CONSERVATION PLAN

Whakatane Airport Terminal Building

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BURGESS TREEP & KNIGHT ARCHITECTS

Prepared for the Whakatāne District Council
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PART I. CULTURAL SIGNIFICANCE

1.0 INTRODUCTION / EXECUTIVE SUMMARY

This report was commissioned by Shane McGhie, Principal Planner at the Whakatāne District Council, on behalf of the Whakatāne District Council.

The document was written by Graeme Burgess and Lilli Knight of Burgess Treep + Knight Architects Ltd.

The conservation plan has been carried out in accordance with the methodologies set out in James Semple Kerr's document *The Conservation Plan: A Guide to the Preparation of Conservation Plans for Places of European Cultural Heritage Significance*, National Trust (NSW) 1990 and with the principles of the NZ ICOMOS Charter (1995) and Heritage New Zealand's *Guidelines for Preparing Conservation Plans* by Greg Bowron and Jan Harris, NZHPT, 2000.

View of Whakatāne. Image: http://www.Whakatāne.govt.nz/ShapingWhakatāne

1.1 SITE CONTEXT - WHAKATĀNE

The Whakatāne District is situated between the Western Bay of Plenty and Opotiki Districts and extends southward to border with the Rotorua, Wairoa, Gisborne and Taupo Districts. Whakatāne-Ohope is the major urban area in the district. There are several smaller rural settlements located throughout the district associated with the district's farming, forestry and horticulture activities and traditional land ownership patterns.[1]

The Whakatāne District has approximately 52 kilometres of coastline stretching from Otamarakau (to the west) to the entrance to Ohiwa Harbour (to the east). Within this coastline there are long stretches of sandy beach and dune systems of varying width (Otamarakau, Matata, Thornton, Ohope). Major river mouth systems found along the coast are the Tarawera, Rangitaiki and Whakatāne. Significant estuary systems are located at the Whakatāne River mouth and Ohiwa Harbour.[2]

The Whakatāne township is situated on the eastern bank of the Whakatāne River mouth in the Bay of Plenty. The main commercial area of the town extends along the waterfront below the precipitous slopes of a hilly promontory called Whakatāne Heads.

[1] http://www.Whakatāne.govt.nz/sites/www.Whakatāne.govt.nz/files/documents/documents-section/council-plans/operative-district-plan/Operative%20District%20Plan%2015%20Oct%202010_11042011.pdf
[2] Whakatāne Operative district plan pg. 70

The residential area occupies alluvial flats immediately upstream. To the east and south-east of the district the land rises to hills, but elsewhere comprises level plain. Whakatāne is a river port with facilities at the town for vessels of light draught.[3]

The Whakatāne District is an important centre for iwi, including Ngāti Awa,Tuhoe, Whakatohea, Ika Whenua, Ngāti Manawa, Ngāti Rangitihi, Te Arawa and Tuwharetoa ki Kawerau. The return of Māori to ancestral land, particularly during the mid-late 1980s, has significantly contributed to growth in areas such as Poroporo, Ruatoki, Waimana and Te Teko. There are 54,614 hectares of Māori land in the district, and currently 63 marae.[4]

1.2 LEGAL STATUS OF THE PROPERTY

The airport zone is 'Rural 3 Zone' under the operative Whakatāne District Plan. The building was put forward as building heritage item -BH11 under the Proposed Whakatāne District Plan, Section 16.7 Appendices – 16.7.1 Schedule of Built Heritage Features, and has been struck out. The airport has not been identified nor listed by Heritage New Zealand. The owners of the property are the Whakatāne District Council and the New Zealand Government.

The Council jointly administers the operation of Whakatāne Airport with the Crown.

1.3 SUMMARY OF CULTURAL HISTORY

Map showing early subdivision land ownership in Whakatāne County, with other features of the landscape, 1894. Source: Sir George Grey Special Collections, Auckland Libraries, NZ Map 3649

The Rangitaiki plains are within the rohe of Ngati Awa. The three rivers of the plain and their surrounding wetlands formed the principle transport routes for the sub-tribes of the area and were an important source of sustenance.

[3] http://www.teara.govt.nz/en/1966/Whakatāne

[4] Whakatāne Operative district plan pg. 9

Nineteenth century colonisation created serious imbalances, firstly through the musket wars of the first decades of the century, fuelled by European traders, and then in the land wars of the 1860s. Ngati Awa suffered massive land confiscation in 1866 following the land wars as 'punishment' for 'rebellion'. The area of coastal land where the aerodrome is located was part of that confiscation. The injustice was finally acknowledged by the Crown through the Waitangi Tribunal in 1999.

Following confiscation Whakatāne was established as a soldier settlement.

Through the 1870s the area was once again in conflict as Te Kooti, with great sympathy from local Maori, carried out an aggressive campaign of guerrilla warfare against the Crown in the region.

A ferro cement bridge was constructed across the Whakatāne River between the town and the coastal plains, in 1909.

By the 1920s, following drainage of the swamplands, the area was in farmland, and Whakatāne was well established as the local urban centre and centre of local government.

Air transport, and air travel was in its infancy in the 1920s. This new technology was rapidly embraced internationally. The first commercial air services in both Europe and America were established soon after WW1. This nascent form of transport grew quickly in both efficiency and standards, and was widely embraced as part of the dynamic future of technology; air transport was sexy. The first public airfields were established in New Zealand during this interwar period.

The first recorded flight to Whakatāne, a Boeing seaplane carrying the Roman Catholic Bishop of Auckland, landed on the river on the 12th of March 1920.

In 1928 the Auckland Aero Club petitioned the Whakatāne Borough Council encouraging them to establish an aerodrome in the area. Council took the idea seriously and began a long process to establish an aerodrome at Whakatāne. The required a partnership with central government dragged the process through until the 1950s when plans for the aerodrome were finally agreed to by the Crown, and the aerodrome was established in the coastal strip beside the sand dunes in 1958.

The first commercial flight landed in 1959. A terminal shed was constructed at the airport in 1960.

The terminal was too small to serve the requirements of NAC, the service provider. It was extended in 1966, but remained, in the words of the airport committee, 'barely adequate'.

The Whakatāne Airport Committee, began planning for a new terminal in 1969. The project was the responsibility of Borough Council engineer Mr A.W. Tassell. Tassell negotiated the process with the Department of Civil Aviation of the Ministry of Transport, and had considerable influence over the outcome. This was also a long and involved process if not quite as drawn out as the establishment of the airfield.

Additional land was purchased for the terminal area in 1971. In April 1971 a list of three architectural practices, that might design the new terminal, was put forward by the committee.

Greg Smith, at that time a journalist for the Bay of Plenty Beacon, introduced Tassell to Roger Walker. Roger Walker was 29 and had already had a significant influence on New Zealand architecture, through projects such as the Wellington Club. Tassell was impressed by his work and, with the support of the committee, asked for his name to be added to the list.

In May the committee appointed Walker as architect for the project. He visited the site in June of that year and produced his sketch design proposal in July. The committee was impressed by his proposal and asked for the project to proceed as quickly as possible.

Getting the support of the Ministry of Transport was more complicated. The department sent the design to the Ministry of Works (MOW) for comment. The MOW architect was not supportive. The committee, and Tassell, remained staunch in the face of the impediments placed by government. Adjustments were made to the project to meet new governmental or NAC requirements but the committee maintained their strong commitment to the Roger Walker design. The determination of the committee at this time paid off and the place as it stands represents their vision and achievement.

Site preparation work for the terminal began in February 1972. Government approval for the project was not given until after tenders for the works were received in June 1972. The successful tenderer was Steen Brothers of Whakatāne.

Walker continued to negotiate detail and planning matters with the MoT and with NAC.

The buildings were constructed 1973-74. The Whakatāne Airport Terminal was opened on 6th May 1974 by Mr P B Allen, Member of Parliament for Whakatāne.

Since that time very few changes have been made to the building(s) and it remains in use as the air gateway to Whakatāne.

The Terminal Building was given a Tourist Design Award by the Ministry of Tourism in 1975 and an enduring architecture award from the Waikato Bay of Plenty branch of the NZIA in 2003.

1.4 BRIEF DESCRIPTION OF THE PROPERTY

Setting

The Whakatāne aerodrome is located within the flat lands at the edge of the Whakatāne coast between the Whakatāne River and the Rangitaiki River. The aerodrome is surrounded by open countryside. The roadway to the aerodrome runs parallel to the runway in from the east on the southern side of the property. The terminal is set within the apron area of the aerodrome to the south of the runway.

The Whakatāne Airport Terminal is sited at the Whakatāne Aerodrome, between the apron of the runway to the north and the car parking area to the south with the immediate area around the buildings largely hard paved.

The Terminal Buildings

The terminal building consists of two interlinked structures; the main terminal, and a secondary structure at the south east side of the terminal, constructed at the same time to house technical equipment. These structures are free-standing.

The terminal was designed by prominent Wellington architect Roger Walker in 1971, and was constructed between 1972 and 1974. It has a lively appearance typical of Walker's designs from this, his best, period. The primary materials used are; white-painted concrete blockwork to the primary structural walls, including the gable ends and the rising circular tower; rectangular rusticated weatherboard panels with deliberately exposed rough sawn timber 'structure', large glass panels in timber frames, carefully considered timber sash windows to service areas, membrane flat roof areas, steeply pitched corrugated iron roofs; all enlivened by the addition of projecting horizontal and vertical pipe windows and ventilators, and skylights set into the pitched roof planes.

The stacked and shifting forms of the building(s) create a visually arresting built environment that adds considerably to the experience of the Whakatāne Airport, both inside and out.

Walker's architecture from this period set a new standard for architectural design in New Zealand and had an influence internationally. The rigour of the design in combination with its apparent playfulness make the Whakatāne Airport Terminal an enduring work of architectural design.

The buildings have been described as a 'gateway', and were intended to be memorable, making the experience of arrival and departure uplifting through their form and design. Writing about the building Walker refers to the design as an echo of the rising form of Moutohora/Whale Island.

The Whakatāne airport building, with Moutohora /Whale island visible behind. Photograph: Roger Walker

Aerial photograph of the terminal building. Source: Whakatāne Council GIS

1.5 METHODOLOGY

This document is based on The Conservation Plan: A Guide to the Preparation of Conservation Plans for Places of European Cultural Heritage Significance, National Trust (N.S.W.), 1990, by James Semple Kerr, and on the principles and practices set out in the ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value, 1995, and the NZHPT Guidelines for the Preparation of Conservation Plans, 1994.

This document is intended to provide as full as possible a record of the terminal buildings and site, as it is, from readily available primary and secondary historical sources, a survey of its present state, and from the recollections of those associated with the property.

The conservation plan is in two sections: Cultural Significance, and Conservation Policy.

Part One: Cultural Significance establishes the history of the place and its relationship to Whakatāne, and the contribution this place has made to the development of New Zealand architecture. This has been summarized in the "Statement of Cultural Significance" at the end of the section.

Part Two: Conservation Policy is intended as a management tool to guide the future development and care of the place, in a manner that respects and reinforces its significance. The policies are also intended to allow for future planning.

1.6 PURPOSE OF THE CONSERVATION PLAN

The conservation plan is intended to be a template to assess the impact of change on the future care, development, and interpretation of a place. It is a document that, as accurately as possible, from available records and examination of the physical fabric of the place, establishes the history of that place and a record of its development.

From this evidence an assessment is made of the cultural significance of the place and its component parts. The conservation plan also discusses processes for appropriately protecting the most culturally significant fabric of the place, and considers other factors that may influence the future of the place as a whole.

The heritage assessments, set out at the conclusion of the first section of the document, are intended to clarify which components are most significant to the heritage value of the place. This sets out a hierarchy of values and a defined set of appropriate conservation processes (ICOMOS (NZ) Charter. Appendix 1. of this document) that may take place according to the particular value.

2.0 HISTORY

2.1 MAORI SETTLEMENT

The Whakatāne District has a very long history of Māori occupation, which precedes by several centuries the arrival of the Mataatua waka.

Physical signs of early occupation such as pa sites, urupa and middens are generally found in strategic locations along the Whakatāne and Rangitaiki Rivers, the escarpment in Whakatāne and Ohope, and around Ohiwa Harbour. Many sites are recorded within Whakatāne and Ohope. The reclamation within Whakatāne Harbour in the 1920s resulted in the loss of sites significant to Ngāti Awa.[5]

The first inhabitants, more than 1,000 years ago, was Tiwakawaka, a grandson of Maui, the legendary voyageur and discoverer of Aotearoa. Tiwakawaka's people had lived in Kakahoroa (later to be named Whakatāne) for some generations before the arrival of the famed Toi, founder of numerous tribes (Te Tini O Toi - the multitude of Toi) which occupied much of the North Island's East Coast, Taranaki and the Far North.

According to Maori tradition Toi te Huatahi, later known as Toi Kairakau, landed at Whakatāne, A.D. *c.* 1150, in search of his grandson, Whatonga. Failing to find Whatonga, he decided to settle in the locality and built a pa on the highest point of the headland now called Whakatāne Heads, overlooking the present town.[6]

> Toi's people married into the original settlers and from his stronghold - Kapu-te-rangi (one of the oldest known pa sites in New Zealand) - above Whakatāne, his sons Rauru and Awanuiarangi in turn went forth to found tribes of their own.
>
> Some 200 years later came the waka Mataatua, one of the canoes of the Great Migration, landed at Whakatāne, bringing the kumara.
>
> Following the directions of his father, Irakewa, the Captain Toroa, his brothers Puhi and Taneatua, sister Muriwai, son Ruaihona, daughter Wairaka and other members of his family sailed to Kakahoroa, mooring in the river estuary near the town's current commercial centre. The men then climbed the hillside to Kapu-te-rangi, leaving Mataatua in the care of the small group consisting mainly of women. The outgoing tide was threatening to carry away the waka when Wairaka exclaimed: "E! Kia Whakatāne au i ahau" (let me act the part of a man). In breach of tradition, the women paddled the canoe back to safety and from this incident, Whakatāne received its name.
>
> Sometime later, Toroa and Puhi fell into dispute over the planting of the kumara and Puhi and some of his followers departed in Mataatua for the Far North where he founded the Nga Puhi tribe.
>
> Again, Toroa's people intermarried with the Tangata Whenua and from them descend the Ngati Awa, Tuhoe and Te Whakatohea iwi which remain the guardians of the mana whenua (spirit of the land) of the Eastern Bay of Plenty region to this day.[7]

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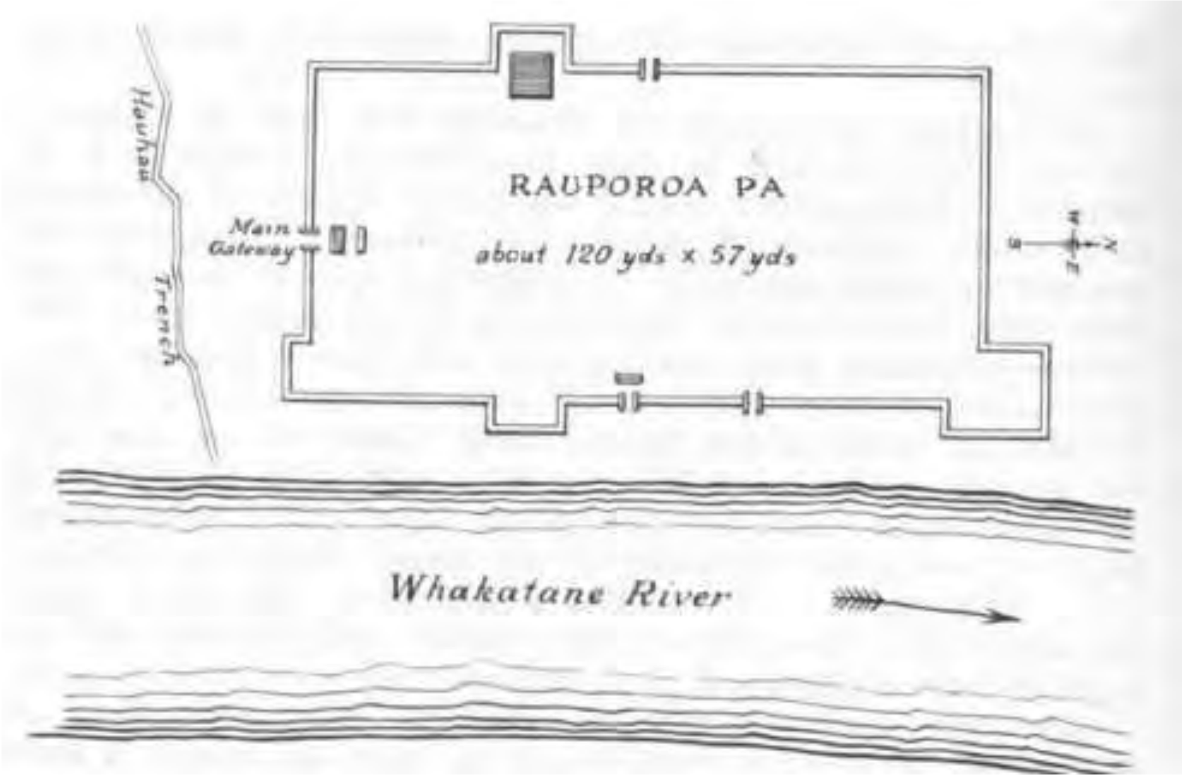
[5] Whakatāne Operative District Plan pg. 48
[6] http://www.teara.govt.nz/en/1966/Whakatāne
[7] http://www.Whakatāne.info/business/living-history



Sketch-plan by *J. Cowan*, 1919] Rauporoa Pa, Attacked by Te Kooti, 1869. Source: The New Zealand Wars: A History of the Maori Campaigns and the Pioneering Period: Volume II: The Hauhau Wars, (1864–72)

Showing a view of Whakatāne Redoubt with a pa at the bottom of the cliff and canoes alongside, photograph taken before April 1869. Source: Sir George Grey Special Collections, Auckland Libraries, 661-14

2.2 EARLY PAKEHA SETTLEMENT

The first Europeans to visit Whakatāne were Captain James Cook, with Sir Joseph Banks and the crew of the Endeavour. They arrived off the coast of Whakatāne on the afternoon of the 1st of November 1769.

No one aboard the ship actually ventured ashore, but they anchored for the night in the shelter of Moutohora (Whale Island). Cook recorded in his diary, that “native villages and plantations” could be seen as they sailed away the next day.[8]

The Church Missionary Society's vessel the *Herald* visited Whakatāne as early as 1828 but European settlement did not begin until later in the 1830s when whalers, sealers, and traders arrived in the region. The first recorded European settlement at Whakatāne was in 1831, when a Sydney firm of merchants set up a store to handle the establishing flax trade. One of the earliest permanent landowners in Whakatāne was Thomas Anderson, who purchased a block of land from Ngati Awa, the local iwi, in 1841. Whakatāne and the surrounding area became a major shipbuilding centre in the latter part of the nineteenth century and the vessels constructed were used to carry maize, potatoes, wheat and flax to other northern population centres for sale or barter.

The Whakatāne area became embroiled in the New Zealand Land Wars during the 1860s and 70s.

When British troops invaded the Waikato in 1864, some Ngati Awa joined a Te Tai Rawhiti force to support Tainui but were prevented from reaching the Waikato. In July 1865 James Te Mautaranui Falloon, a Crown official, and three others were killed at Whakatāne by Ngati Awa supporters of Pai Marire.

In response to these actions, following the cessation of open hostilities in 1865, the Crown confiscated vast areas of Ngati Awa land.

The Whakatāne township was surveyed, and together with the highly fertile alluvial flats on the eastern bank of the Whakatāne river, was subdivided for soldier settlement in 1867.

Each soldier was entitled to a 1 acre ‘town section’, while his country section depended on his rank – the higher the rank the larger the section. The hill country to the east of Whakatāne was set side as an endowment for a colonial university.[9]

The injustices of this period of colonisation caused further hostilities in the area.

Te Kooti Arikirangi Te Turuki of Rongowhakaata raided Whakatāne and Mōhaka in March and April 1869, seeking new recruits and supplies of guns and ammunition.

On 9 March he led an attack on the Ngāti Pukeko pā of Rauporoa, about 5 km south of Whakatāne. Rauporoa was defended for several days before being abandoned at the cost of four lives. At the same time, less than 1 km to the south-east, Ngāti Pukeko’s flour mill at Te Poronu was attacked by a 100-strong war party led by the Ngāti Tuwharetoa chief Wirihana Koikoi.

After the Rauporoa siege, Te Kooti’s men looted and burned Whakatāne village at the mouth of the river.[10]

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[8] Whakatāne 1917 - 1967
[9] Pg. 4
[10] http://www.nzhistory.net.nz/media/photo/jean-guerren-nz-wars-memorial

This conflict led to the stationing of a unit of armed constabulary in Whakatāne and the construction of a defensive redoubt on the promontory above the town centre.

The effects of the unrest caused significant setback in the European settlement and the development of the area. Some of the permanent traders left the region to escape, and very few of the soldier settlers took up the land offered to them because of the fear of further conflict.

By 1874 the Whakatāne township consisted of two stores, two hotels, a flax mill, a military station, a school house and several Maori settlements.

The European population of Whakatāne increased very slowly from 29 in 1878 to 80 by 1886 then to 119 by 1896.

With the advent of more peaceful times, industrial and agricultural development continued in the area. That process accelerating from 1910 onwards when work began to drain the swamplands of the Rangitaiki Plains. Reclamation in Whakatāne also created new land for residential and commercial development.[11] The town grew to 428 in 1911 and by 1921 it had increased to 707. The slow growth before 1890 also reflected the iertia of successive governments with regard to a policy of active land settlement.

In 1890 the crown retained the ownership of 90% of the land in the area that was available for settlement.

In addition to agriculture, flaxmilling became an important activity towards the end of the 19th century in the Whakatāne region. Around 1890 the Rangitaiki Plain area was opened for settlement, although large tracts remained un-farmable because of swamps. The Government took over the drainage work under the Rangitaiki Land Drainage Act 1910 and, from 1911, converted most of the area into farming land. Dairying commenced with the establishment of a cheese factory at Opouriao (12 miles south) in February 1899. The railway planned originally to link Gisborne with the North Island Main Trunk line was opened for traffic through Whakatāne West to Taneatua on 2 September 1928. Whakatāne was constituted a borough in 1917.

On the Great East Coast Railway Route: The new ferro-concrete bridge now under construction over the Whakatāne River, Bay of Plenty, 1909. Source: Sir George Grey Special Collections, Auckland Libraries, AWNS-19091021-4-4

[11] http://www.Whakatāne.info/business/living-history

A Thriving East Coast Trade Centre: General View of Whakatāne Township, Bay of Plenty, Auckland, 1908. Source: Sir George Grey Special Collections, Auckland Libraries, Awns-19080430-15-2

A View of the Wharf at Whakatāne, 1908. Source: Sir George Grey Special Collections, Auckland Libraries, AWNS-19081210-7-2

Success of a New Zealand “Homemade” Aeroplane at Whakatāne, 9 April 1930. Source: Sir George Grey Special Collections, Auckland Libraries, AWNS-19300409-36-1

“Homemade” Aeroplane at Whakatāne 1930s. Source: Sir George Grey Special Collections, Auckland Libraries, AWNS-19300409-38-3

2.3 TIMELINE: DEVEOPMENT OF THE AERODOME AT WHAKATANE

1920s

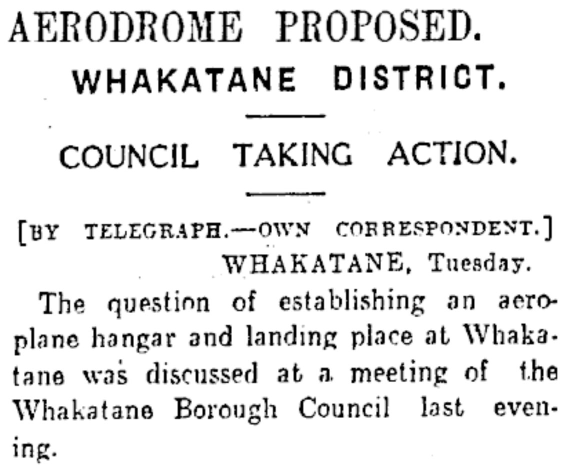
1920 The first aircraft to land in Whakatāne was a twin engine Boeing sea plane owned by Messrs Walsh Bros. and Dexter Limited of Kohimarama, piloted by G B Bolt. This aircraft carrying the Roman Catholic Bishop of Auckland, the Rt. Rev Dr H W Cleary, on a visit to the southern part of his diocese, left Auckland on 12th March 1920 at 7.16am. After a stop at Tauranga to deliver mail the aircraft arrived at Whakatāne, landing on the harbour. The aircraft then flew on to Opotiki, returning to Auckland the following day.

This flight established two New Zealand aviation records – the longest one-day flight (Auckland to Opotiki and the longest no stop flight 133 miles (Auckland to Tauranga)[12]

1928 In 1928 the Auckland Aero Club wrote a letter asking the Whakatāne Council to consider establishing an aerodrome at Whakatāne, stipulating that it was only necessary to have an area of approximately 25 acres of land for the purpose.[13]

1930s

1930 In 1930 a Government document was circulated, following up on the Auckland Aero club's suggestion, but insisting that an area of from 500 to 600 square yards would be needed to establish an aerodrome in Whakatāne.[14]


AERODROME PROPOSED.

WHAKATANE DISTRICT.

COUNCIL TAKING ACTION.

[BY TELEGRAPH.—OWN CORRESPONDENT.]
WHAKATANE, Tuesday.

The question of establishing an aeroplane hangar and landing place at Whakatane was discussed at a meeting of the Whakatane Borough Council last evening.

Source: New Zealand Herald, 19 February 1930

1931 In 1931, the Gisborne-Auckland air-mail service was inaugurated and to mark the day a mailbag was dropped via aircraft in Whakatāne.[15]

1932 The Council started to seriously consider the proposal for the aerodrome. A portion of the Harbour Board's mudflats was inspected together with portion of Eiver's Beach Domain. The Harbour Board was sympathetic, and after a joint meeting plans were prepared and submitted to the Director of Air Services. Squadron-Leader Mr Isitt reported favourably on the chosen site and the Council was instructed to proceed.

