mullions. Depending on the size of the airport, and the volume of air movements, the cabins were fitted with two, three or four-person consoles, and featured a range of noise abatement and cooling devices. Eight examples of this type of tower were constructed in Australia between 1953 and 1959, the earliest being at Sydney (commissioned 1953, see Figure 41). The others were: Melbourne (Essendon, 1956), Adelaide (1957), Hobart (1958), Launceston (1958), Darwin (1959), Brisbane (1959, see Figure 42) and Tamworth (1959).

The 1960s was a period of continuing advances in the size and speed of aircraft and affordability of air travel. During this period the number of airports with control towers increased dramatically, and there were also major advances in terms of the equipment used to manage aircraft. However, the control towers themselves barely changed from the format of the 1950s. Towers based on this model, but refined and improved over time, continued to be built throughout Australia until well into the 1970s. Bankstown ATC tower no. 2 was among these, and the similarities with the early examples are clear.

From the late 1960s, a standardised low-cost tower, comprising an exposed steel frame base in a triangular plan and small single-glazed cabins, was introduced generally (but not exclusively) at general aviation or secondary airports (Figure 43). Until the late-1980s, this model of low-cost, perimeter-frame tower, with minor refinements and modifications, was constructed at airports across Australia.

Figure 41 Sydney-Mascot
ATC tower no. 3, 1953, with
integrated fire station: this
complex has been demolished

Source Civil Aviation
Historical Society



Figure 42 Brisbane ATC
tower no. 2, pictured from the
north-west, 1961

Source Civil Aviation
Historical Society.





Figure 43 The World War II era (left) and 1970s ATC tower (right) at Moorabbin Airport, Melbourne

Source Source: Civil Aviation Historical Society

The other tower type introduced in Australia in the late 1960s was column towers, first introduced in Australia at Melbourne (Tullamarine) in 1969. This type comprised an integrated cabin and services pod on top of a slender concrete column, typically in the order of 50m in height. The unprecedented height of the columns towers required a new approach to the physical relationship between the ATC cabin and the equipment required for its operation. Proximity of radio, audio and other systems was required to ensure reliable feeds and signals, which had not presented a problem in lower, earlier towers. The new column towers resolved this issue by dividing the equipment that services the cabin into two sections: the main equipment room at ground level, and a subsidiary equipment space immediately below the cabin. Later column towers in Australia, in Perth (commissioned in 1986) and Brisbane (commissioned in 1988) were taller and more sculptural than the Melbourne tower, however towers including Cairns (1990), Coolangatta (1990) and Tamworth (1997) did not repeat the sculptural form of Brisbane and Perth. Rather, these later towers were generally composed of broad cylinders housing services/amenities and cabins positioned on top of slender columns, more like the Melbourne tower.

Figure 44 View of the
Tullamarine ATC tower, late-
1960s

Source Civil Aviation
Historical Society



4.1.2 Australian control towers of the 1950s-1960s

As noted, developments in radio and navigations systems and in the speed of aircraft were accelerated enormously by World War II. The volume of air traffic also increased exponentially. These factors precipitated international cooperation in air traffic control, which led to the establishment of ICAO, whose primary objective was the regulation of civil aviation and air navigation, with the ultimate ambition of improving safety standards. The implications for control towers of the post-war civil aviation environment were multiple. Two of the most significant factors were the introduction of standardised communications, navigation and signalling systems which demanded sizeable storage spaces for equipment and power houses; and the increasing speed of aircraft, which demanded larger airstrips and taller control towers. Post-World War II control towers had also become free-standing elements within airport complexes, and often the tallest (2-4-storey towers typically being c. 15-20m-high to their cabin roofs). The plan form and appearance of control cabins also fell into a pattern during this period: they were typically octagonal with canted windows and raised on a half-height drum, which housed crawl spaces for circuitry access, cooling and radio equipment.

In Australia, the DCA was working on a standard approach to the design of control towers from at least 1948,³⁷ and commissioned eight new towers of generally standardised form and presentation during the 1950s.

From the mid-1960s, there was increasing standardisation of facilities and equipment in, and associated with, ATC towers through the introduction of the Master Facilities Schedules (1 and 2, dated 1964 and 1967 respectively)³⁸ issued by the DCA. Although MFS issues 1 and 2 included no direction on design, the architectural presentation of towers, particularly those at secondary and general aviation airports, had also fallen into a pattern, characterised by predominantly square plan towers of reinforced concrete surmounted by octagonal cabins with outward-canted windows

raised on part-chamfered service and duct drums. This was a format that had been established by the previous generation of 1950s ATC towers with the 1960s towers seen essentially a refinement of these.

In this context, Bankstown is a late example of an ATC tower typology that was developed in the early 1950s, and further refined in the 1960s. It has a standard presentation for the type, comprising a square, four-storey base in reinforced concrete, with face brick cladding below a rectangular cantilevered walkway around an octagonal cabin. It relates closely to other surviving examples of the period, including Rockhampton (commissioned 1961), Perth (1963), Mount Isa (1963), Jandakot (1965, Figure 45), Alice Springs (1969), Port Moresby (Figure 46) and also bears comparison with earlier examples such as Hobart (1958).

While a late example of this standard type, Bankstown is distinguished from the majority of these surviving comparisons through its relative intactness. Other than for the modification of windows at the upper level on the east elevation and the addition of an escape stair to the south elevation, the building is externally intact and internally retains the majority of its plan form and fabric.

It is interesting to note that Bankstown was one of three towers designed by the NSW branch of the Department of Works during the late-1960s and early-1970s, the other two examples being Sydney 4 (commissioned 1973) and Camden Airport (commissioned 1975). Sydney 4 and Camden are both slightly later when compared with Bankstown and exhibit quite different forms, albeit all with octagonal cabins. Sydney 4 comprises an octagonal six-storey brick-sheathed tower and was associated with a large operations centre (Figure 47); Camden is lower and smaller in scale, and has a three-storey, exposed concrete stem, octagonal as at Sydney 4.



Figure 45 Jandakot ATC tower, Perth, (1965), integrated with single-storey equipment and service rooms

Source Civil Aviation Historical Society

Figure 46 ATC tower at Port Moresby, Papua New Guinea, then an Australian mandated territory, early 1970s: a concrete-framed tower with brick panels

Source Civil Aviation Historical Society



Figure 47 Sydney ATC tower no. 4, commissioned 1973: part of the operations centre is visible at left



4.2 Analysis of cultural heritage values

This section provides an analysis of the evidence presented above and in chapters 2 and 3 against the Commonwealth Heritage criteria.

4.2.1 Analysis of historic value

The analysis of evidence of historic value is made against the following Commonwealth Heritage criteria:

Criterion A: the place has significant heritage value because of the place's importance in the course, or pattern, of Australia's natural or cultural history.

Criterion B: the place has significant heritage value because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history.

Criterion H: the place has significant heritage value because of the place's special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history.

Bankstown ATC tower no. 2 is of historical interest as a late, and largely intact example, of the service block surmounted by control cabin type ATC tower that was constructed at airports across Australia in the 1950s and 1960s. It was part of the DCA's ongoing efforts to standardise such facilities and improve air safety. The Bankstown tower was built at the end of the 1960s, a time of significant investment and development at Bankstown Airport and is of some limited historical interest in this context.

While it is one of a relatively limited number of 1960s ATC towers of various forms surviving around Australia, the Bankstown ATC tower is not considered to be 'uncommon' or 'rare' at a level indicative of Commonwealth heritage value.

No association between Bankstown ATC tower no. 2 and the life or works of a person, or group of persons, has been revealed by the research undertaken for this HMP.

4.2.2 Analysis of scientific value

The analysis of evidence of scientific value is made against the following Commonwealth Heritage criterion:

Criterion C: the place has significant heritage value because of the place's potential to yield information that will contribute to an understanding of Australia's natural or cultural history.

No evidence to indicate that Bankstown ATC tower no. 2 has the potential to yield information that will contribute to an understanding of Australia's natural or cultural history came to light during research for this HMP.

4.2.3 Analysis of aesthetic/architectural value

The analysis of evidence of aesthetic value is made against the relevant Commonwealth Heritage criteria specifically:

Criterion D: the place has significant heritage value because of the place's importance in demonstrating the principal characteristics of:

- › a class of Australia's natural or cultural places
- › a class of Australia's natural or cultural environments

Criterion E: the place has significant heritage value because of the place's importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.

Criterion F: the place has significant heritage value because of the place's importance in demonstrating a high degree of creative or technical achievement at a particular period.

Bankstown ATC tower no. 2 is a representative and substantially intact example of a standardised ATC tower dating from the first phase of post-World War II design in air traffic control facilities (1950s to late 1960s). The tower was designed by the Commonwealth of Australia Department of Works (NSW branch) for the DCA.

It is one of a group of control towers built essentially to the same operational and technical standards and specifications across Australia and Papua New Guinea from the 1950s until the late-1960s, when perimeter frame towers became the standard model for control towers at secondary and general aviation airports in Australia. Its design is derived from the 1950s air traffic control towers (Essendon, Hobart, Launceston and others), a design approach that was repeated and refined through the 1960s.

While a late example of this standard type, Bankstown is distinguished from the majority of other surviving comparisons through its relative intactness. Other than for the modification of windows at the upper level on the east elevation and the addition of an escape stair to the south elevation, the building is intact externally. Internally it also retains the majority of its plan form and fabric. It is unusual in retaining its original timber-framed console, albeit modified.

The other contemporary buildings/spaces within the Airservices compound, including the radio equipment room (RER), power house and airport lighting light room are also largely intact. There is, however, an addition at the west end, south side, of the RER.

Architecturally and aesthetically, the ATC tower, and the other buildings within the Airservices compound, is a conventional and unremarkable example of design of the 1960s.

The design of the tower is responsive to technical and other functional requirements but is not in any sense exceptional in terms of creative design or technical achievements.

4.2.4 Analysis of social value

The analysis of evidence of social value is made against the relevant Commonwealth Heritage criterion specifically:

Criterion G: the place has significant heritage value because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

Criterion I: the place has significant heritage value because of the place's importance as part of Indigenous tradition.

In relation to Criterion G, it is possible that Bankstown ATC tower no. 2 is of social value to current or former employees or of interest to specialist aviation groups- no detailed social value assessment was undertaken as part of this HMP. However, even if they existed, it is considered that such associations or interest would be very unlikely to satisfy the threshold for Commonwealth Heritage value.

Bankstown Airport is not in an identified area of Aboriginal cultural heritage sensitivity, and the extent of physical change within the airport is such that it would seem unlikely that there is significant potential for the occurrence of Aboriginal sites or artefacts on the site. No evidence has come to that the control tower is significant because of its importance as part of Indigenous tradition.

4.3 Statement of significance

What is significant?

Bankstown ATC tower no. 2 was designed in 1967-68 by the Commonwealth of Australia Department of Works (NSW branch) for the Department of Civil Aviation. It was built in 1969 and commissioned in 1970. The tower comprises a rectangular (almost square), four-storey base structure in reinforced concrete with varicoloured face brick cladding. The base structure is surmounted by a cantilevered walkway and an octagonal cabin with outward canted steel-framed windows. The tower is substantially intact externally and internally. The radio equipment and power house/lighting control rooms, which are contemporary with the tower, are also substantially intact as built.

How is it significant?

Bankstown ATC tower no. 2 is of significance to Australia for demonstrating the principal characteristics of control towers of the post-World War II era (CHL criterion D).

Why is it significant?

Bankstown ATC tower no. 2 is a representative and substantially intact example of a standardised ATC tower dating from the first phase of post-World War II design in air traffic control facilities (1950s to late 1960s). It is one of a group of control towers built to essentially the same operational and technical standards and specifications across Australia and Papua New Guinea from the 1950s until the late-1960s. Its design is derived from the 1950s ATC towers (Sydney, Essendon, Hobart, Launceston, Brisbane and others). This design approach was repeated and refined and by the mid-1960s the architectural presentation of towers, particularly those at secondary and general aviation airports, had also fallen into a pattern, characterised by predominantly square plan towers of reinforced concrete surmounted by octagonal cabins with outward-canted windows raised on part-chamfered service and duct drums.

While a late example of this standard type, Bankstown is distinguished from the majority of other surviving comparisons through its relative intactness. Other than for the modification of windows at the upper level on the east elevation and the addition of an escape stair to the south elevation, the building is intact externally. Internally it also retains the majority of its plan form and fabric. It is unusual in retaining its original timber-framed console, albeit modified.

The other contemporary buildings/spaces within the Airservices compound, including the radio equipment room, power house/airport lighting light room are also largely intact.

The Bankstown tower was built at the end of the 1960s, a time of significant investment and development at Bankstown Airport and is of some local historical interest in this context.

4.3.1 Commonwealth heritage values and attributes

The table below (Table 3) identifies Commonwealth Heritage values and related attributes at Bankstown ATC tower no. 2.

Table 3 Commonwealth Heritage values and related attributes

Criteria	Values	Attributes
(D) Characteristic values	The ATC tower is a representative and largely intact example of a standard air traffic control tower of the post-World War II period	The four-storey base building. The octagonal cabin, including its canted windows, raised on a part-chamfered octagonal drum. The original modular console (frame only). The functional and unpretentious design and presentation of the ATC tower.

4.4 Levels of significance of individual buildings and elements

In the following section, the individual elements of the ATC tower and the Airservices compound are assessed for their relative significance based on the contribution they make to the overall significance of the place. The assessment provides a framework for the development of the conservation policies and recommended treatment of the buildings and elements. The three levels of significance are defined and identified below.

4.4.1 Primary significance

Individual buildings, fabric and elements of primary significance make a strong or substantial contribution to the overall significance of the place. These buildings/elements should be retained and conserved, subject also to other relevant policies in this HMP.

Buildings, elements and attributes of primary significance include:

- Four-level base structure of the ATC tower (excluding later alterations and additions);
- Cantilevered walkway that surmounts the base structure;
- Octagonal drum and octagonal control cabin, including its outward canted windows in steel mullions;
- Original modular console (frame only);
- Unimpeded lines of sight from the cabin to the apron and runways; and
- The building’s functional, utilitarian design aesthetic which is evocative of its construction during the first post-World War II phase of ATC tower development.

4.4.2 Contributory significance

Individual buildings, fabric and elements in this category contribute to an understanding and appreciation of the overall significance of the ATC tower. These include original elements that support the operation of the tower, such as the equipment, plant and services which are standardised and are not of primary significance in their own right, and original features/details that are not critical to its operation. These buildings/elements should, in preference, be retained and conserved, subject also to other relevant policies in this HMP.

Buildings, elements and attributes of contributory significance include:

- Radio equipment room (excluding pre-1985 addition);
- Conjoined power house, plant room and airport lighting room;
- Equipment, plant and services within the Airservices compound, including the hydraulically-operated window cleaning mechanism; and
- ‘Feature panel’ wall between the ATC tower and the radio equipment room, including the original access phone in timber enclosure which is mounted to it.

4.4.3 Little or no significance

Individual buildings, fabric and elements of little or no significance make limited or no contribution to the overall significance of the place. These include spaces, elements or fabric which are not original or have little intrinsic quality or significance, as well as elements which have undergone substantial alterations and change. These elements can be retained, removed or modified as required.

Buildings, elements and attributes of little or no significance include:

- Satellite dish enclosure (1992);
- Pre-1985 addition to the radio equipment room;
- Escape stair to south elevation of the ATC tower; and
- Fencing around the secure areas of the Airservices compound.

Figure 48 Levels of significance (exterior)



Key

-  Primary significance
-  Contributory significance
-  Little or no significance

5.0 OPPORTUNITIES AND CONSTRAINTS

The following establishes a framework for the conservation policy at Chapter 6.

5.1 Implications arising from significance

The statement of significance at Chapter 4 confirms that Bankstown ATC tower no. 2 is a representative and substantially intact example of a standard ATC tower design dating from the first phase of post-World War II design in air traffic control facilities (1950s to the late-1960s).

Key aspects of the place should be conserved to retain this significance. The key features requiring conservation include:

- The external presentation of the ATC tower, as a tall, free-standing structure which is recognisable as a control tower primarily as a consequence of its overall form and octagonal cabin;
- The rectangular (almost square), four-level base structure built of reinforced concrete surmounted by an octagonal cabin with outward-canted windows raised on a part-chamfered service and duct drum;
- The building's functional, utilitarian design aesthetic which is evocative of its construction during the first post-World War II phase of ATC tower development; and
- Unimpeded lines of sight from the cabin to the apron and runways.

5.2 Legislative requirements

5.2.1 *Airports Act 1996* (Australia)

The Department of Infrastructure and Regional Development (DIRD) owns 21 federally-leased airports in Australia, including Bankstown. These airports are leased to airport lessee companies (ALCs) – BAL, in the case of Bankstown. DIRD takes on a regulatory role managing these airports through the *Airports Act 1996* and, with respect to the environment, the *Airports (Environment Protection) Regulations 1997*. The management of heritage places at federally-leased airports is subject to controls under both the *EPBC Act* and the *Airports Act*.

The *Airports Act* requires that a Master Plan be prepared for each airport that incorporates an Environment Strategy. The Master Plan is a 20 year strategic vision for the airport site which is renewed every five years, and addresses future land uses, types of permitted development and noise and environmental impacts. The Environment Strategy sets out the airport's strategy to manage environmental issues within a five year period and beyond. It is the basis upon which the Commonwealth measures the environmental performance of airports and the document by which airport tenants will determine their environmental responsibilities.³⁹ Further, DIRD's draft Heritage Strategy (2016) places responsibility for management of heritage assets, including the preparation of management plans for Commonwealth Heritage places, with the ALCs. In the case of sub-lessees on a federally leased airport (in this case Airservices), the ALC is obliged to work collaboratively in managing heritage values at the airport.

The *Bankstown Airport Master Plan and Airport Environment Strategy 2014* was prepared in accordance with the requirements of the *Airports Act 1996*. The Master Plan establishes BAL's objectives for the management and development of Bankstown Airport during the period 2014-2034. The Master Plan includes the following commentary regarding BAL's objectives as related to heritage considerations:

Bankstown Airport has been extensively cleared and regraded over the majority of its area to make it suitable for its present purpose. As yet, no sites or items of indigenous cultural heritage significance have been identified on or adjacent to Bankstown Airport and based on discussions with the representatives of the Gandagarra Local Aboriginal Land council in 2000 the potential for such sites or items to be present is considered to be low. As a result, the operation and future development of the Airport is not likely to have a significant impact upon indigenous cultural heritage values of sites or items.

Bankstown Airport was initially developed during World War II as No. 2 Aircraft Park. Activities on the site included maintenance and construction of military aircraft. Facilities established included aircraft hangers and barracks on the north side of the Airport, and hangars and other manufacturing buildings at the Hawker de Havilland facility on the south side of the Airport. Twenty-two Royal Australian Air Force (RAAF) units and fighter squadrons were established at the Airport during the war.

The Airport has historical significance as the location of a RAAF station from the 1940s to the 1960s. The *Bankstown Airport Heritage Management Strategy 2005* (HMS) identifies those elements having heritage significance relating to their use at this time.

This 2014 MP provides for the conservation of individual structures and other items of heritage significance and the V-shaped (chevron) alignment of hangars at the southern end of the Airport Avenue in the northern precincts of the Airport and four buildings on the former BAA site in the south-east precinct.

The HMS is the basis for heritage assessment and formulation of conservation policy, but will be further expanded in most areas under the proposed Heritage Management Plan (HMP). BAL, with the assistance of heritage consultants, is currently developing a HMP to protect and manage the heritage value of Bankstown Airport in conjunction with this MP. The objective of the HMP will be to provide policies and practical guidelines applicable to individual structures and other items of heritage significance at Bankstown Airport. The assessments process for development of the HMP will be in accordance with the current Commonwealth Heritage List Criteria and National Heritage List Criteria. Heritage is discussed in Section 4.6 of the AES [Airport Environment Strategy].⁴⁰

Management of heritage values

The management of development at airports is controlled by the *Airports Act*. Under Part 5 – Land Use, Planning and Building Controls – of the Act, a Major Development Plan is required for significant developments at airports, including where the development is likely to have a significant environmental or ecological impact. Where a development proposal may constitute a Controlled Action (an action that is likely to have a significant impact on a matter of national and/or Commonwealth environmental significance) the development should be referred to the Minister for the Environment under Section 68 of the *EPBC Act* (see below).⁴¹

In addition, building and construction activities at leased federal airports must be approved by the Airport Building Controller. The Airport Building Controller is appointed under Commonwealth law to administer the airport building control regime.⁴²

5.2.2 *Environment Protection and Biodiversity Conservation Act 1999 (Australia)*

The *EPBC Act* provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places—defined in the *EPBC Act* as matters of national environmental significance.⁴³ The Act imposes obligations on Commonwealth agencies to protect and maintain the environment, including the cultural heritage values, of assets that they own or lease.

Section 341ZA of the *EPBC Act* requires that Commonwealth agencies prepare a Heritage Strategy to provide for the management of any place which has, or might have, one or more Commonwealth Heritage values. Airservices' Heritage Management Strategy 2014-2017 identifies how Airservices will meet its heritage responsibilities under the *EPBC Act*. The objectives of this strategy primarily relate to:

- Ensuring continued integration of heritage management into Airservices corporate planning framework;
- Educating and training Airservices staff to be aware of their heritage obligations;
- Continuing the programme of identifying and assessing likely Commonwealth heritage values of places owned or controlled by Airservices;
- Ensuring effective inter-governmental, aviation industry and community consultation, and conflict resolution processes exist in relation to heritage matters; and
- Maintaining a register of heritage places under Airservices ownership and control.⁴⁴

The Regulations to the *EPBC Act*, at Schedules 7A and 7B, identify matters to be addressed in a HMP for places included in the CHL.

The provisions of the *EPBC Act* provide protection of the Commonwealth Heritage values of all places which are either entirely within a Commonwealth area or are owned or leased by the Commonwealth or a Commonwealth Authority, including but not limited to places which are included in the CHL.

Should Airservices end its lease and cease to operate or function from Bankstown ATC tower no. 2, or if Bankstown Airport is no longer Commonwealth owned or controlled, the above statutory framework would cease to apply, and the airport (including the ATC tower) would come under NSW legislation, including the *NSW Heritage Act, 1977* (see Section 5.2.4) and the *Environmental Planning and Assessment Act, 1979* (see Section 5.2.6).

Management of heritage values

Any place which is either entirely within a Commonwealth area or is owned or leased by the Commonwealth or a Commonwealth Authority is protected by the *EPBC Act*, regardless of whether it is included on the CHL. Generally, any action which will have a significant impact on the environment of a Commonwealth Heritage Place, including Commonwealth Heritage values, requires approval of the Minister for the Environment. If an agency is unsure that a proposed action will result in a significant impact it can refer the proposal to the Minister for a determination. The decision on whether to refer a proposal is a matter for the agency concerned, being a matter of judgement as to whether the action could have a significant impact on heritage values.

However, Section 9(1) of the *EPBC Act* states that this Act does not affect the operation of the *Airports Act 1996*. As such, if an action is likely to have a significant impact on the environment of a listed place, this action requires assessment and approval under the *Airports Act* and associated Regulations, rather than the *EPBC Act*. Where a development proposal may constitute a controlled action, this development may be referred to the Minister for the Environment under Section 68 of the *EPBC Act*.

5.2.3 *Air Services Act 1995* (Australia)

The *Air Services Act 1995* establishes Airservices, which provides air traffic control services, aeronautical information, radio navigation and telecommunications services and aviation rescue and fire-fighting services at federal airports. Section 8 subsection 1 (m) of the Act states that Airservices is responsible for carrying out activities to protect the environment from the effects of, and effects associated with, the operation of Commonwealth jurisdiction aircraft.

5.2.4 *NSW Heritage Act 1977* (NSW)

The *NSW Heritage Act, 1977* (NSW) is the NSW Government's key piece of cultural heritage legislation, which provides a legislative framework for the protection and conservation of places and objects of heritage significance in the state, including Aboriginal heritage. The Act also establishes the NSW Heritage Council and the State Heritage Register.

Should the Commonwealth ownership of Bankstown Airport (including the Airservices compound) cease, the statutory requirements of the *EPBC Act* would cease to apply and Bankstown ATC tower no. 2 may be nominated for inclusion in the NSW. The processes for listing (of places, buildings, works, relics, moveable objects or precincts) in the State Heritage Register are set down at Part 3A of the *Heritage Act*. These processes include a series of requirements for assessment by the Heritage Council and requirements for public notification. The Heritage Council may make a recommendation to the Minister that an item be listed at the request of the Minister, on the Heritage Council's own initiative, at the request of an owner, or the council of the area in which the item is situated (s.32).

Regardless of whether they are listed or not, the *Heritage Act* contains various legal measures to protect historical archaeological resources. The *Heritage Act* defines a 'relic' as any deposit, object or material evidence-

- a). Which relates to the settlement of the area that comprises New South Wales, not being aboriginal settlement; and
- b) Which is 50 or more years old

Section 139 of the *Heritage Act* provides that:

- c). A person must not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit.
- d). A person must not disturb or excavate any land on which the person has discovered or exposed a relic except in accordance with an excavation permit.

If a site is not the subject of an order under the *Heritage Act* and is not listed on the State Heritage Register, an excavation permit is required in accordance with Section 140.

5.2.5 *National Parks and Wildlife Act 1974*

The *National Parks and Wildlife Act* (NPW Act) was passed in 1967, amended in 1970 and superseded by the present *NPW Act* in 1974. This Act remains the principal law for protecting Aboriginal heritage in NSW. It protects pre-1788 remains of the Aboriginal occupation of NSW and places of significance to Aboriginal culture where 'relics' may not be present (for instance, sacred sites).

The *NPW Act* provides statutory protection to all Aboriginal objects. Places of importance to Aboriginal individuals and communities can be given additional legal protection under the *NPW Act* by:

- Declaration of new Aboriginal Places
- Reservation and management as Aboriginal Areas and national parks
- Formal agreements on the joint management of national parks
- Formal agreements with land owners (Voluntary Conservation Agreements)⁴⁵

As noted in the RNE entry for Bankstown Aerodrome (see Section 1.6.1 and Appendix A), 'the potential for the occurrence of aboriginal sites and artefacts [at Bankstown Airport] is ... considered to be low. Discussions with representatives of the Gandangarra Local Aboriginal Land Council (LALC) have confirmed this preliminary assessment'. This view is also expressed in the *Bankstown Airport Master Plan and Airport Environment Strategy 2014*, Section 9.8.

5.2.6 *Environmental Planning and Assessment Act 1979* (NSW)

'Bankstown Aerodrome' in the suburb of Georges Hall within the Bankstown Local Government Area is included in the Bankstown Local Environmental Plan (Bankstown LEP, Schedule 5, item I18). Bankstown LEP is established under the *Environmental Planning and Assessment Act*.

For places listed in the LEP, Council approval is required for a range of works. These are set out in Part 2 of the LEP.

5.2.7 *National Construction Code*

The *National Construction Code* (NCC) provides the minimum necessary requirements for safety, health, amenity and sustainability in the design and construction of new buildings, and new work in existing buildings, throughout Australia. The *NCC* was developed to incorporate all on-site construction requirements into a single code. It covers the Building Code of Australia and Plumbing Code of Australia and is managed by the Australian Building Codes Board (ABCB).

The *NCC* provides a nationally accepted and uniform approach to technical requirements for the building industry. It contains provisions for the design and construction of buildings and other structures, covering such matters as structure, fire resistance, access and egress, environmental sustainability, services and equipment and aspects of health and amenity.

In cases of existing buildings undergoing alterations and/or additions, some discretion may be available with regard to upgrading the existing part of the building to meet the *NCC*.

5.2.8 *Disability Discrimination Act 1992 (Australia)*

The *Disability Discrimination Act* makes it illegal to discriminate against a person on the basis of their disability. It is not specifically about buildings, but it has an effect on buildings in which the design and construction prevents access by people with a disability, as the owners of those buildings are deemed to be discriminating against people on the basis of a disability.

The DDA is philosophical in approach and:

- Is complaints based;
- Has no construction standards;
- Applies to actions of discrimination wherever they occur; and
- Can apply retrospectively to both new and existing buildings, wherever the discrimination occurs.

On 1 May 2011, the Disability (access to Premises – Buildings) Standards (Premises Standards) took effect under the *Disability Discrimination Act*. Commonwealth agencies are bound to meet the objectives of the *Disability Discrimination Act* as far as possible.

5.3 Lease agreement

On 6 July 1995, Airservices entered into a 39-year lease arrangement with the FAC for Bankstown ATC tower (Lot 103 in DP 852861). Following the winding up of the FAC, the lease transferred to BAL. Under the terms of the lease, the BAL may carry out construction or demolition works in any part of Bankstown Airport other than the area leased by Airservices. Should wider airport planning and development objectives require Airservices to vacate the control tower, negotiations will be entered into to relocate Airservices to an alternative suitable substitute location on the Airport site.⁴⁶

Airservices' obligations under the terms of this lease are that the control tower must not be used for any purpose other than the permitted use (i.e. for any purpose that is consistent with the functions of Airservices as prescribed by legislation). Should the lease expire or be terminated, Airservices is obliged to remove all or part of any 'Works' (defined as, 'the buildings including portable and relocatable buildings, improvements, fixtures and fittings and facilities together with all earth works, laying of foundations, site preparation and site sub-charging, reticulation, paving, landscaping and services' at the site).⁴⁷ It is understood that this would not require the removal of the ATC tower at the end/termination of the lease.

5.4 Site access and operation

The Airservices compound is secure; it is enclosed by a chain link fence and barbed wire. The ATC tower operates from 6am to 9pm Monday to Friday, and 6am to 8pm Saturday and Sunday. At other times, the Airservices compound is unmanned.

Aside from Airservices personnel, and individuals approved by the Senior Area Controller, the compound is also accessible to BAL staff for management of the Airport Lighting Room.

5.5 Stakeholders

At a general level, stakeholders (people or organisations with an interest in Bankstown ATC tower no. 2) fall into two categories: statutory authorities responsible for ensuring the appropriate management of the asset, and individuals/groups/businesses with a particular interest in the place.

Stakeholders with an interest in, and concern for Bankstown ATC tower no. 2, include the following:

- Department of Agriculture, Water and the Environment;
- Department of Infrastructure, Transport and Regional Development;
- Bankstown Airport Ltd;
- Canterbury-Bankstown Council;
- Aviation operators; and
- Staff and/or affiliates of the Australian Aviation Museum, previously based at Starkie Drive, Bankstown Airport.

5.5.1 Department of Agriculture, Water and the Environment

As a Commonwealth Heritage Place, the Department of Agriculture, Water and the Environment is concerned with the identification, protection and conservation of the identified Commonwealth Heritage values of the Bankstown ATC tower no. 2. In the event that the tower is decommissioned, the management of the present tower and preservation of the identified Commonwealth Heritage values will be matters of interest to the Department of Agriculture, Water and the Environment.

5.5.2 Department of Infrastructure, Transport and Regional Development

DIRD owns 21 federally leased airports in Australia, including Bankstown. These airports are leased to long-term ALCs (BAL in the case of Bankstown). DITRD takes on a regulatory role managing these airports through the *Airports Act 1996* and, with respect to the environment, the *Airports (Environment Protection) Regulations 1997*.

5.5.3 Bankstown Airport Ltd

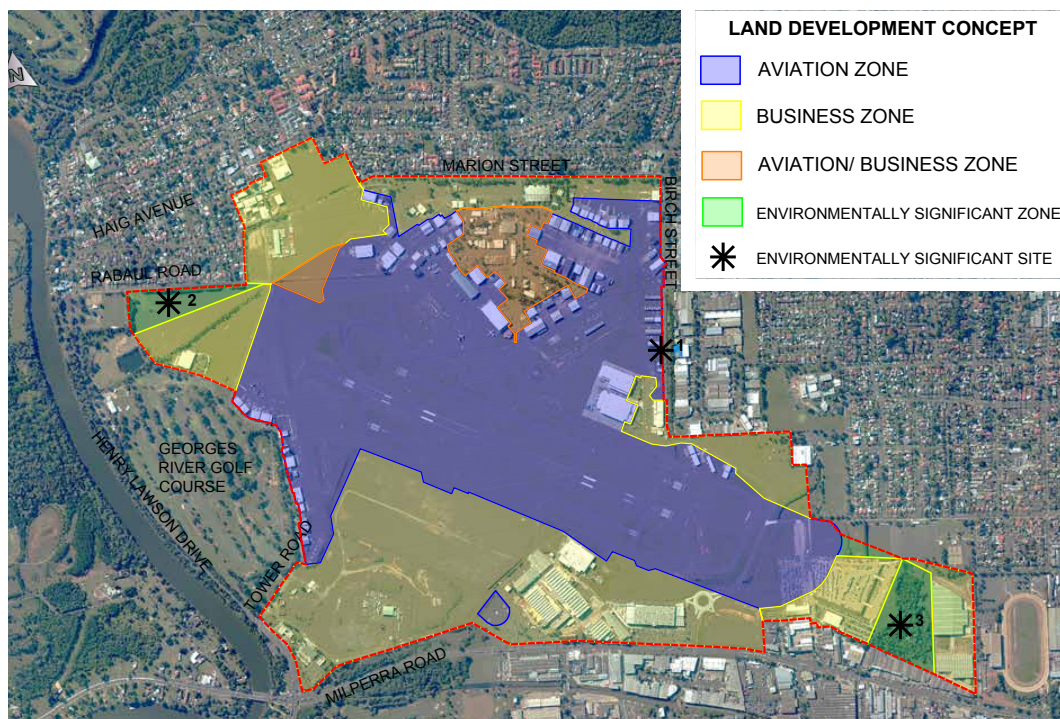
BAL is the ALC for Bankstown Airport. BAL's strategic direction, set out in the *Bankstown Airport Master Plan and Airport Environment Strategy 2014*, is:

- 1 to provide an efficient airport supporting all forms of general aviation for the Sydney region;
- 2 to provide a regional aviation hub for the attraction of new and diverse industries related to the operation of the airport including training, maintenance, manufacturing and emergency services; and
- 3 to develop the land assets of the Airport in order to provide high quality employment and commercial opportunities.⁴⁸

BAL's twin objectives, to sustain the airport's status as the major general aviation airport for the Sydney metropolitan region and to grow the airport's non-aviation related activities, align with the broader strategic planning vision for Sydney, as set out in, *A Plan for Growing Sydney*, released in December 2014 (the NSW Government's plan for the future of the Sydney Metropolitan Area over the next 20 years). This document identifies Bankstown as a 'Strategic Centre' for the metropolitan area; and Bankstown Airport as one of four 'Transport Gateways' for in the metropolitan area.⁴⁹ Significant development has already occurred at the airport; in 2014, property activities accounted for 83 per cent of BAL's annual revenue.⁵⁰ BAL's broad planning objectives for aviation and non-aviation-related development are indicated at Figure 49. Tower Road is anticipated for consolidation/expansion as an aviation-related precinct, at the interface between the apron and Georges River Golf Course.

Figure 49 Bankstown Airport, Master Plan, 2014: Development concept and land use zoning: the approximate location of the ATC tower is indicated

Source Bankstown Airport Master Plan and Airport Environment Strategy 2014



The Master Plan includes the following commentary regarding the location of the ATC tower:

The Air Traffic Control Tower (ATCT) is located on the west side of the Airport on land leased by Airservices Australia. The ATCT is located in Tower Road south-west of the approach end to Runway 11R. This location is less than optimal and past studies have examined relocating the ATCT to a more central location along the runway system. It is anticipated that relocation would be dependent on Airservices Australia's national priorities and funding availability.⁵¹

As noted above, heritage issues are addressed under 'Environmental Management' (Section 9) of the Master Plan.

Heritage assets/values are, it is assumed, identified in the *Bankstown Airport Heritage Management Strategy 2005* (GML), and include 'individual structures and other items of heritage significance' and the V-shaped (chevron) alignment of hangars at the southern end of Airport Avenue in the northern precinct of the Airport and four buildings on the former BAA site in the south-east precinct'. The *Heritage Management Strategy 2005* did not identify the present ATC tower as a building of heritage significance.⁵²

5.5.1 Canterbury-Bankstown Council

Bankstown Aerodrome is a place of local heritage significance, as related to its World War II and its ability to demonstrate the regional strategic importance of Bankstown since the mid-twentieth century. It can be anticipated that the Council may have an interest in proposals relating to the ATC tower.

5.5.2 Aviation operators

There are a number of aviation operators who use Bankstown Airport and rely on the ATC tower services. These operators include:

- Emergency services;
- Helicopter charter;
- Aircraft charter/private jet;
- Regional passenger transport;
- Flying school; and
- Light freight operators.

Air traffic services at Bankstown Airport are required to allow for the use of the airport by the above aviation operators, however it is unlikely that the manner of the provision of this service (i.e. the continued use, or decommissioning of, the current tower) is a concern to these operators.

5.5.3 The Australian Aviation Museum

The Australian Aviation Museum was, until 2016, located in premises at Starkie Drive, a short distance to the south of the ATC tower. The Museum opened in 1994, and included exhibits relating to the history of aviation, space technology and the role played in world aviation progress by Australians. At the time of writing, a proposal for the Museum to relocate to premises at Camden Airport had yet to come to fruition.⁵³

It is possible that issues associated with the Bankstown ATC tower may be of concern/interest to staff and/or affiliates of the Museum, as related to its general interest in aviation history.

5.6 Presentation and condition

Presentation

Bankstown ATC tower no. 2 is substantially intact as built and presents very much as commissioned in 1970. External alterations to the tower are limited to modifications to windows at the south side of the east elevation (upper level) and a new escape stair to the south elevation. The base of the east elevation is obscured by satellite dish enclosure. In addition, a small annex has been added to the RER (west end of the south elevation).

Condition

The ATC tower is generally in sound condition, and there are no known impediments to the on-going use of the facility, or its adaptation as a consequence of structural integrity.

A hazardous building materials survey was carried out in 2014 (JTA Health, Safety & Noise Specialists, May 2014). The building includes asbestos-containing materials, synthetic mineral fibre materials and polychlorinated biphenyls. The asbestos containing materials at the building are in the form of: asbestos bituminous membranes; asbestos vinyl tiles; and asbestos black resin electrical boards. These asbestos containing materials were assessed in 2014 as being in good and stable condition. In their present undisturbed form, they do not pose a measureable risk to the health of building users. The synthetic mineral fibre materials are also in good and stable condition, and have been installed in accordance with industry standards. It is anticipated that fluorescent light fittings in the building contain polychlorinated biphenyls (PCB oil).⁵⁴

6.0 CONSERVATION POLICY AND MANAGEMENT GUIDELINES

This conservation policy is based on the assessment of cultural significance at Chapter 4, and informed by the opportunities and constraints identified at Chapter 5. The policy provides direction and guidance on the conservation and management of Bankstown ATC tower no. 2 consistent with its on-going operation as a control tower. It also considers heritage management implications in the event that the tower is decommissioned or replaced.

6.1 Definitions

The terminology used in this chapter is of a specific nature. The following definitions are from the *Burra Charter, 2013* (Article 1), as endorsed by a large number of statutory and national heritage bodies.

Place means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Cultural significance is embodied in the **place** itself, its **fabric, setting, use, associations, meanings**, records, **related places** and **related objects**.

Places may have a range of values for different individuals or groups.

Fabric means all the physical material of the **place** including elements, fixtures, contents and objects.

Conservation means all the processes of looking after a **place** so as to retain its **cultural significance**.

Maintenance means the continuous protective care of a **place**, and its **setting**.

Maintenance is to be distinguished from repair which involves **restoration** or **reconstruction**.

Preservation means maintaining a **place** in its existing state and retarding deterioration.

Restoration means returning a **place** to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.

Reconstruction means returning a **place** to a known earlier state and is distinguished from **restoration** by the introduction of new material.

Adaptation means modifying a **place** to suit the existing **use** or a proposed use.

Use means the functions of a **place**, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.

Compatible use means a **use** which respects the **cultural significance** of a **place**. Such a use involves no, or minimal, impact on cultural significance.

Setting means the immediate and extended environment of a **place** that is part of or contributes to its cultural significance and distinctive character.

Related place means a **place** that contributes to the **cultural significance** of another place.

Related object means an object that contributes to the **cultural significance** of a **place** but is not at the place.

Associations mean the special connections that exist between people and a **place**.

Meanings denote what a *place* signifies, indicates, evokes or expresses to people.

Interpretation means all the ways of presenting the *cultural significance* of a *place*.

6.2 General policies

Policy 1 Significance as the basis for future conservation and management

The statement of significance included in this HMP should be the principal basis for the future management and conservation of Bankstown ATC tower no. 2.

Specific conservation objectives should include:

- Managing in accordance with the significance attributed in this HMP (Chapter 4). In general terms, the implications of the identification of significance are as follows:
 - › Significant elements and attributes should be retained and conserved according to the principles of the *Burra Charter* (2013). Significant elements and attributes are those that are identified as being of primary or contributory significance as listed at Sections 4.3 and 4.4. See also Section 5.1, and Policy 9, below.
 - › Elements and attributes that are not identified as significant can be retained, re-used or replaced by new construction or works in a way which has a minimum or no adverse effect on significant buildings and elements.
 - › The retention and conservation of significant elements and attributes in accordance with the policies and recommendations in this HMP.
 - › A sensitive and respectful approach to adaptation, new works and future development where significant fabric and elements may be affected.

If alterations or changes are proposed which support an appropriate and viable use for the control tower, the works should be undertaken in a manner which has minimal impact on significant fabric. A summary of significant fabric/elements, and the implications of these assessments, is included in the Bankstown ATC tower 'User Guide' (Appendix C). This brief document was prepared by Airservices to provide guidance to contractors and staff about obligations relating to heritage at the site. The User Guide has been updated for consistency with the findings of this HMP.

Policy 2 Adoption of the Burra Charter

The conservation and management of the subject site should be carried out in accordance with the principles of the Burra Charter (2013).

When assessing the suitability of proposed works to significant elements and attributes at the Bankstown ATC tower, the principles of the Burra Charter and its practice notes should be referenced. These principles provide guidance on the conservation and adaptation of places and elements identified as being of cultural heritage significance.

Policy 3 Adoption of policies

The policies included in this HMP should be endorsed and adopted by the present and future owners, or managers, of the Bankstown ATC tower no. 2, and should form the primary guide for its management.

This HMP should inform future development of Bankstown ATC tower no. 2. The present and future owners of the tower should adopt and implement the policies of the HMP as the key guiding reference in terms of managing change and future development within the site.

Implementation strategies

- Airservices will adopt the policies and implementation timeframes set out in this HMP. The Executive General Manager Air Navigation Services (EGM ANS), who has accountability for property management and is responsible for the implementation of the Heritage Strategy in relation to land and property management, will ensure that personnel are briefed on the implications of this HMP.

Policy 4 Specialist advice and skills

Advice from qualified heritage practitioners should be sought before any action is proposed or undertaken that could have an impact on the Commonwealth Heritage values of Bankstown ATC tower no. 2.

Where works to significant elements or attributes are proposed, or where technical advice is needed, it is important to select consultants and contractors with proven experience in the relevant field. This applies to the development of strategic approaches to undertaking works, as well as to the delivery of conservation works.

Implementation strategies

- Airservices will identify consultants/personnel with experience in the management of heritage assets, and in the delivery of works to them.