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[12] Aviation page 41 Whakatāne 1917-1967
[13] Bay of Plenty Beacon, Volume 3, Issue 272, 17 February 1941, Page 5
[14] Bay of Plenty Beacon, Volume 3, Issue 272, 17 February 1941, Page 5
[15] Bay of Plenty Beacon, Volume 3, Issue 272, 17 February 1941, Page 5

The County Engineer, in a special report, urged the erection of stop banks, and by utilising relief labour estimated the cost to be £600. [16]

As the project was about to be undertaken the Harbour Board imposed new terms which were more restrictive. The question of using Domain Lands also became an issue as the Harbour Board actions cut down the proposed length of the runway to 500 yards.[17]

1933 In 1933 the Aero Committee was advised that the proposed site for the new aerodrome would be suitable for light aircraft only. Negotiations were re-opened with the hope that the Harbour Board would make allowance for a longer run-way. A further inspection by the Squadron Leader, and a Mr Gibson from the director's office resulted in the area being declared too small—at least 35 additional acres were deemed necessary, and the local bodies were expected to carry a heavy financial burden by way of supporting Relief Camps and providing equipment. [18]

New sites were considered for the proposed aerodrome including the sand hills and the Eiver's property. Both were turned down. Later a property belonging to a Mr Ernst at Paroa was inspected. This contained 40 acres and the cost was estimated at £1600. The government favoured the site and agreed to subsidise on a 50-50 basis.

Plans for the establishment of an aerodrome at Whakatāne were reported by the New Zealand Herald, to have advanced a further stage in September of 1933, when a meeting of representatives of all district local bodies was held, the Mayor, Mr. W. Sullivan, presiding. The meeting was called to decide on a controlling body for the project, and, after some discussion, it was resolved to ask the four local bodies represented to appoint one representative each to act on the controlling authority.

It was also noted that the proximity of the proposed aerodrome to the Whakatāne borough and its suitability as a stopping place for future air services between Auckland and Gisborne was creating considerable interest among residents in the district.[19]

The County Council was not however prepared to share the cost so the Borough Council decided to push the matter itself. Ministers of the Crown were contacted and all were sympathetic with the exception of the Minister directly concerned. The whole question of revenue was also carefully investigated but nothing eventuated owing to the limited finances available. [20]

1933 The proposal to establish an aerodrome at Whakatāne with the approval of the Director-General of Air Services was discussed at a meeting of the Whakatāne Harbour Board in November 1933, when a deputation from the Aero Club requested the granting of a further 200 yds. of runway in a north and south direction.

It was stated that the Director-General of Air Services, Squadron-Leader T. M. Wilkes, who had been approached to approve the aerodrome site previously planned, had pointed out the insufficiency of the runway on the side of the field, and urged that a further area be set aside in view of the needs of the larger aircraft of the future.

[16] Bay of Plenty Beacon, Volume 3, Issue 272, 17 February 1941, Page 5
[17] Bay of Plenty Beacon, Volume 3, Issue 272, 17 February 1941, Page 5
[18] Bay of Plenty Beacon, Volume 3, Issue 272, 17 February 1941, Page 5
[19] New Zealand Herald, Volume LXX, Issue 21585, 1 September 1933, Page 8
[20] Bay of Plenty Beacon, Volume 3, Issue 272, 17 February 1941, Page 5

The board decided to accede to the request, as the increased area would also allow for aircrafts to land under any wind directions. It was also reported that the proposed site lay within half a mile of the Whakatāne post office[21]

1936 In 1936 an inspection was made of Mr J. B. Gobies property at Awakeri. Squadron-Leader Isitt also considered that it could be developed. This property was 68 acres and would cost £3150. The cost was beyond the means of the Council. As no assistance was forthcoming from the efforts of M.P.'s the Aero Clubs throughout the Dominion were contacted in order to ascertain how they had financed their grounds.

Having had no prior involvement, the Public Works Department (P.W.D.) at Tauranga, then became actively interested in Whakatāne's claims, and, as though the whole project was new, put forward several propositions. The County also became interested and the four sites were reconsidered, Eiver's, the Sand Hills, Gobies and Ernst's. The latter was considered the most favourable and a detailed survey estimated that the cost to the Government of putting it in order would be £17,000.

The Council was concerned about flooding as the area lay in a natural basin. Mr Saunder's interviewed long term residents on the matter of flooding. The polled opinions were 50-50 for and against. At subsequent meetings the probable cost of the land was set down at £7000, and the annual maintenance at £550. To meet this it was decided that the County Council could carry 60 per cent and the Borough 40 per cent, with any subsequent revenue to be shared on the same basis.[22]

1937 In December 1937, a decision to form an aerodrome authority and make an offer of £4OOO to the Government toward the costs of providing an aerodrome for Whakatāne was made at a joint meeting of representatives of the Whakatāne County and Borough Councils. Messrs. J. G. Cliff McCulloch and L. W. Luxton represented the county, and the Mayor, Mr. W. Sullivan, and Mr. J. Arres represented the borough.

The meeting decided that the two authorities should consider combining to establish an aerodrome and that the cost involved in establishment and maintenance should be shared until the aerodrome becomes revenue-producing, when surplus revenue should be divided between the two bodies. It was also decided that an aerodrome authority would be constituted, each council appointing three of its members to represent it.

It was resolved that with the approval of the two councils a definite offer of £4OOO toward the cost of the aerodrome should be made. This amount would cover the cost of the land, fencing materials, grass seed, and fertilisers. The councils would then have to agree on the proportion each should bear.

These proceedings were reported to the borough and county councils at their meetings that week. At the Borough Council meeting the report was approved, and Messrs. Sullivan, Arres and B. S. Barry were appointed as representatives on the aerodrome authority. It was reported that the County Council also adopted the report.[23]

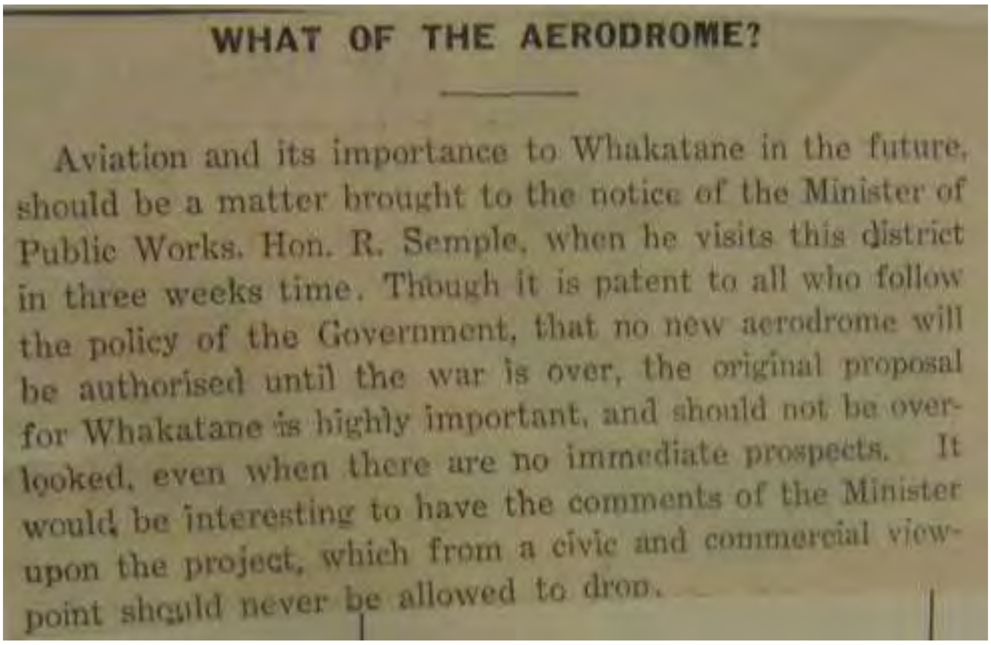
[21] New Zealand Herald, Volume LXX, Issue 21653, 20 November 1933, Page 8
[22] Bay of Plenty Beacon, Volume 3, Issue 272, 17 February 1941, Page 5
[23] New Zealand Herald, Volume LXXIV, Issue 22915, 18 December 1937, Page 12

1938 On August 10th the Whakatāne Borough Council decided to take the preliminary steps for a poll of ratepayers on the proposal to raise a loan for the borough's share of the cost of establishing the Whakatāne aerodrome.

A letter was received from the Whakatāne County Council agreeing to take similar action provided the borough ratepayers sanctioned their portion of the cost.

The proposals entered into by the two bodies involved the purchase of a site at Paroa, six miles from Whakatāne. The price of the property and incidental expenses was to be £7000. The Public Works Department was to spend £17,000 in draining, levelling and otherwise preparing the site. It was agreed to apportion the cost of the purchase on the basis of 60 per cent county and 40 per cent borough.[24]

The County was prepared to proceed with the new scheme after the Borough had obtained the ratepayers consent, however the P.W.D. engineer (Mr Ronayne) asked that the matter be held in abeyance until such time as the site of a new proposed bridge could be determined. That was in June 1938 and as nothing was heard for some twelve months apart from the council approaching Mr Hultquist to speed it up.[25]



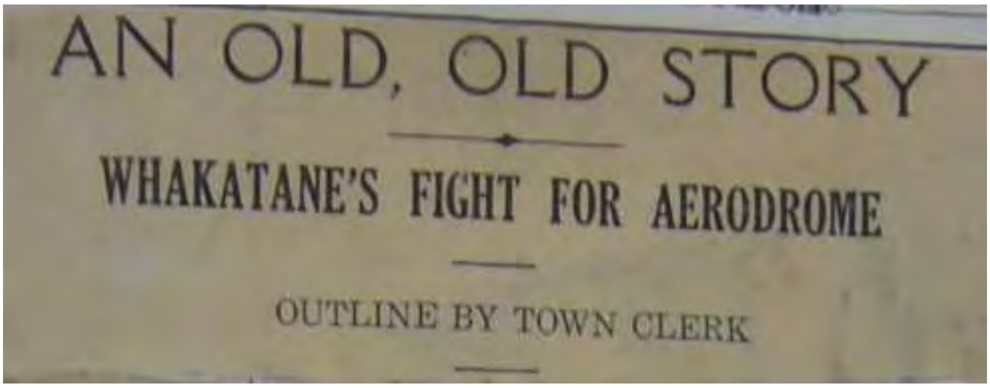
WHAT OF THE AERODROME?

Aviation and its importance to Whakatane in the future, should be a matter brought to the notice of the Minister of Public Works, Hon. R. Semple, when he visits this district in three weeks time. Though it is patent to all who follow the policy of the Government, that no new aerodrome will be authorised until the war is over, the original proposal for Whakatane is highly important, and should not be overlooked, even when there are no immediate prospects. It would be interesting to have the comments of the Minister upon the project, which from a civic and commercial viewpoint should never be allowed to drop.

Newspaper article May 6 1940. Source: Archives NZ Reference no W1 667. Defence Works and Buildings Airports, Aerodromes and Landing Grounds – Whakatāne Airport 1940 – 1955

[24] Auckland Star, Volume LXIX, Issue 187, 10 August 1938, Page 15
[25] Bay of Plenty Beacon, Volume 3, Issue 272, 17 February 1941, Page 5

1940s


AN OLD, OLD STORY

WHAKATANE'S FIGHT FOR AERODROME

OUTLINE BY TOWN CLERK

Newspaper article May 6 1940. Source: Archives NZ Reference no W1 667. Defence Works and Buildings Airports, Aerodromes and Landing Grounds – Whakatāne Airport 1940 - 1955

1940 Nothing was heard until January, 1940, when a further letter was received from Mr Ronayne to the effect that owing to the reduced activity in the P.W.D and while there was a service at Opotiki and at Tauranga it had been decided to postpone all further activity with reference to the proposed Whakatāne Aerodrome for the duration of the war (Second World War 1939-45).

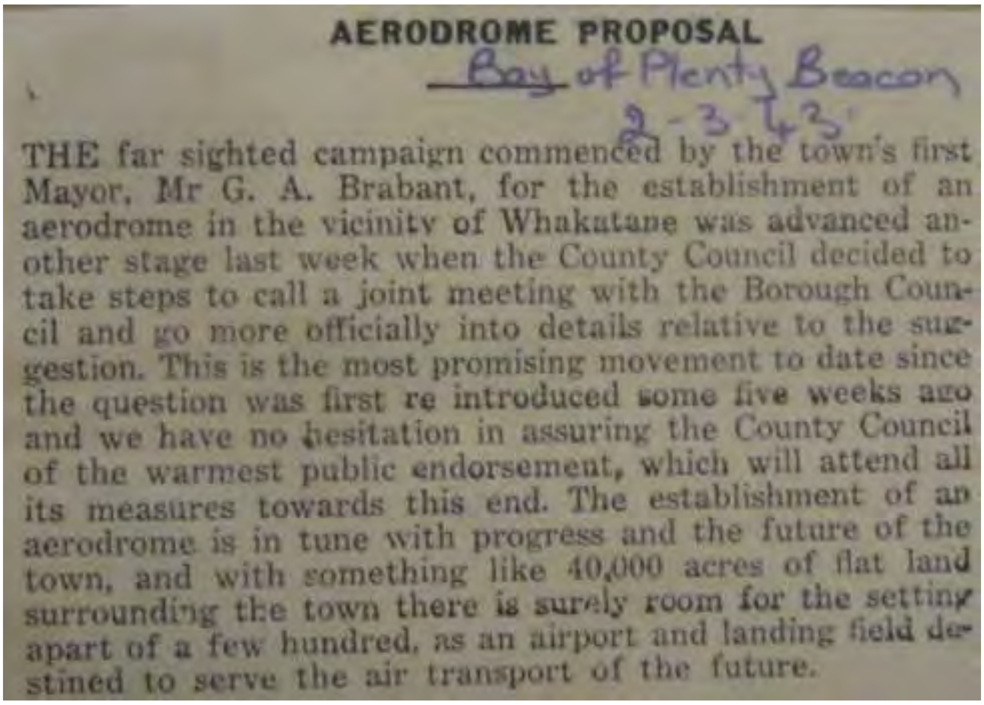
When Mr Saunders concluded his review Mr Reeve Canning mentioned that 'as the suggestion of the sand hills site had apparently 'gone west' would not a level piece of ground at Ohiwa be considered suitable'. Mr Brabant still leaned towards the old site at Elvers Beach.

Mr Barry stated that any aerodrome must be approved and that definitely a mudflat was unsuitable. He understood that with the faster aircraft in use it was necessary to have runways of up to 900 yards. However, it appeared that there was little possibility of anything being done until after the war.

Mr Saunders gave his opinion that; 'an aerodrome would eventually come to Whakatāne for if the business warranted it travel by air would automatically follow'. When the war ended larger aerodromes would be required and that would be Whakatāne's opportunity to create an aerodrome. In the meantime, the town was not saddled with an unproductive asset.

Mr Sullivan said that it was obvious that the council had done all in its power to get an aerodrome in the past but he thought something should go forward asking the local bodies to revive the scheme when the opportunity offered. He felt that with so many young pilots coming home aviation would quickly establish itself in the future. The meeting decided to adopt Mr Sullivan's suggestion and to write to the Borough and County Councils offering the Chamber's fullest support when the matter was again before them for consideration.[26]

[26] Bay of Plenty Beacon, Volume 3, Issue 272, 17 February 1941, Page 5



AERODROME PROPOSAL

Bay of Plenty Beacon
2-3-43

THE far sighted campaign commenced by the town's first Mayor, Mr G. A. Brabant, for the establishment of an aerodrome in the vicinity of Whakatane was advanced another stage last week when the County Council decided to take steps to call a joint meeting with the Borough Council and go more officially into details relative to the suggestion. This is the most promising movement to date since the question was first re introduced some five weeks ago and we have no hesitation in assuring the County Council of the warmest public endorsement, which will attend all its measures towards this end. The establishment of an aerodrome is in tune with progress and the future of the town, and with something like 40,000 acres of flat land surrounding the town there is surely room for the setting apart of a few hundred, as an airport and landing field destined to serve the air transport of the future.

Source: Archives NZ Reference no W1 667. Defence Works and Buildings Airports, Aerodromes and Landing Grounds – Whakatāne Airport1940 - 1955

1943 On the question of the proposed site for the future district aerodrome, the Borough Council stated that the proposal discussed at the combined meeting held 18th March to use County Council's "plantation" property at Te Teko was reported and considered at the Borough Council meeting held on 12th April, and the following resolution passed:

"That the County Council be advised that this Council does not consider the suggested site at Te Teko to be a suitable one, it being considered insufficiently central concerning the district it would be required to serve; that the local bodies, invite an officer of the appropriate department to visit Whakatāne and district for the purpose of inspecting and advising on suitable sites, the two bodies in the meantime, to endeavour to locate and decide upon alternative sites for his inspection and consideration."

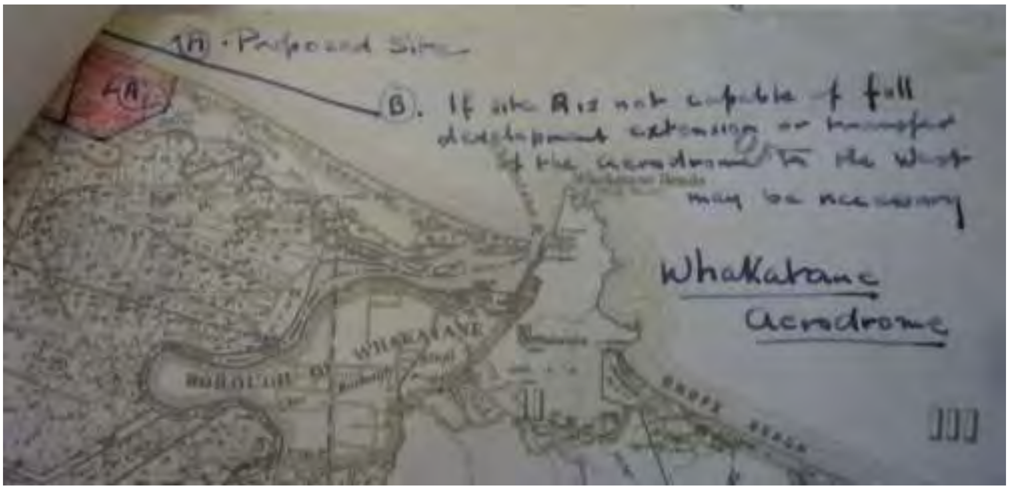
All previous departmental negotiations had been conducted by the Borough Council, which held complete records respecting the proposal since an aerodrome for Whakatāne was first mooted back in the 1930s. In consequence it was suggested that the Borough Council might continue to make arrangements or conduct correspondence concerning this joint project through its officers, it being understood, that all correspondence. etc. past, present and future was freely available to the Whakatāne County Council.

The council resolved that the Borough Council be respectfully requested to name its first preference as a Whakatāne aerodrome site— that both preferences be then submitted to the authorities for report.[27]

1944 On the 23rd of November the Whakatāne Borough and County Councils decided that during post war development in Whakatāne, an aerodrome would be built.

[27] Bay of Plenty Beacon, Volume 6, Issue 68, 30 April 1943, Page 8

1946 In August, The Whakatāne Aero and Glider Club looked at possible sites for an aerodrome, and recommended an aerodrome be built on a sand hills site.



Potential site for Aerodrome. Source: Archives NZ Reference no W1 667. Defence Works and Buildings Airports, Aerodromes and Landing Grounds – Whakatāne Airport1940 – 1955

Map showing potential aerodrome sites – Craddock's Farm and Crown land adjoining golf course. Source Archives NZ Reference no. AANS W5491 6095 Box 68. Local Purpose Reserves – CCL (Commissioner of Crown Lands) South Auckland Land District – Whakatāne Borough Council Aerodrome at Whakatāne

1947 In January a letter from the Minister of Defence saying that the cost of building an aerodrome would not be contemplated at that time, did not deter the Aero and Glider Club and officials approached the Whakatāne Borough and County Councils and the Chamber of Commerce. In April a committee made up of members from the four groups was set up to pursue construction of an aerodrome.

This committee made submissions in June for the setting aside of an area of land on the Whakatāne side of the golf links. However, this area included Maori land and burial grounds. Submissions were then made to the Minister of Lands to set aside an area of land on the Matata side of the links. On this site, 13 km from Whakatāne, the aerodrome was finally built.

Plan of proposed Aerodrome site. Source Archives NZ Reference no. AANS W5491 6095 Box 68. Local Purpose Reserves – CCL (Commissioner of Crown Lands) South Auckland Land District – Whakatāne Borough Council Aerodrome at Whakatāne

Map showing proposed location of proposed Whakatāne aerodrome site (outlined in red) Source: Archives NZ Reference no W1 667. Defence Works and Buildings Airports, Aerodromes and Landing Grounds – Whakatāne Airport1940 – 1955

1950s

1952 In November the committee was advised by Mr (later Sir) Willian Sullivan, M.P. for the district, of the Air Department's requirements. The next month Mr C. H. Brebner was appointed consulting engineer.

1954 Engineering plans and estimates were prepared.

1956 The earthmoving tender of Paton and Smith Ltd was accepted in December. The same month an anemometer was installed and work soon started. The first sowing of the aerodrome in grass was delayed when the grass seed was lost in transit. After being eventually found, the seed was sown in May 1957. However, a poor growing season and strong winds eroded the sand and the grass did not take. Lupin appeared in dense patches.

Map showing land set aside for Aerodrome Development 1957. Source Archives NZ Reference no. AANS W5491 6095 Box 68. Local Purpose Reserves – CCL (Commissioner of Crown Lands) South Auckland Land District – Whakatāne Borough Council Aerodrome at Whakatāne

1958 In April the runway was disced and resown, and at the beginning of 1959 the runway was top dressed, manured and cut. In the meantime, construction costs had risen from $28,000 to $40,800. At a meeting on the 20th October 1958, Cabinet authorised the submission to the Executive Council of the Whakatāne Aerodrome Establishment Order 1958.

The Governor General, acting by and with the advice and consent of the Executive Council made the 'Whakatāne Aerodrome Establishment Order 1958'. Consent was given to the establishment and maintenance of an aerodrome by the Whakatāne County Council. Described as – all that land in the Auckland Land District containing 572 acres and 1 rood, more or less, being Allotment 175, Rangitaiki Parish, situated in Block V, Awaateatua Survey District, and Block 1 A, Whakatāne Survey District. (S.O.Plan 38520.)[28]

1959 The first aircraft to land on the new aerodrome was the Bay of Plenty Airways Aero Commander (ZK BWA) which landed there early one Saturday morning. April 1959 saw the first aircraft to officially land at the Whakatāne aerodrome, a Piper Apache (ZK BUA) belonging to the Civil Aviation Administration, and piloted by Mr W. McDonald. Finally, with all troubles ironed out, the Whakatāne Aerodrome was declared to be an authorised landing place restricted to aircraft of Bay of Plenty Airways Ltd. This was in November 1959.

[28] Letter from R. L. Hutchens, Secretary of the Executive Council to the Minister in charge of Civil Aviation, 16 October 1958. Source: Archives NZ Reference number AAFD W3738 811 BOX 1291, CAB 185/3/26, Civil Aviation- Airfields – Whakatāne Aerodrome 1958

1960s

1960 In July the A.B. Hick and Co. Ltd. tender for the construction of a terminal building was accepted and the first terminal building was built.

"Whakatāne's new £50,000 airport terminal building, complete with sealed runways, was officially opened by the Minister of Civil Aviation, Mr J. K. McAlpine, at a ceremony attended by about 5000 visitors and local residents on a recent Saturday. The nearest airfield to Darton Field capable of handling N.A.C. and S.P.A.N.Z. aircraft, the Whakatāne Airport proved its worth recently by remaining open when heavy rain caused the closure of both its neighbours, at Tauranga and Gisborne."[29]

The terminal building measured 30 feet by 12 feet. Passenger figures for that year-arrivals 204 - departures 253 – total 457. On 2nd December the aerodrome was granted a public licence. The airport was officially opened by Mr T.P. Shand, former Minister of Civil Aviation, on 10 December 1960. Forty-one aircraft of various types were present at the air pageant held to mark the opening. An estimated ten thousand people attended the event.

Map of Aerodrome Site 1960. Source Archives NZ Reference no. AANS W5491 6095 Box 68. Local Purpose Reserves – CCL (Commissioner of Crown Lands) South Auckland Land District – Whakatāne Borough Council Aerodrome at Whakatāne

Photograph of terminal building c. 1960s. Source Archives NZ Reference No. AEPK W2774 20231 Box 7

[29] Gisborne Photo News No 103: January 24, 1963


Whakatane Airport Opened

Spectators watching N.A.C. and S.P.A.N.Z. aircraft at the runway turnoff

Whakatane's new £50,000 airport, complete with sealed runways, was officially opened by the Minister of Civil Aviation, Mr J.K.McAlpine, at a ceremony attended by about 5000 visitors and local residents on a recent Saturday.

The nearest airfield to Darton Field capable of handling N.A.C. and S.P.A.N.Z. aircraft, the Whakatane Airport proved its worth recently by remaining open when heavy rain caused the closure of both its neighbours, at Tauranga and Gisborne.

Right: An N.A.C. freighter being inspected by some of the crowd.

Mr McAlpine speaking at the opening ceremony. Those with him on the platform include Mr Don Butler (chairman, Whakatane County Council), Mr Jim Rivett (chairman of the Airport Committee), Mr Percy Allen, M.P., and Mr Harry Warren, Mayor of Whakatane.

Source: Gisborne Photo News No 103: January 24, 1963

1962 By May the airport was closed as the seal on the runway had begun to break up. The runway, was resealed and the airport re-opened to all traffic from l November 1962.

On the 31st October 1962 the county engineer Whakatāne was advised that approval for £337.10.0 (being govt. half share) was available for extending the terminal building to provide storage space for National Airways Corporation (NAC) and an office for SPANZ.