Policy 5 Compliance with legislation

Airservices should develop and implement protocols for compliance with all legislation, including the EPBC Act and the Airports Act.

The development of protocols to ensure compliance with all applicable legislation should include triggers to ensure compliance with the *EPBC Act*, being the key piece of legislation that applies directly to management of heritage values. A department/committee within Airservices should be tasked with preparing an information sheet identifying processes to be followed when contemplating works at the control tower, and disseminating the outcomes to key personnel and relevant contractors.

In the event that actions with the potential to have a significant impact on the Commonwealth Heritage values of Bankstown ATC tower no. 2 are contemplated, Airservices should consult with the Minister for the Environment. This consultation is not a formal requirement of the *EPBC Act*, but is recommended in recognition of the fact that the *Airports Act* supersedes the *EPBC Act* in a range of matters, including issues that affect the operation of the place.

Implementation strategies

- Airservices will manage Bankstown ATC tower no. 2 consistent with the requirements of the *EPBC Act*. Compliance with the policies in this HMP will assist in achieving this objective.

Policy 6 Stakeholder liaison

Airservices should consult with all stakeholders identified at Chapter 5 (Section 5.5) and other parties/individuals as relevant, on matters affecting the heritage values of Bankstown ATC tower no. 2.

Key stakeholders – being individuals and organisations with a particular interest in the ATC tower – should be advised of any proposals with the potential to impact on the identified values of the place, and provided with opportunities to comment. As noted at Section 1.5.1 of this document, it is not considered that there is a requirement for the Local Aboriginal Land Council to be consulted as a stakeholder in the event that significant change is proposed at the subject site, reflecting the low potential for the ATC tower to be of significance to the Indigenous community.

Policy 7 Managing sensitive information

Airservices should develop and implement protocols to protect sensitive information and equipment relating to the operation of Bankstown ATC tower no. 2.

Bankstown ATC tower no. 2 is an important component of Sydney's air safety infrastructure. It includes sensitive information and equipment. Protocols to ensure that this information and equipment is not compromised, or accessed by unauthorised parties should be developed and implemented by Airservices. This policy complies with EPBC Act Regulations, 2000, Schedule 7a (h) (v).

Policy 8 Review of the HMP

Consistent with best practice, and the requirements of the EPBC Act, this HMP should be reviewed and updated every five years (by 2026).

Relevant considerations in undertaking a review of this HMP are to incorporate any new information that comes to light, particularly where there is the potential for the new information to result in a reassessment of values. Major physical change to the place would be a trigger for a review of this HMP. Other triggers include instances where: major change occurs as a result of an accident or misadventure (i.e. vandalism or fire); or the HMP is found to be out of date with regard to significance.

Implementation strategies

- Consistent with Airservices' Heritage Strategy (2021-23), the agency will undertake a review of this HMP within five years (2026), or if it is found that:
 - › the document does not cater for proposed unforeseen actions;
 - › additional Commonwealth heritage values are identified;
 - › degradation of the place's environment (for example, through accident or natural disaster) has occurred; and/or
 - › management policies/responsibilities do not adequately cater for changed operational or management regimes

6.3 Conservation policies

Policy 9 Conservation of significant attributes and elements

Buildings, attributes and elements of primary significance at Bankstown ATC tower no. 2 should be conserved.

Buildings, attributes and elements of primary significance are:

- the external presentation of the ATC tower, as a tall, free-standing structure which is recognisable as a control tower primarily as a consequence of its octagonal cabin;
- the four-level base structure of the ATC tower, with the exception of later alterations and additions;
- the cantilevered walkway that surmounts the base structure;
- the octagonal drum and octagonal control cabin, including its outward canted windows in steel mullions;
- the ATC tower's functional, utilitarian design aesthetic which is evocative of its construction during the first post-World War II phase of control tower development;
- the modular timber console (frame only); and
- the unimpeded lines of sight from the cabin to the apron and runways.

Buildings, attributes and elements of contributory significance support should, in preference, be retained and conserved.

Buildings, attributes and elements of contributory significance are:

- the radio equipment room (excluding the pre-1985 addition);
- the conjoined power house, plant room and airport lighting room;
- the equipment, plant and services within the Airservices compound, including the hydraulically-operated window cleaning mechanism; and
- the 'feature panel' wall between the ATC tower and the radio equipment room, including the original access phone in timber enclosure which is mounted to it.

Buildings, attributes and elements of little or no significance can be retained, removed or modified as require

Buildings, attributes and elements of little or no significance are:

- the satellite dish enclosure (1992);
- the pre-1985 addition to the radio equipment room;
- the escape stair to south elevation of the ATC tower; and
- fencing around the secure areas of the Airservices compound.

Implementation strategies

- Implementation of this policy will require recognition of and respect for the attributes and elements identified above on the part building occupant and managers, and adherence to Policy 4, which recommends engaging the services of professional heritage consultants in planning and designing outcomes that are compatible with the ATC tower's heritage values. Consistent with the *Burra Charter*, appropriate heritage outcomes may include: maintenance, preservation, restoration and adaptation.

Policy 10 Heritage curtilage

The heritage curtilage for Bankstown ATC tower no.2 should be defined as the Airservices Australia lease at Bankstown Airport.

The 'heritage curtilage' for a building, complex or site has been defined as, 'the area of land (including land covered by water) surrounding an item or area of heritage significance which is essential for retaining and interpreting its heritage significance'.⁵⁵ A heritage curtilage should include all significant elements and establish an area which is managed to ensure the maintenance of heritage significance. Identification of land to be included within a heritage curtilage does not preclude change within this area. Land within a heritage curtilage does, however, need to be managed so as not to adversely impact on setting, presentation or significance of a heritage place.

Bankstown ATC tower no.2 is a freestanding element that has a distinct and singular character in the airport context, primarily as a result of its overall form and canted cabin. The Airservices lease at Bankstown affords views to and from the tower to all sides. The RER and power house are contemporary with the ATC tower, and share a common design aesthetic. Their presence supports an understanding of the origins and significance of the ATC tower. There is no heritage imperative to consider a heritage curtilage that extends beyond the boundaries of the area leased by Airservices Australia.

Policy 11 Remedial works and cyclical maintenance of significant built fabric

Programs of priority maintenance, remedial works and cyclical maintenance should form the basis for ongoing care of the significant built fabric at Bankstown ATC tower no. 2.

The fabric of historic buildings and fabric will deteriorate over time due to the effects of age, weather and use. Poor maintenance can hasten the decline and decay of fabric, which can be expensive to rectify if not promptly addressed. It may also result in the loss of significant heritage fabric which can in turn impact on the heritage values of the place.

The establishment of a cyclical maintenance programme will help to retard deterioration and, following any refurbishment works, to prevent future deterioration of restored original or introduced new material. Broadly, the approach to maintenance should firstly be to maintain and ensure that the significant original and early fabric does not deteriorate further and secondly to maintain all existing fabric. *Ad hoc* repairs or patch ups should be avoided.

Regular inspections of the building's fabric should occur, with an emphasis on susceptible areas such as guttering and downpipes, door and window openings. Generally, day-to-day maintenance work can be carried out in accordance with the conservation policies and without reference to a conservation specialist. However, major maintenance works should be undertaken under the direction of an appropriately qualified conservation practitioner.

The primary aim of repair work should be to retain as much of the historic material as possible. In most cases involving repairs to significant fabric, the advice of a heritage practitioner will be required prior to undertaking the works, to ensure the significant fabric is treated appropriately.

Maintenance

Maintenance addresses all existing components of the place, including fabric and setting. Introducing new elements (such as new structures) or changing and adapting the existing building are not matters of maintenance, and are addressed in policies and recommendations included elsewhere in this HMP.

Typical maintenance works at Bankstown ATC tower no.2 include:

- cleaning out drainage systems and other water storage and drainage areas;
- maintaining and securing external wall fabric, glazing and joinery in an appropriate and sympathetic manner (may require specialist input);
- maintaining equipment and services (i.e. building services, not services related to the operation of the control tower);
- replacing or upgrading services (may require specialist input for substantial works); and
- maintaining existing power or pipelines or other services where this involves no alteration to the fabric of the place.

With regard to cyclical inspection and maintenance, the following sets out a desirable annual program for at Bankstown ATC tower no.2. Inspection of:

- finishes to the cabin roof and external walkway, external walls, downpipes, drains and surface drainage;
- security and fire precautions;
- plumbing, electrical and data cables and appliances;
- windows and doors and general safety; and
- ceilings, floors, stairs, joinery, fixtures and fittings, tiling and building services.

On-going maintenance works do not, typically, require heritage advice or statutory approvals.

Repairs

From a heritage perspective it is generally recommended that repairs of significant buildings and structures should involve replacing 'like with like,' i.e. the replacement of material (missing, deteriorated or broken) with fabric to match the existing. Accepting this principle, it is also important to determine if the material proposed for replacement is appropriate (it may not be original). The advice of a qualified heritage practitioner should be sought on this. Wherever possible, only actual decayed fabric of a heritage structure should be replaced, instead of the whole host element.

Repairs to significant structures should also, in preference, be carried out by appropriately skilled staff or contractors, and may require in some cases prior analysis of the composition of the fabric to be repaired/replaced.

Specialist input may also be required for the identification and eradication of any damage caused by pest infestations. Rectification may involve repair to, or replacement of, damaged fabric.

Policy 12 Hazardous materials

Removal of hazardous materials from Bankstown ATC tower no. 2 should seek to minimise physical impacts on significant values and attributes.

Hazardous materials at Bankstown ATC tower no.2 include asbestos-containing and synthetic mineral fibre materials. Polychlorinated biphenyls are also believed to be present (in fluorescent light fittings). All of these materials were assessed in 2014 as being in a good and stable condition.⁵⁶

In the event that there is a requirement for removal of hazardous materials, the key consideration from a heritage perspective will be to conduct their removal with minimal impacts on the presentation and character of the tower.

6.4 Use, adaptation and change

Policy 13 Use

Future uses of Bankstown ATC tower no. 2 should be compatible with the assessed values of the place so that its cultural significance is maintained and conserved.

ATC towers are prone to obsolescence. Common factors in the replacement of towers include: technological advances; the introduction of new safety standards; and new development that obscures sight lines. At Bankstown, the location of the present tower in proximity to the approach end of Runway 11R has been identified as a concern in the context of airport operations, with a more central location along the runway system being preferred by BAL.⁵⁷

Bankstown ATC tower, and the other buildings within the Airservices compound, are buildings that can reasonably be considered for adaptive re-use without significant adverse impact on the tower's identified heritage values. The tower is also readily accessible from Tower Road. Further, the equipment at the tower has not been assessed as being of significance in its own right (see Policy 15), potentially allowing for the adaptation of internal spaces for new uses.

Uses related to aviation activities – as anticipated for the Tower Road precinct in the BAL Master Plan, 2014 – could potentially be accommodated at the Airservices compound. The ATC tower may also be retained as a back-up control tower.

The key issue in considering future uses of the tower (and complex) is to avoid or minimise the potential for impacts on the tower's Commonwealth Heritage values. The advice of heritage professionals should be sought in identifying and analysing options.

Policy 14 Changes to significant elements and attributes

Physical alterations to Bankstown ATC tower no. 2 should be limited to works that do not diminish the cultural heritage values of the place.

In the event that the ATC tower is replaced, physical change may be required to the building to adapt it for a new use or uses. Such works could include internal reconfiguration, the introduction of a lift and/or widening of the stairs.

In considering works, it would be important to minimise impacts on its external presentation, and its valued design aesthetic which is evocative of its construction during the 1960s as part of the broader group of ATC towers in Australia. Where works are required the overriding objectives should be firstly to retain and conserve significant fabric and attributes, and secondly to plan and undertake works in a manner that is sensitive to the valued form and presentation of significant fabric. All alternative approaches should be investigated before removal of significant elements, and new works should be clearly identifiable as such. Table 4 provides specific guidance on approaches to future change to the ATC tower.

The radio equipment room building and the power house, as contributory elements within the Airservices compound, should preferably be retained. In the event of demolition, the complex as existing (tower, equipment room, power house) should be recorded. Replacement structures should be of a scale and presentation that is complimentary to the ATC tower. In preference, new built form should be located on the sites of the existing buildings, and be no higher than two levels.

Table 15 Implementation:
strategies for change to the
ATC tower

Building/element	Principles to guide future change
Base structure, exterior	As far as possible the external envelope of the ATC tower should be retained, to maintain an understanding of its original form, scale and presentation. An exception to the above is an external lift core which, if required, can be contemplated to the south elevation. There are no openings to this elevation, and the presence of the non-original escape staircase has not been seen to result in unreasonable detrimental visual impact on the tower. In constructing the lift, all options to avoid impacts on the cantilevered walkway should be explored. The exterior face brick walls should be maintained and not be painted or rendered There is also some potential for the introduction of low-scale (single-storey) development – either an extension or a freestanding structure – to the south of the control tower. New works/additions should adopt a utilitarian character, with limited decorative detail or embellishment, consistent with the original building The west elevation should be retained as the primary entry to the building, to provide an understanding of the original planning The modified section of the strip window to the east elevation, third level, should be returned to its original form. There is very limited potential for the introduction of new window openings to the tower. If there is a requirement to provide additional natural light, the preference would be to explore options for fenestration to the south elevation – i.e. the elevation that is anticipated for the greatest level of intervention related to the lift If there is a requirement for the introduction of windows at the ground level, the openings should take the form of a simple interpretation of the original strip windows, but not be a direct replica.
Base structure, interior	An understanding of the existing floor levels, including the crawl space under the cabin, should be maintained. Evidence of the original planning and original fittings/finishes should, in preference be retained.
Control tower cabin, exterior	The cabin is intact as built, and a key identifier of the building as a control tower. The external presentation should be retained unaltered. Maintain the transparency of the cabin as viewed from ground level.

Building/element	Principles to guide future change
Control tower cabin, interior	Maintain the cabin interior as a single volume. Remove non-original finishes and accretions.

Policy 15 Equipment

In the event of disposal, original equipment and fittings should be catalogued and stored appropriately.

As is the case at the subject site, equipment, plant and services at ATC towers are, generally, of standard design. On this basis, the equipment and plant at the Bankstown tower has not been assessed as being of primary significant in its own right; an exception is the timber frame of the console. However, original fittings and equipment do have the potential to support an understanding of the building's use and operation.

In the event of disposal or termination of the lease, Airservices Australia's obligations include removing fixtures and fittings. Prior to this obligation being implemented, an audit of equipment and fittings should be prepared. The audit should include recommendations for salvage, and identify options for appropriate management – i.e. integration into site interpretation; and/or display in the Australian Aviation Museum, in the event that the proposed relocation to Camden Airport comes to fruition.

Policy 16 Recording

Airservices, and subsequent owners, should maintain a record of significant interventions to Bankstown ATC tower no. 2.

Records of works/interventions to the tower should be maintained by Airservices. The record (or file) should include copies of all superseded architectural drawings, and photography of the affected areas before and after the works. This policy complies with *EPBC Act Regulations*, 2000, Schedule 7a (h) (x).

6.5 Management policies

Policy 17 Statutory controls

Bankstown ATC tower no. 2 should continue to be recognised as a place of cultural heritage significance to Australia through its inclusion in the Commonwealth Heritage list.

Bankstown ATC tower no. 2 has been assessed as a place of aesthetic value to Australia. As such, it should continue to be managed in compliance with the heritage obligations under the *Airports Act 1996* and the provisions of the *EPBC Act 1999*. It is recommended that the CHL entry for the control tower should be updated to reference this HMP, and to include the Statement of Significance in this HMP.

In the event that the asset is divested Airservices Australia will ensure that the Commonwealth Heritage values of the asset are protected. As per Section 341ZE of the EPBC Act, in the event that the tower is sold or leased, Airservices will advise the Minister at least 40 business days prior to the execution of the contract, and follow all appropriate measures to ensure the Commonwealth Heritage values of the tower are protected.

Assuming that Sydney Airport remains Commonwealth-owned land, the ATC tower would remain in the CH list.

In the event that Bankstown Airport were to be sold by the Commonwealth, Bankstown ATC tower no. 2 should be nominated for inclusion in the NSW State Heritage Register.

Anyone is able to nominate a place/object for listing in the NSW Heritage Register, which is established under Part 3A of the *Heritage Act 1977* (NSW). The process, set out on the NSW Government Office of Environment and Heritage website (www.environment.nsw.gov.au/Heritage/listings/nominateshr.htm) would require the ATC tower to satisfy more than one of the criteria listed below. The Act also provides for the inclusion of places that meet only one criteria, if they are of 'particular significance'.

The NSW heritage criteria are as follows:

- a) an item is important in the course, or pattern, of NSW's cultural or natural history
- b) an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history
- c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW
- d) an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons
- e) an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history
- f) an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history
- g) an item is important in demonstrating the principal characteristics of a class of NSW's
 - › cultural or natural places
 - › cultural or natural environments.

It should be noted that Bankstown ATC tower no. 2 may not satisfy the threshold for inclusion in the NSW Heritage Register.

Policy 18 Access and security

To maintain security, all visitors to the ATC tower should report to the Senior Area Controller.

While the tower remains operational, Airservices should maintain the current security arrangements, whereby visitors report to the Senior Area Controller via a telephone next to pedestrian entry at the perimeter fence to request access. This policy complies with *EPBC Act Regulations*, 2000, Schedule 7a (h) (ii).

Policy 19 Interpretation and promotion of heritage values

Airservices, and subsequent owners of Bankstown ATC tower no. 2 should promote and disseminate information about the cultural heritage values of the building.

Strategies for the promotion and dissemination of information about the cultural heritage values of the ATC tower should be prepared in the form of an interpretation plan. Recommendations for interpretation should be informed by but not limited to consideration of: best practice principles (including the *Burra Charter* 2013 practice note 'Interpretation'); the identified heritage values of the place; the anticipated audience for interpretation; and existing interpretative programs at Bankstown Airport.

Interpretation can be undertaken via a range of tools and methods. Information can be presented in a readable format (printed or electronic, including brochures, pamphlets, books and websites); through on-site signage; through the display of objects/artefacts; and through art works.

While the ATC tower retains its current use, a low level interpretation program would be appropriate. This could comprise interpretive signage on site, for example. In the event that the ATC tower is adapted to a new use, the nature of the interpretive program is likely to change.

Policy 20 Training and awareness

A training program should be instigated to raise awareness of the heritage significance of Bankstown ATC tower no.2 among staff of Airservices and BAL.

The heritage significance of Bankstown ATC tower no. 2 may not be evident to personnel who work at the building, specifically Airservices personnel, and BAL staff.. It is recommended that a training program to promote awareness of the building's heritage values is developed and implemented by Airservices. The Bankstown Air Traffic Control Tower Airservices Australia Heritage User Guide is included at Appendix C.

Policy 21 Archaeology

The discovery of archaeological artefacts and objects with the potential to contribute to an understanding of the history, technology and operation of the site should be reported to the Department of Agriculture, Water and the Environment.

There is considered to be relatively limited potential for subsurface artefacts relating to earlier occupation and/or land use at the Airservices compound, based on the level of disturbance. In the event of archaeological remains being uncovered at the site, the Office of Environment and Heritage (NSW) – the body responsible for administering the *Heritage Act, 1977* and the *National Parks and Wildlife Act, 1974* – should be informed of the discovery before proceeding with further work. This approach is also consistent with regulation 4.05 'Duty to give notice of cultural etc discovery' in the *Airports (Environment Protection) Regulations 1997*.

Policy 22 Risk preparedness

A Risk Management Strategy should be integrated into the broader management and administration of Bankstown ATC tower no. 2.

Risk preparedness and management is an important means of protecting and conserving the heritage values of heritage places. While a detailed assessment of risk is beyond the scope of this report, the following table describes potential threats and hazards posed to the physical fabric at the subject site by environmental and man-made factors.

Table 16 Analysis of risk to
Bankstown ATC tower no. 2

Threat	Probability	Preparation/ Response
Vandalism and theft	Moderate	The Airservices compound is enclosed by a tall metal fence topped with barbed wire, and the buildings themselves are secure. However, the complex is not staffed overnight, and vandalism and theft are always possible and a level of awareness and security should be maintained. Installation of security cameras could be considered in discrete locations. These should be fixed to cause the minimum possible impact on the presentation of the tower.
Fire	Always present	Establish a fire suppression and warning system as part of any adaptive reuse, and upgrade as required. Ensure there is an evacuation plan in place, and conduct regular training and rehearsals. Ensure that combustible materials do not come into contact with hot lights. Ensure that extinguishers, fire blankets etc, are located within reach of potential sources of fire. Maintain electrical systems in good order. Maintain liaison with fire brigade to regularly test and monitor systems.
Flood	Possible	Localised internal flooding, from toilets, sinks and pipe work, is always possible. Maintenance of wet areas and pipe work is a means of minimising this possibility.
Water ingress	Moderate	Rainwater goods (gutters, downpipes and sumps) should be repaired (where required), maintained, installed and kept clear. Inspect and maintain roofs, windows and doors regularly.

6.6 Implementation plan

A plan for the implementation of the policies set out at Section 6.2 'General policies', 6.3 'Conservation policies', 6.4 'Use, adaptation and change' and 6.5 'Management policies' is included at Table 2, Chapter 1. This complies with EPBC Act Regulations, 2000, Schedule 7a (i).

Bankstown ATC tower no. 2 is an operational asset, and as such is managed and maintained in accordance with Airservices' corporate Environmental Management System (EMS), which is certified (and independently audited) against ISO14001:2015. This includes compliance with a range of on-ground environmental standards, procedures, plans and guides, including heritage matters.

Bankstown ATC tower no. 2 is operated and maintained as part of Airservices annual operational budget for Air Navigation Services (ANS) operations (Southern Region).