1963 The provision of a freight shed (as an extension of the terminal building) was approved

1964 Addition of a shelter over the entrance to the terminal building

1965 J E Gray, the County clerk expresses his concern that the lack of sufficient space in the present terminal building has been causing inconvenience both to the public and to the local agents of NAC. Builders were ready to commence work if the proposal of a small extension to the existing building was approved.[30]

1966 The airport authority (In documentation dated 7 February) proposed to extend the terminal adjacent to the NAC ticketing counter and to relocate the counter in the extension, and for all bags to be handled in the new area., thus easing congestion in the public space. It was noted that 'one third of the terminal is presently taken up by passenger ticketing and baggage handling'.[31]

1969 The Whakatāne Airport Committee considers that it should be preparing plans for a new terminal building at the airport. *"with the advent of lighting which the committee hopes will be installed next year, it is anticipated that the use of the airport will increase. The existing building is barely adequate for the present requirements."*

The county clerk requests that the Regional Commissioner, Civil Aviation Division, MoT indicate various matters for which their department consider provision should be made in a new terminal building for the airport.[32]

The former control tower (1960s) which was a van, generally parked in town, that was driven to the airport every time a plane was due. Source: Roger Walker

[30] Letter to the Regional Superintendent, department of Civil Aviation from J E Gray, County Clerk, 10 December 1965. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings 1961-1975

[31] Letter to the Secretary for Civil Aviation from A Holdsworth, Regional Superintendent, 7 February 1966. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings 1961-1975

[32] Letter to the Regional Commissioner, Civil Aviation Division, MoT from J E Gray, County Clerk 24 December 1969. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings 1961-1975

2.4 ESTABLISHING THE CURRENT TERMINAL BUILDING

1970

AUGUST 1970

NAC state that they can see no justification for the replacement of the present terminal building at the Whakatāne airport and issue sketches for proposed alterations of the existing terminal building. *"We are firmly of the opinion that with some minor alterations the existing building will adequately meet the operating requirements of this corporation for a minimum of 5 years."* [33]

SEPTEMBER 1970

Discussions begin regarding the proposed new terminal building at Whakatāne and on the requirements which should be catered for in a new terminal building. NAC suggest that a building occupancy of approx. 10 – 12 passengers per movement as an average figure. It was noted that adequate provision should also be made in the design to cater for future expansion. This 'Expansion' should be capable of being achieved with as little disturbance as possible to the operation of the building.

The County engineer noted that before engaging a private architect for the design of the terminal it would be necessary to obtain the Government Architect's formal approval to the committee's nominated architect.

All sketch plans and working drawings would then be subject to approval by this Ministry (Department of Civil Aviation) and Ministry of Works in respect to the structural aspects of the design.

A Set of drawings of the Tauranga airport terminal building were made available to the committee because they would *"give some indication of the type of layout which is functionally very satisfactory."* [34]

OCTOBER 1970

NAC considered the information provided on the proposal of the new terminal building at Whakatāne insufficient to make a recommendation on the matter. NAC note that *"The erection of a hanger (this we believe would be relatively small), fire station and provision of the present terminal building unless the development of these facilities either separately or collectively cannot be undertaken without first re siting the passenger terminal. "* [35]

1971

FEBRUARY 1971

It was resolved between the Whakatāne County Council and MoT that negotiations for the purchase of additional land should be completed and that a sum of $15 000 (local share) should be placed on next year's estimates for the construction of a new terminal building.

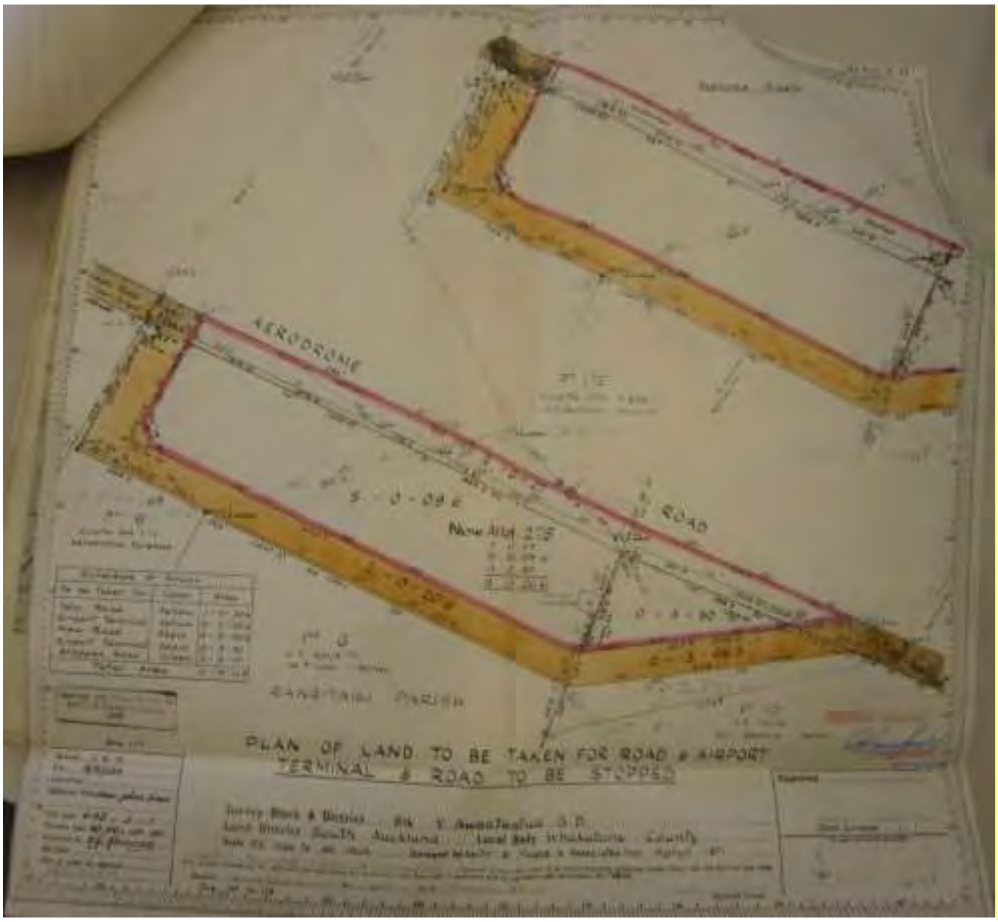
[33] Letter to the Director, Department of Civil Aviation from Customer Services Manager, NAC, 21 August 1970. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

[34] Letter to the Country Engineer from Director, 28 September 1970. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

[35] Letter from H M Pierand, NAC to Department of Civil Aviation, 2 October 1970. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

The Airport Committee agreed with MoT that a building of approx. 2000 to 25000 square feet would satisfy the needs of the airport for some time to come and it was estimated that such a building could cost between $25,000 and $30,000. [36] Allowing for the purchase of the land and associated works: hard stand area, car park etc. an estimated $20 000 should be provided so that the overall cost of the project should be $50 000

The Airport Committee then required "approval in principle" from MOT so they could engage an architect and proceed with the planning of the area. [37]



Map of proposed aerodrome Development – additional land. Source Archives NZ Reference no. AANS W5491 6095 Box 68. Local Purpose Reserves – CCL (Commissioner of Crown Lands) South Auckland Land District – Whakatāne Borough Council Aerodrome at Whakatāne

APRIL 1971 Whakatāne Airport Authority express their desire to engage a private architect to undertake the design of the new building. The following firms were nominated as prospective architects.

Murray – North & Associates, Rostrevor Street, Hamilton

Acheson & Stewart and Associates, Registered Architects, Tauranga

Hocking & Verrall, Registered Architects, Rotorua

[36] Letter from Whakatāne County Council to the Director of Civil Aviation, 26 February 1971. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

[37] Archives NZ Reference number AAFD W3738 811 BOX 1291, CAB 185/3/26, Civil Aviation- Airfields – Whakatāne Aerodrome 1958

The authority expressed that they had no real preference and advised they would be happy to engage whichever firm meets the approval of MoT. [38]

APRIL 1971 Mr Tassell, the County Engineer wrote to the Director of Civil Aviation asking to add Mr R N Walker, Registered Architect, 11 Prince Street Wellington, to the list of architects submitted earlier that month. He writes that;

"Mr Walker has expressed a keen interest in the project and has submitted photographs and slides of his recent work. These show originality in design which appeals to me and I think this man could produce a modern attractive building which would appeal to the travelling public. While we have no preference for any one architect the Committee is desirous of building a modern terminal which has character befitting the "sunshine town" of the North Island." [39]

MAY 1971 Members of the Committee were concerned that no progress has been made to engage an architect to prepare the plans for the new terminal building. The Airport Committee were anxious to commence work on the proposal that year. An engineering survey for the terminal area & a land survey had been completed. At that point the Land Purchase Officer of the MOW had not finalised matters for the acquisition of the land, but it was reported to be well underway. [40]

MAY 1971 The Ministry of Works indicate that they have no objection to the County Council commissioning any of the private architects nominated, nor do they have any recommended preference. This approval enabled the committee to proceed with engaging a private architect of their choice.[41]

A W Tassell, County Engineer advises the Director of Civil Aviation that *"the Committee has commissioned Mr R N Walker, B.Arch (Hons) Registered Architect of 11 Prince Street Mt Victoria, Wellington to undertake the work"*

Roger Walker was given a copy of the ground plan of the Tauranga terminal building for his information and asked to produce rough sketch plans of his proposal before the final design was to be decided upon. These were to be submitted to MoT for comment.

JUNE 1971 Walker notes that he visited the site at the end of May, to take photos and that site plans had been supplied to him by the MoT. Roger Walker advised that his Quantity Surveyors are Hallam -Eames and Perry of Wellington and

[38] Letter to the Commissioner of Works, att. Sectional Architect, MOT from L D Lewis (Director), 5 April 1971, Source: Archives NZ Reference number AAFD W3738 811 BOX 1291, CAB 185/3/26, Civil Aviation- Airfields – Whakatāne Aerodrome 1958

[39] Letter to the Director of Civil Aviation MOT, Mr J D Lewis from A W Tassell, County Engineer, 23 April 1971. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings 1961-1975

[40] Letter to the Director of Civil Aviation MOT, Mr J D Lewis from A W Tassell, County Engineer, 03 May 1971. Source:

[41] Letter to A W Tassell, County Engineer from the Director of Civil Aviation MOT, Mr J D Lewis, 4 May 1971. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

that the architects sketch plans of the proposed terminal would be completed by Monday July 14th[42]

JULY 1971

Roger Walker met with the Aerodrome Committee on Tuesday 13th July and presented sketch plans for their consideration.

Whilst the design did not comply with the conventional type of terminal building the committee was very impressed with its originality and wished to proceed with its construction as soon as possible.

Walkers estimate of the cost was $45 000

The committee asked Walker to deal directly with MOT with regard to the plans and advised that he would supply a structural analysis report and structural certificate.

It was realised that the cost of the building was greater than was envisaged when the proposal was first mooted. The County Engineer noted that "the conditions are rapidly changing in this part of the Bay of Plenty and the Committee feels it is quite justified in asking for the increased size."

Reasons as outlined by the Committee to support the construction of the new airport terminal at Whakatāne included:

Whakatāne is a fast growing area and is rapidly becoming a tourist town. The Holiday and Travel association of NZ is promoting this area as the gateway to the East Coast, one of the most beautiful coastal spots in NZ. An area of some 400 acres is being developed at Port Ohope as a recreational reserve with an 18 hole International Golf Course, motels, camp ground, aquatic and boating facilities etc. It is anticipated that in the future this area together with the East Coast, will attract large numbers of tourists and Whakatāne Airport will be a gateway there to.

The area was growing rapidly on the industrial side – Tasman Pulp and Paper Coy were proceeding with 13 Million dollar expansion scheme at Kawerau and it was anticipated that Kawerau would double in size within the next few years. As proof of its growth the following figures of airlifts in and out of Whakatāne have been supplied by N.A.C

1969	*in and out*	*16180*
1970	*in and out*	*16632*

The Committee felt that it must plan for the future and considered the floor space area of the proposed new terminal to be the very minimum for present requirements.

At that time negotiations for the land were almost complete. It was noted that the purchase price of land, survey and legal fees fencing etc. was likely to cost $10 000

[42] Letter from RW to The Director, Airport Design, Civil Aviation Division, MOT, 1 June 1971. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

Development of parking area and hardstand for planes and ancillary works were estimated to cost $25 000Building + fees etc. were expected to cost $50000

JULY 1971

Soon after Roger Walker met with the committee, concept sketches of the proposed terminal building were published by NAC. Showing an; "*outside picture of the terminal with its unusual shape and three deck lookout tower"* and an interior view which *"Gives an idea of what the inside of the building will look like, showing the lounge, stairway and counter space."*

A description of the proposal was also included:

"Futuristic airport terminal – this unique design (…) may be commissioned by the Whakatāne Borough Council and the Whakatāne County Council as the plan for the town's new airport terminal.

The liaison committee between the two local bodes have agreed to the design – estimated to cost about $85000 – in principle but they still need some minor alterations and have yet to be approved by the Civil Aviation Department which is putting up half the cost." [43]

FUTURISTIC AIRPORT TERMINAL

• This unique design, reported to be, may be commissioned by the Whakatane Borough Council and the Whakatane County Council as the plan for the town's new airport terminal.

Source: Auckland University Shepard File

[43] NAC Publication, 15 July 1971. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

Roger Walkers Sketches. Source: Auckland University Shepard File

Roger Walkers sketch of the interior. Source: Auckland University Shepard File

JULY 1971

It was reported in the Bay of Plenty Beacon that the development of the new terminal building at Whakatāne Airport was proceeding steadily, although according to the Whakatāne County Council engineer, Mr A. W. Tassell: "Unfortunately in terms of the Civil Aviation Department, that is very slow indeed" he told Tuesday council meeting "Well, I don't need to tell you how inefficient they are"

The MoT took offence to this comment.

Despite not having obtained approval from MoW for the project, the Aerodrome Committee instructed Roger Walker to proceed with the drawing up of plans and specifications for the new building, with some modifications. He was instructed to deal directly with the Civil Aviation Department in order to save time. Plans for the development of the hardstand, parking area and roading were almost completed and Mr Tassell was hoping to call tenders for the work the following month (August 1971).[44]

JULY 1971

The Bay of Plenty Beacon reported that the possibility of having a control tower incorporated in the new Whakatāne airport terminal was to be investigated by the architect Mr R Walker and the Whakatāne County Engineer, Mr A W Tassell. The County Council Chairman, Mr R F Wardlaw pointed out at a council meeting that this would mean a lot of saving for the taxpayer and was the *"plain sensible thing to do*". This idea was not new, the control tower was part of Walker's design from the beginning.

The engineer reported that he hoped to call tenders for the new building in October or November so it would be completed by June or July (1972). The total cost of the project was expected to be $85000, a quarter which was to be met by the County Council and a quarter by the Whakatāne Borough Council.

"Mr Walker, the architect, is to meet the aerodrome Committee on Tuesday, August 13th to discuss plans of the new terminal building, when it is anticipated that the green light will be given to him to proceed with the final drawings."[45]

AUGUST 1971

The Committee were still seeking *"government approval to the scheme as outlined and firm approval for professional fees as we require the Government Architects approval to the plan proposals."* The plans had accordingly been referred to MOW for comment and in reply they had advised that their Quantity Survey Division considered the assessed cost of the build $45 000 to be low and has requested a check on the calculation"

Mr Walker responded and advised that his quantity surveyor's figure was $50 000[46]

SEPTEMBER 1971

J E Gray, the county clerk responds to the MoT's offence at the Country Engineer's comments on inefficiency. He points out that the remark was not intended in any way as criticism of any officer at the Civil Aviation Department, but rather of a system where it is necessary to deal with a number of officers in order to obtain any decisions.[47]

[44] Letter from Whakatāne County Council to the Director of Civil Aviation, 23 July 1971. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

[45] 'New control Tower at Whakatāne', The Whakatāne Beacon 28 July 1971. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[46] Letter from L D Lewis, The Director of Civil Aviation MOT to A W Tassell, County Engineer, 30 August, 1971. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

[47] Letter from J E Gray, County Clerk to the Secretary for Transport, 21 September 1971. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

SEPTEMBER 1971 The committee were still awaiting government approval for the proposal

A W Tassell expressed his concern to the County Engineer *"It is rather disturbing to see how the cost of the building has increased but this is not surprising when one considers how wages and materials have risen over the past few months. The Airport Committee realises this and will find its share of the cost whatever happens.*

Council is aware that there will be certain delays in obtaining monetary approval, but as the project is to be spread over two financial years we are not unduly concerned about this. If there should be any queries with regards to the drawings or estimated I agree that it would expedite matters if you would deal directly with Mr Walker.

I have had second thoughts on the programming of the project and I think that it would be preferable to undertake the development of the area before the building commences. I therefore propose to forward your approval proposals for this work so that the ancillary works can be completed before tenders are called for the building of the terminal.

In any case building cannot proceed until the earthwork has been completed and if approval can be obtained for this development work, the approval for the terminal can proceed without haste." [48]

SEPTEMBER 1971 The Commissioner of Works, MoT provides comment on the proposed sketch plans by Roger Walker and recommends that the Local Body be asked to re-design the terminal on the theme of maximum flexibility. *"For quite some years now, terminal Building design has had the theme of maximum flexibility as its mandatory condition, and you will be familiar with National Airways Corporation comments concerning Christchurch with its Reinforced Concrete system.*

The over-styled roof scape of this Whakatāne Airport Terminal is an exposition of the interconnecting areas below and these areas are usually walled in concrete masonry for this idiom. This is more applicable to house design, where the varying rooms and their social uses can have different roof treatments. For a terminal, however, as in Auckland, an open framed maximum span structure is the usual system adopted, thereby allowing maximum flexibility for future expansion and alterations." [49]

OCTOBER 1971 The Director of Civil Aviation MoT responds to the MoW report commenting on the design of the terminal building. The main concern is flexibility and the future expansion capabilities as compared with the more conventional structural form adopted for the majority of terminal buildings, utilizing portal frames with simple roof forms which, (in the opinion of MoT + MoW), achieve a greater degree of flexibility, allowing interior alterations and future

[48] Letter from A W Tassell, County Engineer to Mr L D Lewis, The Director of Civil Aviation MOT, 2 September 1971. Source: NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings 1961 - 1975

[49] Letter to The Director, Civil Aviation Division MOT from Commissioner of Works MOT, 15 September 1971. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

additions to be carried out as the need arises with minimum disruption to the operational functions served in the building.

It was noted that future additions were allowed for in the sketch plans and *"presumably the Architect has considered the roof form which could be adopted but it is difficult to assess the degree of flexibility the proposals would allow should for instance it be necessary to increase the kitchen and toilet areas which could be a logical expansion need following the provision of additional lounge areas."*

MoT concluded that the MoW comment on the design was valid in this regard. It was considered that this lack of flexibility was a deficiency in the sketch plan proposal which should be brought to the Airport Committees notice." [50]

OCTOBER 1971

Roger Walker responds to the MoT report on the sketch of the terminal building (October 13)

He enclosed revised plans which indicated the proposed directions of the expansion of various facilities. He reinforced that these extensions could occur *"simply and logically with little extra expense."*

Walker goes on to say that;

"As you are doubtless aware a conventional' terminal building as implied in the MOW report is precisely what the Whakatāne Airport Committee did not want, otherwise they would have engaged one of the hundreds of consultants in this country capable of producing such a structure. There is not necessarily a conflict between 'character' in a building, and flexibility, and I hope that the MOW can recognise this in building."

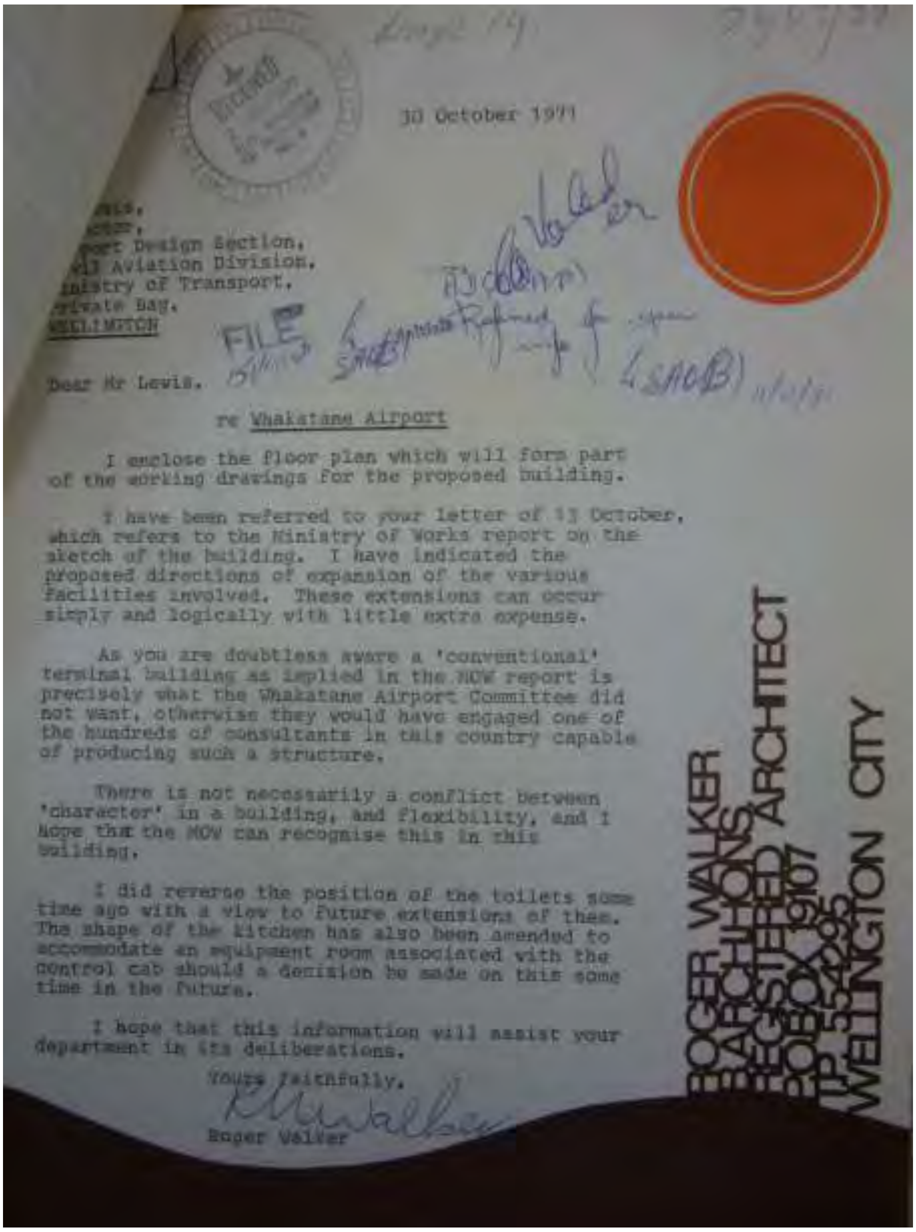
Roger noted that changes to the plans in order to allow for future expansion include the reversal of the position of the toilets with the view to the future expansion. The shape of the kitchen was also amended in order to accommodate the addition of an equipment room associated with the control cab, should a decision be made on this sometime in future. [51]

I did reverse the position of the toilets some time ago with a view to future extensions of them. The shape of the kitchen has also amended to accommodate an equipment room associated with the control cabinet should a decision be made on this sometime in the future." [52]

[50]Letter to the County Engineer, Whakatāne Council from L D Lewis, Director, 21 October 1971. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[51] Letter from Roger Walker to Mr Lewis, Airport Design Section, Civil Aviation Division, MOT + Plan attached to above letter with annotated 'extensions', 30 October 1971. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[52] Letter from Roger Walker to the Director of Civil Aviation, 30 October 1971. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975



ROGER WALKER
BARCH HONS
REGISTERED ARCHITECT
PO BOX 19107
WELLINGTON CITY

30 October 1971

...wis,
...ctor,
...port Design Section,
...il Aviation Division,
...inistry of Transport,
...rivate Bag,
WELLINGTON

FILE

Dear Mr Lewis,

re Whakatane Airport

I enclose the floor plan which will form part of the working drawings for the proposed building.

I have been referred to your letter of 13 October, which refers to the Ministry of Works report on the sketch of the building. I have indicated the proposed directions of expansion of the various facilities involved. These extensions can occur simply and logically with little extra expense.

As you are doubtless aware a 'conventional' terminal building as implied in the MOW report is precisely what the Whakatane Airport Committee did not want, otherwise they would have engaged one of the hundreds of consultants in this country capable of producing such a structure.

There is not necessarily a conflict between 'character' in a building, and flexibility, and I hope that the MOW can recognise this in this building.

I did reverse the position of the toilets some time ago with a view to future extensions of them. The shape of the kitchen has also been amended to accommodate an equipment room associated with the control cab should a decision be made on this some time in the future.

I hope that this information will assist your department in its deliberations.

Yours faithfully,

Roger Walker

Letter from Roger Walker regarding the design of the terminal building. October 1971. Source:

OCTOBER 1971 J H Macky, Secretary for Transport makes comment regarding the disposal of the existing terminal building. *"While noting the applications from the Eastern Bay of Plenty Gliding Club (INC.) and the Port Ohope Golf Club to acquire the building, this ministry concurs with your own view that the building should be put up for sale by tender at the appropriated time."* [53]

NOVEMBER 1971 The Aerodrome Committee hold a meeting in which the criticism of the terminal design was discussed. The Members were unanimous that they were not prepared to adopt the conventional type of building favoured by the MoW. The committee wished to erect a terminal which would be original as well as functional and consider that they have achieved that in their proposal.

Roger Walker provides MoT with a floor plan of the contract drawings, which clearly indicates the ways in which the facilities could be extended. In his

[53] Letter to the County Engineer from J H Mee for Secretary for Transport, 1 October 1971. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

opinion there is no conflict what so ever between the design and the necessary capabilities for future expansion. He notes that;

"in detail consideration given the preparation of working drawings some readjustment of the plan has been made without reducing the areas of the spaced involved. It is my earnest desire to assist you in providing the best possible building for the region and any concept differing from the standard 'factory shed' type of building was I fear liable to conflict with long standing planning prejudices held by the MOT."

The County Engineer reinforces that Committee is *"adamant that the building should proceed as planned"* [54]

1972

JANUARY 1972 The Director of Aviation MoT invites "belated" comment from NAC on the space allocated for their operational needs. He notes that *"While the Ministry of Works are not wholly in accord with the adoption of the design they have no specific grounds to oppose the proposal. In view of this and the authorities expressed intention to press for a new building of this concept, government approval to proceed with the working drawings has been sought and approved."* [55]

FEBRUARY 1972 The County Engineer reports that the developmental works associated with the new terminal were proceeding well, earthworks were completed and the work on hardstand and parking areas were underway. He indicates that the calling of tenders for the construction of the terminal building would be underway by the end of March if the final plans were approved by MoT.