Policy	Responsibility	Timing	Funding
Policy 1: Ensure that the Statement of Significance included at Section 4.3 of this report is referred to prior to any proposed works or alterations, including conservation and management, being undertaken to the ATC tower.	Airservices project managers	On-going	N/A
Policy 2: Ensure that conservation, maintenance, preservation, restoration or adaptation works to the ATC tower, or within the area leased by Airservices, are consistent with the Burra Charter.	Airservices project managers	On-going	N/A
Policy 3: Ensure that the policies in this HMP are endorsed and form the primary guide for the management of the ATC tower.	Airservices project managers	On-going	N/A
Policy 4: Maintain access to specialist contractors and consultants	Airservices project managers	On-going	N/A
Policies 5, 17 and 21: Maintain protocols for compliance with legislation, including with regard to unexpected discoveries (archaeology)	Airservices project managers	On-going	N/A
Policy 6: Ensure that stakeholders identified at Section 5.5 of this report are provided with opportunities to comment on proposed changes to the ATC tower	Airservices project managers	On-going	Funds to be identified in project budgets

Table 17 Implementation plan

Policy	Responsibility	Timing	Funding
Policy 7: Protocols to protect sensitive data and equipment should be maintained.	Environment Team Leader	On-going	Airservices' annual operating budget
Policy 8: Ensure that a review of this HMP is undertaken by 2026	Environment Team Leader	By 2026	Funds to be allocated for HMP review in 2026
Policy 9: Ensure that elements and attributes intrinsic to the significance of the ATC tower, as listed at Section 6.3 of this report, are conserved	Airservices project managers	Within the life of this plan, 2021-2026	Airservices' annual operating budget
Policy 10: Ensure that works within the area leased by Airservices, do not impact detrimentally on the setting or presentation of the ATC tower.	Airservices project managers	On-going	N/A
Policy 11: Monitor and document the condition of the built fabric (annual maintenance regime). Undertake maintenance works as required.	Airservices project managers	On-going	Airservices' annual operating budget
Policy 12: Observe recommendations for management of asbestos-containing and synthetic mineral fibre materials.	Airservices project managers	Within the life of this plan, 2021-2026. See also JTS Health, Safety & Noise Specialists report, May 2014.	Airservices Work Health and Safety budget.
Policies 13 and 14: In the event of disposal by Airservices, ensure that changes associated with adaptation to a new use are compatible with the building's assessed significance and CHL values.	Future owner/operator	N/A	N/A
Policy 15: In the event of disposal by Airservices, ensure that original equipment and fittings are catalogued and stored.	Airservices project managers	N/A	N/A
Policy 16: Maintain a record of significant interventions to the ATC tower.	Airservices project managers	On-going	N/A

Policy	Responsibility	Timing	Funding
Policy 17: In the event of disposal by Airservices, the ATC tower should be nominated for inclusion in the NSW State Register.	Environment Team Leader	N/A	N/A
Policy 18: Ensure that access and security protocols are maintained while the tower is operational.	Airservices staff	On-going	N/A
Policy 19: Develop and implement an interpretation plan for the ATC tower	Environment Team Leader	Within the life of this plan (2021-2026)	As required
Policy 20: Instigate heritage awareness training program, to promote an understanding of the tower's significance	Environment Team Leader	Within the life of this plan (2021-2026)	Heritage matters are covered under site inductions for Bankstown ATC tower and through mandatory online environmental training for all staff and contractors (with regular refreshers).
Policy 22: Ensure that risks associated with vandalism, theft, fire and flood are managed in line with the recommendations set out in this report.	Airservices project managers	Ongoing	These risks are evaluated, managed and mitigated to a level of ALARP (as low as reasonably practical) through Airservices corporate risk management system (CIRRIS)

6.6.1 Monitoring of implementation

The implementation of the management plan, and its effectiveness in conserving the ATC tower's CHL values will be managed by the ANS Senior Environmental Specialist and assessed by the relevant ANS Technical Services Officer (using the ANS Annual Site Condition Checklist – Form 081, v19, 1 February 2017).

BIBLIOGRAPHY

PRIMARY SOURCES

Archival sources

Department of Civil Aviation, Report on Civil Aviation in Australia and Papua-New Guinea, 1948-1949.

Parliamentary Standing Committee on Public Works, Report relating to the proposed development of the civil aerodrome at Mascot, New South Wales, 1929-30

Bankstown Airport Control Tower Lease, Federal Airports Corporation, Airservices Australia, 6 July 1995

Newspapers

Canberra Times

Evening News

Sun

Sydney Morning Herald

Torch (Bankstown)

Map and image collections

Airservices Australia

Civil Aviation Historical Society

Flickr

Spatial Services, NSW Finance, Services & Innovation

SECONDARY SOURCES

Published sources

BTE Publication Summary, *Basic Characteristics of General Aviation in Australia*, Australian Government Publishing Service, Canberra 1980

Unpublished reports and studies

Airservices, *Airservices Heritage Strategy 2014-2017*

Godden Mackay Logan, *Bankstown Airport Heritage Management Strategy*, April 2005

Godden Mackay Logan, *Sydney Airport Heritage Management Plan*, June 2009

Heritage Office, *Heritage Curtilages*, Department of Urban Affairs and Planning, New South Wales, 1996

JTA Health, Safety & Noise Specialists, 'Hazardous Building Materials Survey, Bankstown Airport Control Tower Complex', May 2014

Kavourmas, George, 'Bankstown Airport: its facilities, industry & history', Thesis for the Degree of Bachelor of Architecture, University of New South Wales, 1982

Matts, Chris and Lockley, Tom, *Bankstown Airport, Historical notes for a heritage assessment*,

Australian Aviation Museum, August 2009

NSW Government, *A Plan for Growing Sydney*, December 2014

RAAF Unit History Sheets (Form A50), Station Headquarters, Bankstown, Dec 1940 – May 1942

Sydney Metro Airport Bankstown, *Bankstown Airport Master Plan and Airport Environment Strategy*, 2014, via www.bankstownairport.com.au/Corporate/Master_Plan/2014_Master_Plan/Bankstown_Airport_2014_Master_Plan.aspx.

Websites

Airservices Australia, 'Movements at Australian Airports', www.airservicesaustralia.com/publications/reports-and-statistics/movements-at-australian-airports/, accessed 10 June 2017.

Australian Aviation Museum, www.australianaviationmuseum.com.au/, accessed 21 June 2017.

Australian Government, Department of the Environment and Energy, 'EPBC Act Frequently Asked Questions', www.environment.gov.au/epbc/publications/factsheet-epbc-act-frequently-asked-questions viewed 21 July 2016

Australian Government, Department of the Environment and Energy, 'What is protected under the EPBC Act?', www.environment.gov.au/epbc/what-is-protected viewed 27 July 2016

Australian Government, Department of Infrastructure and Regional Development, 'Airport Planning and Regulation', www.infrastructure.gov.au/aviation/airport/planning/ viewed 21 June 2016.

Australian Heritage Database, <http://www.environment.gov.au/cgi-bin/ahdb/search.pl>, various pages

de Havilland History, 'de Havilland Aircraft Museum', www.dehavillandmuseum.co.uk/about-us/de-havilland-history/, accessed 6 June 2017.

NSW Government, *Aboriginal heritage legislation in NSW: How the Aboriginal heritage system works*, www.environment.nsw.gov.au/resources/cultureheritage/20120401system.pdf, accessed 21 June 2017

Sydney Metro Airports Bankstown & Camden, Property, www.bankstownairport.com.au/Property/Property_Facts_1.aspx, accessed 30 May 2017.

Sydney Metro Airports Bankstown & Camden, 'Firefighting Skycranes Make Bankstown Homebase for Summer', www.bankstownairport.com.au/Media/Press_Releases/Press_Releases_2012/Firefighting_Skycranes_Make_Bankstown_Homebase_for_Summer.aspx, accessed 30 May 2017

ENDNOTES

- 1 Airservices Australia, www.airservicesaustralia.com/publications/reports-and-statistics/movements-at-australian-airports/, accessed 10 June 2017.
- 2 Pers. comm., Leanne Burrows, Department of Environment, 21 July 2016.
- 3 What is protected under the EPBC Act? www.environment.gov.au/epbc/what-is-protected viewed 27 July 2016.
- 4 Register of the National Estate entry for Bankstown Airport (Place ID 103900) , accessed online via the Australian Heritage Database, 10 June 2017.
- 5 *Sydney Morning Herald*, 20 September 1940, p. 3.
- 6 Parliamentary Standing Committee on Public Works, *Report relating to the proposed development of the civil aerodrome at Mascot, New South Wales, 1929-30*, p. iii; *Evening News*, 15 July 1929, p. 10.
- 7 *Evening News*, 15 July 1929, p. 10.
- 8 *Evening News*, 15 July 1929, p. 10.
- 9 *Evening News*, 15 July 1929, p. 10.
- 10 *Evening News*, 15 July 1929, p. 10.
- 11 Parliamentary Standing Committee on Public Works, *Report relating to the proposed development of the civil aerodrome at Mascot, New South Wales, 1929-30*, p. iii; *Evening News*, 15 July 1929, p. 10.
- 12 *Sun*, 23. November 1939, p. 5.
- 13 *Sydney Morning Herald*, 28 February 1940, p. 15.
- 14 *Sun*, 9 May 1939, p. 9.
- 15 *Sun*, 26 August 1939, p. 5.
- 16 Chris Matts and Tom Lockley, *Bankstown Airport, Historical notes for a heritage assessment*, Australian Aviation Museum, August 2009; RAAF Unit History Sheets (Form A50), Station Headquarters Bankstown Dec 40 – May 42, p. 1.
- 17 Bankstown Airport, Airport Av, Bankstown Airport, NSW, Australia, Indicative Place, Australian Heritage Database, via www.environment.gov.au/cgi-bin/ahdb/search.pl, accessed 22 May 2015.
- 18 Godden Mackay Logan, *Bankstown Airport: Heritage Management Strategy*, April 2005, pp. 26 and 57.
- 19 Godden Mackay Logan, *Bankstown Airport: Heritage Management Strategy*, April 2005, p. 26.
- 20 George Kavourmas, 'Bankstown Airport: its facilities, industry & history', Thesis for the Degree of Bachelor of Architecture, University of New South Wales, 1982, p. 83-8.
- 21 Chris Matts and Tom Lockley, *Bankstown Airport, Historical notes for a heritage assessment*, Australian Aviation Museum, August 2009, George Kavourmas, 'Bankstown Airport: its facilities, industry & history', University of New South Wales, Thesis for the Degree of Bachelor of Architecture, 1982, p. 72.
- 22 Chris Matts and Tom Lockley, *Bankstown Airport, Historical notes for a heritage assessment*, Australian Aviation Museum, August 2009.

- 23 'Air base for the war in the Pacific,' *The Torch* (Bankstown), 15 July 1970
- 24 *Canberra Times*, 24 November 1966, p. 38.
- 25 Chris Matts and Tom Lockley, *Bankstown Airport, Historical notes for a heritage assessment*, Australian Aviation Museum, August 2009.
- 26 'de Havilland Aircraft Museum', de Havilland History, www.dehavillandmuseum.co.uk/about-us/de-havilland-history/, accessed 6 June 2017.
- 27 'Air base for the war in the Pacific,' *The Torch* (Bankstown), 15 July 1970.
- 28 BTE Publication Summary, *Basic Characteristics of General Aviation in Australia*, Australian Government Publishing Service, Canberra 1980, p. 6.
- 29 Chris Matts and Tom Lockley, *Bankstown Airport, Historical notes for a heritage assessment*, Australian Aviation Museum, August 2009.
- 30 BTE Publication Summary, *Basic Characteristics of General Aviation in Australia*, Australian Government Publishing Service, Canberra 1980, p. 101.
- 31 *Sydney Morning Herald*, 12 October 1982, p. 13.
- 32 Chris Matts and Tom Lockley, *Bankstown Airport, Historical notes for a heritage assessment*, Australian Aviation Museum, August 2009.
- 33 Chris Matts and Tom Lockley, *Bankstown Airport, Historical notes for a heritage assessment*, Australian Aviation Museum, August 2009.
- 34 Sydney Metro Airports Bankstown & Camden, 'Firefighting Skycranes Make Bankstown Homebase for Summer', www.bankstownairport.com.au/Media/Press_Releases/Press_Releases_2012/Firefighting_Skycranes_Make_Bankstown_Homebase_for_Summer.aspx, accessed 30 May 2017.
- 35 Sydney Metro Airports Bankstown & Camden, Property, www.bankstownairport.com.au/Property/Property_Facts_1.aspx, accessed 30 May 2017.
- 36 Sydney Metro Airports Bankstown & Camden, Bankstown Airport 2014 Master Plan, http://www.bankstownairport.com.au/Corporate/Master_Plan/2014_Master_Plan/Bankstown_Airport_2014_Master_Plan_.aspx, accessed 30 May 2017.
- 37 Department of Civil Aviation, *Report on Civil Aviation in Australia and Papua-New Guinea, 1948-1949*.
- 38 In 1964, the introduction of Area Approach Control Centres (a facility responsible for en route control between airport approaches and departures) was the catalyst for the standardisation of facilities in control towers and the development of principles to be observed in the preparation of control tower unit facility schedules. These requirements took the form of Master Facility Schedule (MFS) no. 18 (issue 1), issued by the Department of Civil Aviation in November 1964; this was followed by MFS no. 18 (issue 2, May 1967).
- 39 Australian Government, Department of Infrastructure and Regional Development, 'Airport Planning and Regulation', www.infrastructure.gov.au/aviation/airport/planning/ viewed 21 June 2016.
- 40 Sydney Metro Airport Bankstown, *Bankstown Airport Master Plan and Airport Environment Strategy*, 2014.
- 41 Godden Mackay Logan, *Sydney Airport Heritage Management Plan*, June 2009, p. 107.

- 42 Australian Government, Department of Infrastructure and Regional Development, 'Airport Planning and Regulation', www.infrastructure.gov.au/aviation/airport/planning/, viewed 21 June 2016.
- 43 Australian Government, Department of the Environment and Energy, 'EPBC Act Frequently Asked Questions', www.environment.gov.au/epbc/publications/factsheet-epbc-act-frequently-asked-questions viewed 21 July 2016.
- 44 Airservices Heritage Strategy 2014-2017, p. 2.
- 45 NSW Government, *Aboriginal heritage legislation in NSW: How the Aboriginal heritage system works*, www.environment.nsw.gov.au/resources/cultureheritage/20120401system.pdf, accessed 21 June 2017.
- 46 Bankstown Airport Control Tower Lease (Federal Airports Corporation, Airservices Australia), 6 July 1995, p 14.
- 47 Bankstown Airport Control Tower Lease (Federal Airports Corporation, Airservices Australia), 6 July 1995, pp6-7 and 16.
- 48 *Bankstown Airport Master Plan and Airport Environment Strategy 2014*, Foreword.
- 49 NSW Government, *A Plan for Growing Sydney*, December 2014, p. 46, accessed online at, www.planning.nsw.gov.au, 21 June 2017.
- 50 *Bankstown Airport Master Plan and Airport Environment Strategy 2014*, p. 10.
- 51 *Bankstown Airport Master Plan and Airport Environment Strategy 2014*, p. 54.
- 52 Godden Mackay Logan, *Bankstown Airport: Heritage Management Strategy*, April 2005, p. 33-44.
- 53 Australian Aviation Museum, www.australianaviationmuseum.com.au/, accessed 21 June 2017.
- 54 JTA Health, Safety & Noise Specialists, Hazardous Building Materials Survey, Bankstown Airport Control Tower Complex, May 2014, pp. 3-4.
- 55 Heritage Office, *Heritage Curtilages*, Department of Urban Affairs and Planning, New South Wales, 1996, p.3.
- 56 JTA Health, Safety & Noise Specialists, Hazardous Building Materials Survey, Bankstown Airport Control Tower Complex, May 2014, pp. 3-4.
- 57 *Bankstown Airport Master Plan and Airport Environment Strategy 2014*, p. 54.

APPENDIX A

HERITAGE CITATIONS

- A.1 Commonwealth Heritage list entry for Bankstown ATC tower no.2**
- A.2 Bankstown Local Environmental Plan entry for Bankstown Airport**
- A.3 Register for the National Estate entry for Bankstown Airport**

Place Details

[Send Feedback](#)

Bankstown Airport Air Traffic Control Tower, Tower Rd, Bankstown, NSW, Australia

Photographs	None
List	Commonwealth Heritage List
Class	Historic
Legal Status	Listed place (22/01/2016)
Place ID	106118
Place File No	1/16/003/0010

Summary Statement of Significance

Bankstown Air Traffic Control (ATC) tower is of historical significance in a national context as a representative and substantially intact example of a standardised air traffic control tower form dating from the first phase of post-World War II design in air traffic control facilities (1950s-late 1960s). The Bankstown air traffic control tower, together with its equipment room and powerhouse, was designed by the Commonwealth of Australia Department of Works (NSW branch) for the Department of Civil Aviation. The complex was commissioned in 1970. The control tower is a utilitarian design comprising a square four-storey base in reinforced concrete with a face brick cladding, below a rectangular cantilevered walkway, also in reinforced concrete, around an octagonal cabin. The cabin is raised on a part-chamfered half-height duct and service space and octagonal cabin.

Bankstown is one of a group of control towers built essentially to the same operational and technical standards and specifications across Australia and Papua New Guinea from the 1950s until the late-1960s, when perimeter frame towers became the standard model for control towers at secondary and general aviation airports in Australia. Its design is derived from the 1950s air traffic control towers (Essendon, Hobart, Launceston and others), a model which was repeated and refined through the 1960s. While a late example of this standard type, Bankstown is distinguished from the majority of the other surviving examples through its intactness. Other than for the modification of windows at the upper level on the eastern elevation, the building is unaltered externally; internally it also retains the majority of its plan form and fabric. It is unusual in retaining its original timber-framed console, albeit modified. The associated radio equipment room and power house are also intact externally.

Official Values Not Available

Description

Context:

The ATC tower, powerhouse and equipment room are located to the west of the airport. The complex is enclosed in a fence of cyclone and barbed wire, with a pedestrian entry to the north-west of the enclosure. Additions to the complex since the late-1960s include a single-storey, skillion-roofed extension that abuts the west end of the tower's south elevation (this building is not part of the ATC facility), and a satellite dish enclosure to the east, built in 1992. The floor of the cabin is 15m above ground level.

Exterior:

Bankstown ATC tower is composed of a square four-storey base in reinforced concrete with a face brick cladding, below a rectangular cantilevered walkway, also in reinforced concrete, around an octagonal cabin. The cabin is raised on a part-chamfered half-height duct and service space and octagonal cabin.

The tower is built on standard raft footings, with a central stair in reinforced concrete. A single-storey brick wing (radio equipment room) extends westward from the tower base and a power house is located a short distance to the north. Both are original components of the ATC complex and appear to be intact externally.

The first, second and third floor levels of the east elevation of the ATC tower, facing the apron, feature narrow horizontal metal-framed casement windows running almost the full width of the building. There are no openings to the ground floor, with the exception of a vent to the west. The windows to the first and second storeys feature three regularly spaced mullions. At third floor level these have been altered including the introduction of larger vertically oriented windows on the south side and possibly the replacement of the original framing.

The south elevation is blank with no openings. A modern steel fire escape connects the walkway above to the ground level. The escape ladder appears to be of recent origins and may be a replacement for an earlier version (no escape ladder is indicated on the 1968 drawings). The west elevation, facing the road, features paired metal-framed casement windows lighting the internal stair. The main entrance to the building is on this side of the building and is via a simple timber door. The door is at the east end of a covered walkway formed by the overhanging eave of the radio equipment room, whose east elevation abuts the tower base. There is no internal connection between the two.

As for the south elevation, the north elevation is blank other than for access doors to the air conditioning plant room at ground floor level. Above third floor level the walkway around the base of the cabin (at crawl space level) is enclosed with original painted steel balustrading. The flooring is a waterproof membrane.

The cabin windows are double-glazed and canted outward. In the event of an emergency, the three windows facing west can be opened externally, by means of a hydraulically operated mechanism mounted on the west-facing facet of the crawl space wall. The rooftop features a central mounted beacon, and various antennae and aerials. Like the walkway, it is enclosed with linked steel gate panels clipped together.

Interior:

As built, the tower accommodated a switch room and technical officer's room on the first floor; the office of the officer-in-charge and check controller's room on the second floor; and a staff locker room and toilets/showers on the third floor. Floors throughout were vinyl tiles, and concrete walls were painted white. There have been very few modifications to the building's interior.

The bulk (approximately 60 per cent) of the ground floor plan is dedicated to the air conditioning plant room, which is separated from the entrance lobby by a load-bearing concrete wall painted white. The concrete floor of the entrance lobby is finished in vinyl tiles, as are the treads of the concrete staircase that runs the height of the building. The balustrades throughout are white-painted metal, with the handrail coated in black plastic. The ground floor is higher than levels 1-3, possibly to accommodate the air conditioning plant, or for the height of the cabin to achieve the required sightlines over the apron.

The layout of the first, second and third floors are almost identical. A doorway to the east of the staircase leads to a lobby area that provides access to two rooms facing east. On the second and third levels there is a small store in the north-west corner, accessed from the lobby. On the first floor, a locker room has been built into this space (which was originally open), accessed through a fire door in the plaster partition wall at the top of the stairs. Duct voids are located to the north and south walls. The toilets and showers on the third floor were upgraded in 2004/05.

A flight of stairs from the third floor leads to the duct and walkway level. A door to the left of the stairs leads to a galley kitchen with a half-height door (to the duct space) to the east and a full-height door (to the walkway) to the west. With the exception of upgrades to finishes and fabric, and modifications to accommodate technical changes, the control cabin is intact as built. The frame of the central timber console is original. The canted double glazed cavity windows are and lined with felt. Demisting is by electrical metal heaters mounted at the base of the double glazing. The ceiling treatment of acoustic tiles is original. The circular visor track is extant, with the screen removed. Sun shading is now provided by pull down blinds fixed to the top of each of the windows. The floor is carpeted; the carpet may conceal the original rubber tiles. Archive photography dated 1974 appear to show the walls finished in perforated plasterboard; this may be concealed behind the present carpet. A metal safety bar has been installed at the top of the stairs.