There was discussion around incorporating the control tower into the terminal building instead of being stand alone as historically it had been (in a van). It was noted that this matter needed to be resolved in order for Roger walker to complete the design. The committee were very much in favour of incorporating the control cab in the terminal and *"any suggestion of a 'temporary' control cabinet being built was not in the best interests of all concerned."* [56]

MARCH 1972 NAC make comment on the sketch plans of the new terminal. They consider that the passenger counter should be placed as near as possible to the entrance door of the terminal and should occupy the area presently set aside for baggage claim. This would necessitate the repositioning of the telephones. NAC could see no reason for the type of baggage area proposed. They considered that an open sided, covered area should be provided for baggage claim immediately adjacent to the roadway in the area where the notation "glasses over" is made on the plan. It was recommended that the

[54] Letter from the County Engineer to the Director of Civil Aviation, 3rd November 1971. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[55] Letter from Director of Aviation to the General Manager, NAC, 19 January 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[56] Letter to the Director of Civil Aviation from County Engineer, 28 February 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

baggage handling area be extended to provide sufficient area for both baggage and freight handling. This would area would need to be secure in order to provide for the storage of freight overnight. [57]

By the 20th of March approval was granted to the proposal to establish the control cab in the terminal building subject to the financial arrangements being agreed to.[58]

APRIL 1972 Finance has been obtained for site works, it has been agreed to incorporate fire service into the terminal building and sketch plans are reported to have been approved by the MoT.[59] By April 10th it was reported that site works were well on way to completion, work had commenced on kerbing. Government finance and green light to proceed with the building of the terminal had still not been given by MoT.[60]

The County Engineer was informed on the 11th April that the holdup was due to the resolution of a "few outstanding points relative to the equipment room and the moving of the present fire garage". MoT note that they have not yet received a set of contract drawings for the terminal building but following discussion with Roger Walker they expect to receive these at an early date.[61]

MAY 1972 Telephone call from the Mayor of Whakatāne (17 May) to MoT Airport Division, in an attempt to expedite approval for the construction of the terminal. MoT inform the Mayor that they have received the drawings and specifications but could not process these until a firm estimate of cost and design features report was made available. MoT accused the Airport Committee and Roger Walker of not following correct procedure when it came to calling for tender. It was however obvious that a lack of communication between government departments and the failure to share documents appeared to have slowed down the approval process, frustrating all those involved. [62]

JUNE 1972 Terminal building approval still not granted; The *"present position is still rather untidy".* MoT make comment regarding the total cost of the proposed terminal *"we understand that the cost of the designed building will be of the order of up to one third more that would be the case of the same floor areas in a conventional design. If this is established and confirmed, your Committees comment on the relative merits of departing from a more conventional design*

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[57] Letter from H M Pierard, customer Services Manager, NAC to the Director, Civil Aviation Division, MoT, 6 March 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[58] Letter from L D Lewis, the Director to the County Engineer, 20 march 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[59] Telegram, received by Head Office MoT, Wellington, 10 April 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[60] Telegram received by Head Office, MoT, Wellington, 10 April 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[61] Letter from the Director to the County Engineer, 11 April 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[62] Letter from Director MoT to Sectional Architect + The Commissioner of Works MoW 24 May 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

would need to be reaffirmed in terms of reasonable additional costs to achieve a building which conveys a sense of character differing from the normal"[63]

JUNE 1972

Tenders were received form 6 builders in the Whakatāne area all of which were reported to compare favourably with the initial estimate. Roger Walker informs the Mot that the cost estimate from Hallam – Eames & Perry (QS) was $60 400. [64]

Tenders: The winning tenderer being Steen Bros with the lowest price [65]

Steen Bros	**Whakatāne**	**$55 962. 00**
A B Hick & Co Ltd	Whakatāne	$57 153. 35
D C Butler & Son	Whakatāne	$57 481. 79
W E Hanlen Ltd.	Whakatāne	$58 455. 74
Morris Walsh & Garfield	Kawerau	$62 900. 00
F G Mahy & Co	Whakatāne	$69 869. 00

JULY 1972

Ministry of Works check over working drawings and specification and make comment on the design. They note that the structural design appears to be adequate. MoW consider that a re-design was necessary in order for the interior stairway to comply with the fire code. The design of circular stairway did not comply with the min. stairway diameter (10 ft) It was also noted that the stair should also be smoke stopped requiring the fitting of smoke doors at both the top and bottom of the stairs.

They also comment a little testily that: *"considerable savings could be achieved were a building of equivalent area and purpose be designed in a more conventional manner and with a less complicated roof structure. Furthermore, continuing maintenance costs on the building, as proposed will be very high."* [66]

AUGUST 1972

The Airport Authority representatives re affirmed their desire to proceed with the terminal building as designed but agreed that some alternative arrangements were necessary to overcome the major problem of Fire Protection. It was left to the Roger Walker to discuss possible solutions with the Chief Fire Protection Officer.

As a result of this discussion with Messrs. Fox and Davison of the Ministry of Works who said that they could see no reason why the stairs shown on the drawings should not be forthwith approved, Roger Walker submitted a drawing *"Proposed Egress Amendments to Mezzanine and First Floor."* [67]

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[63] Letter from the Director to the County Engineer, 13 June 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[64] Letter from Roger Walker to MoT, 15 June 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[65] Letter from County Engineer to MOT, 23 June 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[66] Letter to the Director, Civil Aviation Division from MoW Head Office, 5 July 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[67] Letter to the Commissioner of Works, MoT to L D Lewis, Airport Design Section, 9 August 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

The stairwell redesign was reported to be at an additional cost of $1470. MoT were displeased [68]

OCTOBER 1972 MoT instructed Roger Walker to make a number of changes to the construction drawings. These included alterations to the fire escape, the addition of a duct from the cable chamber to the equipment room, positioned alongside the telephone duct, reduction of the diameter of the corner exterior pipes. The control cab windows which were originally scheduled as double glazed on contract drawings & the exterior pane was specified as spectrafloat with ¼ inch polished plate to the interior. MoT instructed Walker to change this to 'insulite'[69]

The Engineer recommended by Roger Walker for the project was Bruce Smith Chapman and Amos Engineers.

1973

JANUARY 1973 Further amendments to the design were requested by NAC during construction including an extension to the canopy over the baggage claim area. Roger Walker reported that "the canopy extension was forwarded to the builders as a freehand sketch for a price estimate".

NAC were apprehensive that moving heavy and or awkward equipment up and down the spiral stairway to the control cab would be a hazardous exercise. To overcome this problem, it was suggested that the provision of removable panels in the floor of both the cab and the mezzanine floors would allow items of equipment to be lifted and lowered from the cab utilising a cable block and tackle attached to a suitable eye in the roof of the cab." [70]

FEBRUARY 1973 Roger Walker advised that further changes during construction included: the re-location of the flagpole at ground level as it was proven impractical to fix it to the side of the tower as originally suggested. The method of access to the control cab roof was changed from a ladder system to a roof hatch. [71]

Discussions were had between Roger Walker and Mot on the advice of NAC regarding the addition of an "equipment room" to the proposal. The work included the erection of a 16'0' square concrete block building with a timber rod frame sheathed in corrugated iron, plus installation of a wiring duct to control cab, aerials to the control cab, ladder to the control cab and a flagpole.

"the need to fly a flag is a new operational requirement for flight service stations" [72]

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[68] Changes to plans during the course of the work, 11 October 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[69] Changes to plans during the course of the work, 11 October 1972. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[70] Letter from Roger Walker regarding changes during construction, 18 January 1973. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[71] Letter from Roger Walker to L D Lewis, 16 February 1973. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[72] Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

SEPTEMBER 1973 The director of Civil Aviation informs Roger Walker that the control cab windows as installed would not be acceptable for operational purposes due to the high level of reflection which constituted a potential hazard to operations.[73]

Roger Walker provides MoT with drawings of the Equipment Room building[74]

OCTOBER 1973 Airport authority expresses deep concern at the slowdown of progress on the new terminal building and write to Roger Walker in order to determine a final completion date.

There has been some confusion in the layout of the equipment room, the builders, Steen Brothers, sent the plans back to Roger Walker for clarification. Furniture had still not arrived. The finish date was supposed to be September – the work not completed in the terminal building that is the extra required by NAC.[75]

NOVEMBER 1973 Building tenders were called for the removal of the old terminal building from the airport. Cost of removing the building estimated to be $1000

1974

JANUARY 1974 Modifications made to the sealed double glazed units to the control cab by Steen Bros Ltd - reglazing[76]

The terminal under construction. Source: Auckland University Shepard File

[73] Letter from the Director of Civil Aviation to Roger Walker, 17 September 1973. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[74] Letter from Roger Walker to MoT, 20 September 1973. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[75] Letter to Roger Walker from the County Engineer, 4 October 1973. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

[76] Letter from Steen Bros Ltd to the Director, Civil Aviation Department, 22 January 1974. Source: Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

Showing the terminal under construction before angled glass panels on the control tower have been fitted. Source: Auckland University Shepard File


Source: Auckland University Shepard File

Source: Auckland University Shepard File

MAY 1974

The new terminal building opened by Mr P B Allen, MP for Whakatāne, on Monday the 6th May 1974 at 8pm. In attendance were His Worship the Mayor, Mr R T Morpeth and the Deputy County Chairman Mr P L Baird as well as D A Patterson, General Manager of NAC. The opening took the form of an evening party and, following speeches, drinks and supper were served in the new building. The terminal building was already reported to have been labelled "the Disneyland of Whakatāne"[77]

Opening of the terminal Building Monday 6th May 1974. Source Archives NZ Reference No. AEPK W2774 20231 Box7

NOVEMBER 1974

Members of the Whakatāne Airport Authority at that time: Messrs R N Byrne, A B Hick, T C Smith, R T Morpeth J W Gow, (chairman) K.J. Macdonald, G L Conn[78]

Photograph of terminal taken shortly after opening. c. 1973 Source Archives NZ Reference No. AEPK W2774 20231 Box 7

[77] Archives NZ Reference number AEPK W2774 20231 Box 7, Airports and NAC Branches – Photographs, news clippings and other ephemera – Whakatāne.

[78] Letter from S. J. Willis, Deputy County Clerk to the Chief Controller, MOT, 18 November 1974. Source: NZ Archives Reference Number AAPR W3962 Box 124, Record Number 76/43/0, Whakatāne Airport General

AUGUST 1975 the new terminal building was published on the cover of Building Progress magazine

Whakatāne Airport on the cover of Building Today, 1975. Source: Auckland University Shepard File

1980 - PRESENT

1982 The Regional Director of Civil Aviation, Mr J Ward and Mr A Mycroft, MoT, visited the Whakatāne Airport on May 26 1982 to discuss the proposed Rescue Fire Garage with the airport manager, Bevan Schwass. During the visit they expressed doubts on the continuance of the proposal as a result of the possible withdrawal of Air New Zealand services from Whakatāne.[79]

[79] Letter from P E Moir for the Commissioner of Works to Miss V J Morris – Architectural Division Ministry of Works Head Office, 28 May. Source: Archives NZ Reference number AAFD W3738 811 BOX 1291, CAB 185/3/26, Civil Aviation- Airfields – Whakatāne Aerodrome 1958

Plans were prepared in August 1982 for the proposed construction of a new rescue/ fire appliance garage at Whakatāne Airport. [80]

Funding for the development of grassed areas, security lighting: commercial taxiway, in the terminal area of Whakatāne Airport was approved in July 1982, as well as the proposal for the addition of a unisex disabled persons toilet in terminal building.[81]

1983 In August 1983, the Director of Civil Aviation rejects proposal for a new rescue / fire appliance garage at the airport [82]

2008 Council commissioned Opus Consulting to provide a master plan for the Whakatāne Airport in 2008. The resulting document suggested that Whakatāne could become an international airport provided that, among other things, the runway could be extended by 300 metres and a new terminal and business park created on the seaward side of the runway.

2015 On 28th April 2015 the last scheduled Air New Zealand flight left from Whakatāne. The same day the first Air Chathams flight arrived.[83] Air Chathams are now the flight service provider at the airport. At first Air Chathams used their 50-seat Convair 580 aircraft, but now use the 19-seat Metroliner for the three flights to and from Auckland each day.

[80] Letter, 2 August 1983. Source: Archives NZ Reference number AAFD W3738 811 BOX 1291, CAB 185/3/26, Civil Aviation-Airfields – Whakatāne Aerodrome 1958

[81] Letter approving funding for proposed work to the terminal, 19 July 1982. Source: Archives NZ Reference number AAFD W3738 811 BOX 1291, CAB 185/3/26, Civil Aviation- Airfields – Whakatāne Aerodrome 1958

[82] Letter from the Commissioner of works, Mr P R K Anderson to P A Cavin, Director of Civil Aviation 2 August 1983. Source: Archives NZ Reference number AAQB W4073 Box 62, 23/381/15, Transport – Whakatāne Aerodrome 1980 - 1984

[83] p 6 Whakatāne Airport Joint Venture, Annual Report 2014/15

Roger Walkers childhood hut 'Fort Nyte'. Source: *Positively Architecture: New Zealand's Roger Walker*, Dunedin, 1985

2.5 ARCHITECTURAL STYLE - ROGER WALKER

Roger Walker was born in 1942, and grew up in the suburbs of Hamilton in the post war years. His experiments with building, and his design talent, started early, as demonstrated by the wooden fort he created at the age of ten (this appears in Gerald Melling's book 'Positively Architecture – New Zealand's Roger Walker' p.16, and in David Mitchell's 'the Elegant Shed', p.67). This 'hut' has elements that became Walker's architectural signature in the 1970s; the interior spaces clearly articulated as exterior form, the use of crisp openings, the round drum on the roof, the tapering tower/turret.

After finishing at Hamilton Boys High School, Walker went on to study architecture at the Auckland University School of Architecture. Following a wobbly start he went on to finish with an honours degree. His work at the school displays both his precocious talent and references his growing interest in stacked forms and integrated space, particularly the work of the Japanese Metabolists, (Kenzo Tange + Kisho Kurokawa).

On graduation, recognizing his talent, the Wellington firm Calder Fowler and Styles offered Walker a position as design architect and gave him the task of designing the new Wellington Club on the Terrace. It was highly unusual for a recent graduate to be given such a prominent building to design so soon after graduation.[84] Architect Peter Beaven, who knew Walker at that time, noted that he was influenced by the Sea Ranch Condominium and recent Californian architecture. Beaven would later describe the Wellington Club building as 'one of the greatest romantic structures ever built in New Zealand.' [85] The building, now demolished, became a signature piece for Wellington architecture.[86]

[84] Gerald Melling, *Positively Architecture: New Zealand's Roger Walker*, Dunedin, 1985, p.24
[85] Architecture New Zealand, March/April 2012, p.94.
[86] Its demolition in the 1980s caused a great deal of controversy. It was described by Sandy Beath, president of the Architectural Centre, as representing 'the third stage in the development of indigenous New Zealand Architecture', the first two stages being the 1940s and 50s architecture of people including Vernon Brown and Group Architects, while the second

The Wellington Club Building. Source: Cover of NZ Architect No. 5, 1985

Walker's design broke up the form of the building bringing courtyard spaces through into the site, keeping the mature Pohutukawa at the street frontage. The building was broken into many forms clustered to make a 'village-like' whole, and used extreme textural and sculptural elements that enhanced the experience of the place; turrets, projections, and incorporated overblown structure to allow for future development. The palette of materials was taken from the contemporary building materials of the time: white painted concrete block, ribbed roofing iron with Canterbury prickles and sharks tooth detail. Using readily available materials in an unusual manner also became a hallmark of Walker's architectural style. The success of this building, together with the smaller projects on the Wellington waterfront, (Customs Post, Taranaki St + an amenities building) also designed by Walker for Calder Fowler and Styles made his reputation.[87]

Walker carried out some private commissions during his time at Calder Fowler + Styles. The Mansell House, Wellington,1967, the Hyde House, Wellington, 1969, the Flint House, Auckland 1969. These houses display his interest in fragmenting the form of buildings, creating 'stacked' forms that express the interior planning of the building. This complex approach to form was ground shifting for architecture at that time. It fitted with the modernist philosophy of Mies van der Rohe 'form follows function' but turned it on its head. These buildings are not simple. His designs were often described as 'playful', and the epithet fits. 1970s Walker designed places are uplifting, the sense of the playhouse is pervasive but underlying this is an awareness that everything has been carefully considered, all the parts are designed to form the whole, every external form has an internal analogue. These buildings are complex geometrical compositions where each part is necessary to make the whole. The structure expresses the volumes and has no surplus parts.

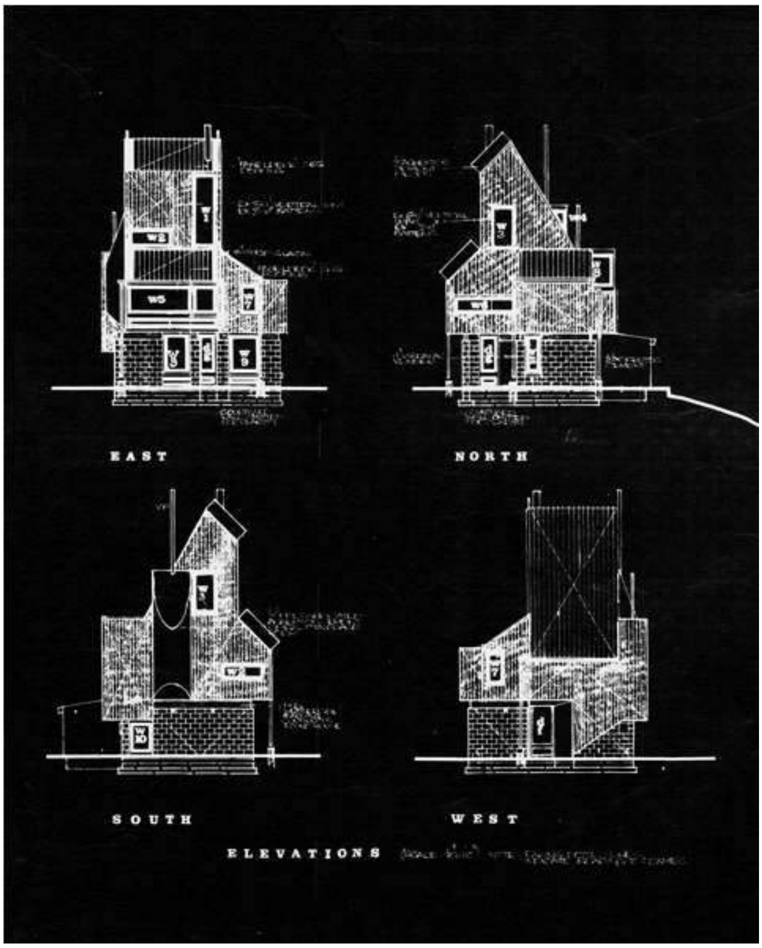
In 1970 Walker went to Japan for the Osaka 'Expo 70'. Kenzo Tange, founder of the Metabolists, produced the master plan for the Expo and commissioned work from most of the leading exponents of that style. Walker was particularly impressed by the theatrical quality of the Pepsi Pavilion with its cloud of mist.[88] This pavilion, the result of a collaboration between the architect, Tadashi Doi, and a group of artists calling themselves 'Experiments in Art and Technology' (E.A.T.), created interventions

stage was exemplified by John Scott's Futuna Chapel. Article dated 1996 held in Sheppard File W183rn, Architecture School Library, University of Auckland.

[87] Gerald Melling, *Positively Architecture: New Zealand's Roger Walker*, Dunedin, 1985, p29-30

[88] p.com Roger Walker

that synthesized the pavilion into a single unified whole, most remarkably expressed in the fog, designed by Fujiko Nakaya, that encapsulated the building in constantly changing mist.[89]



Elevations, Roger Walker's first built house, 1970. Source: Roger Walker

1970 was also the year Walker set up his own practice. He was 27. His first commissions were the Sotiri House and the Johnson House. Sotiri House is described by Melling (p.41) as 'a sort of minaturised in-situ Metabolism'. These houses and all the houses that followed in the 1970s are agglomerations of many forms, cleverly combined to create environments that responded to their particular sites and clients.

In 1972 Roger Walker was one five architects whose work was included in an exhibition at the Dowse Art Museum entitled 'The New Romantics' (the others were Ian Athfield, Peter Beaven, Claude Megson and John Scott). The exhibition was visited by 5000 people and included a drawing of the Whakatāne Airport Terminal building which was then under construction.[90] In a 2012 article Peter Beaven reflected on the group:

'For a small county, the architects featured in the exhibition were a pretty excellent assembly, developing as a group several clear, broad paths, which could have taken New Zealand architecture beyond modernism into rich new fields of our own. . . For five architects to break away so decisively, at that time, from modernism would have been unusual anywhere. But, it was so unusual for a little country like New Zealand.'[91]

Wellington was the place where architecture 'happened' from the late 1960s into the 1970s because of Walker and the other outstanding innovator of that period, Ian Athfield. The similarity of their work is well expressed in the book 'Vivid Building – drawings of the architecture of Ian Athfield and Roger Walker' by architect Lewis Martin (pub 1994; Dunmore Press Ltd, Palmerston North). Douglas Lloyd-Jenkins wrote that together Roger Walker and Ian Athfield changed the image that came to mind when New Zealanders heard the term 'architect-designed house'. Lloyd-Jenkins devotes a section of his book, 'At Home a Century of New Zealand Design' to Walker and Athfield titled 'the amazing freaks'.

The architecture of Walker and Athfield in this period had international reach through publications, including the leading British architectural publications, The Architects Journal and the Architectural

[89] Jimmy Smith, Smithsonian.com, September 26, 2013 http://www.smithsonianmag.com/arts-culture/when-pepsicola-allowed-a-team-of-artists-to-wreak-creative-havoc-109661/?no-ist

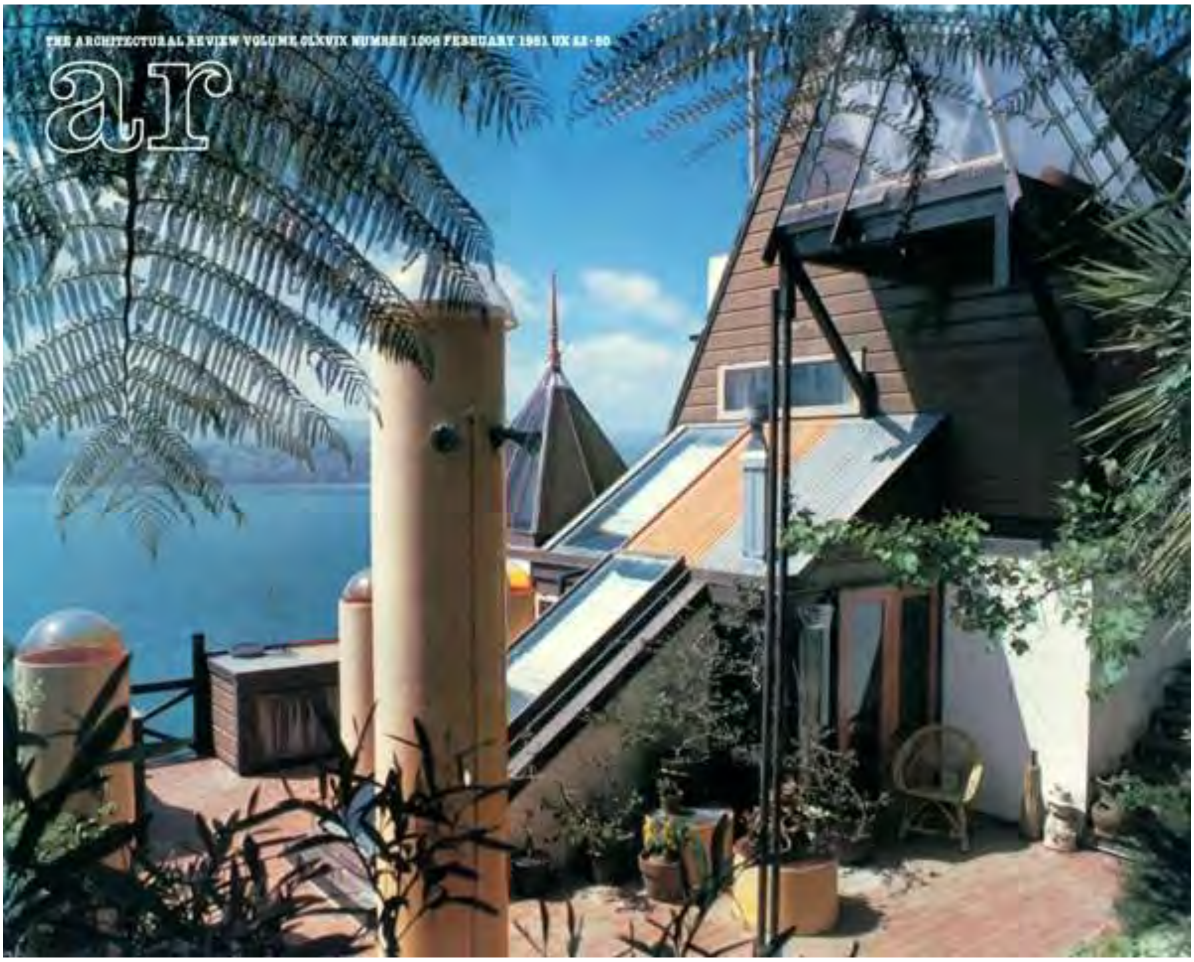
[90] *Designscape*, 41/5, October 1972, held in Sheppard File W183rn, Architecture School Library, University of Auckland.

[91] *Architecture New Zealand*, March/April 2012, p.94.

Review. Their approach to design anticipated both 'deconstruction' and the 'post-modern', their work had an influence on the architectural world not just on New Zealand architecture.

As David Mitchell wrote in his book 'The Elegant Shed: New Zealand Architecture Since 1945': 'The early houses of Walker and Athfield . . . were delineators of a new age'[92] While Walker and Athfield stood largely outside the architectural establishment, and railed against its conservatism, emerging architects were influenced by their work.

'To some observers, successive Walker Houses seemed nothing more than the constant rearrangement of these parts. Because they looked no further than the portholes and the cross-bracing over the windows, Walker's houses seemed unchanging. This worked well with the public, who for the first time in years had a clear series of elements that immediately meant 'architect designed house'. Walker's chamfered tops and concrete pipe windows replaced the forty-year-old images of the flat roof and creosote cladding as symbols of contemporary architecture. Clients began to ask for these motifs. The less adventurous, not prepared to commission Walker themselves, could ask for Walker components.'[93]



Britten House. [Cover of UK Architectural Review]. Iconic House. Source: Roger Walker

In this period Walker designed mainly houses[94], but also designed several significant larger buildings including; Centrepoint Shopping Centre in Masterton 1971, the Whakatāne Airport Terminal 1972,

[92] David Mitchell and Gillian Chaplin, *The Elegant Shed: New Zealand Architecture since 1945*, Auckland, 1984, p.74.
[93] p.215 Douglas Lloyd-Jenkins, 'At Home – A Century of New Zealand Design'
[94] The apogee of Walker's 1970s domestic work was the Britten House (1974) designed for television chef Des Britten and his family on a steeply sloping site overlooking Worser Bay. Highly fragmented with the full array of 'Walker' forms; turrets,

the Park Mews Apartments[95] Hataitai, 1973, Rainbow Springs Tourist Park Rotorua 1975, and the Willis Street Village, Wellington, 1979.

Park Mews Apartments 1970s. Photograph: Roger Walker

At the same time, Walker was involved in a new project to bring improved housing design to the mass market. He teamed up with a construction company to create Vintage Homes. Walker created a set of standard prefabricated designs that could be adapted to meet different needs. This offered a simpler and less expensive type of housing that bore little resemblance to the fantastically quirky dwellings Walker had been designing for individual clients. Aimed at both the local and international market, the design of Vintage Homes was loosely based on New Zealand colonial architecture.

Walker's work with Vintage Homes loosened the firm grip that the NZIA held over its members, a firm grip that had Walker struggled to break free from. The NZIA altered its code of conduct to allow members to form working relationships with construction firms, so long as this was in the interests of wider society and enhanced the stature of the architectural profession.

Walker's work in this period also referenced the type of vernacular buildings he admired; rural sheds, Victorian cottages with multiple adhoc additions. He has been described as a 'new romantic' along with Ian Athfield, Claude Megson, John Scott and Peter Beaven.[96]

'Colonial was the buzzword in the 1970s and it had a considerable effect on the shape of architecture, design and craft. In part it picked up on an international revival of the Victorian, but architects had been thinking about early cottage forms for a long time, utilizing carefully selected references discretely in modern vernacular houses since the end of the war.' [97]

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pipe windows, glazed pyramids, this building is complex and very busy in form. The house is described by Andrew Barrie asp.52 Melling. 'six major and four minor levels staggering up the hill from the internal access garages at street level', 'steep roof turrets and finials of colonial houses are used in conjunction with avant-garde cylindrical windows and skylights and cellular planning'[94], a collective form that Gerald Melling called a 'village-house'.[94] The Britten House was awarded a national NZIA award in 1977. The house is included in the 2012 Phaidon publication; '20th Century World Architecture'.

[95] In 'Long Live the Modern" (p.197) Andrew Barrie describes the Park Mews condominium of 1974 as; 'a romantic, miniaturized townscape" combining the 'pitched roofs and balustrade balconies of New Zealand's colonial architecture with Metabolism's round windows and cellular spaces'. This clustered form of housing had contemporary parallels in local townhouse developments such as; Habitat Housing (1971-72), 9 Pitarua St Thorndon, by Beaven Hunt and Associates, and Tonbridge Mews 24 Shrewsbury St Merrivale Christchurch, (1973-4) also by Peter Beaven.

[96] p.197 Long Live the Modern, Andrew Barrie,

[97] p.220 Douglas Lloyd-Jenkins, 'At Home – A Century of New Zealand Design'

Harris House. NZIA Branch Award 1981. NZIA Enduring Architecture Award 2013. Several of his houses were given NZIA awards. Source: Roger Walker

In late 1978 Walker won a Designmark Award from the New Zealand Industrial Design Council, the first awarded for housing design, for his Vintage Homes.

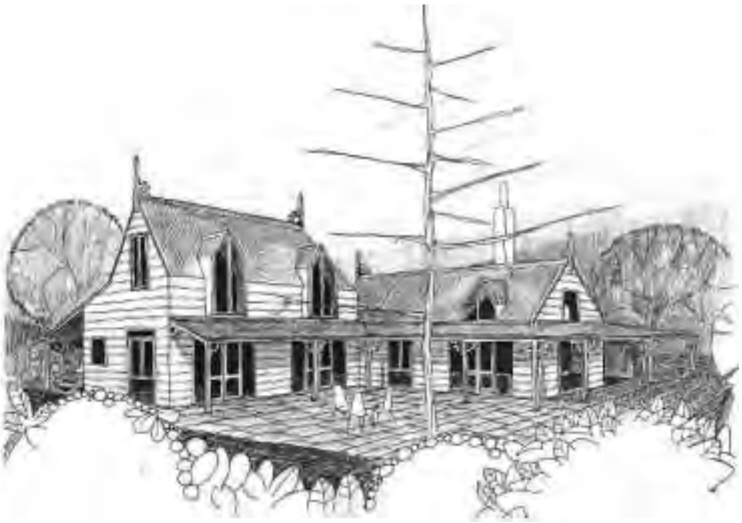
The work of Roger Walker has also been recognised internationally. In November 1978 a photograph of Walker's Nation House appeared on the front cover of British publication Architects Journal with an 8-page article inside on Walker entitled 'The Architecture of Ebullience'. Featuring in this highly regarded international architecture magazine was a significant achievement for any New Zealand architect.

Three years later Walker and Ian Athfield featured in an article published in the prestigious British architecture magazine The Architecture Review. Editor Peter Davey stated that:

'We think this is some of the most interesting and lively architecture in the world at the moment' and; 'Roger Walker and Ian Athfield have put New Zealand architecture on the map.'[98]

In 1980 Walker's work, along with that of Claude Megson, was the subject of an article in the Los Angeles Times.

The following year Walker exhibited one of his Vintage Homes alongside a Lockwood home at the Homeworld '81 an international exhibition in Milton Keynes, England. Walker's house was described by the British Minister for Housing John Stanley as 'the most exciting house in the exhibition'. But this was a Vintage Home and while it was quirky compared with the others in the exhibition, it was a long way from the Walker's exuberant and highly individual designs of the early 1970s.



Sketch of a 'Vintage Home'. Source Roger Walker

The 'devil may care' approach to design that made Roger Walker's work outstanding in the 1970s, toned down during the following decades.

Walker's work in the 1980s differed considerably from his highly recognizable designs from the late 1960s and early 1970s. He continued to win design awards.

[98] [98] *Evening Post* article dated 10 February 1981, held in Sheppard File W183rn, Architecture School Library, University of Auckland.

In 1982 he won an NZIA branch award for his restaurant and tearooms at Rainbow Springs and the same year he won a Tourism design award for the Waitomo Caves visitor reception center. In 1984 Walker won a design award for his Gashouse building, erected for a plumbing and gas fitting company in Gisborne.

The Tourist Hotel Corporation building in Queenstown that Walker designed with Interact Architectural Design Services won a national NZIA award in 1988.

In 1996 Walker was included in an article that Matthew Bradbury wrote for Home and Building magazine on ten of the most influential architects of the last 60 years.

Walker was made a member of the Order of New Zealand in the 1998 Queens Birthday Honours for his services to architecture

Free Ambulance Building. Wellington Waterfront. Source: Roger Walker (left) Roger Walker. Source http://newhomedsgn.blogspot.co.nz/search/label/Sharon%20Jansen

Flint House. Source: Roger Walker (left) Ainsworth House: Korokoro. NZIA Enduring Architecture Award 2009. Source: Roger Walker

Hingston house. Source: Roger Walker

Facilities Buildings at THC Wairakei Hotel. Laundry, spa and toilets (left) THC Chateau Tongariro. Staff Housing summer scene. Source: Roger Walker

Gas House Gisborne. Gas appliance retail and service store. Corrugated roofs used as bracing. Source: Roger Walker

2.6 WHAKATĀNE AIRPORT TERMINAL - SUMMARY OF HISTORY OF DEVELOPMENT

Photograph of the North side of the terminal c. 1975. Source: Roger Walker

The Whakatāne Borough Council and the Whakatāne County Council had formed a combined Aerodrome Committee to manage the airfield established in the late 1950s. The committee began lobbying central government for new terminal facilities in 1970. Local council had to lobby various government departments for over twenty years to gain government support for the aerodrome; these local representatives understood the difficulty of gaining government support and funding.

The terminal project was driven by the County Council engineer A.W. Tassell. (Captain A.W. Tassell 21st mechanical equipment company?) with the support of the aerodrome committee.[99] Tassell reported to Council on the progress of the project and was the primary correspondent with the Civil Aviation Department. The committee wanted a new terminal that created a gateway to the area, a place with a presence. The committee wished to have as much control over this process as possible, despite the need to work with the government as a 50% partner in the process.

The committee wished to engage their own architect rather than accept a Ministry of Works design. L. D. Lewis, Director of Civil Aviation, wrote to Tassell on 28 September 1970 advising that it would be necessary to obtain the Government Architect's formal approval before appointing a nominated architect, and refers to previous correspondence regarding this matter. The suggested size for the proposed building was given as 2000 – 2500 sq. ft with a cost of 25 – 30 thousand dollars.

Things moved slowly, Lewis wrote to the Commissioner of Works on 5 April 1971 asking for the Sectional architect's opinion on the desire expressed by the Whakatāne Airport Authority to engage a private architect to undertake the design of the new terminal building. By coincidence on that same day Tassell wrote to him with a list of three prospective architectural firms, Murray North and Associates of Hamilton, Acheson and Stewart of Tauranga and Hocking and Verrall of Rotorua.

Roger Walker approached the Whakatāne Council around this time. A university colleague, Greg Smith, who was working as a journalist for the Bay of Plenty Beacon, put his name forward to the County engineer[100].

[99] P.com Greg Smith, 7 July 2016
[100] p.com Greg Smith, 7 July 2016

On April 23 Tassell wrote to Lewis asking for Mr R. N. Walker, Registered Architect of 11 Prince St Wellington to also be considered. Mr Tassell wrote:[101]

> *Mr Walker has expressed a keen interest in the project and has submitted photographs and slides of his recent work. These show originality in design which appeals to me and I think this man could produce a modern attractive building which would appeal to the travelling public. While we have no preference for any one architect the Committee is desirous of building a modern terminal which has character befitting the 'sunshine town' of the North Island.*

On May 3 Tassell wrote again to Lewis expressing the concern of the aerodrome committee that no progress had been made to engage an architect for the project and asked for approval to use one of the architects put forward. Lewis wrote to Tassell on the 4th stating that the Ministry of Works had no objections to Council commissioning a private architect for the project from those nominated. Tassell replied on the 10th and informed Mr Lewis that 'the Committee has commissioned Mr R. N. Walker, B.Arch (hons) Registered Architect of 11 Prince Street Mt Victoria, Wellington to undertake the work.' Roger Walker was given a copy of the ground floor plan of the Tauranga terminal building as a reference and was asked to produce sketch plans of his proposal for approval by the committee. These plans were to be forwarded to the department for comment.

Walker visited Whakatāne in the last week of May, and delivered his preliminary design to the committee on the 13th of July.[102] The design was published by the Bay of Plenty Beacon on the 15th of July. The accompanying article stated that the cost was estimated to be $85,000.

N.A.C. also published the design in their magazine on 15th July 1971. These images show the control tower incorporated into the building. The Beacon reported on 28th July that the architect and the county engineer had been investigating this possibility and that the idea was supported by the county council chairman.

Tassell wrote to the Department on the 23rd of July to inform the director that;

> *'Whilst the design does not comply with the conventional type of terminal building the committee was very impressed with its originality and now wishes to proceed with its construction as soon as possible.'*

Tassell put forward a number of reasons why the cost, estimated at that time by Mr Walker at $45,000, (excluding fees), is justified. In this letter he also informs Mr Lewis that the committee have asked Mr Walker to deal directly with the department.

The airport partnership between the local councils and central government came at a cost. In Mr Tassell's report to Council, as recorded in the Beacon on 25 August 1971; 'the development of a new terminal at the Whakatāne Airport is proceeding steadily. Unfortunately, in terms of the Civil Aviation Department that is very slow indeed'. The word 'inefficient' was also applied to the departmental process. This criticism stung the department. A response came from the department asking for clarification of professional fees and stating that the plans had been forwarded to the Government Architect's office for approval.

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[101] Letter from County Engineer; A W Tassell to L. D. Lewis NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

[102] Letter from A.W. Tassell, County Engineer, to Mr L.D. Lewis, Director of Civil Aviation Department. NZ Archives Reference Number TRW28373 86, Record Number 76/43/32, Airports – Whakatāne Airports – Terminal Area Buildings

The Commissioner of Works sent a damning critique of the design to Mr Lewis, describing the building as 'over-styled' and recommending a shed-like structure that would allow 'maximum flexibility'.

Ministerial approval to proceed with the project was given on 20th October 1971.

Roger Walker wrote to Mr Lewis on 30 October 1971 responding to this critique of his design. Walker noted that the Whakatāne Airport Committee did not want a 'conventional' terminal, and put forward his opinion that 'there is not necessarily a conflict between 'character' in a building and flexibility.'[103]

The Aerodrome Committee met to consider the comments made by the MOT. Tassell wrote to Mr Lewis on 3rd November 1971 stating that; 'members (are) unanimous that they are not prepared to adopt the conventional type of building favoured by the MOW. As pointed out in previous correspondence the committee wishes to erect a terminal which will be original as well as functional and in our proposal we think we have achieved this'. Roger Walker had provided the committee with a floor plan indicating ways in which the facilities could be extended. He had also written to the committee stating that; 'it is my earnest desire to assist you in providing the best possible building for the region and any concept differing from the standard 'factory shed' type of building was, I fear, liable to conflict with long standing planning prejudices held by the MOT.' Tassell concluded by stating that the committee was firmly committed to proceeding with the building as designed.

Lewis wrote to the general manager of N.A.C on 19th January 1972 to inform him that the design for the new terminal building at Whakatāne had been reluctantly approved and that working drawings were being prepared, should N.A.C have any comment with regard to their operational needs.

Tassell had already begun physical preparations for the terminal project. By the end of February, the associated development works, the car parking and hardstand were well underway. The incorporation of the control tower must have been raised as an issue for the department as Tassell refers to this in his correspondence at that time.

Walker sent the department his quantity surveyor's estimate of costs ($60,400) on 15th June, and shortly after Tassell forwarded the tenders received by council through to the Ministry of Transport. The lowest tender was from Steen Bros of Whakatāne for $55,962.

During the preparation of construction drawings, Walker continued to liaise with the Ministry of Transport. [104] Changes were requested to ensure that the functional requirements of the Ministry of Transport were met. The internal stair within the tower was redesigned to fix to the outside face of the tower in response to these discussions. N.A.C. through the MOT also asked for an 'Equipment Room' to fit equipment associated with the control cab. This is the freestanding building at the south-west corner of the terminal. Technical requirements also necessitated the addition of a cable duct from the equipment room to the control cab. This was done in classic Walker style as a highlighted round pipe, through the building. Walker had specified the control cab windows as double glazed, the ministry asked for these to be changed to a type of glass called 'insulite'. The ministry also requested smaller diameter pipes at the corners of the control cab.

In the pre-build period Walker also had to find solutions to other matters brought up by the Ministry. Flying a flag had become an operational requirement for terminal buildings, necessitating a flagpole and safe access to it.

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[103] Letter from Roger Walker to Mr L.D. Lewis, Director Civil Aviation Department, 30 October 1971, Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975
[104] ibid; 4 August 1972

N.A.C. requested a number of amendments to the project to meet their requirements. They asked for an extension of the canopy over the baggage handling area, they had already requested the addition of the equipment room, and they also suggested making allowance for shifting and lifting operational equipment to and from the cab, by installing an 'eye' for a block and tackle in the roof structure of the cab, and by fitting removable panels in the floors of the mezzanine and the cab.[105]

The Ministry maintained an involvement through the construction period. The director wrote to Mr Walker on 17th September 1973 rejecting the control cab windows. The vertical windows resulted in a room full of reflections, Walker recalled; 'you could stand inside the control tower looking at the runway and see the cows in the paddock behind you'. The window mounting was redesigned and the problem resolved.

Tassell wrote to Walker in October 1973 expressing concern at the rate of progress on the job and requesting a final completion date, as the completion date was to have been September of that year.

Bay of Plenty M.P. Mr P.B. Allen officially opened the building at an evening ceremony on 6th May 1974.

The building was given a Tourism Design Award by the Ministry of tourism in 1975, and was given an enduring architecture award by the Waikato/Bay of Plenty branch of the NZIA in 2003.

Enduring Architecture Award 10/10/2003 Citation: *This unexpected building sitting on its own, out in the fields, still delights and intrigues today. Exuberant, fun, architecture that is exciting to look at and to move through. A commonly recognized language of finials, steeply pitched roofs, porthole windows and exposed structure is put together in an uncommon manner. A real rarity, well worth a flight to Whakatāne simply to take a trip up those stairs and be reminded that good architecture endures.*

The Whakatāne Airport Terminal was included as an outstanding work of architecture in the book; Long Live the Modern- New Zealand's Architecture 1904 -1984'

[105] Letter from Roger Walker 18 January 1973. Archives NZ Reference number TRW2873 86, 76/43/32, Airports – Whakatāne Airports – Terminal Area buildings 1961-1975

Photograph of terminal taken shortly after opening. c. 1974 Source Archives NZ Reference No. AEPK W2774 20231 Box 7

Photograph of terminal under construction Source Archives NZ Reference No. AEPK W2774 20231 Box7

2.7 AIRPORT ARCHITECTURE: COMPARABLE REGIONAL AIRPORT TERMINALS

INTRODUCTION

A general improvement throughout the 1950s and 1960s, of New Zealand's infrastructure along with the National Airways Corporations' (NZNAC) acquisition of Fokker F27 Friendships planes, meant that many airports buildings across the country were reviewed and upgraded. A number of new terminal buildings were constructed at regional airports around the country in order to accommodate the increased number of air travel passengers using local airline services.

A utilitarian, shed like building typology was most common when it came to small scale regional airport architecture during this period. Modest, single storey, gabled roof buildings with domestic scale joinery, such as the 1960s Queenstown airport, the Westport Airport terminal (pictured below) and the original Whakatane terminal building are all examples of this style.

Photograph of Queenstown Airport c. 1960. Source: http://3rdlevelnz.blogspot.co.nz/2014/02/mount-cook-airlines-part-1-1960s-birth.html

Photograph of Westport Airport c. 1960. Source: http://3rdlevelnz.blogspot.co.nz/2014/02/mount-cook-airlines-part-1-1960s-birth.html

Photograph of the original Whakatane terminal building c. 1960s. Source Archives NZ Reference No. AEPK W2774 20231 Box7

However, some regional terminals designed during this period broke free from the utilitarian approach to airport design and were much more architectural. The Whanganui Airport (1959) was designed in the International Modern style. Modernism became a popular architectural style for the design of government and public buildings in New Zealand throughout the 1950s and 60s.

The Whanganui airport was the first of New Zealand's new secondary airports to be completed. Architect Gordon Smith was commissioned by the Whanganui City Council to design a new airport terminal and control tower on sand hills to the south west of Whanganui, where a landing strip had been in use since 1931. The facility was opened in December 1961 by the Minister in charge of Civil Aviation.

The terminal building is single storeyed with a simple flat roofed rectangular form, solid end walls and recessed glazed walls on the entry and landing strip sides. The control tower, a standalone structure, is a visual landmark, distinguished by the outward sloping exterior walls and crowned by a fully glazed control cab. The control tower design was the prototype for subsequent towers in Palmerston North, Invercargill, Tauranga and New Plymouth.

The terminal has had minor alterations over time and is still in use, but the control tower ceased operation in 1989.[106]

Control tower at Wanganui Airport. Photograph taken by Duncan Winder between circa 1962 and 1970. Image: Alexander Turnbull Library, Reference Number: DW-0487-F

The New Plymouth Airport, also modernist in style, was designed by local architecture firm Bowering, Thomson and Associates and was opened in 1967. The facility was large for a regional airport at that time, consisting of a two story 929 sq.m terminal building, rectilinear in form and a 1310 m. long sealed runway.

[106] Gatley, Julia. Long live the Modern. Pg. 115

The elevation facing the landing strip is entirely glazed. The 'butterfly' roof form was designed to be 'angled like a plane during lift off'.'[107] The building also featured observation areas for waiting passengers. The original terminal was renovated during the 1990s and the observation deck upstairs removed. The outside observation area was removed in 2005, due to rising security concerns at airport terminals worldwide.[108] The control tower, almost identical to that at Wanganui, is a standalone structure.

Inspection of the building of New Plymouth Airport, 1966. Source: Taranaki Daily News, DN29.07.1966

The 1970s Whakatane terminal building is a distinctive and radical departure from the more usual and recognisable airport terminal typology that emerged throughout the 1950s, 1960s and 1970s in New Zealand. The building did not adopt the prototype control tower design that was constructed first, at Whanganui, then repeated at various other airports around the country. Whakatane airport was the first to incorporate the control tower and cab into the design of the main passenger terminal building instead of taking the standard approach, which was to design the control tower as a standalone structure.

The terminal building at Whakatane is a collection of complex forms stitched together with adventurous construction detailing. The architect, Roger Walker introduced architectural forms and features that, up until that point, had not been seen in airport architecture in New Zealand; notably cellular spaces, cylindrical circulation cores, porthole windows, turrets with conical Perspex capping, spiral stairs, bold colours and super graphics.

Instead of the terminal building being designed as a singular bulk as was most common, Whakatane has been configured as an assembly of small scale volumes each capped by its own roof form[109]. Stylistically, Walker combined the pitched rooves and balustraded balconies of New Zealand's colonial architecture with round windows and cellular spaces influenced by Japanese metabolism. Walkers terminal design was intended to be a spectacular piece of architecture that would help put the provincial town of Whakatane on the map.[110] His design broke free from the clean line, flat rooved rectilinear forms typical of the modernist movement, which had become common place, and embraced a more playful and alternative approach to airport architecture.

[107] http://pukeariki.com/Heritage-Collections/Spotlight-on-the-Heritage-Collection/id/1105/title/pretty-or-plane-new-plymouth-airport
[108] https://en.wikipedia.org/wiki/New_Plymouth_Airport
[109] Gatley, Julia. Long live the Modern. Pg. 181
[110] Gatley, Julia. Long live the Modern. Pg. 181

3.0 Physical Description

In the following description of the Whakatāne Airport Terminal building we have used the room names given on the 1971 Roger Walker Architects plans.

The side of the building facing the apron/runway is to the north.

Aerial Photograph of the site: Whakatāne Council GIS

3.1 SITE AND CONTEXT

Whakatāne is set on the Bay of Plenty coast, at the base of Kohi Point on the southern side of the outlet of the Whakatāne River, and faces out across the Rangitaiki plain to the hills of Matata to the north west. The plain, formed by the Tarawera, Rangitaiki and Whakatāne rivers runs inland to the hills of the Taraweras, with the volcanic cone of Putauaki (Mt Edgecumbe) standing out against the skyline.

The coastal plain is an intimate landscape contained by the hills and the sea.

The Whakatāne aerodrome is located on the coast, west of Whakatāne. It is within the coastal dune landscape, at the edge of the flat farm land between the Whakatāne River and the Rangitaiki River. The runway is laid out parallel to the coastline. To the east is the local golf course, to the west the outlet of the Rangitaiki River.

Just off the coast sits the moulded form of Moutohora Island (Whale Island), and well beyond on the horizon line to the north is the active volcanic island Whakaari (White Island).

The road to the airport, Aerodrome Road, runs parallel to the runway from the east through an avenue of trees and at the approach to the terminal area swings into the car parking area south of the building.

The road to the airport, Aerodrome Road, runs parallel to the runway from the east, past the golf course, through an avenue of trees and sweeps to the south-west at the approach to the terminal area before turning into the car parking area south of the building.

At the elbow of the bend in the road in to the terminal area a new building has recently been constructed for Frontier Helicopters (this building is not present in the 2010 Google street view). This is a relatively large building and very plain barnlike structure. Its presence distracts from the experience of arriving at the terminal area.

The Terminal building, together with all the other buildings associated with the aerodrome, is sited on the southern side of the runway. The terminal building sits alone at the centre of the apron area. It has a considerable presence in this setting, despite its relatively small scale, and is a focal element that enhances the airport.

There are several other industrial type buildings to the west of the terminal building. The largest of these buildings is occupied by Aero hire Flight Training This building has been substantially expanded since 2010. All of these building are pragmatic sheds, and all detract from the overall environment.

The other businesses with a presence on the airfield are: White Island Flights, a company that runs scenic flights to Whakaari, and elsewhere around the Bay of Plenty; East Bay Aviation a charter flight company and Sunair Aviation Ltd, a Mt Maunganui based air charter company.

The building has small areas of garden spaces within the alcoves at the sides of the doorway to the apron, to the eastern side of the toilet, and between the refreshment wing and the equipment rooms. There is a lawn area with small trees to the east.

The terminal building. Source: http://Whakatānebeacon.co.nz/2014/11/air-nz-withdrawal-threatens-jobs/

Exterior Description

Photograph: Graeme Burgess 2016

3.2 GENERAL FORM AND MATERIALS

The Whakatāne Airport building uses similar materials and forms to Roger Walker's houses from that period. The same visual vocabulary is pressed into service for both commercial and domestic buildings.[111]
Each of his houses from that time is a response to the individual client and to the particular setting. This is certainly the case with the terminal; here, the 'Walker' set of forms and materials are used to create a public building with a very particular function, an airport terminal.

The scale of the building is in keeping with the current requirements of Whakatāne Airport.

The building is made up of a massing of various forms, a collection of steeply pitched gables, some plainly expressed, jutting out of the flat roof planes of the lower areas, some gathered around the central vertical mass of the building, the control tower with its circular block tower stairway. Round pipe windows and skylights penetrate the walls and roofs and the roofs themselves incorporate large-scale windows and areas of mass glazing. The various parts express the function of the building through their forms and orientation.

The primary material palette of the building is limited to white painted concrete blockwork, painted horizontal rusticated weatherboards, expressed rough sawn timber cross braces, large format timber framed joinery, with flat membrane roofs, and steeply pitched corrugated iron roofs. Added to this are aluminium framed roof windows and skylights, asbestos cement and concrete pipe windows and skylights with perspex pyramids over the vertical skylight pipes, with minor highlights given by recessed bottle glass windows directly set into the blockwork. All parts of the building, as originally built, are part of a carefully considered composition.

The blockwork, an ordinary material, is used in an extraordinary way. All the gable walls and 'primary' structural walls are blockwork. The circular tower is blockwork. These parts of the building formed of block give the building its solidity, yet are also the parts of the building that rise up. The low areas, at the ends of the wings of the building, are light timber framed.