History

From the early 1950s the use of Bankstown Airport increased dramatically: annual movements rose from 100,000 to 280,000 between 1962 and 1967. By the mid-1960s, Bankstown was widely recognised as the headquarters of Australia's general aviation industry. Improvements to the airport over this period included: a sealed 941m-long runway (1952); a 1,190m-long sealed runway (1962); the installation of runway lighting (1965); and a third sealed runway (914m).

On 5 July 1968, the DCA also announced that a new 60ft-high air traffic control tower, with associated powerhouse and equipment would be built at Bankstown (combined cost \$250,000) on the western side of the airport, opposite the site of the RAAF control tower. In its siting and facilities the new tower conformed to Master Facility Schedule (MFS) no. 18 (issue 2, May 1967), specifying requirements for standard facilities in control towers and stating principles to be observed in the preparation of control tower unit facility schedules.

The complex was commissioned in 1970.

Condition and Integrity

The ATC tower and cabin are largely intact as constructed. The only change to the exterior is the modification of the third floor windows on the east elevation. The interior is likewise intact in both plan form and fabric, albeit with minor upgrades. The cabin is an authentic DCA standard issue control cabin c. late-1960s. It includes the original console, which has been modified to accommodate upgrades and later technologies. The acoustic treatments to the walls, ceiling and floor are extant. The associated equipment room and power house also appear to be intact, at least externally.

Location

Approximately 300sq metres, Tower Road, Bankstown Airport, comprising the Air Traffic Control Tower and its base building located within Land Parcel 17/DP1071297 and centred on approximate MGA point Zone 56 313447mE 6244680mN.

Bibliography

A Heritage study was undertaken by Lovell Chen Architects and Heritage Consultants. IE. Lovell Chen Architects and Heritage Consultants, June 2009. National Control Towers, Volume 2 -Appendix B, Detailed Heritage Assessments. The DHA identifies sources of information used in the study and in this nomination.

A copy of the DHA has been provided to the Department of the Environment, Water, Heritage and the Arts.

Godden Mackay Logan April 2005, Bankstown Airport Heritage Management Strategy, Report prepared for Bankstown Airport Limited

Report Produced Mon Jun 19 10:49:07 2017



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Bankstown Aerodrome

Item details

Name of item:	Bankstown Aerodrome
Type of item:	Complex / Group
Group/Collection:	Transport - Air
Category:	Airport Terminal
Primary address:	Marion Street, Georges Hall, NSW 2198
Local govt. area:	Bankstown

All addresses

Street Address	Suburb/ town	LGA	Parish	County	Type
Marion Street	Georges Hall	Bankstown			Primary Address

Statement of significance:

Evidence of regional strategic importance of Bankstown in the 1940s.

Date significance updated: 11 Jul 01

Note: There are incomplete details for a number of items listed in NSW. The Heritage Division intends to develop or upgrade statements of significance and other information for these items as resources become available.

Description

Physical description:	Land acquired by the Commonwealth for defence purposes in 1940. Major defence facility and aircraft manufacturing centre.
-----------------------	---

History

Historical notes:	Land acquired by the Commonwealth for defence purposes in 1940 (gazetted 5th August 1940). Major defence facility and aircraft manufacturing centre during World War II. Converted for civil aviation at end of war. Sydney's second major aerodrome. Theme: Manufacturing and Regional Centre.
-------------------	--

Historic themes

Australian theme (abbrev)	New South Wales theme	Local theme
3. Economy-Developing local, regional and national economies	Transport-Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	(none)-
7. Governing-Governing	Defence-Activities associated with defending places from hostile takeover and occupation	(none)-

Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Local Environmental Plan	Bankstown LEP No. 209		09 Mar 01	49	1185-1196
Heritage study					

References, internet links & images

None

Note: internet links may be to web pages, documents or images.



(Click on thumbnail for full size image and image details)

Data source

The information for this entry comes from the following source:

Name: Local Government

Database number: 1060175

Every effort has been made to ensure that information contained in the State Heritage Inventory is correct. If you find any errors or omissions please send your comments to the [Database Manager](#).

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Place Details

[Send Feedback](#)

Bankstown Airport, Airport Av, Bankstown Airport, NSW, Australia

Photographs	None
List	Register of the National Estate (Non-statutory archive)
Class	Historic
Legal Status	Indicative Place
Place ID	103900
Place File No	1/16/003/0009

Statement of Significance Not Available

Official Values Not Available

Description

Indigenous Cultural Heritage

The setting in which the Airport lies would have been a favourable location for Aboriginal habitation, prior to European arrival. With a nearby permanent water source and a diverse range of food on the river banks and surrounding hinterland it is likely that this area would have been well utilised by Aboriginal communities.

However, the Airport has been extensively disturbed over many decades. The whole of the Airport has been cleared of its original, native vegetation and only shrub regrowth occurs in isolated pockets along the Airport boundary. In addition extensive regrading has been undertaken over the majority of the site to make it suitable for its present purpose. The potential for the occurrence of aboriginal sites and artefacts is therefore considered to be low. Discussions with representatives of the Gandangarra Local Aboriginal Land Council (LALC) have confirmed this preliminary assessment.

A search of the NSW National Parks and Wildlife Service (NPWS) Aboriginal Sites Register did not identify any known Aboriginal sites within the Airport.

The National Native Title Tribunal has confirmed that there are no sites in the vicinity of the Airport listed on the National Native Title Register, Register of Native Title Claims or on the Register of Indigenous Land Use Agreements. Several Schedules of Applications Received (NC/; NC/, NC/), which cover large areas of land in Sydney (including the Airport), have been filed with the Federal Court for a determination of native title.

Non-indigenous Cultural Heritage

The present site of the Airport was first earmarked for development- by the Department of Civil Aviation (DCA) in 1929 as a second or training aerodrome for Sydney. There was no activity on the site until the Department of Air acquired an area of 255ha during World War 11 for development as a RAAF establishment, No 2 Aircraft Park. The main reason for selecting Bankstown was its close proximity to the Clyde Engineering Works at Granville where Avro-Anson aircraft production was carried out. A de Havilland complex (now Hawker de Havilland) was established on the Airport in 1942 to produce Mosquito aircraft and parts for the war effort.

During World War II the Airport was first a RAAF station, then a base for the US Army_ Air Corps and finally a Royal Naval Fleet Air Arm Station, HMS Nabberly. After the war responsibility for the Airport reverted to the RAAF as the home of its No 2 Stores Depot.

In 1945 Bankstown, as well as other sites, were investigated as the possible Sydney International Airport site. However, Bankstown was considered unsuitable primarily because of its runway approach limitations. Following Cabinet approval to develop the present Sydney Airport as the International Airport, the Department of Air was approached in February 1946 for the use of Bankstown Airport to enable the transfer of light aircraft, private flying and aircraft manufacture from Sydney Airport. The Department of Civil Aviation (DCA) took control of Bankstown in November 1948.

In 1952 a paved gravel runway, 914m long, was constructed in the 11/29 direction. New operational procedures were introduced in 1962 utilising three runway directions 11/29, 1836 and 05/23. Three intersecting, 300m wide strips were constructed in 1962. These included a 1190m long gravel runway in the 05/23 direction and two further gravel runways which were 1190m long in the 05/23 direction. Taxiways were also constructed at this time. Runway 11C/29C was strengthened to F27 standard and for operations by jets such as the Vampire and Sea Venom. Runway lighting was installed in 1965 and the present control tower complex was commissioned in 1970. The RAAF relinquished the last of its Bankstown Airport land to the Department of Aviation in 1980.

The FAC assumed the operation and management of the Airport on January 1 1988. In July 1998 the operation and management of the Airport was transferred to BAL.

Flora and Fauna

Flora

The development of the Airport and surroundings has resulted in a dramatic change to the natural environment. As a result, vegetative cover is limited to open grasslands, isolated pockets of re-growth shrub and garden or park-like plantings within the Airport's developed areas.

The majority of the Airport site comprises grassed areas surrounding the buildings, runways and taxiways. In these areas and along drainage lines and areas not regularly slashed, exotic species are prevalent (Integrated Site Planning and Management, 1997). The small isolated pockets of re-growth shrub are limited to the eastern and southern boundaries of the Airport. Although these areas are degraded and weed infested, there is the potential that the areas are suitable for endangered or vulnerable species or represent significant vegetation communities.

Two flora investigations have been undertaken at the Airport. The first was undertaken by Cumberland Flora and Fauna Interpretive Services for Bankstown City Council in 1996 and the second was undertaken by Integrated Site Planning and Management for the Federal Airports Corporation in 1997.

During the surveys of the Airport, no threatened plants listed on either the Commonwealth Endangered Species Act 1992 or the NSW Threatened Species Conservation Act 1995 were detected within the Airport lands. However, some potential for threatened species does exist within a small area of remnant bushland known as Deverall Park.

Areas of remnant vegetation that have been identified during field investigations or through consultation, including: Deverall Park - a small area of re-growth bushland located in the south-east corner of the Airport. The area is currently leased to Bankstown City Council. It is considered that the former vegetation in the vicinity of the site was representative of that found elsewhere in Western Sydney on similar soil types. It is therefore considered to have been made up of the Castlereagh Woodland vegetation type including Scribbly Gum Woodland and Swamp Woodland and is thought to be one of the last vestiges of this type in the Bankstown area (Cumberland Flora and Fauna Interpretive Services,). The remnant bushland is estimated to have been cleared 30-40 years ago. *Melaleuca decora*, *Parramatta Red Gum* (*Eucalyptus parramattensis*), and *Cabbage Gum* (*Eucalyptus amplifolia*), form strong components of the regrowth. *Epacris purpurascens*, a shrub species that was noted in the earlier report but was not sighted in the report, is a plant that is thought to be rare in Western Sydney. The discrepancy between the two reports is thought to be the result of a fire in the area and it is possible that *epacris* may not have re-established. Several other species were identified in the plant community as being locally important.

Airport Reserve - a narrow reserve located between the southern boundary fence of the Airport and the eastbound carriageway of Milperra Road (outside the Airport boundary). The Reserve is owned by the State Government and managed by Bankstown City Council. It has been identified by Environment Australia and Bankstown Bushland Society as potentially being a Transition Forest with Cumberland Plain Woodland that could be listed as an endangered ecological community under the NSW Threatened Species Conservation Act 1995. Filling has taken place on the Airport, close to the southern boundary and Airport Reserve, to provide a flood free zone within an area of the Airport affected by flooding of the Georges River. The filling has the potential to impact Airport Reserve by affecting drainage patterns and thereby possibly affecting the plants of the Reserve. BAL proposes to provide a new access road to the Airport across the western end of the Airport Reserve on currently disturbed land.

These areas of remnant vegetation have been recognised by BAL as sensitive sites

Fauna

The native fauna habitat is limited to the vegetation sites described above. The main faunal habitats within the Airport include:

Scattered eucalyptus trees;

Scrub layer and dense groundcover present along drainage lines and low lying areas; and

Aquatic habitats associated with the various drainage lines.

The fauna investigation undertaken by Cumberland Flora and Fauna Interpretive Services for Bankstown City Council in 1996 identified a range of common native and exotic birds, mammals, reptiles and amphibians as being present on the Airport. The Deverall Park area and drainage lines on the Airport generally contain some shrub cover and dense undergrowth which is likely to favour smaller birds and ground dwelling mammals. However, for Airport safety reasons, it is important that birds are not encouraged. Feral cats, foxes, hares, rats and mice are also present on the Airport site.

Due to the limited area of suitable habitat and the disturbed and degraded nature of the habitat that does exist, it is highly unlikely that migratory birds listed in either the Japan Australia Migratory Birds Agreement (JAMBA) or China Australia Migratory Birds Agreement (CAMBA) utilise the site.

..Sensitive Sites

Two sites, namely Airport Reserve and Deverall Park, have been recognised by BAL as being "environmentally sensitive".

Airport Reserve, the narrow reserve located between the southern boundary fence of the Airport and the eastbound carriageway of Milperra Road, has been identified by Environment Australia and Bankstown Bushland Society as potentially being a Transition Forest with Cumberland Plain Woodland that could be listed as an endangered ecological community under the NSW Threatened Species Conservation Act. The Deverall Park site, located on the eastern side of the Airport, is considered to be of local value or interest.

History Not Available

Condition and Integrity Not Available

Location

About 255ha, Airport Avenue, Bankstown Airport.

Bibliography Not Available

Report Produced Mon Jun 19 10:44:50 2017



APPENDIX B ARCHITECTURAL DRAWINGS

Commonwealth Department of Works, New South Wales Branch

Air Traffic Control Tower

- Site plan and locality plan, M69.538B, 12 March 1968
- Plans and sections, SS1484 and SS1485, 12 March 1968
- Structural concrete details, NS68/96B, NS68/97B, NS68/98B, n/d
- Door details, M68/332B, 12 March 1968
- Details, M68/327B2 and M67/2897B, n/d
- Cabin details, M68/397B, 12 March 1968
- Control cabin roof details, NS69/99B, n/d
- Window opening jacks, NM69/81B, n/d
- Window cleaning device, NM69/82B, 12 March 1968
- Air conditioning layout, NM68/52B, 10 November 1967
- Plant and control diagrams, NM68/54B, 10 November 1967

Power House

- Plans, elevations, sections and details, MA68/151B, 12 August 1968
- Structural details, NM68/100B, n/d
- Doors, windows and miscellaneous details, M68/187B, 12 March 1968
- Ventilation, NM6B/55(C), 10 November 1967

Radio Equipment Room

- Plans, elevations, sections and details, NM68/419B, 12 March 1968
- Structural details, NS68/101B, n/d
- Air conditioning, NM68/53B, 10 November 1967

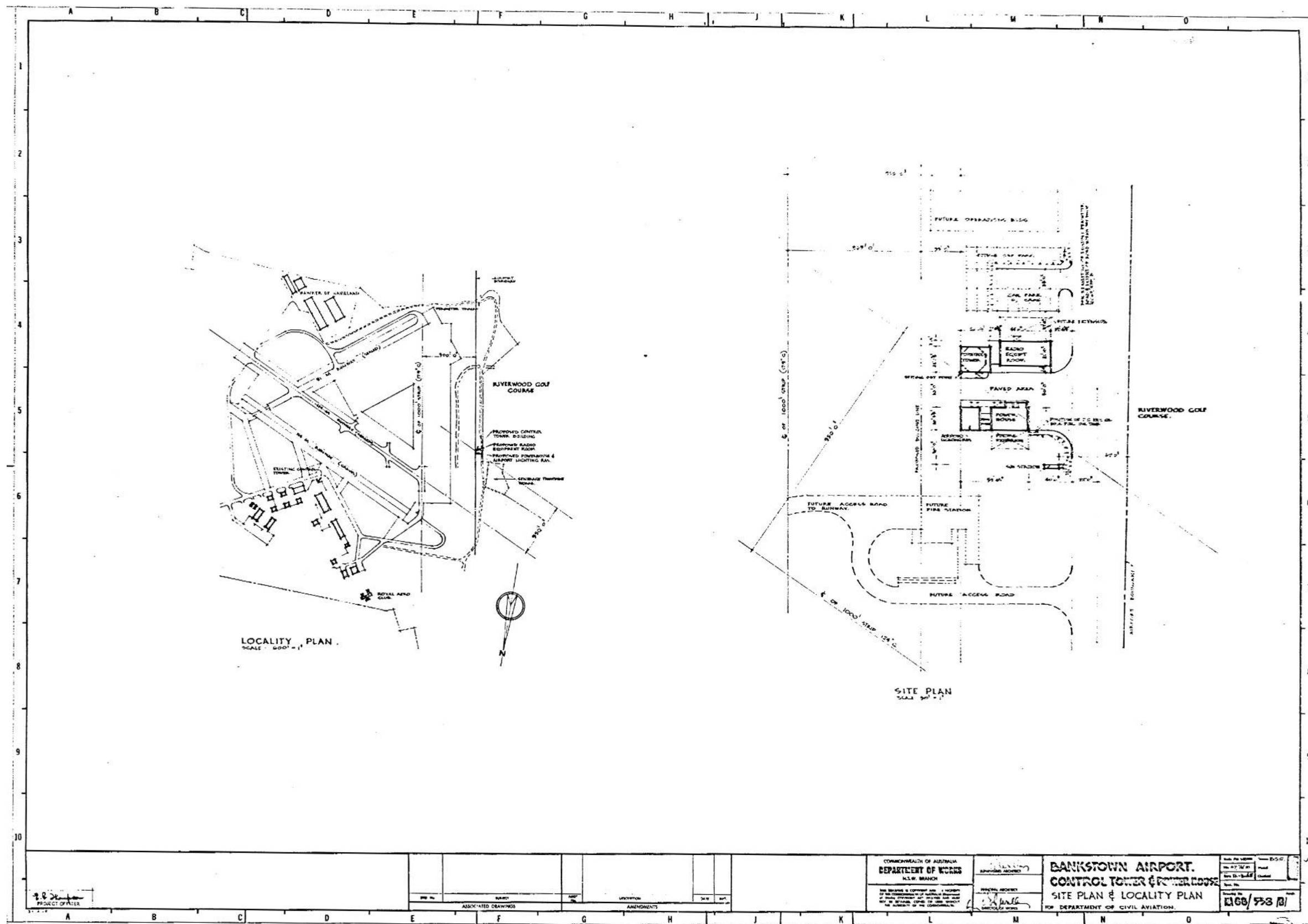


Figure 1 ATC tower: Site plan and locality plan
Source: Airservices Australia

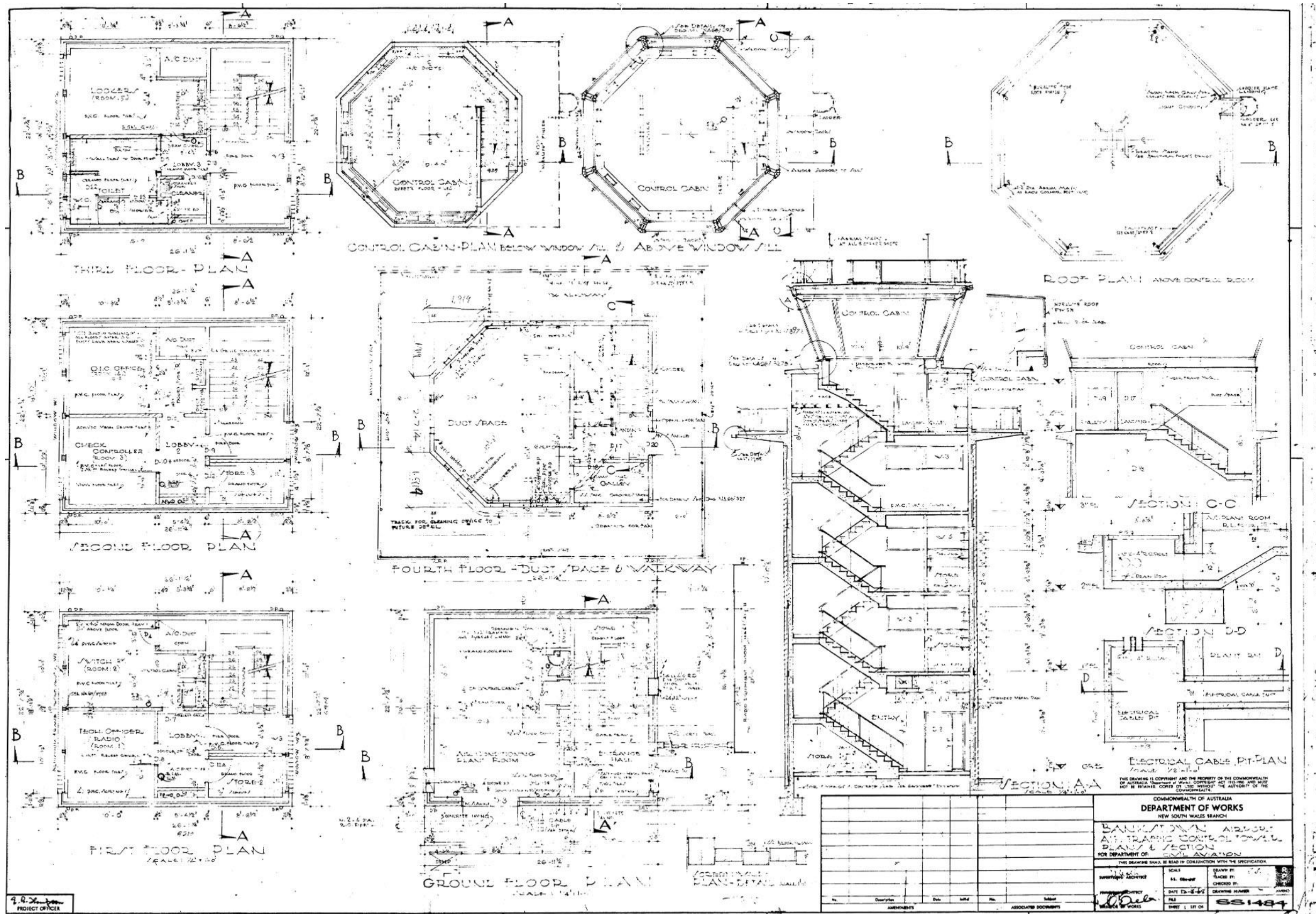


Figure 2 ATC tower: Plans and sections
Source: Airservices Australia

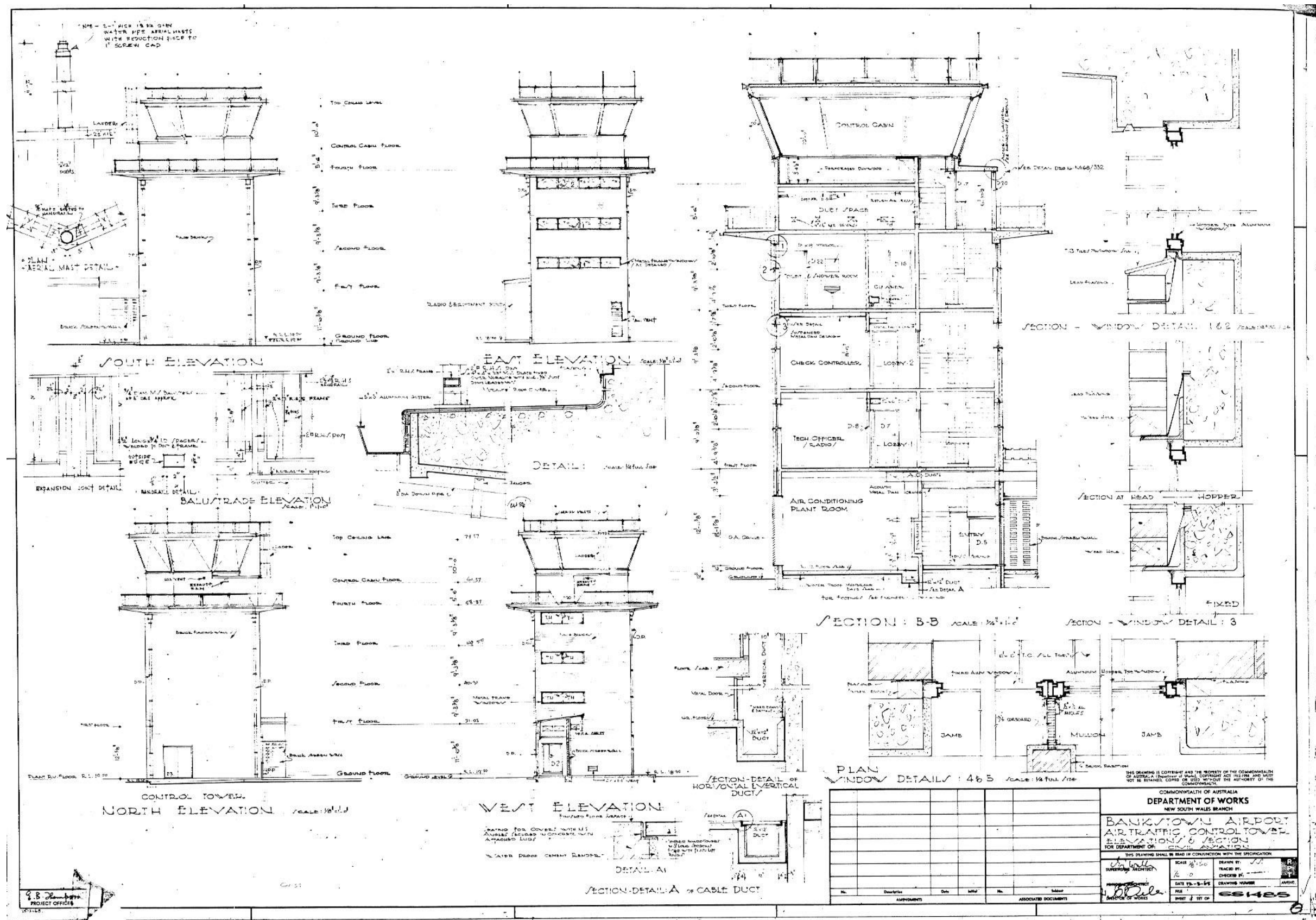


Figure 3 ATC tower: Elevations and section
Source: Airservices Australia

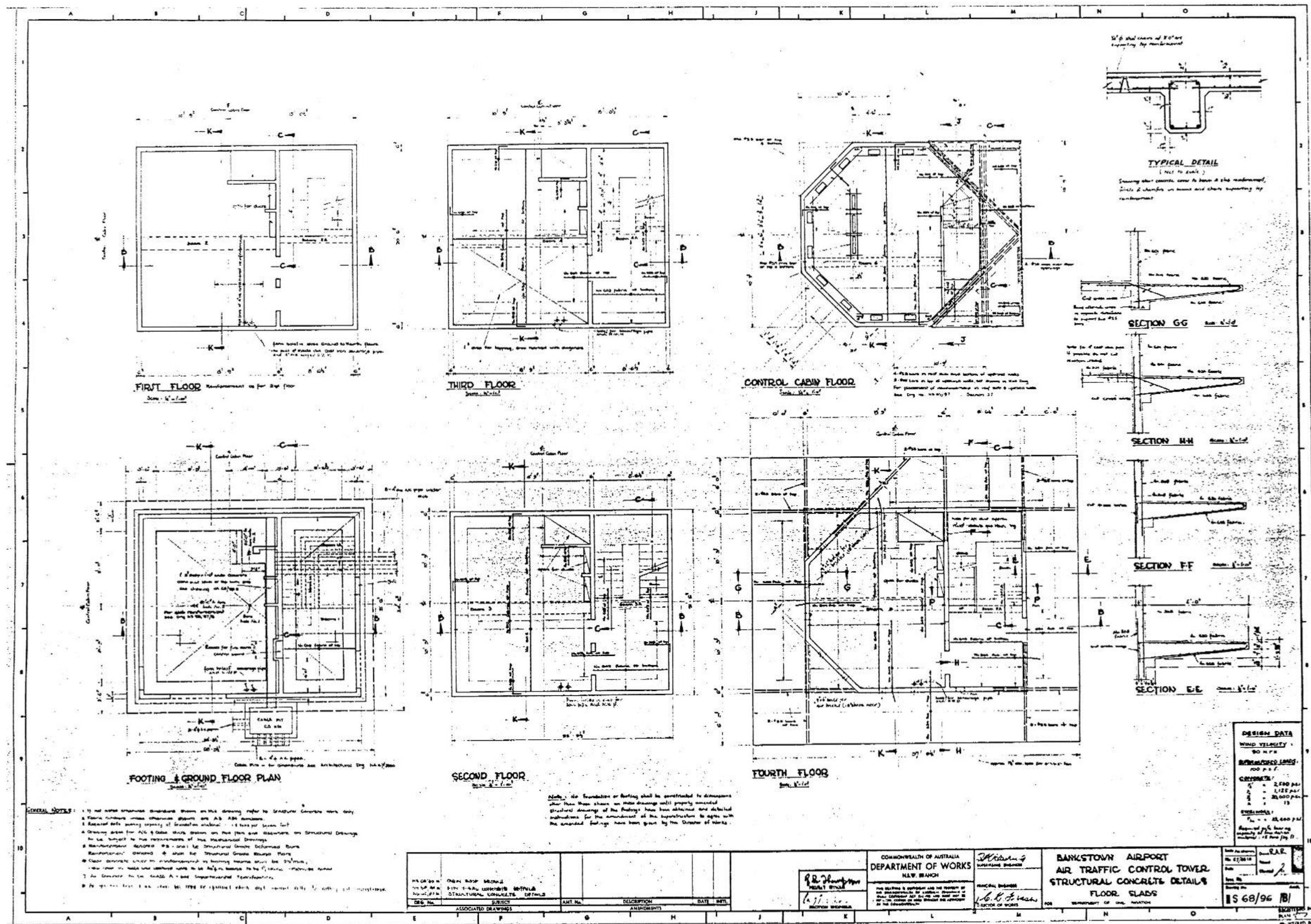


Figure 5 ATC tower: Structural concrete details
Source: Airservices Australia

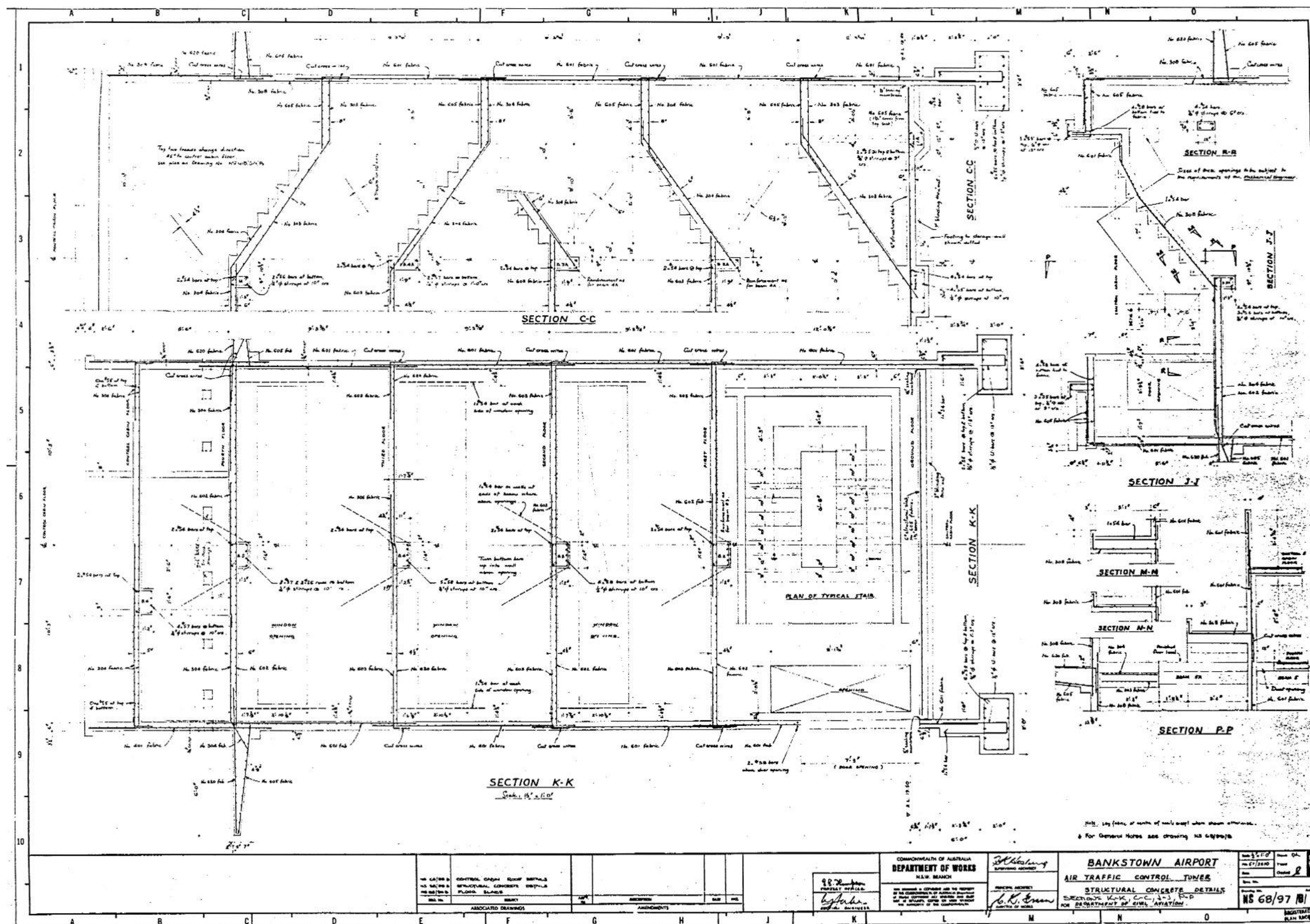


Figure 6 ATC tower: Structural concrete details
Source: Airservices Australia

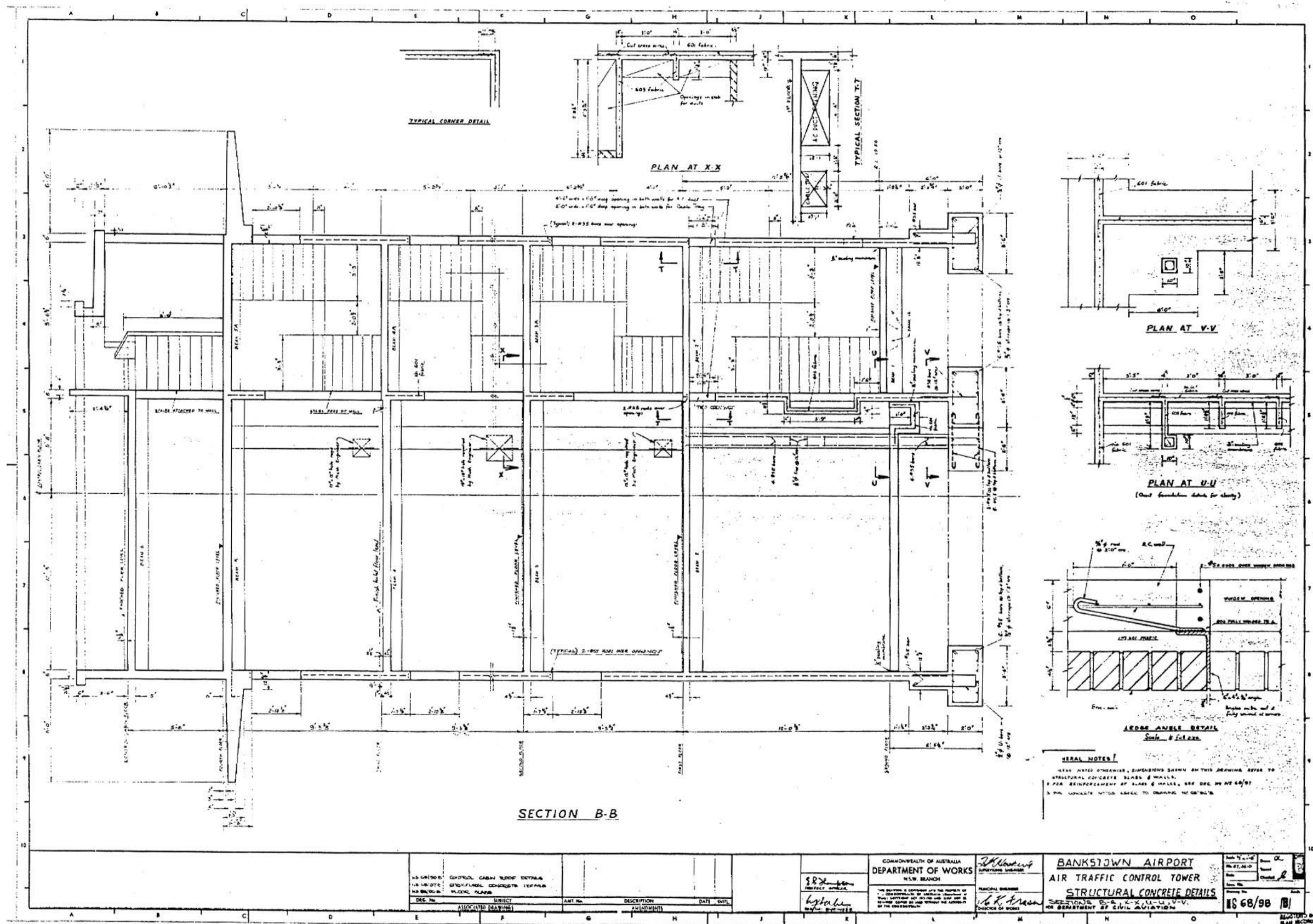


Figure 7 ATC tower: Structural concrete details
Source: Airservices Australia

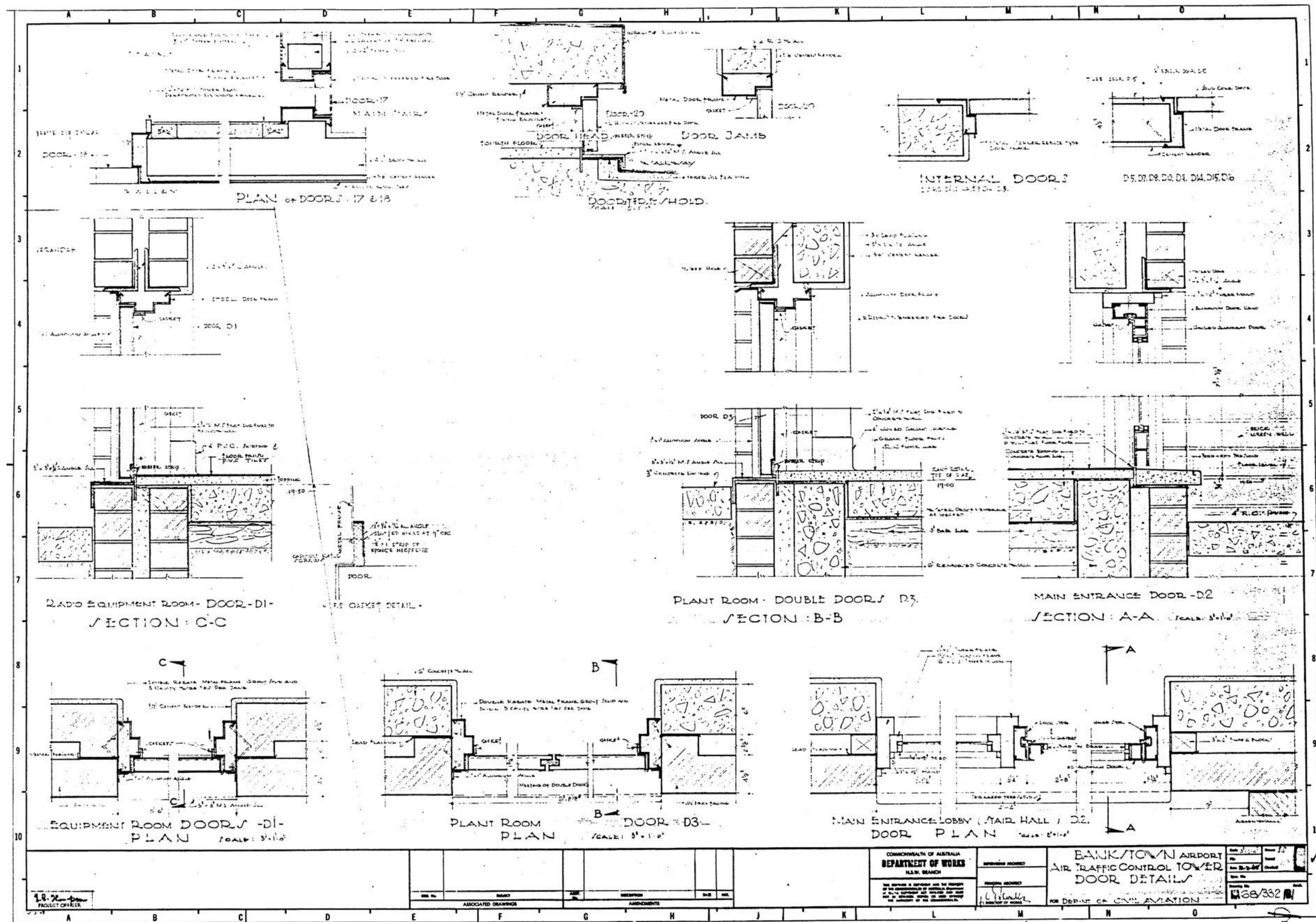


Figure 8 ATC tower: Door details