The complex arrangement of forms, a Walker signature, give emphasis to the well-considered delineation of spaces and functions within the building. The effect of the shifting volumes and the sense of the spaces formed by the geometries of the roof forms and the mezzanine is best expressed by the cross-sections of the building.

The spaces are clearly delineated by the forms of the building. The public area is divided into the transitional space, the linear walkway between the entry and the departure doors, defined visually by

[111] Best, Alistair: The Architecture of Ebullience, The Architects Journal, 8 November 1978

the lowered roof and by the quarry tiled floor, and the more complex waiting areas at the centre of the building. The waiting areas are clustered around the circular block tower that rises at the northwest corner of the mezzanine and control cab above. The plan is an eccentric cross. The ends of the wings off this space are compressed, then rise dramatically up past the open mezzanine to the base of the control cab. These spaces are filled with light and drama. The spaces to the west are service areas, and are more pragmatic, with functional space behind the walls. In the public section of this space, a gabled roof form, running north south, rises to give emphasis to the reception area.

The overall arrangement of forms creates a clustered effect where each form gives emphasis to the particular spatial qualities of each space, and enhances its function.

The exposed rough sawn timber structure within the building is a signature feature of Roger Walker's work from this period. The form, pattern and arrangement of the timbers and the type of connections used are an outstanding example of timber structural design for that period. The interior has soaring spaces, defined by white block walls, and the layered patterns of the 'heroic' timber structure across the ceilings, forming the roofs.

3.3 THE TERMINAL BUILDING – GENERAL DESCRIPTION

Apart from the round blockwork tower the building is orthogonal in its plan geometry.

The overall form is clustered around the rising form of the tower and the control cab. The round concrete block tower is at the southwest corner of the cab. The cab is square in plan and flat roofed. External asbestos pipe columns appear to support the cab structure at each exposed corner. Beneath the corners of the cab on three sides are "L" form (in plan) raked concrete block walls the outside of the steeply pitched roof elements over the public waiting area side wings. The roof forms pitch down to the almost flat roof areas over the end sections of the wings; to the north, to the east and to the south, and into the broader flat roofed area over the reception space that forms part of the movement axis of the building.

Although the plan is asymmetric, this core area of the building, which contains the public areas on the lower levels, creates a strong set of repeating geometries that binds the overall form and becomes its focus.

The arrangement of rising forms with spreading edge forms is repeated on the western side of the building. Here the gabled block-work form of the building rises above the projecting flat roofed bay form of the manager's office, and pitches out as a low pitch roof over the baggage room. These forms parallel the forms of the 'wings' of the public waiting spaces.

The entry is defined by another steeply pitched gabled roof that sits over the entry lobby area. A sea of yellow pipes capped in Perspex pyramids poke out of the flat roof of the toilet area to the west and this low pitched roof continues out over the utility room and covered baggage claim area.

There is a line of vertical columns across the southern outside face of the building from the entry back to the corner of the baggage claim area. The last column to the west rises a little above the roof level, the other columns are two-storied in height. There is a second line of columns on the other side of the vehicle entry. The pipe columns once supported a hovering flat roof with an angled conservatory framed glass shelter over the entry. The canopy was rebuilt to a new design in 1982.

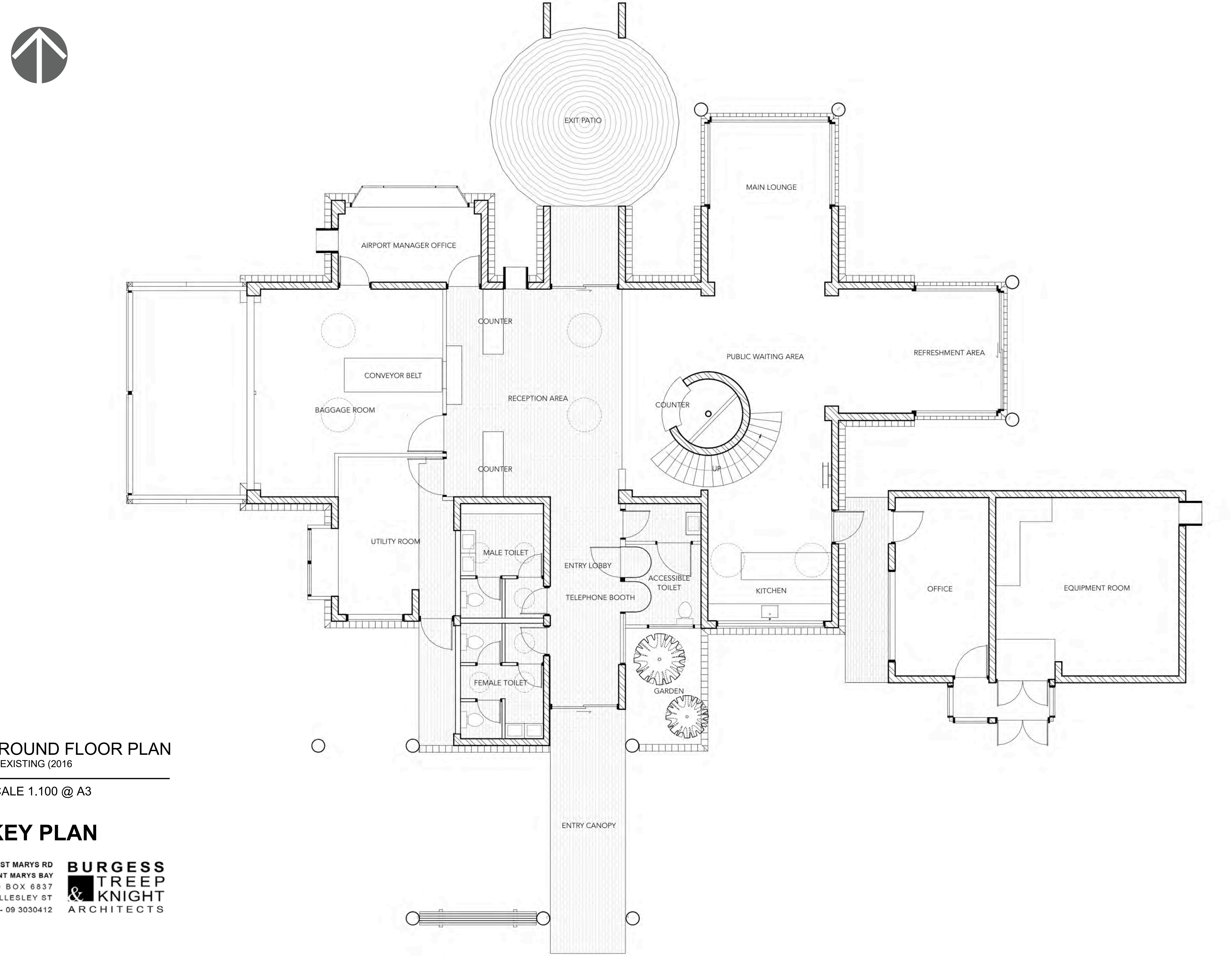
The east side of the entry lobby has been extended to create a disabled toilet. This has a similar simple gable form, and fills the space between the entry gable and the low pitched roof of the kitchen wing at the south side of the public waiting area.


North elevation. Photograph: Graeme Burgess 2016


South elevation. Photograph: Graeme Burgess 2016


West elevation. Photograph: Graeme Burgess 2016


East elevation. Photograph: Graeme Burgess 2016



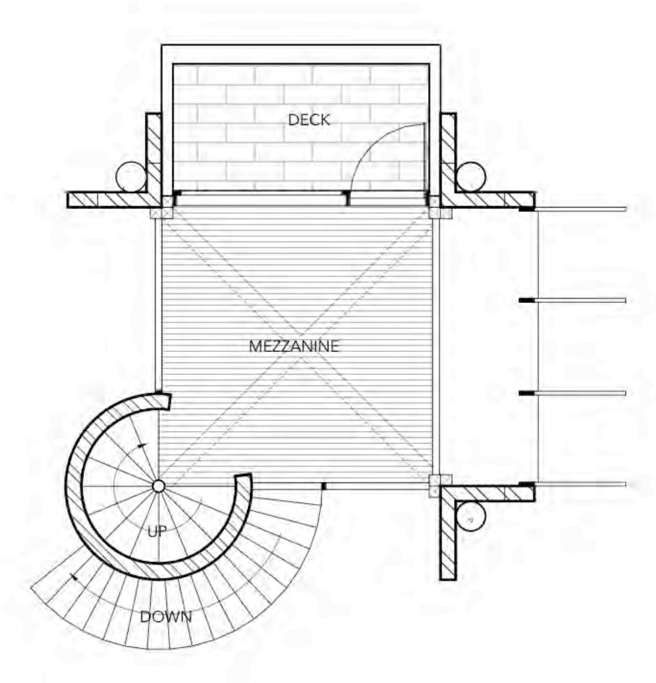
GROUND FLOOR PLAN
AS EXISTING (2016

SCALE 1.100 @ A3

KEY PLAN

32a ST MARYS RD
SAINT MARYS BAY
P.O BOX 6837
WELLESLEY ST
PH - 09 3030412

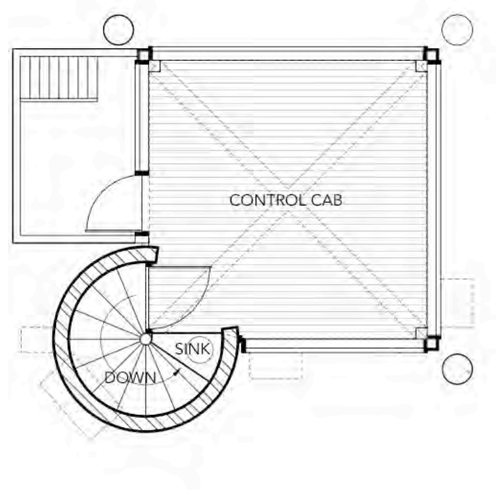
BURGESS TREEP & KNIGHT ARCHITECTS



MEZZANINE FLOOR PLAN

AS EXISTING (2016)

SCALE 1.100 @ A3



FIRST FLOOR PLAN

AS EXISTING (2016)

SCALE 1.100 @ A3

KEY PLAN

32a ST MARYS RD
SAINT MARYS BAY
P.O BOX 6837
WELLESLEY ST
PH - 09 3030412

BURGESS TREEP & KNIGHT ARCHITECTS

3.4 CONTROL TOWER – EXTERIOR DESCRIPTION

Roof is membrane/ low pitch. Spouting type is square profile folded metal. Decorative 'Structure': Painted asbestos cement tubes at the expressed corners fitted to the 'elbow' of the concrete block walls below and bracket fixed to the frieze element of the control tower. Capped with folded metal ''Chinese hat'' flashings.

Walls: Flat panel flashings to all surfaces above window cill level. Corners, Boxed timber facings. Horizontal rusticated weatherboards. Flat pan flashings to round pipes. Flat panel external box on eastern surface northern end, function unknown. Round pipes contain circular timber windows that pivot to open.

The deck was not part of the original design. This element was added during the course of construction to provide an alternative means of fire egress. The deck incorporates a ladder stair that follows the pitch of the roof below. The stair, corner posts and roof beam create a triangulated structure that supports the external edge of the deck. At the side of the control tower the deck structure is supported by a stringer plate fixed to the wall.


East elevation, control tower details. Photograph: Graeme Burgess 2016

Control tower, north west corner. Photograph: Graeme Burgess 2016

3.5 ENTRY CANOPY

The entrance to the building is defined by a tall portico across the roadway. This feature was designed by Walker as a flat roof supported by cross beams landing on 250 x 100 beams fixed to five brightly painted 300 diameter asbestos cement pipes. It was a very tall structure.

The entry area is delineated by the quarry tile pathway that runs north/south across the roadway and through the entry doors into the building and through to the departure courtyard. The pathway runs between the two eastern columns on the southern side of the structure. A deceptively simple seat of 100 x 50 boards set on a concrete base runs between the columns to the west on this line. When first built there was a rough sawn timber cross brace above the seat. A fine, angled glazed roof was fitted between the edge of the canopy roof and the flat roof of the entry/toilet area to shelter the entry from rain.

The original roof structure, the timber bracing, and the glazed roof have been removed. A folded steel canopy, with steel cross brace, constructed in 1998, has replaced the original timber structure. The glazed roof was not replaced.

Showing the original entry canopy with flat roof. Source: Roger Walker (left) current entry canopy. Source: Graeme Burgess 2016

Showing the entry canopy as viewed from the west side looking east Source: Graeme Burgess 2016

3.6 THE EQUIPMENT ROOM – EXTERIOR DECRIPTION

The Equipment Room and Equipment Room Office is an independent structure at the south eastern corner of the building, set between the kitchen wing and the refreshment area wing. This building is made up of similar forms, a flat roofed area over the office and part of the Equipment Room, and a steeply pitched gable running north south at the eastern side. The glazed entry lobby projects out to the south as an extension of the flat roofed area.

There is a tiny flat roofed covered walkway between this building and the kitchen wing.

FEATURES - The buildings are accessorised by the addition of pipe windows, recessed glass panels, joinery units, skylights, exposed timber structure, deck elements, pipe columns and skylights, and, in early images of the building, the consistent rounded rectangular panel doors.

These elements are highlighted in the descriptions of each elevation that follow.

North elevation of the equipment room (left) south elevation. Photograph: Graeme Burgess 2016

South elevation. Photograph: Graeme Burgess 2016

3.7 ENTRY + DEPARTURE

The main movement area of the building, between the entry canopy and the exit patio, the carpark and the apron, is a sophisticated axial space. The floor through this area is finished in quarry-tiles. The walls within the entry lobby are white painted concrete blockwork, ceiling structure is expressed with rough sawn beams and rafters exposed.

Within the entry lobby (carpark end) the ceiling follows the gabled form of the roof over. Light enters the building from the triangular panes at each gable end. The southern wall of the lobby was designed with two purpose built telephone recesses. These are formed by two layers of curved asbestos cement sheeting. One recess remains exposed, the other is now a cupboard with a vertical Rimu door. The original large format window remains in place next to the block panel by the door.

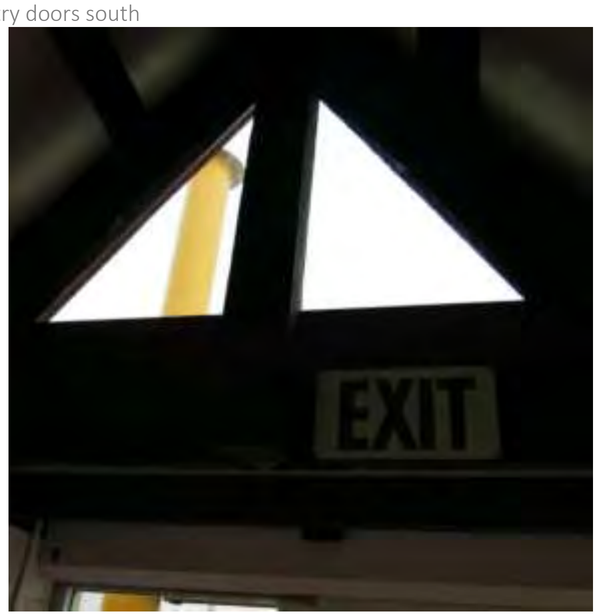
At the eastern end of the entry lobby the plan opens into the reception space, the ceiling (and roof) space over the movement area is compressed right through to the exit way. Two pipe skylights, in line with the reception area bring natural light into this section of the building and emphasise the linear movement. On either side of the movement area the ceiling rises dramatically following the pitch of the gable roof forms above the reception to the north and up to the tower to the south.

Original covered Baggage Handling area enclosed within Baggage Room (1991)

Historic photograph of the reception area, looking north towards runway showing original glass pendant shades. Source: Roger Walker

View south towards entry doors from reception area, T G & V doors to toilets, west wall

Safe in recessed telephone booth (left) Aluminium sliding entry doors south



Non original signage

3.8 EXIT PATIO

The movement axis is further emphasized by the entry courtyard adjoining the apron. Here the outer 'gateway' is formalized by concrete block fin walls either side of the departure point, and by block fins at the doors out of the building. The courtyard space between the 'gateway' and the building is given greater emphasis by a tiled circle. This simple yet sophisticated composition makes this area a proper space.

The original timber doors, with rounded rectangular glass panels, at each end have been replaced by automatic aluminium sliding doors.

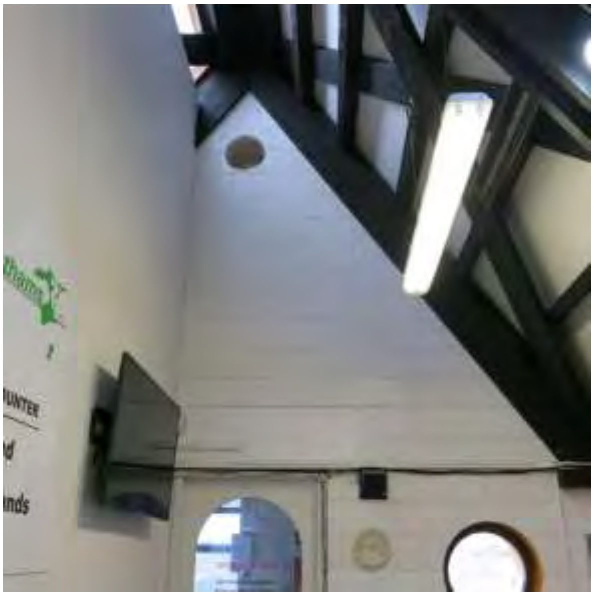


Concrete block pillars at entry(left) view west, showing entry patio

View of entry patio from north entry doors, looking out to runway

3.9 RECEPTION AREA

The ceiling over the reception (no counter remains) dramatically rises following the steep pitch of the gabled roof over this area. The wall at the back of the reception area rises the full height of the space just north of the ridge, and is expressed as a gable over the side lobby at the western end of the reception area. Here vast single panel roof lights set into the roof plane on each side bring further natural light into the space immediately above the return wall of the toilet area. Over the eastern end of the roof, is a long horizontal roof window close to the ridge-line, a visual counterpoint to the wider vertical windows at the western end.



View north to airport manager's office (left) showing round opening at apex, north wall

View south from reception showing door to utility room (left) view of counter from utility room

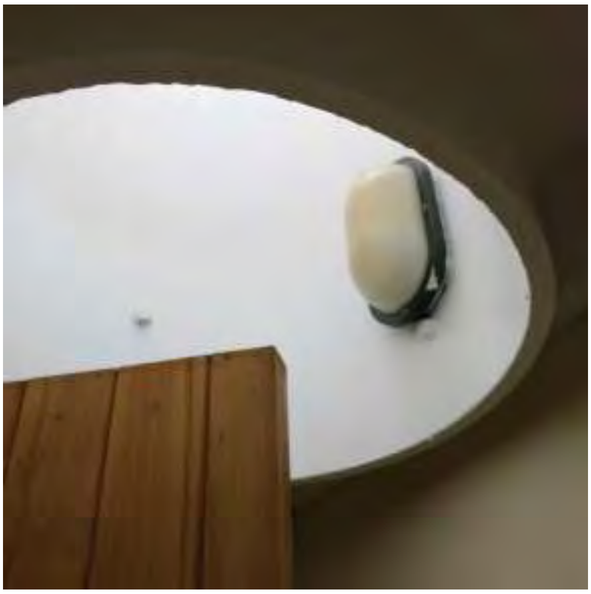

Remnant of original partition (left) service hatch in quarry tile floor


Beam + rafter detail (left) view looking up to ceiling

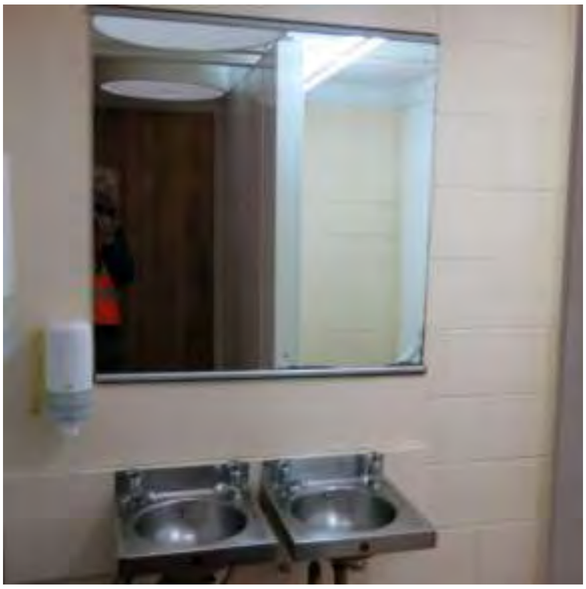

Sewver pipe skylight in flat sectio of ceiling (left) pipe window in north wall

3.10 TOILETS

The toilets on the northern side of the lobby space are covered by an almost flat roof penetrated by six large diameter pipe skylights, capped in perspex pyramids. This roof extends also over the utility room to the north. The interior of the toilet area is utilitarian. The original vanity fittings have been replaced. In the women's toilet area, the toilet pans are stainless steel.

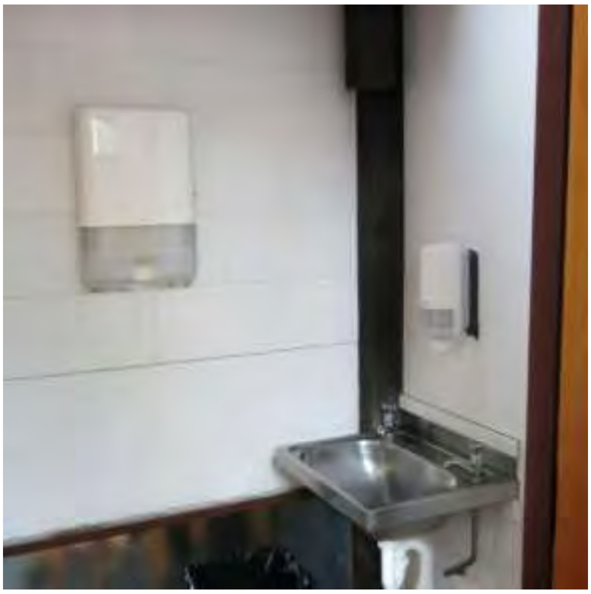
Sewer pipe skylight in ceiling (left) bulkhead light in sewer pipe skylight




Stainless-steel basins in male toilet (left) melamine lined partition walls + urinals in men's toilet

3.11 ACCESSIBLE TOILET

A second toilet area, also with a steeply pitched gabled roof, with glazed end gables and with pipes for natural ventilation, was constructed on the southern side of the entry lobby. The fit-out of this area is also utilitarian. This area was designed to be a feature pond. The pond was not built. It is not recorded when this area was constructed.

Exterior of telephone booths, west wall (left) hand basin


Accessible toilet (left) glass pendant light fitting, possibly an original fitting relocated?

3.12 BAGGAGE ROOM AND GARAGE

The northern rooms were planned as the service rooms and for administration. Behind the reception area is the baggage handling space. This area fits within the northern half of the steep gabled roof over the reception, and also opens into the garage space that opens on to the private side yard to the north. The roof, as previously described, also covers the small lobby space beside the baggage handling area.

The garage area extends out from the base of the gable as a low pitched roof. There are two vertical pipe skylights over the original enclosed area. The two garage doors have been moved out from their original position as the garage space has been extended by enclosing the area contained by the timber framed wing walls on each side. This area is not shown on the first construction drawings. There is no clear record of when this area was added, and the physical evidence suggests that the cross brace side walls were added during construction, and that the doors, initially located in line with the block-work, were moved later to their current position.

View of baggage room looking towards east wall (left) View east into baggage area showing roller doors set into what was formerly an open covered area.

South east corner showing utilty room extension,



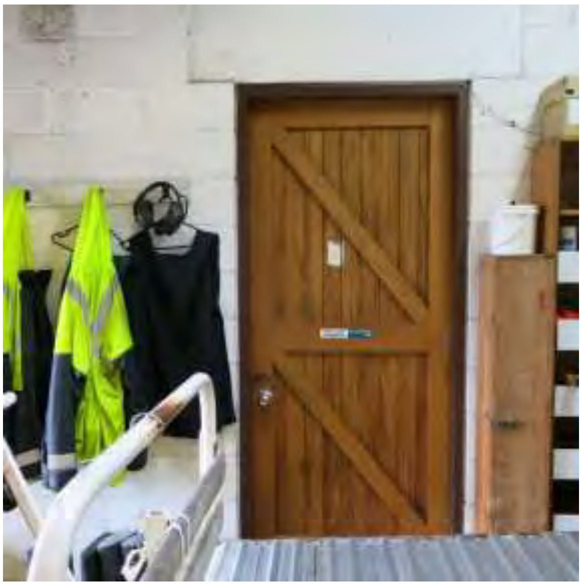
Sewer pipe skylight (left) showing ceiling in baggage room, unpainted hardboard panels



Beam along former exterior line of baggage room wall (left) North west corner showing roller door



Baggage hatch + conveyor belt, east wall (left) west wall in former open canopy area



Showing utility room extention, south east corner (left) door through to airport managers office



Ceiling over former open canopy (left) ceiling detail + section of wire mesh fixed to rafters



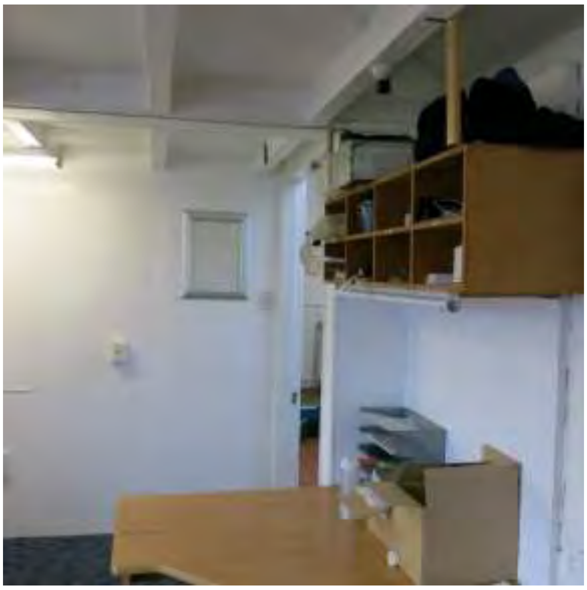
Showing ceiling with 2 x sewer pipe skylights (left) wire mesh fixed to rafters

3.13 UTILITY ROOM

The utility room is a flat roofed area to the north of the toilets and to the west of the baggage room. This space is a staff tea room. The room also acts as a staff exit/entry. The door in to this space from the reception area has been shifted as the side wall of the reception area has been removed. The door is glazed.

The external door is at the southern end of the west wall of the room. This door is not the original door. The pathway to the door is tiled through the space. A feature of this space is the floor level horizontal window across the north wall. The bay above this was built as a kitchen cupboard. This has been adapted and an aluminium joinery unit fitted to the opening. A double sashed timber window has been fitted into the west wall.

South east corner showing door to exterior (left) north west corner, staff kitchenette



Projecting bay window, formerly house kitchen cabinetry on west wall (left) north east corner

3.14 AIRPORT MANAGERS OFFICE

The airport manager's office is a small rectangular room off the reception area that faces the tarmac of the apron right beside the reception area. The room has its own low pitched roof and, when first constructed, featured a very large circular window facing the runway. The side walls are concrete block with circular horizontal pipe windows. The room also opens back into the baggage room. The round window has been removed and an aluminium bay window installed.


Pipe window in west wall (left) showing original door through to reception area, south east corner


non original aluminium framed bay window, north wall (left) broken original glass pendant light fitting

3.15 LOUNGE + REFRESHMENT AREA + KITCHEN

To the right (facing the apron) of the reception area, the space explodes into the public waiting areas.

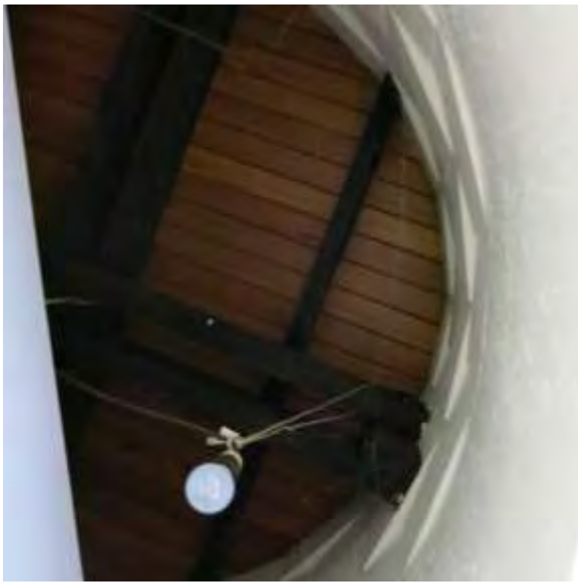
The central space is formed around the powerful form of the circular concrete block tower. This element sits off-centre within the space with just enough room for a winding stair at the western side up the outside to a mezzanine space above. The full height up to the mezzanine ceiling is expressed within the space. The sloping ceilings are finished in white painted plaster board, with rafters and other structure fully expressed, dark stained rough sawn pine. The flat ceilings also have expressed structure and beneath the mezzanine floor above, have T G & V linings.

The roof forms fall to three wings off the vertical central space, to the east a space labelled 'main lounge', to the west the 'kitchen' and to the south the 'refreshment area'. Above the southern wing the roof is glazed on the steep section that falls down from the ceiling of the mezzanine level. The glazing runs in single sheets between the rafters spilling a mass of light and allowing views out from the mezzanine. There is a smaller section of similarly glazed roof over the end of the eastern wing. The ceilings at the ends of the wings are almost flat, with expressed rafters and cross-bracing. The end of the eastern wing is finished in a single glass panel with an expressed external cross-brace. The southern wing was formerly also finished in this manner. A set of aluminium sliding doors has been fitted into this opening. The sides of the ends of these wings are glazed with fixed windows in timber frames.

The kitchen wing is more internal. The end wall has a single full width slot window above bench level. There are two pipe skylights above the counter area, and a door in the side-wall to the south.

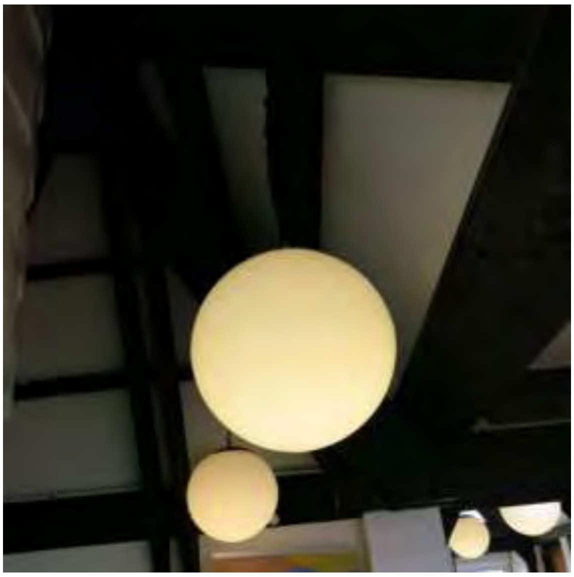
This area features the same palette of materials, white painted concrete blockwork, dark stained rough sawn pine structural timbers with bolt fixings exposed, white painted plasterboard and T G & V timber. The floors in this area are carpeted.

View east from reception area through to public lobby to refreshment room (left) travel counter




Ceiling in turret (left) ceiling in public lobby, view up to mezzanine floor


Intersection of turret and ceiling in public lobby area (left) block work + partition wall intersection




Large globe pendant light fittings (left) amber glass panels set into blockwork


View north into main lounge (left) view north showing ceiling in main lounge area


Stair details


Showing upper section of stair to mezzanine (left) showing lower section of stair

Showing ceiling + east wall with services duct penetrating (left) bracket + pilaster detail, east wall

Roof structure detail (left) showing amber glass panel set in to north wall in refreshment room

Heatpump + wall mounted bulkhead light in refeshment room (left wall mounted TV

Showing water damage in main lounge (left) joinery detail

View south towards kitchen (left) view south towards kitchen from main lounge

View east from public lobby into refreshment area, (left) view to refreshment room from lounge

3.16 MEZZANINE

The square mezzanine viewing-platform attaches to the tower, and is accessed by a fully exposed circular timber stair attached by carefully set out rough sawn timber brackets to the outside of the blockwork. The balustrade is formed of square section vertical Rimu rails fixed only at their bases.

This viewing lounge faces out to the runway, and is open down into the waiting areas below. The floorboards of the control room above form the ceiling finish of the mezzanine area. The corners are formed by expressed rough sawn structural posts attached to the outward facing 'L' sections of the blockwork walls on the southern and eastern sides and attached to the circular block tower at the north-west corner. The balustrade of the mezzanine is formed by three horizontal boards, two very wide with a single narrow board between, capped with dressed Rimu. The eastern side of the room has a full width joinery unit, a glazed timber door to the right and a widow divided into horizontal sections to the left.

A glazed panelled timber door at the north-west corner of this space gives access to the spiral stair inside the tower.


View south towards stair down to main level (left) showing door up to control cab + cupboard door


View looking out to enclosed deck from mezzanine (left) balustrade west wall

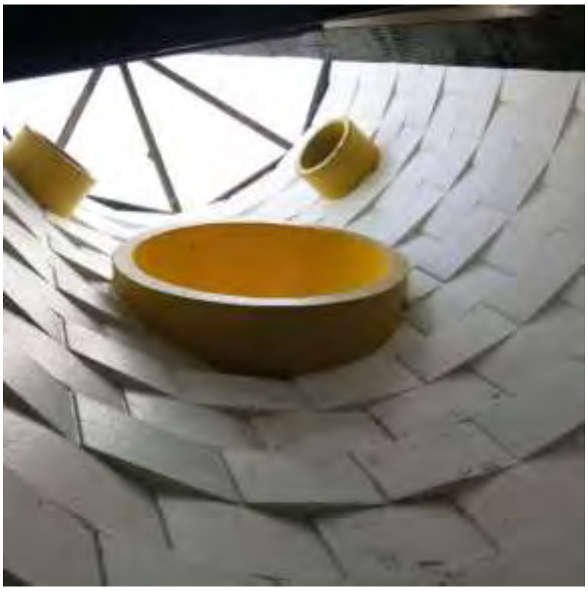

Corner post detail (left) balustrade in deck area, wire mesh fixed to interior


Ceiling in covered deck area, not original (left) seating in deck area

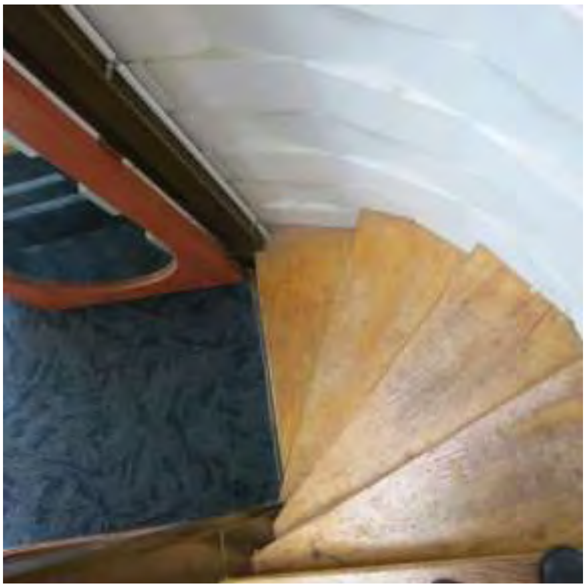

Services duct penetrating ceiling (left) non orignal door out onto deck area

3.17 STAIR/TURRET

The stair leads to a landing with a glazed door into the control room. The spiral stair is formed of tapered Rimu treads set on stained blocks direct fixed to the blockwork and set against a square centre post that rises to support the glazed conical roof structure. One large pipe window is set into the wall of the tower facing west, with two smaller pipe vents either side above, creating a face on the outside of the building.




Pipe windows in stair turret (left) view up to glazed conical roof in turret

Stair detail (left) view down stair to door into mezzanine level

3.18 CONTROL CABIN

The control room sits immediately above the mezzanine. It is a low space. The ceiling has expressed rough sawn timber structure with painted plasterboard. The structure features an exposed flat board cross brace and exposed herring bone struts. The water pipe supporting the beacon penetrates through the ceiling and is bolted to the roof structure. A built in desk runs across the eastern and southern sides of the room. Under the desk at the southern corner of the eastern wall, and at the western end of the southern wall are horizontal pipe windows that project out. These were intended to provide some ventilation for the space. Above the desk on each of these sides is an outward sloping fully glazed window running the full width of the room between the corner posts. There are matching sections of window on the return faces of the room at the north-east corner and at the south west. At the north-west end of the north facing wall there is a panelled door that opens out to a cantilevered timber deck.


West wall, showing door out to fire escape(left) showing door into turret, south west corner


Threshold into stair turret (left) steel pipe beacon detail fixed to rafter


Steel winch bracket fixed to rafter (left) exposed ceiling structure +bulkhead light fittings, 1 x original


Corber post detail (left) south west corner , showing slanted glazed panel, door to stair + kitchenet


Low pipe window in east wall + cable duct (eft) low pipe window in north wall

History of Change

**Where the known dates of changes made to the terminal building were able to be obtained, they have been noted.*

GENERAL EXTERIOR

Exterior repainted - Paint colours of highlighted elements changed

Flag and flagpole have been removed west side of control cab

Speakers and meteorological equipment removed from roof of control cab

“Roger Squawker” wind vane removed from roof turret

Original open viewing deck off mezzanine level has been enclosed with glass panels fitted to 3 sides + roof constructed over. Chicken mesh fitted to inside of the timber balustrade

Heat pump service ducts and units surface mounted to exterior of building

Extension of baggage area into covered space, garage doors moved to line of external wall.

Beacon removed from control cab roof

Recent surface mounted wiring visible on exterior of building

Mezzanine deck enclosed with roof over (1991)

ARRIVAL CANOPY

Canopy structure demolished and rebuilt to a new design / re roofed (1998)

NORTH ELEVATION

Original “Whakatāne” lettering fixed to concrete beam above doors removed. A modern metal sign frame has been surface fixed to the concrete beam

Original timber and glass double entry doors replaced with aluminium sliding doors

Timber glazed double entry doors replaced with aluminium sliding doors

Sewer pipe planter removed beside entry doors

Circular picture window removed from Airport Managers office, replaced with a projecting rectangular bay window in aluminium joinery with timber supporting brackets.

Globe light fitting on arched metal arm originally swung to the east, has been rotated, now swings to the west.

Pipe window added during construction into reception area.

Lamps fitted on top of entry columns.

Vegetation removed from gardens either side of entry doors

Arial fixed to gable roof over reception area, associated wires

Security system installed - cameras and lights surface wired to face of building.

EAST NORTH ELEVATION

Large glass picture window with external timber cross brace removed and replaced with 3 panel aluminium sliding door into existing opening.

2 x amber glass/ Perspex panels covered over on equipment room

SOUTH ELEVATION

Entry canopy replaced (refer west)

Sloping glass conservatory glass roof between canopy and entry removed

Super graphic arrow on exterior of toilet wall painted over.

Pipe planter next to entry doors removed

Original timber and glass double entry doors replaced with aluminium sliding doors

Non original arrivals and departure sign above entry doors

Section of Clearlite corrugated roofing between canopy and building entry.

Equipment room – removal of pipe window

Non original security gate fitted between terminal and equipment room

WEST ELEVATION

2 x glass globe Light fittings on arched posts removed from either side of the entrance to the baggage room

Double garage roller doors fitted into existing baggage room canopy opening (1991)

External timber cross brace removed from cantilevered utility cupboard weather boarded wall. New opening + fixed divided timber window set into wall.

Covered area (baggage claim area) extended towards the west to be in line with the wall of the utility room (change occurred during course of work)

‘Chinese hat’ flashings added to top of posts

Original timber roof platform Entry canopy removed and replaced with folded steel structure (date)

CONTROL CABIN

Original cabinetry and equipment removed

Windows changed during course of construction (1972)

Air conditioning units installed?

Reflective material fixed to glass.

GENERAL INTERIOR

Shag pile carpet removed from waiting lounge area

Entire interior repainted with new colour scheme

Original red curtains removed and replaced with vertical blinds

Addition of a unisex disabled person’s toilet in terminal building (1982) new door from telephone booth area into toilet addition. Infill addition to eastern side of entry lobby behind the telephone booths, new gable roof over addition

Cabinetry removed from utility cupboard and room re planned

Counter removed from reception area

Wing wall removed from reception area

New doorway into baggage room from reception area.

New wall between utility room and baggage room

Installation of heat pumps

Installation of wide screen television

Original glass light fittings removed and replace with large globe fittings

Telephones removed from alcoves

Toilet interiors modified

Original signage removed

Original travel counter removed, car hire counter added under stair

Kitchen cabinetry modified – new servery counter, new surface linings applied to walls in kitchen area

TABULATION OF HERITAGE VALUE

4.0 ASSESSMENT VALUES

A tiered scale of cultural heritage values has been used to show the relative contribution of each element or space to the overall significance of the place.

Following is a description of the degrees of significance used. The conservation plan policies set out recommended conservation approach in relation to the assessments and an explanation of how these ratings should guide ongoing use and care of the place. The ratings are capitalised for overall elements or spaces and lower case for specific elements or fabric.

A, a ITEMS OF EXCEPTIONAL SIGNIFICANCE

These are elements or spaces which are of exceptional importance to the overall heritage significance of the place.

The items or spaces should be preserved at all costs. Only processes of maintenance, stabilisation, restoration, reconstruction or reinstatement are appropriate for such features.

B, b ITEMS OF CONSIDERABLE SIGNIFICANCE

Elements or spaces of considerable importance to the overall cultural heritage significance of the place.

Items or spaces which should be preserved and protected where they do not conflict with the conservation of a feature of higher heritage value. These items may be adapted to new uses – as long as the adaptation is reversible and in accordance with clause 20 of the ICOMOS NZ Charter (refer Appendix 1) – but should otherwise be subject only to the processes of maintenance, stabilisation, restoration, reconstruction and reinstatement.

C, c ITEMS OF SOME SIGNIFICANCE

Elements or spaces which are of some importance to the overall cultural heritage significance of the place.

Retention is preferred, but modification may be justified where there is no conflict with items of higher heritage value. Some reduction of significance or removal of such items may be justified where this assists the recovery of overall significance.

NEUT. ITEMS OF LITTLE OR NO SIGNIFICANCE OR NOT RELEVANT

Elements or spaces which are of no heritage value or a neutral.

May be retained for functional reasons where there is no conflict with items of significance. Retention or removal of such items are options.

INT. ITEMS WHICH ARE INTRUSIVE ON CONSERVATION VALUES

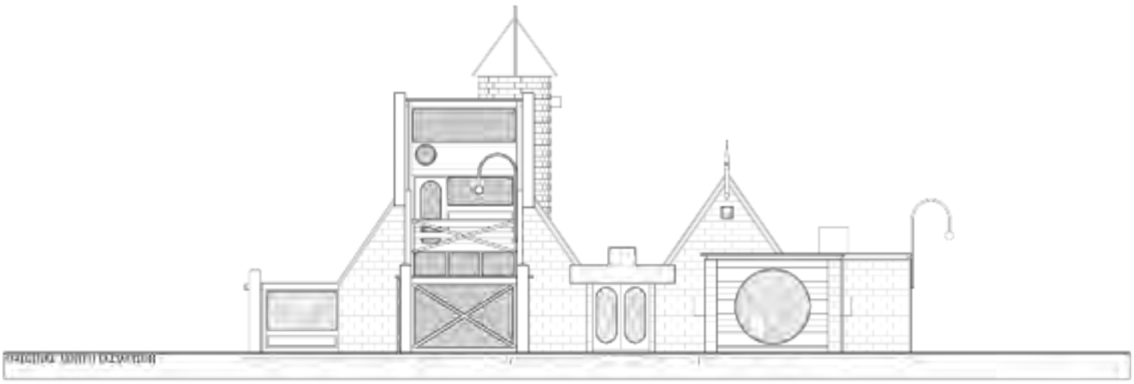
Elements or spaces which are intrusive or detract from the overall heritage value of the place.

Should be replaced or concealed if practicable, where this will assist interpretation

EXTERIOR GENERAL

ELEMENT	HERITAGE SIGNIFICANCE
TOWER	
Roof: facetted glazed conical roof	a
Exterior walls: standard concrete blocks set to form a cylinder	a
Pipe windows	a
Pipe vents	a

NORTH ELEVATION



North elevation. Image: EG, Burgess Treep & Knight 2016

ELEMENT	HERITAGE SIGNIFICANCE
CONTROL CAB	
Beacon bracket and water pipe pole	a
Flat roof	a
Rectangular spouting	a
External mounted asbestos pipe posts at each corner	a
‘‘Chinese hat’’ capping to post (not original)	neut.
Flat metal frieze flashing	b
Corner boxing each side	a
Single pane outward sloping window right across	a
Spandrel: rusticated weatherboards	a
Round pipe window left hand side of spandrel	a
Flat panel for air-conditioning unit right hand side of spandrel	int.
Fire Escape Deck + Ladder Stair	b

MEZZANINE LEVEL

Flat roof over deck (not original)	neut.
CCTV Cameras to fascia.	Int.
Flat board balustrade rail	b
Curved pipe light fixture with 'lollipop' light	a
Screen panels	int.
Joinery frame in outside wall	a
Door in frame	int.

MAIN LOUNGE

Pitched Roof – 3 panel conservatory framed roof window	a
Flat Roof – Torch-on membrane roof	b
Rectangular metal box gutter (original)	a
Flat lintel panel	b
Projecting side beams, ends capped, each side.	a
Boxed corners	a
Fixed glass panel beaded into timber frame	a
Exposed rough sawn timber cross brace across window	a
External Asbestos pipe columns each side at front corners	a

REFRESHMENT AREA

Raked wall area

Raking concrete block wall from the inside corner down to the roof level at the lower level.	a
Stepped edge flashing	b
Aluminium glazing bar following rake of roof	b
Single square fixed panel of amber glass within the upper area of blockwork	a
Heat-pump condenser unit + associated pipework	int.

End section:

Flat roof membrane folded down over lintel/barge	b
Lintel/beam (projects out past the end column)	a
Timber window frame to opening, two panels, large upper panel narrow lower panel	a

Boxed corner	a
External asbestos storm water pipe column	a
‘‘Chinese hat’’ capping to column neut.	

RECEPTION AREA

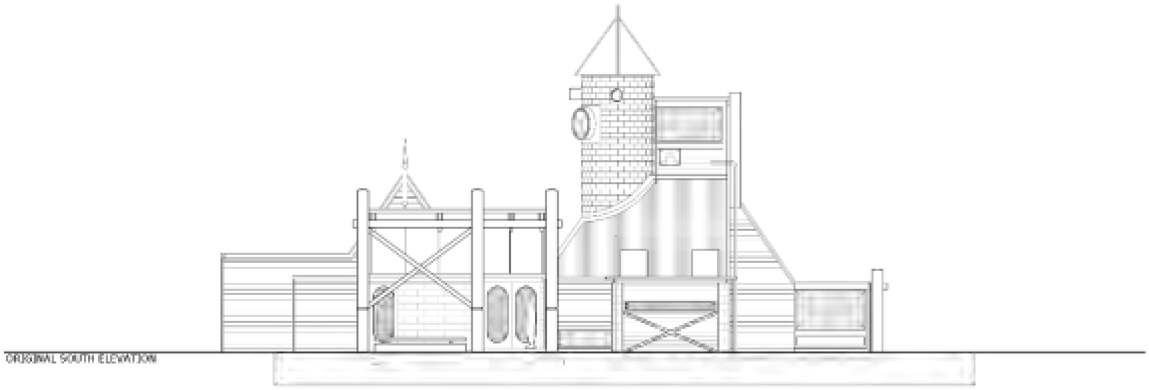
Raked concrete block wall (each side)	a
Stepped capping flashings to block work	b
Single inset fixed glass panel	a
Round pipe window	a
Round pipe ventilator	a
Raked Fire Escape Stair connected to Fire escape deck above	b
Roof edges	as before
Round pipe skylights (these are capped by a slightly raked sheet of glass)	a
Glazed gable end over the entry lobby	a
Heat pump condenser unit	int.
Concrete block wing walls north face of departure yard	a
Downpipe on west side of wing wall	neut.
Light + Speaker fixtures + service conduits	int.
Circular pattern quarry tiles in departure yard	a
Quarry tile pathway	a
Concrete block wing walls at doors with cast concrete spandrel across	a
Metal sign frame on concrete spandrel	int.

MANAGER’S OFFICE

Flat roof	b
Rectangular box gutter	as before
Down pipe, west corner	neut.
Stepped edge flashing	as before
Concrete block wing walls (horizontal pipe window on west side)	a
Rusticated weatherboards	a
Aluminium framed bay window	int.

Exposed and loose wiring	int.
BAGGAGE AREA	
Block walls and roof	as before
Original rectangular rainwater head at west end of block wall	a
Downpipe	neut.
Rusticated weatherboard clad wing wall	a
Exposed rough sawn ‘structure’	a
Yard lamp	a
OVERALL NORTH	A

SOUTH ELEVATION



South elevation. Image: EG, Burgess Treep & Knight 2016

ELEMENT	HERITAGE SIGNIFICANCE
CONTROL CAB	
Air conditioning panel beneath window	int.
BAGGAGE ROOM	
Block walls and roof	as before
Original rectangular rainwater head at west end of block wall	a
Downpipe	neut.
Rusticated weatherboard clad wing wall	a
Exposed rough sawn ‘structure’	a
Yard lamp	a
UTILITY	
Concrete block pilasters each side of doorway + at west corner	a

Door (not original)	int.
Window (not original)	int.
Flat panel cladding	int.
TOILET + ENTRY	
Flat roof right across	b
Remnant glass entry canopy detail	c
Ashtray fixed to blockwork	neut.
Glazed gable end of Entry Lobby	a
Glazed gable end of accessible Toilet	a
Entry doors	int.
Timber window to accessible toilet	neut.
KITCHEN	
Horizontal timber window	int.
Rusticated weatherboard panel beneath window	neut.
Expressed rough timber cross-brace	neut.
Exposed services	int.
REFRESHMENT AREA	
Raking Wall:	
Raking concrete block wall from the inside corner down to the roof level at the lower level.	as before
Edge flashing	as before
Aluminium glazing bar following rake of roof	as before
Remnant of single square fixed panel of amber glass within the upper area of blockwork	c
End section:	
Flat roof membrane folded down over lintel/barge	as before
Lintel/beam (projects out past the end column)	as before
Timber window frame to opening, two panels, large upper panel narrow lower panel	a
Rainwater head + downpipe	neut.

<u>OVERALL SOUTH A</u>

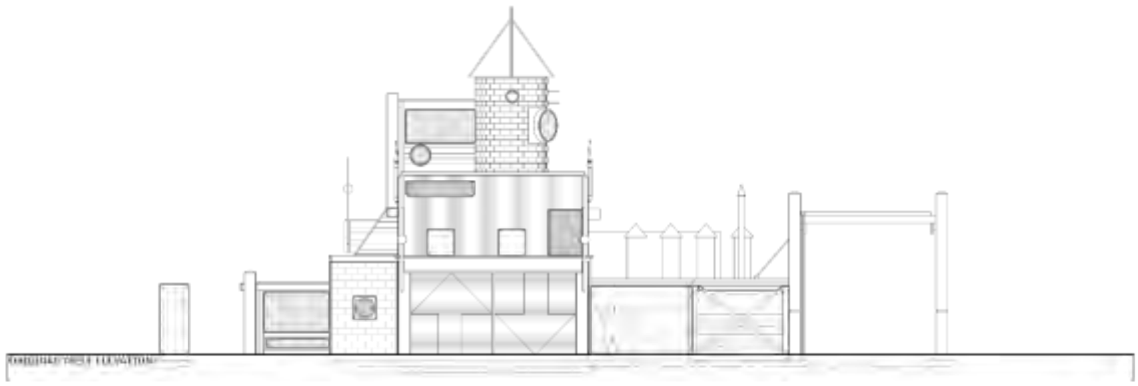
EAST ELEVATION

East elevation. Image: EG, Burgess Treep & Knight 2016

ELEMENT	HERITAGE SIGNIFICANCE
***FOR GENERAL MATERIALS AND FINISHES REFER TO PREVIOUS*	
CONTROL CAB	
Round asbestos pipe window	as before
KITCHEN WING	
Raking wall:	
Square inset amber glass panel	a
Round services duct pipe (penetrates wall)	b
End section:	
Door to Kitchen (?)	?
White painted concrete block wall	a
REFRESHMENT AREA	
Pitched roof: fixed glass in aluminium frame	a
Aluminium joinery unit in the end wall	int.
PUBLIC WAITING	
Raking wall:	
concrete block wall from the inside corner down to the roof level at the lower level.	as before
Edge flashing	as before
Aluminium glazing bar following rake of roof	as before
Single square fixed panel of amber glass within the upper area of blockwork	a
End section:	
Flat roof membrane folded down over lintel/barge	as before

Lintel/beam (projects out past the end column)	as before
Timber window frame to opening, two panels, large upper panel narrow lower panel	a
Rainwater head + downpipe	as before
Stainless steel ashtray	neut.
OVERALL EAST	A

WEST ELEVATION



West elevation. Image: EG, Burgess Treep & Knight 2016

ELEMENT	HERITAGE SIGNIFICANCE
General Finishes	as before
UPPER LEVELS + ROOF	
Control Cab	Refer north
Fire egress door (not original)	int.
Fire egress deck + support structure	as before
Pitched roofs	a
Flat roofs	as before
Gabled roof over reception + baggage	
Horizontal Roof window over reception (north end)	a
Vertical glass skylight panel (south end)	a
MAIN WAITING	
Raked concrete block wing wall	a
Fixed glass panel in wing wall	a
Surface mounted service ducting for heat pump	int.