Source: Airservices Australia

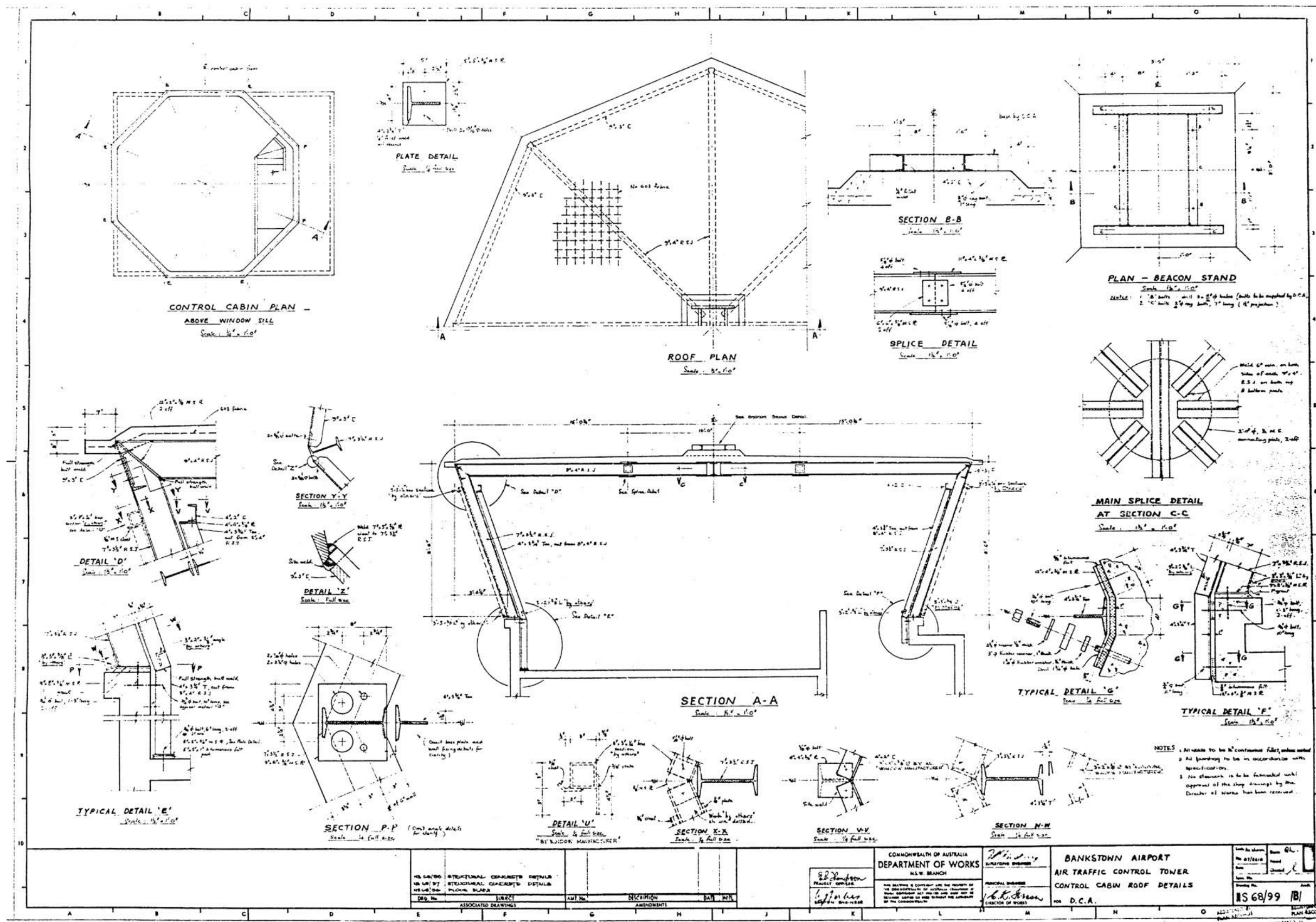


Figure 12 ATC tower: Control cabin roof details
Source: Airservices Australia

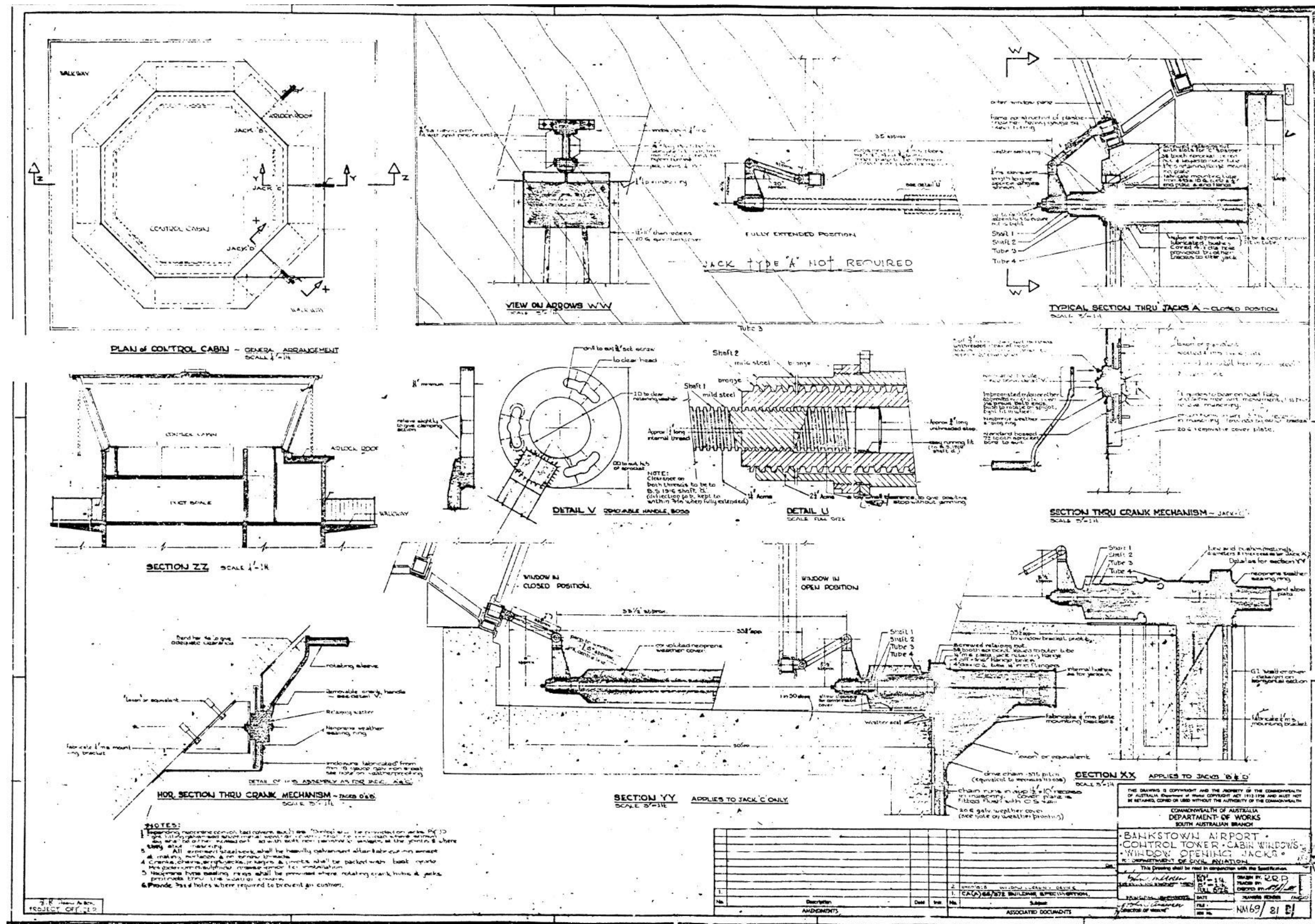


Figure 13 ATC tower: Window opening jacks
Source: Airservices Australia

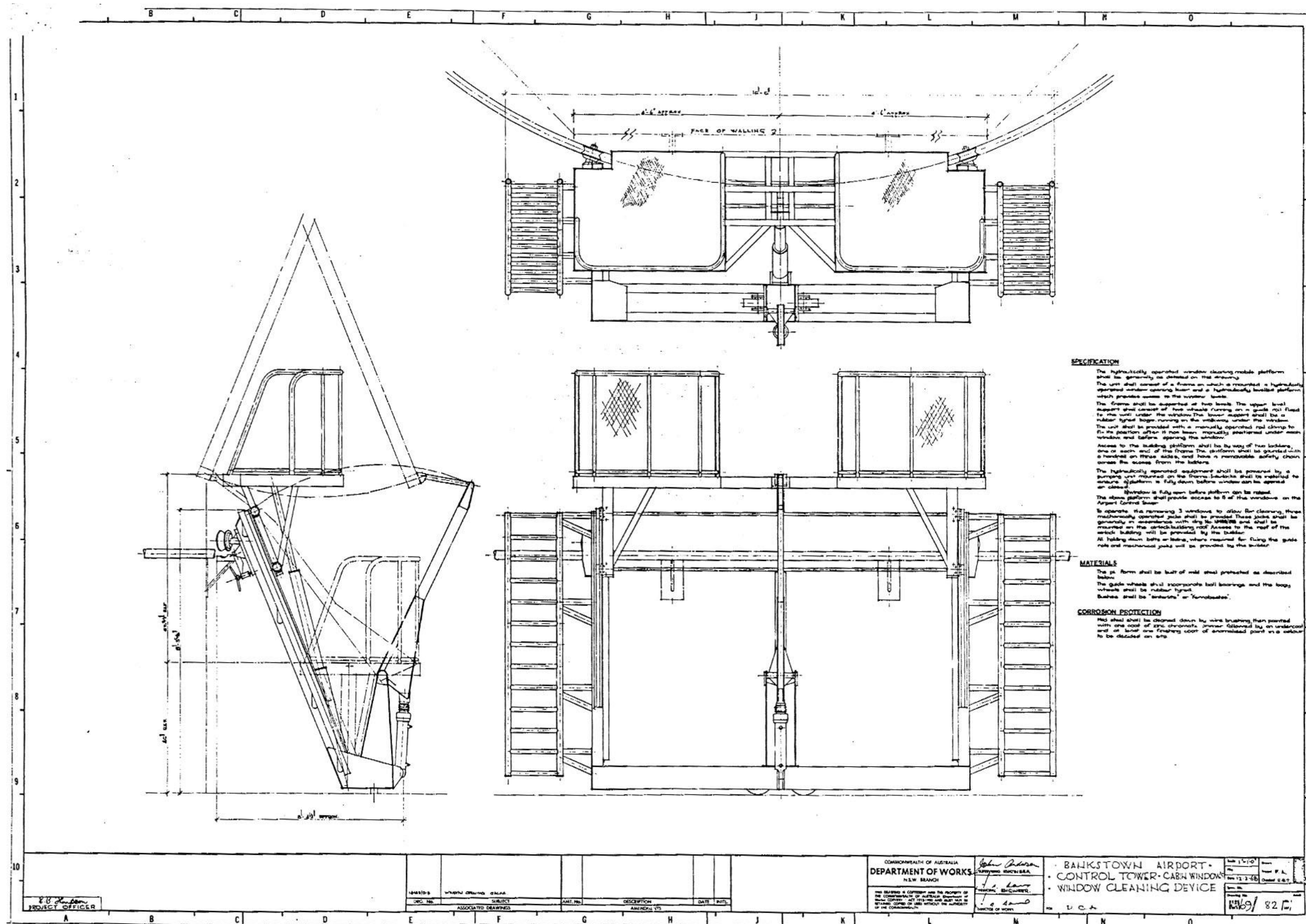


Figure 14 ATC tower: Window cleaning device
 Source: Airservices Australia

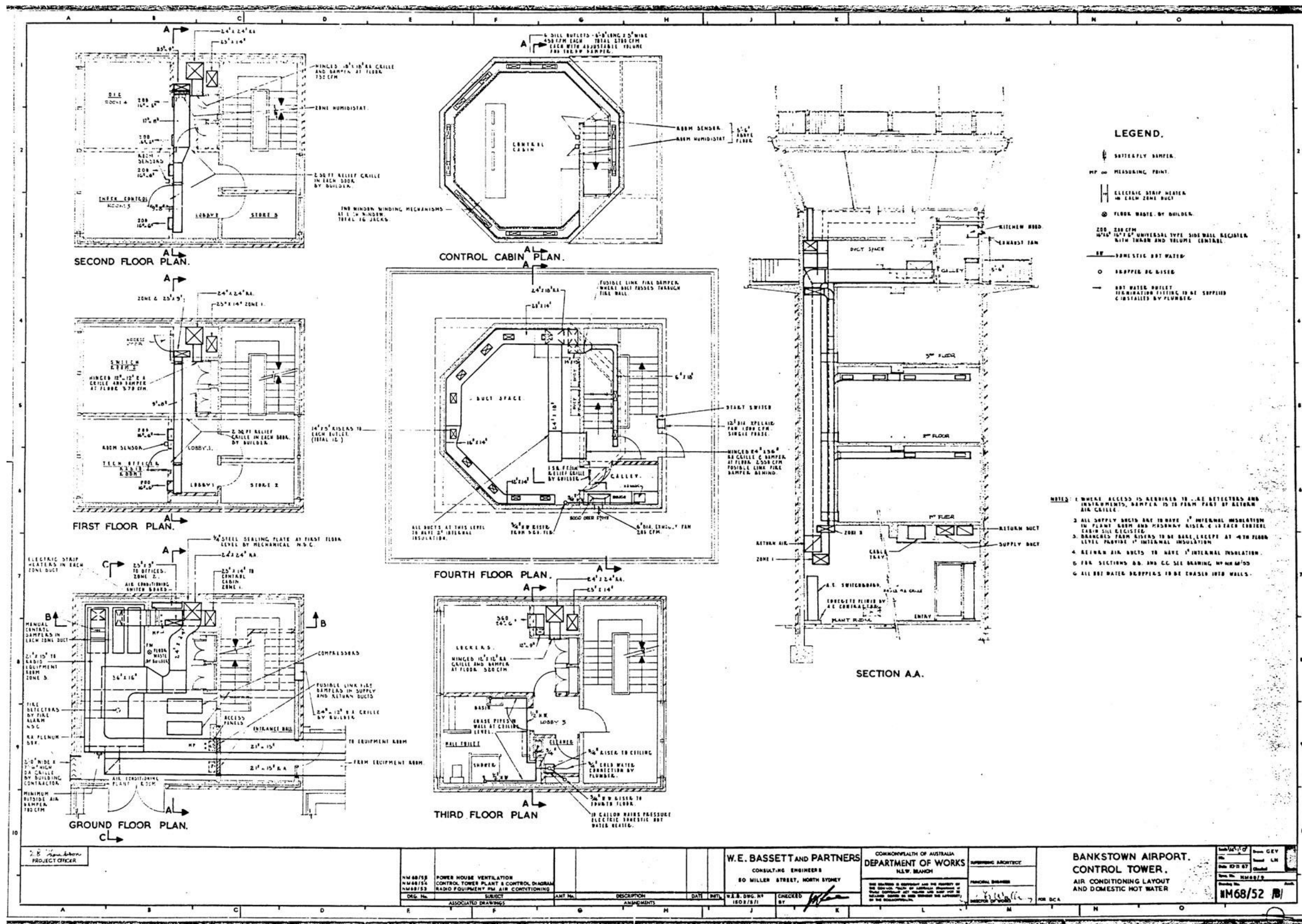


Figure 15 ATC tower: Air conditioning layout
Source: Airservices Australia

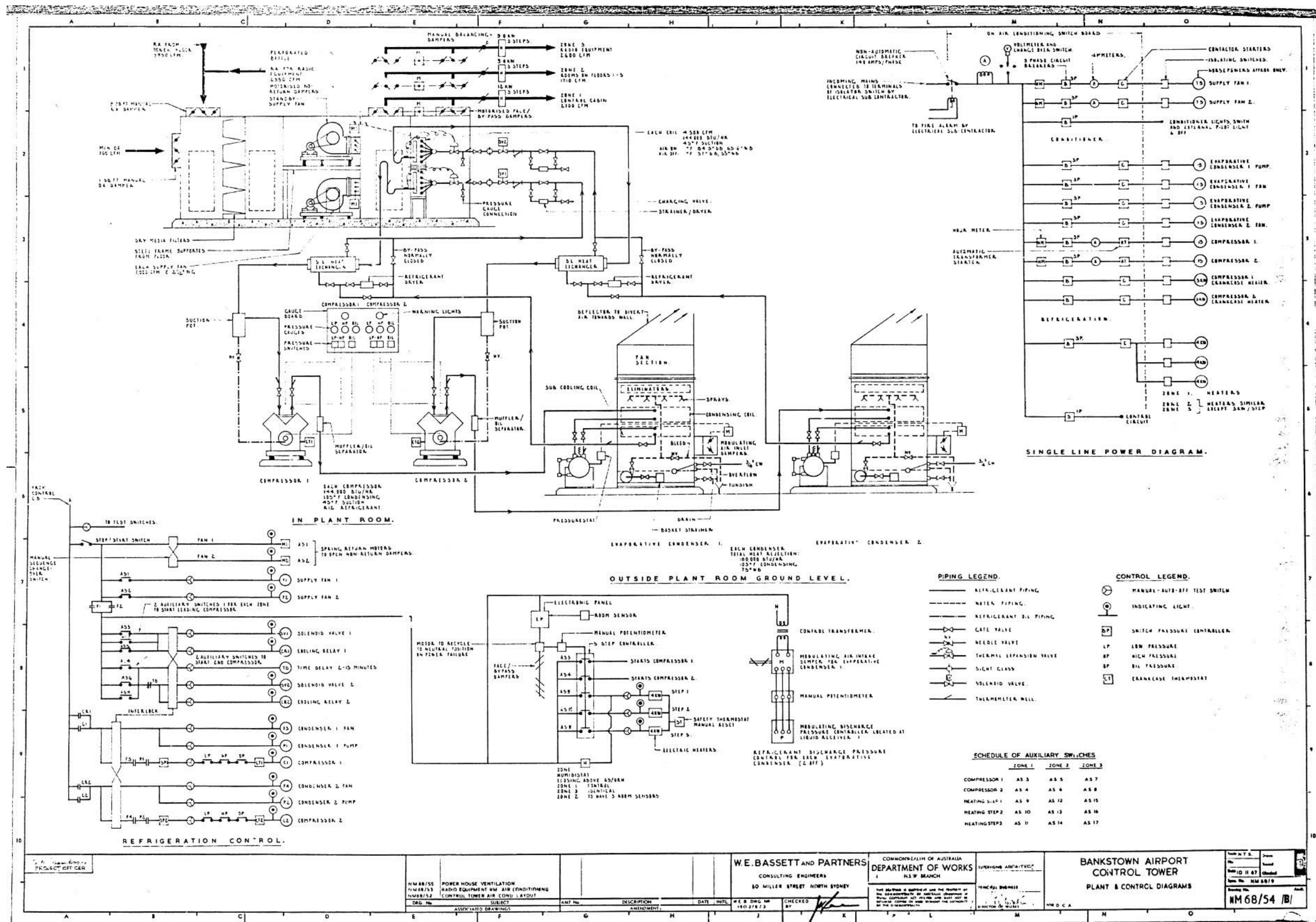


Figure 16 ATC tower: Plant and control diagrams
Source: Airservices Australia

POWER HOUSE

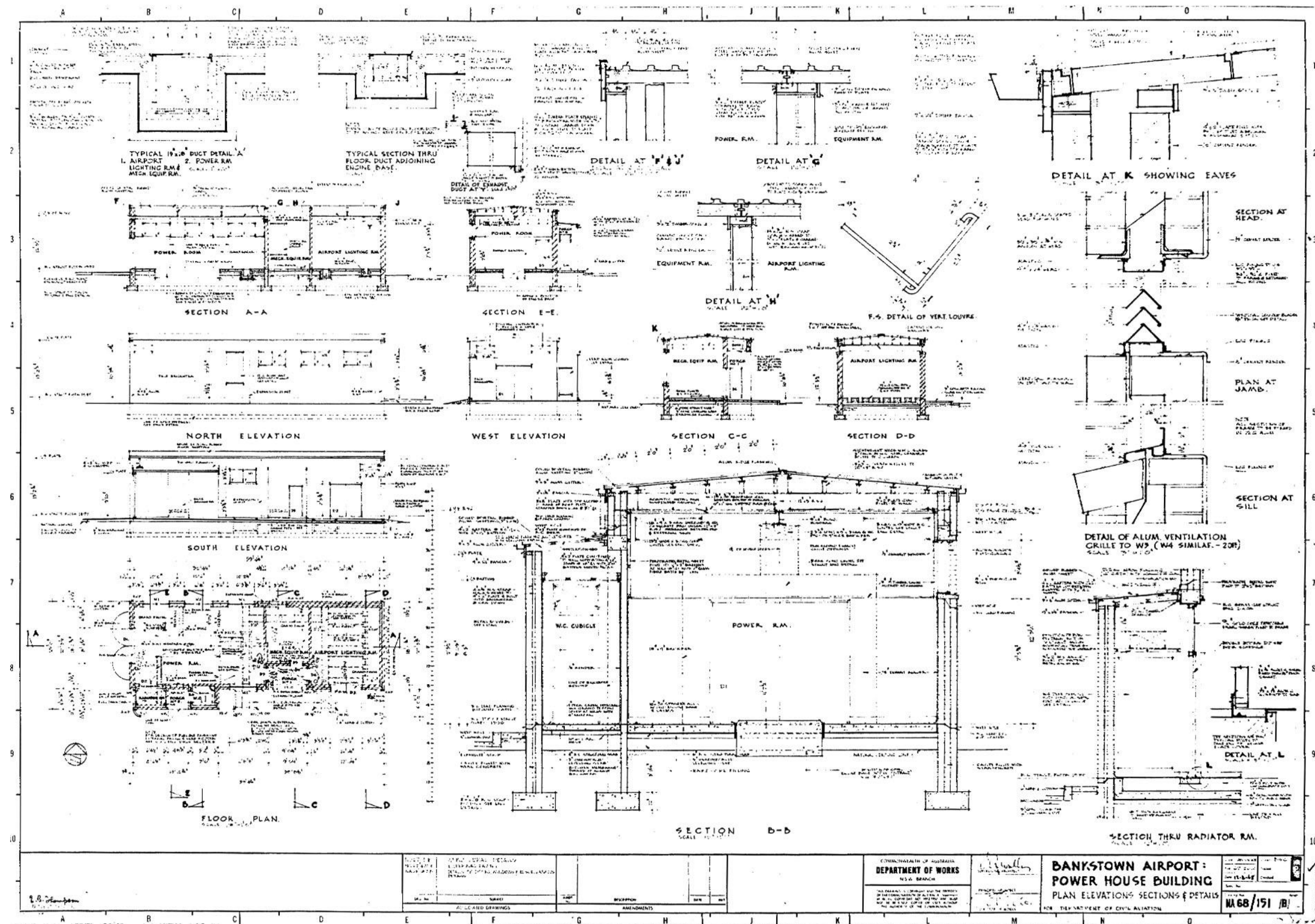


Figure 17 Power House: Plans, elevations, sections and details
Source: Airservices Australia

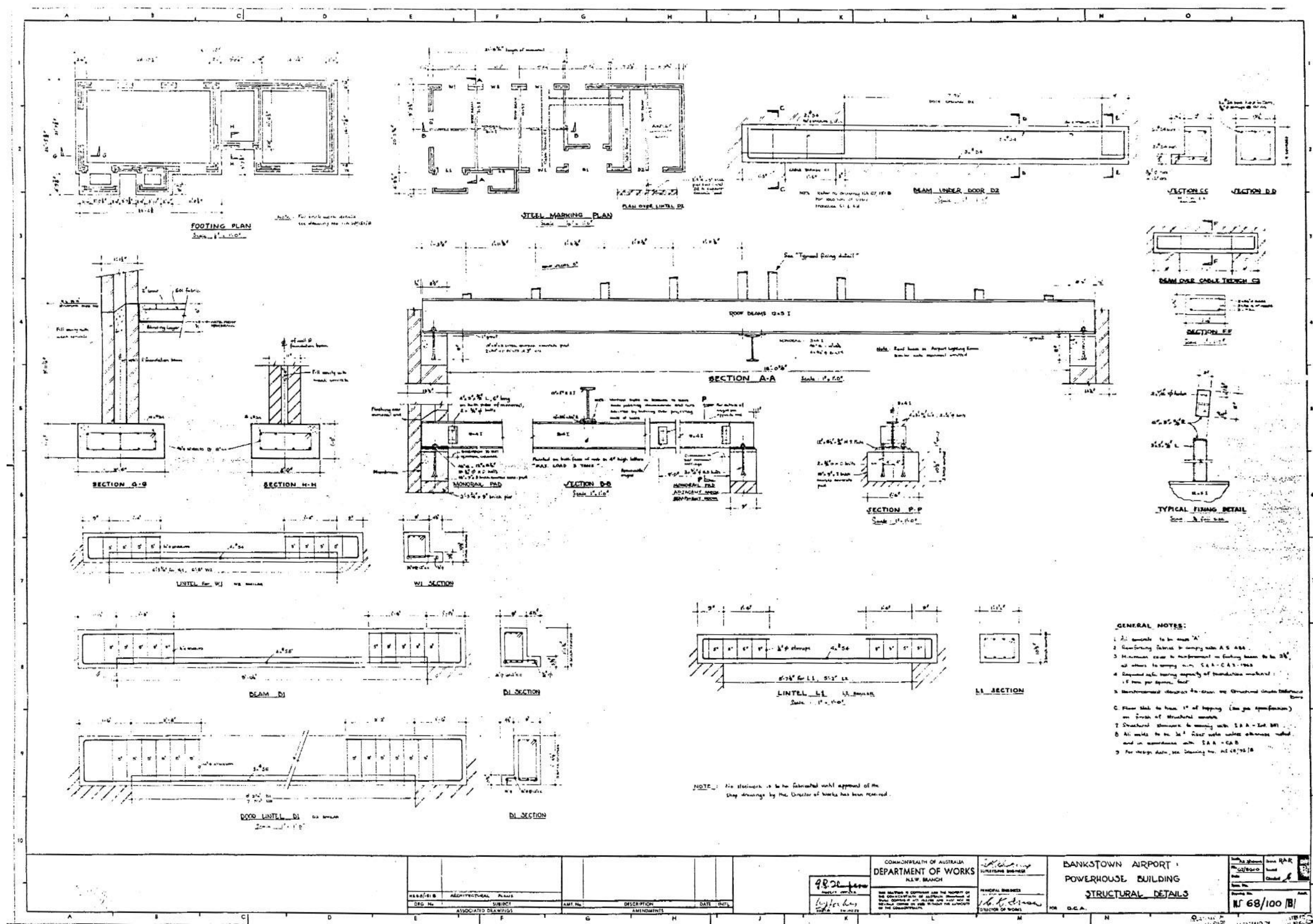


Figure 18 Power House: Structural details
Source: Airservices Australia

Figure 19 Power House: Details
Source: Airservices Australia

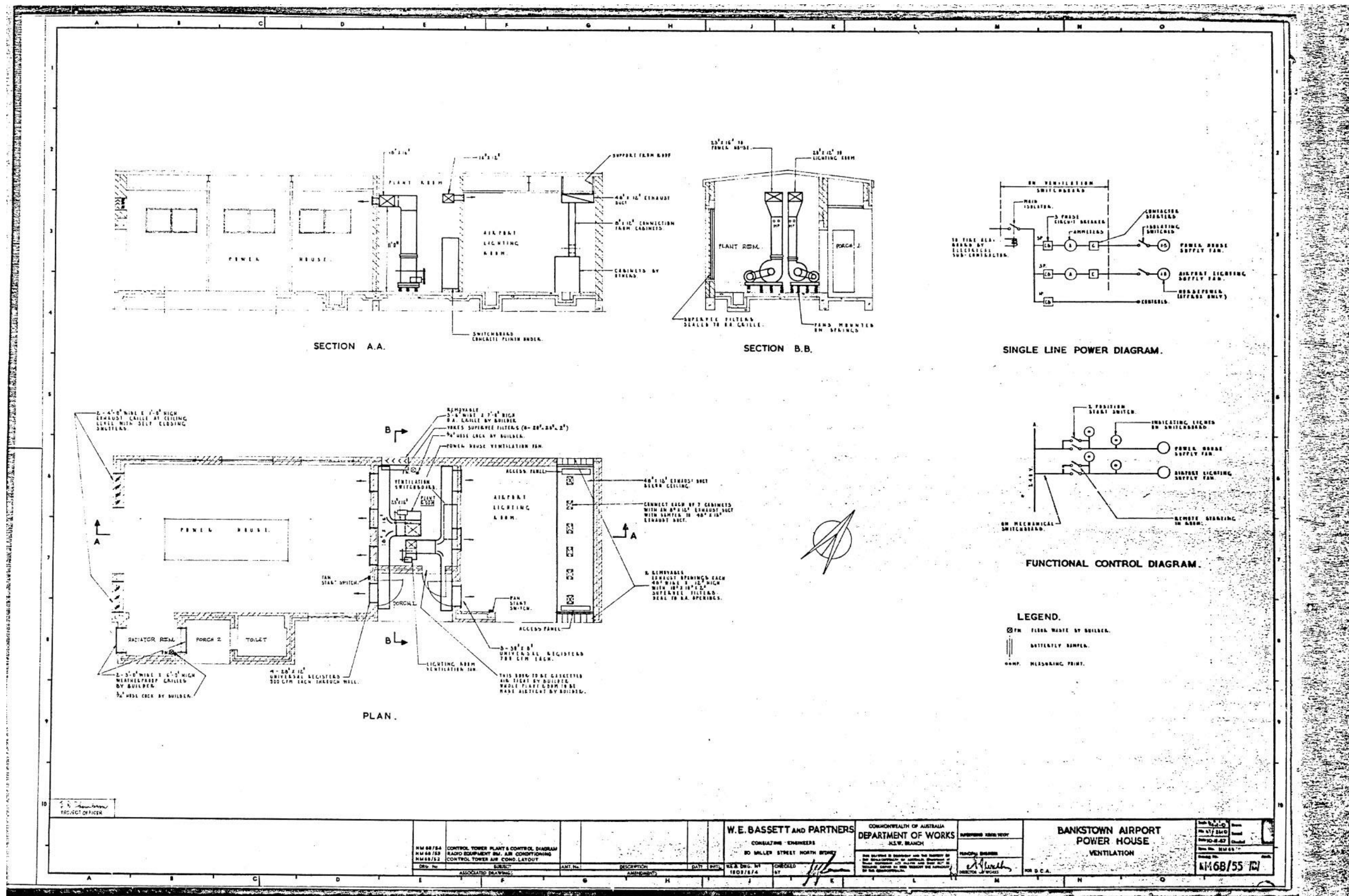


Figure 20 Power House: Ventilation
Source: Airservices Australia

RADIO EQUIPMENT ROOM

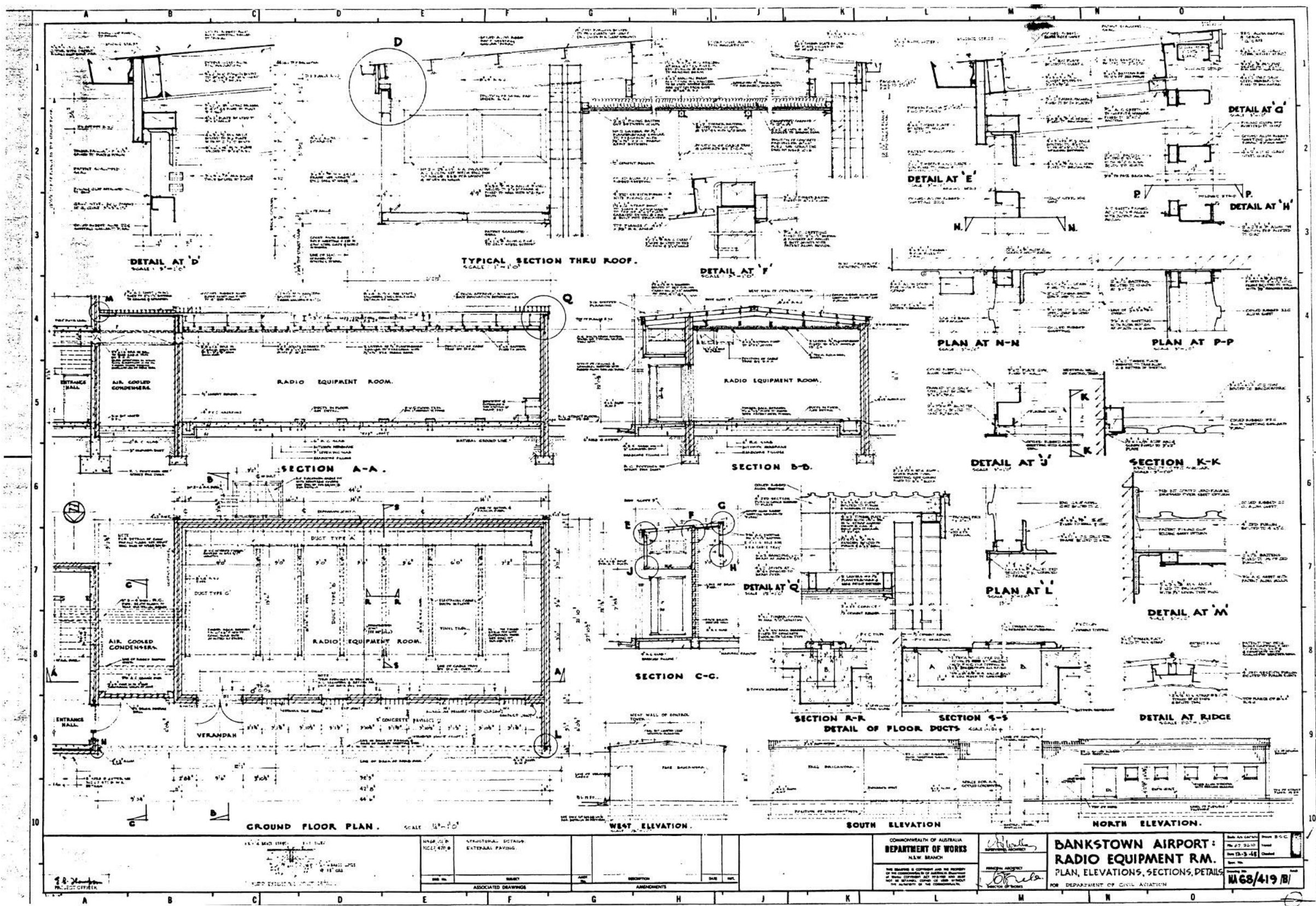


Figure 21 Radio Equipment Room: Plans, elevations, sections and details
Source: Airservices Australia

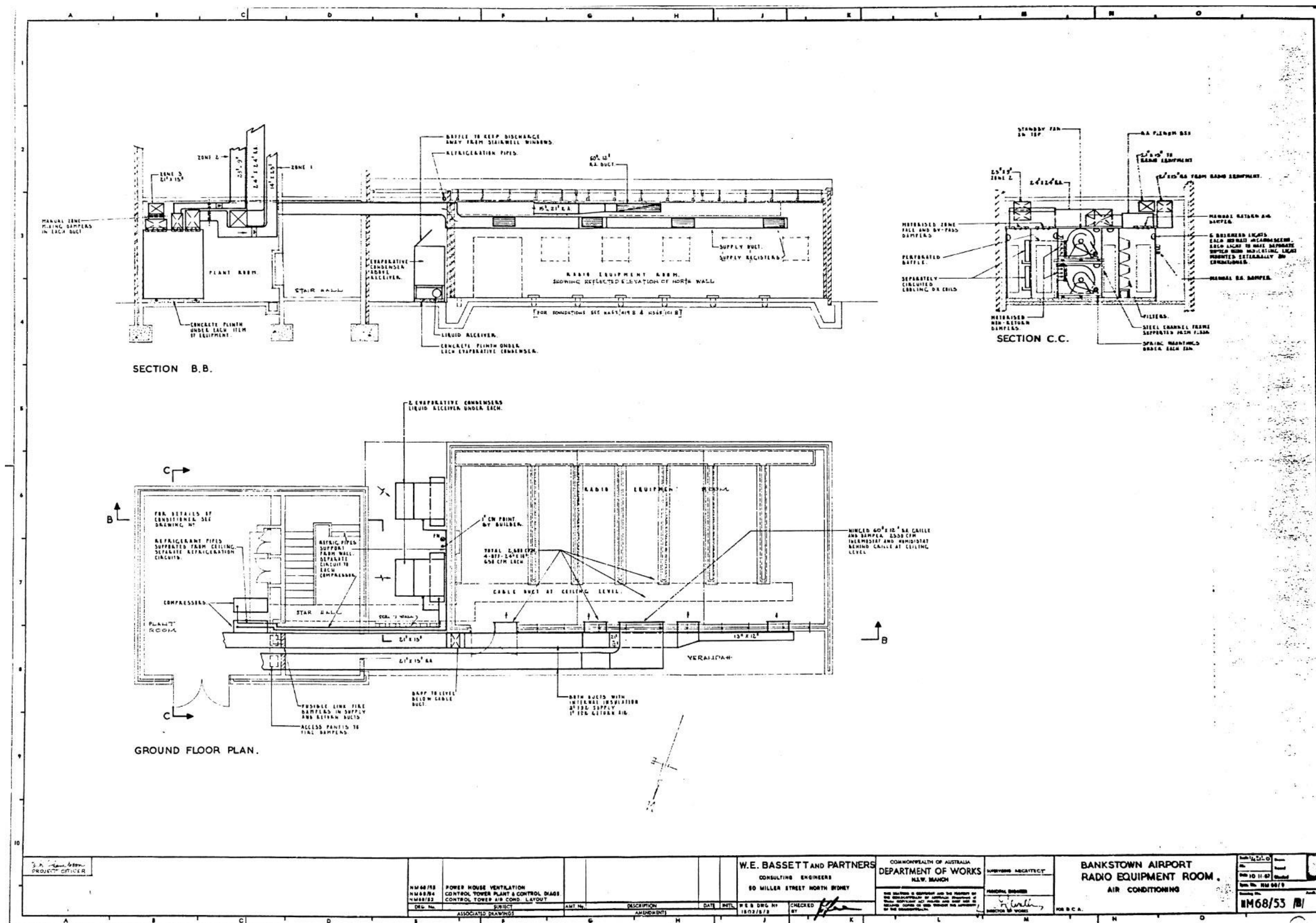


Figure 23 Radio Equipment Room: Air conditioning \

Source: Airservices Australia

APPENDIX C

**BANKSTOWN AIR TRAFFIC CONTROL TOWER AIRSERVICES
AUSTRALIA HERITAGE USER GUIDE
ENV-GUIDE-0007, VERSION 2.1, EFFECTIVE 27 JUNE 2017**

Bankstown Air Traffic Control Tower Airservices Australia Heritage User Guide

ENV-GUIDE-0007

Version 2.1

Effective 27 June 2017

Prepared: Paul Zissermann
Senior Environment Specialist
Air Navigation Services (ANS)

Authorised: Mason Henderson
National Property Manager
ANS

*Information sourced from Lovell Chen National Control Towers Heritage Assessment, June 2009

Change summary

Version	Date	Change description
1.0	21 October 2014	Initial Issue.
2.0	27 June 2017	Updated to include Airservices organisational changes and edits from Lovell Chen (heritage consultants), so document can be included as an attachment to the new Heritage Management Plan (HMP) for this building.
2.1	27 June 2017	Minor edit (first bullet point in Section 4).

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1 Purpose

The purpose of this document is to guide the management and maintenance of Bankstown Air Traffic Control Tower, so that any development, works, or modifications are carried out in a manner that does not impact on the heritage values (known or potential) of the site.

2 Scope

The guide sets out the type of works that may be undertaken without heritage advice from Environmental Services or legal approval from the federal Minister for the Environment, works that typically require advice or approval, and those works that are likely to require approval.

This guide applies to all staff (including contractors) responsible for the management, development and maintenance of Bankstown Air Traffic Control Tower. It also applies to people responsible for works within the vicinity that may affect the tower.

The heritage values (known or potential) of Bankstown Air Traffic Control Tower and a brief history are also described in this document.

3 Context

Airservices has a responsibility under the Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act) to conserve and protect the Commonwealth heritage values of places that it owns or controls.

An approval for works is required from the federal Minister for the environment, where the proposal is likely to have a significant impact on a matter of national heritage significance.

4 Site details

Site Address	Bankstown Airport, Tower Rd, Bankstown NSW 2198
SAP functional location	BK-APT-CTC
SAP BE/BU	BE 14 BU 2
Heritage Listings	
- Bankstown ATC Tower No.2 is included on the Commonwealth Heritage List (ID 106118) - Bankstown Airport - Register of National Estate, Indicative Place (ID 103900) - Bankstown Aerodrome - listed in Schedule 6 (Heritage Items) of Bankstown Local Environmental Plan 2001.	

5 History

The site of Bankstown Airport was first considered for its potential as an airfield in 1929. However, no further action was taken until the outbreak of WWII and in 1940 the Department of Air (DoA) acquired 630 acres of land for development as a RAAF Base. Bankstown was one of several sites considered for development as Sydney's international airport but in 1946 Mascot was selected and private flying and light aircraft activities were transferred to Bankstown. In 1948 the Department of Civil Aviation (DCA) took on responsibility for the maintenance of Bankstown from DoA. The use of Bankstown Airport increased dramatically in the 1950s and on 5 July 1968, the DCA

announced that a new 60ft-high air traffic control tower would be built. The complex was commissioned in 1970. In 1988, ownership of Bankstown Airport was transferred to the Federal Airports Corporation (FAC). On 1 July 1998 the ownership of Bankstown Airport was transferred to Sydney Airports Corporation Ltd.

6 Significant aspects

The control tower is a utilitarian design comprising a rectangular (almost square) four-storey base in reinforced concrete with brick cladding, below a rectangular cantilevered walkway, also in reinforced concrete and around an octagonal cabin. The cabin is raised on a part-chamfered half-height duct and service space and octagonal cabin. The tower is built on standard raft footings, with a central stair in reinforced concrete. A freestanding, single-storey brick structure (radio equipment room) extends westward from the tower base and a power house is located a short distance to the north.

Its design was derived from the 1950s air traffic control towers (Essendon, Hobart, Launceston and others); a model which was repeated and refined through the 1960s. While a late example of this standard type, Bankstown is distinguished from the majority of the other surviving examples because it is substantially intact externally and internally (plan form).



Above: Bankstown Tower looking south, with the powerhouse in the foreground, 1974.



Above: East and north elevations, 2008. The powerhouse is to the right.

7 Implications of significance

Table 1 describes the major structural elements and associated significant aspects of the Bankstown Air Traffic Control Tower.

Table 1: Bankstown Air Traffic Control Tower - Structural elements and significant aspects

Major structural element	Significant aspects
Cabin	Original features include; painted steel balustrade around walkway at base of cabin, double glazed windows canted outwards and felt-lined with demisting by electrical metal heaters mounted at base of double glazing. Ceiling of acoustic tiles is original. Carpet may conceal original rubber tiles. Walls were originally perforated plasterboard. Timber frame of console is original.
External features	Narrow top hung metal-framed casement windows run almost full-width across the first second and third floor levels of the east elevation. The windows to the first and second levels are original, and have three regularly-spaced mullions. The arrangement is different at the third floor level, with more narrowly-spaced mullions on the north side and an arrangement identical to the two lower levels on the south side. The framing of the windows to the south side has been removed, and a larger vertically-oriented window introduced. The west elevation features paired metal-framed casement windows lighting the internal stair to the first, second and third floors. The entrance to the tower is at ground level. The south elevation is blank with no openings. There is a door opening to the air-conditioning room in the north elevation. The upper levels are blank.
Internal features	Original features include layout of rooms, vinyl floor tiles, white painted concrete walls and balustrades and handrails coated in black plastic. Toilets and showers on third floor were upgraded in 2004/05.

The ATC tower and cabin are largely intact as constructed. The only change to the exterior is the modification of the third floor windows to the east elevation. It is also noted that an escape stair has been attached to the south elevation. The interior is intact in plan form and fabric, albeit with minor upgrades. The cabin is an authentic DCA standard issue control cabin c. late-1960s. Acoustic treatments to the walls, ceiling and floor are extant. It is unusual in retaining its original timber-framed console, albeit modified. The associated radio equipment room and powerhouse are also substantially intact externally and internally.

8 Works approval and advice

8.1 Works not requiring heritage advice or legal approval

The following maintenance can be undertaken without heritage advice or legal approval:

- Repainting and repairs of the external structure provided treatment/colours match existing
- Maintenance/repair of windows can occur where there is no alteration to original elements
- Maintenance/repair of equipment and services can occur as required to support tower operations (eg. equipment in the cabin where there is no alteration to original elements)

- Servicing and repair of existing equipment and services including power or pipelines where there is no alteration to building fabric
- Replacing or modifying original internal fittings where they match the existing
- Cleaning and landscaping maintenance.

8.2 Works requiring heritage advice

The following works typically require heritage advice from Corporate Environment Programs before being undertaken:

- Demolishing any building components
- Constructing an addition to the ATC tower or a new structure or building within Airservices compound
- Works with the potential to alter the external presentation of the ATC tower, including:
 - replacement of brick cladding
 - changing the paint treatment/colour scheme
 - introducing new external awnings/shades or other significant fixtures
- If an action is proposed for the site and it is unknown if heritage values will be affected.

8.3 Works which are likely to require statutory heritage approval

All of the actions identified in Section 8.2 above are likely to require statutory heritage approval from the Minister for the Environment, unless advice has been received to the contrary. For example, repairs to fittings and fabric typically don't need approval where the works are undertaken in a sympathetic manner including replacing like with like. Heritage input from the contact below is required to clarify and confirm this.

9 Contact

For questions and advice regarding the management of built heritage values, contact the Senior Environmental Specialist, ANS on paul.zissermann@airservicesaustralia.com or (02) 6268 4090.

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