Large format timber joinery panel	a
MANAGER'S OFFICE	
Concrete pipe window	a
BAGGAGE ROOM	
Rough sawn timber corner posts + cross beam	a
Flat spandrel panel above doors	b
2 x Roller shutter doors	neut.
UTILITY ROOM	
Low pitch roof details	as before
Concrete block side walls	a
PVC downpipe	neut.
Low level horizontal timber window	a
Projecting bay	a
Narrow roof edge	a
Exposed rough sawn corner frame	a
Fixed window panel	c
Rusticated weatherboards	a
Exposed services	int.
BAGGAGE CLAIM	
Exposed lintel over opening	b
Asbestos pipe corner column	b
'Chinese hat' capping to column	neut.
Concrete block side panels	a
Rusticated weatherboards	b
Exposed original structural timber	a
Plywood at top of weatherboard wall	int.
Exposed rough sawn timber framing, porch soffit	b
Flat sheet lining , porch soffit	b
TOILET AREA	
Projecting round asbestos pipe skylights with Perspex pyramid capping	a
OVERALL WEST	**A**

ENTRY CANOPY

ELEMENT	HERITAGE SIGNIFICANCE
ENTRY CANOPY	
Asbestos pipe columns	a
‘‘Chinese hat’’ capping to columns	neut.
Seat at outer line – 100 x 50s on edge	c
Folded steel roof structure + roof	int.
OVERALL	C

EQUIPMENT ROOM BUILDING

ELEMENT	HERITAGE SIGNIFICANCE
ROOF	
Gabled Roof	a
Corrugated iron	a
Fixed skylight panel north east corner	a
Flat roof	
Membrane roofing	b
Round pipe skylight with Perspex pyramid	a
Round pipe skylight with flat capping	a
Services duct from Kitchen area, over roof	a
NORTH	
Concrete Block Walls	a
2 x fixed glass panels	a
Covered ventilation panel (apex of gable)	int.
Services	int.
WEST (office)	
Entry Door – single rounded rectangle glazed panel timber door	a
High horizontal timber window	a
Covered Way	
Flat roof with exposed rough sawn structure	a

WEST (lobby)	
Projecting timber framed glazed entry. Single fixed glass panel	a
SOUTH (lobby)	
Flat roof in line with general roof	b
Projecting timber framed glazed entry.	a
Fixed side panel (north), 2 x rounded rectangle glazed panel timber doors	a
Metal pipe aerial bracket (south east corner)	int.
Block walls	a
Projecting rectangular spouting to a PVC downpipe, North west corner	c
Gable end	
Square fixed amber glass panel	a
CCTV mount + camera	int
Projecting rectangular spouting and down pipe south east corner	c
EAST	
Pitched roof of the gable	a
Single vertical glass panel skylight north end	a
Rectangular spouting	b
Stepped flashing detail	b
Round pipe window	a
2 x pipe penetration panels	int.
OVERALL	**A**

INTERIOR GENERAL

ELEMENT	HERITAGE SIGNIFICANCE
Quarry tile floors	a
Carpet tiled floors	neut.
Whit e painted concrete block walls	a
Timber framed partition walls	b/c
Exposed rough sawn timber roof structure	a
Flat painted plasterboard ceilings	a
Expressed door frames/ lack of architraves.	a
Original doors	a
Aluminium joinery	int.
Sewer pipe windows	a
Sewer pipe skylights	a
Exposed wiring & services, surface fixed	int.
Non original Fluorescent light fittings	int.
Original light fittings	b
Non original building signage	int.
Commercial signage	neut.

ENTRY LOBBY

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Quarry tile floors	a
Exposed (dark stained) rough sawn timber roof structure	a
Flat (white painted) plasterboard ceilings	a
Curved asbestos sheet telephone booths, east wall	a
White painted concrete block walls	a
JOINERY	
Electric sliding aluminium entry door, south wall	(Refer South/ Exterior)
Overhead door mechanics + cover	int.
Glazed fixed panel window, east wall	(Refer East/ Exterior)
Glazed fixed panel in gable end, south wall above entry doors	(Refer South/ Exterior)
Vertical T G & V Rimu door to male toilets, west wall	a
Vertical T G & V Rimu door to female toilets, west wall	a
T G & V Rimu cupboard door (retrofitted) to telephone booth	neut.
Door to accessible toilet, east wall	?
FITTINGS + FIXTURES	
Large globe pendant light fittings (not original)	neut.
Safe mounted on steel pole, telephone recess, east wall	neut.
OVERALL	A

FEMALE TOILET

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Quarry tile floors	a
Exposed (white painted) rough sawn timber roof structure	a
Flat (white painted) plasterboard ceilings	a
Timber framed partition walls with melamine linings	neut.
JOINERY	
Sewer pipe skylight x 3	a
FITTINGS + FIXTURES	
Bulkhead lights	neut.
Fluorescent light fittings	int.
Toilets	neut.
Hand Basin + Vanity unit	neut.
Other Fittings and fixtures	neut.
OVERALL	**C**

MALE TOILET

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Quarry tile floors	a
Exposed (white painted) rough sawn timber roof structure	a
Flat (white painted) plasterboard ceilings	a
Timber framed partition walls with melamine lining	neut.
JOINERY	
Sewer pipe skylights x 3	a
FITTINGS + FIXTURES	
Bulkhead lights	neut.
Fluorescent light fittings	int.
Toilets + urinal	neut.
Hand Basin + Vanity unit	neut.
Other Fittings and fixtures	neut.
OVERALL	C

ACCESSIBLE TOILET (1982 addition)

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Quarry tile floors	neut.
Exposed (white painted) rough sawn timber roof structure	neut.
Flat (white painted) plasterboard ceilings	neut.
Timber framed partition walls with melamine lining	neut.
Exterior of curved asbestos sheet telephone booths, west wall	a
JOINERY	
Metal ventilation pipe, ceiling	neut.
FITTINGS + FIXTURES	
Bulkhead lights	neut.
Orange glass pendant light fitting (original?)	neut.
Toilet	neut.
Hand Basin + Vanity unit	neut.
Other Fittings and fixtures	neut.
OVERALL	**Neut.**

RECEPTION AREA

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Quarry tile floors	a
Service trap in floor	b
Exposed rough sawn timber roof structure (dark stained)	a
Flat plasterboard ceilings (white painted)	a
Concrete block walls (white painted)	a
Timber framed wall to Baggage Room, west wall	b
Trace of missing partition wall on floor	c
Baggage hatch and conveyor belt, west wall	neut.
Expressed concrete lintel above door to Airport Managers Office	a
JOINERY	
Electric sliding aluminium exit door, north wall	(Refer North/ Exterior)
Overhead door mechanics + cover	int.
Sewer pipe skylights x2	a
Horizontal roof window above baggage room wall, west wall	(Refer Exterior/ Roof)
Round pipe window, north wall	(Refer Exterior/ North)
High round opening at apex with fixed louvers, north wall	(Refer Exterior/ North)

High round opening at apex with fixed louvers, south wall	(Refer Exterior/ South)
Glazed panel door into Utility Room, west wall (original door, relocated)	
Door	a
Doorway	neut.
Round headed door into Baggage Room, west wall (not original)	int.
Glazed panel door into Managers office, north wall (original)	a
Reception counters x2 (not original)	int.
FITTINGS + FIXTURES	
Large globe pendant light fittings (not original)	neut.
Building signage (not original)	int.
Commercial signage	neut.
Wall mounted flat screen TV, west wall	neut.
Fluorescent light fittings, hanging (not original)	int.
Fluorescent light fittings, fixed to rafter (original)	c
OVERALL	A

UTILITY ROOM

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Exposed rough sawn timber roof structure (white painted)	a
Flat plasterboard ceilings (white painted)	a
Concrete block walls (white painted)	a
Carpet tile flooring	neut.
Strip of vinyl flooring	neut.
Quarry tile pathway, along east wall (covered with carpet tiles)	?
Timber framed partition wall to baggage room, north	int.
+ associated ceiling structure (not original)	int.
JOINERY	
Timber framed awning window, south wall (not original)	(Refer Exterior/ South)
Exterior door, south wall (not original)	(Refer Exterior/ South)
Cantilevered box element, west wall (originally kitchenette)	(Refer Exterior/ West)
Timber window + seat within window box, west wall (not original)	(Refer Exterior/ West)
Glazed panel at floor level, west wall	(Refer Exterior/ West)
Door into Reception Area, east wall (original door relocated)	(Refer Reception Area)
FITTINGS + FIXTURES	

Furniture + cabinetry	int.
Fluorescent light fittings (not original), ceiling mounted	int.
OTHER	
Exposed wiring, surface fixed	int.
OVERALL	C

BAGGAGE ROOM (+ former canopy, since enclosed)

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Steel float concrete floor	c
Tar sealed floor, former canopy area	c
Exposed rough sawn timber roof structure (dark stained)	a
Flat particle board ceilings (un painted)	a
Flat fibrolite/ sheet material ceilings, former canopy area (not original)	neut.
Section of wire mesh, fixed across sloping ceiling	int.
Concrete block wall, north (white painted)	a
Timber framed partition wall to Reception Area, east wall	b
oil tempered hardboard wall lining (unpainted)	c
Timber framed partition walls where Utility Room penetrates	

Baggage Room forming low box at, south east corner	int.
Remnant section of original wall, south east corner	c
Painted hardboard wall linings, north & south walls in former canopy area	neut.
Remnant of original threshold, visible on floor	neut.
Remnant of original post position, visible on floor	neut.
Steel beam at original outside wall line	neut.
Concrete block pilasters, either side of original outside wall line	a
JOINERY	
Sewer pipe skylights x 2, ceiling	a
Round headed door into Reception Area, east wall (not original)	(Refer Reception Area)
Garage roller doors x 2, west wall (original? relocated)	(Refer Exterior/ West)
T G & V door into Airport Managers Office (original)	a
FIXTURES + FITTINGS	
Baggage hatch (modified) and conveyor belt, east wall	neut.
Fluorescent light fittings, ceiling mounted (not original)	int.
Electrical services distribution board, eastern wall	neut.
OVERALL	C

AIRPORT MANAGERS OFFICE

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Exposed rough sawn timber roof structure (dark stained)	a
Flat plasterboard ceilings (white painted)	a
Concrete block walls (white painted)	a
Carpet tile flooring	neut.
Plasterboard wall linings, north wall (not original)	neut.
JOINERY	
Cantilevered conservatory type bay window with window seat (not original)	int.
T G & V door (original) into Baggage Room, south wall	(Refer Baggage room)
Glazed panel door (original) into Reception, south wall	(Refer Reception)
Round sewer pipe window, west wall	(Refer Exterior/ West)
FIXTURES + FITTINGS	
Furniture	neut.
Wall mounted shelving	int./ neut.
White glass pendant light fittings x 2, 1 broken (original)	a
Operating equipment and exposed surface mounted wiring	int.
OVERALL	**B**

PUBLIC WAITING AREA

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Exposed rough sawn timber roof structure (dark stained)	a
Exposed T G V flooring ceiling	a
Concrete block walls (white painted)	a
Carpet tile flooring	neut.
Square patterned amber glass panel, north wall	a
Service duct (yellow painted)	b
Hatch panel in ceiling	b
CIRCULAR CONCRETE BLOCK TOWER	**A**
Rectangular opening at base of tower	a
Curved counter + counter gate	int.
Partial height, timber framed partition wall within tower	neut.
Exposed dark stained timber structure, tower ceiling	a
Exposed underside of flooring above, tower ceiling	a
CURVED STAIRCASE	**A**
Rough sawn timber, angle bracket stair supports (dark stained)	a
Straight stringer section in final rise	a

Vertical rimu post handrail	a
Solid Rimu treads	a
Openings to Refreshment Area and Main Lounge	a
Concrete block pilasters with intersections with wing walls	a
FIXTURES + FITTINGS	
Fire Hose Reel	neut.
Large globe pendant light fittings (not original)	neut.
Bulkhead lights, ceiling mounted (not original)	int.
OVERALL	A

MAIN LOUNGE

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Exposed rough sawn timber roof structure (dark stained)	a
Exposed T G V flooring ceiling	a
Concrete block walls (white painted), east & west walls	a
Carpet tile flooring	neut.
JOINERY	
Large timber joinery unit, fixed glazed panel, north, east & west walls	(Refer Exterior)
Fixed panel glass Skylights, pitched roof	(Refer Exterior/ Roof)
FIXTURES + FITTINGS	
Wall mounted TV	neut.
Furniture	neut.
Curtains	neut.
Square bulkhead lights (not original), wall mounted	int.
Heat pump	int.
OVERALL	A

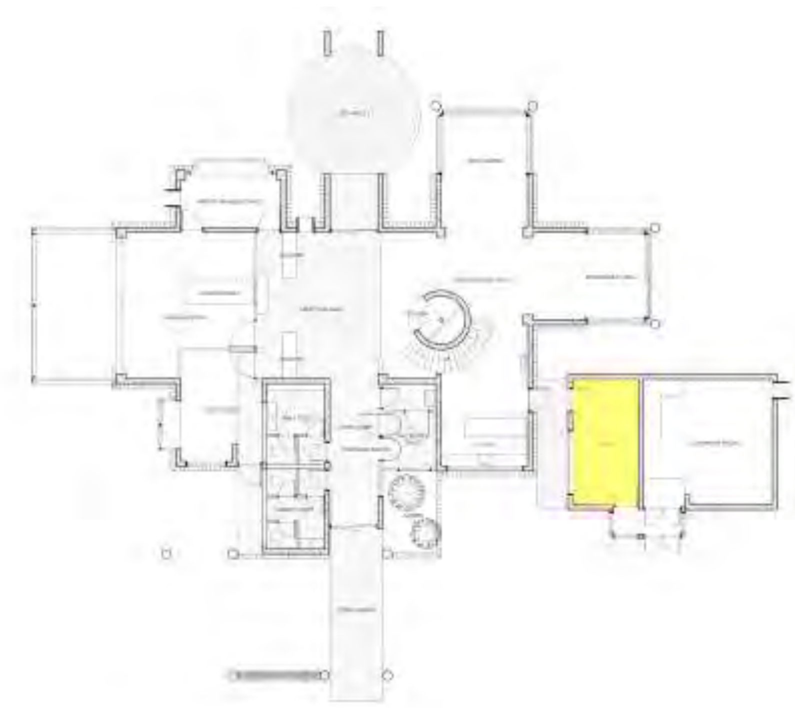
REFRESHMENT AREA

ELEMENT	HERITAGE SIGNIFICANCE
Square patterned amber glass panel x 2, north & south walls	a
SURFACES + STRUCTURE	
Exposed rough sawn timber roof structure (dark stained)	a
Exposed T G V flooring ceiling	a
Concrete block walls (white painted), east & west walls	a
Carpet tile flooring	neut.
JOINERY	
Aluminium sliding doors to exterior, east wall	(Refer Exterior/ East)
Large joinery unit, fixed glazed panel, north & south walls	(Refer Exterior)
Fixed panel glass Skylights, pitched roof	(Refer Exterior/ Roof)
FIXTURES + FITTINGS	
Wall mounted TV	neut.
Furniture	neut.
Curtains	neut.
Square bulkhead lights (not original), wall mounted	int.
Large globe pendant light fittings (not original)	neut.
Heat pump	int.
OVERALL	**A**

KITCHEN

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Exposed rough sawn timber roof structure (dark stained)	a
Flat plasterboard ceilings (white painted)	a
Concrete block walls (white painted)	a
Maltika board wall linings	int.
Carpet tile flooring	neut.
Section of vinyl flooring	neut.
JOINERY	
Timber framed slot window above bench, south wall	a
Sewer pipe skylights x 2, ceiling	a
Glazed panel exterior door to equipment room, east wall (original?)	?
FIXTURES + FITTINGS	
Stainless steel top sink bench (original?), south wall	neut.
‘Airside Café’ Counter	neut.
Large globe pendant light fittings (not original)	neut.
Fluorescent tube light fitting, fixed to rafter (not original)	int.
OVERALL	**A**

EQUIPMENT ROOM OFFICE



ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Exposed rough sawn timber roof structure (dark stained)	a
Flat plasterboard ceilings (white painted)	a
Concrete block walls (white painted)	a
Concrete floor (painted)	c
JOINERY	
Timber framed horizontal window with original window stay, west wall	a
Sewer pipe skylight, ceiling	a
Glazed panel timber exterior door to covered way, west wall (original)	a
FIXTURES + FITTINGS	
Square bulkhead light fitting, ceiling mounted (original)	b
Furniture	neut.
OVERALL	B

EQUIPMENT ROOM

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Exposed rough sawn timber roof structure (dark stained)	a
Flat plasterboard ceilings (white painted)	a
Concrete block walls (white painted)	a
Concrete floor (painted)	c
Projecting glazed lobby bay, south	a
Steps down in to room	c
1x fixed square patterned amber glass panel, south gable end	a
2 x fixed square patterned amber glass panel, north wall	a
JOINERY	
2 x sets glazed panel, timber entry double doors (original), south	a
Single pane glazed roof light, north east corner	(Refer Exterior/ North)
Opening sewer pipe window, east wall	a
FIXTURES + FITTINGS	
Pendant light fittings (not original)	neut.
Ceiling mounted trough wiring system (not original)	int.
L shaped built in bench seat	c
OVERALL	**B**

MEZZANINE

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Exposed rough sawn timber roof structure (dark stained)	a
Exposed T G V flooring ceiling	a
Concrete block walls (white painted)	a
Open rough sawn timber mezzanine balustrade (dark stained)	a
Curved smooth plastered lintel, above door to upper tower	a
Carpet tile flooring	neut.
Hatch panel in ceiling	b
JOINERY	
Large timber framed joinery unit, 3 fixed glazed panels, north wall	(Refer Exterior/ North)
Door onto deck (not original)	int.
Glazed panel door (original) to upper tower, south wall	a
Glazed panel cupboard door (original), west wall	a
FIXTURES + FITTINGS	
Bulkhead lights (not original), celling mounted	int.
DECK (Since Enclosed)	
Exposed rough sawn timber (dark stained) roof structure (not original)	neut.
Flat fibrolite (un painted) ceilings (not original)	neut.
Open rough sawn timber balustrade (dark stained)	a
Paint on membrane deck	neut.
Airport furniture (original?)	?
Aluminium framed fixed glazed panels, north east & west walls (not original)	int.

Wire mesh fixed to interior of balustrade	int.
TOWER (upper)	
Concrete block walls (white painted)	a
Rimu stair treads supported by dark stained down turn tread edge	a
Centre post rising to conical glass roof	a
Louvered pipe ventilators x2, tower wall	a
Sewer pipe window, tower wall	a
Glazed panel door (original) into Control Cabin, north wall	a
OVERALL	A

CONTROL CABIN

ELEMENT	HERITAGE SIGNIFICANCE
SURFACES + STRUCTURE	
Exposed rough sawn timber roof structure (dark stained)	a
Flat fibrolite / plasterboard ceiling (painted brown)	a
Plasterboard wall linings (white painted)	a
Curved smooth plastered lintel, above door to tower	a
Carpet tile flooring	neut.
Expressed timber corner posts	a
JOINERY	
Outward sloping fixed pane timber framed windows, north, east, west& south	a
Door onto deck (not original)	
Glazed panel door (original) to upper tower, south wall	a
Glazed panel cupboard door, west wall	a
Fire escape door to exterior (not original)	
Sewer pipe window, west wall	a
Sewer pipe window, low on east wall	a

Sewer pipe window, north wall	a
FIXTURES + FITTINGS	
Steel winch bracket fixed to rafter joist (original)	b
Steel pipe beacon bracket fixed to rafter joist	b
Cable duct formed of particle board at floor level	int.
Timber U formed file shelf, ceiling mounted, west wall	neut.
Laminate kitchen bench with cupboards under (original), south wall	b
Square bulkhead light fittings, ceiling mounted x1 (original)	b
Square bulkhead light fittings, ceiling mounted x1 (not original)	neut.
OVERALL	A

5.0 Statement of Cultural Significance

The Whakatāne Airport Terminal building is significant for its association with the Roger Walker, a prominent New Zealand architect who is notable for his distinctive architectural style.

The Terminal Building(s) gained national recognition at the time it was built. It is in remarkably good condition and has not been significantly modified since 1974. The building is among the very best surviving work of architect Roger Walker in New Zealand and has a high degree of authenticity.

HISTORICAL / SOCIAL SIGNIFICANCE

The Terminal Building(s) are directly associated with the operation of the Whakatāne Airport and its development, and has considerable significance as a place that represents the history the Airport

The Whakatāne Airport Terminal Building(s) represent the vision and commitment of the Whakatāne Aerodrome Committee.

The building(s) also represent the work of Council officers, in particular Mr A.W. Tassell Whakatāne County Council Engineer.

The Terminal building represents the culture of national air travel and national tourism in the 1970s.

ARCHITECTURAL / AESTHETIC SIGNIFICANCE

The building(s) were designed by Roger Walker in 1971. His designs from this period had a huge influence on New Zealand architecture, and were acclaimed internationally.

The forms and construction of the building(s) are remarkable. It is a complex and thoroughly considered design that instantly provided a signature piece of architecture for Whakatāne.

The building is remarkable for the synthesis of external forms and internal spaces that follow those forms. The building(s) also has an array of added forms that were a feature of Walker's work from that time, the circular block tower, the pipe windows and skylights, the external cross-braces.

The Whakatāne Terminal Building was awarded a Tourism New Zealand Design Award in 1975 and the Waikato Bay of Plenty NZIA enduring Architecture Award in 2003.

CULTURAL LANDSCAPE

The building has considerable presence in the Airport (and surrounding farmland) landscape. According to Roger Walker it was designed to echo the form of Moutohora Island, and as a standalone structure within the flat landscape of the airfield it does have a strong visual relationship with the form of the island.

The terminal building has further significance due to the alignment of the 'playful' architectural design with the 'sunshine town' character of Whakatane. There is a particularity of the design to the place.

It is a focal building on the Airport and has been used to represent Whakatāne as a place that has iconic' significance.

TECHNOLOGICAL SIGNIFICANCE

The building was unusual for the time as it combined the passenger handling areas with operational areas. The building incorporates the operational facilities of the Airport. The Control Cab, Equipment Room and Manager's Office are of particular note. The building was designed to express the technical function of the Terminal as a place of arrival and departure and as the facility for controlling air traffic.

The building is a collection of complex forms and adventurous detailing. It is an outstanding example of the synthesis of architectural and structural design.

The exposed rough sawn timber structure within the building is a signature feature of the architect Roger Walker's work from this period. The form, pattern and arrangement of the timbers and the type of connections used are an example of innovative timber structural design for that period.

PART II. CONSERVATION POLICY

6.0 INTRODUCTION / CONSERVATION OBJECTIVES

The purpose of the conservation plan document is to provide a tool that can be used to guide the future care and use of the Whakatāne Airport Terminal to ensure that all factors affecting the place, and its heritage significance, are considered.

The document is intended to enhance the meaning of the building to the community by encouraging the understanding of its history and occupants and also an appreciation of its qualities. The conservation plan provides guidance for the future care and maintenance of the heritage values of the place.

The policies set out in this section arise directly from the Statement of Significance for the Whakatāne Airport Terminal. For the conservation policies to be effective and useful it is important that these policies are adopted by all those responsible for the use and care of the place, both Council as owners, and the various operators who take care of the day to day maintenance and running of the place.

The exposed structure and plain use of materials, a key element in the architecture of Roger Walker, creates challenges in considering the future care and conservation of the place. The construction, with few voids and generally fully expressed, has little or no tolerance and does not easily allow for maintenance and repair.

6.1 METHODOLOGY

In order to determine appropriate conservation policies for the building, the entire structure has been inspected and described and the existing archival records of the development of the building have been researched. From this information an assessment has been made of the Heritage Value of the building and its component parts. The Heritage Values are intended to clearly guide which conservation processes (as defined in the ICOMOS (NZ) Charter, appendix 1) are appropriate for each part of the building and to ensure that any changes, including maintenance and repair, give full consideration to the heritage significance of the place, and to the greatest extent possible enhance that heritage significance.

To assist determining the conservation policies for the building a thorough visual survey has been undertaken, 1.4 Physical Description. From this, and taking into consideration 1.5 Assessment of Heritage Values, we have derived the specific recommendations included in the survey that relate to the building fabric. (refer to Conservation Objectives)

The Whakatāne District Council as the Territorial Authority is responsible for the administration of the Resource Management Act, and the Building Act for this place. The Civil Aviation Department of the Ministry of Transport is a 50% shareholder in the aerodrome and the Terminal

Section 6.4, and Section 6.5 consider the requirements of the Whakatāne District Council as both the Territorial Authority and the owner of the terminal building.

Consideration has been given to the existing condition of the building, Section 6.3d. Problems with the existing fabric are identified in the survey of building fabric. This information is included in this report as the condition of the building fabric and its proper care effects the heritage values of the place and its parts.

6.2 IMPLEMENTATION OF CONSERVATION POLICY

Features and areas of the building assessed as 'significant' should be preserved, restored and maintained. All work on these features and areas should be carried out in accordance with the guiding conservation principles of the ICOMOS (NZ) Charter for the Conservation of Places of Cultural Heritage Value (refer 6.2(i) Guiding Conservation Principles and ICOMOS (NZ) Charter (Appendix 1).

The policies that follow are intended to reinforce the cultural significance of this place and/or to give proper consideration to any effects on the cultural significance that may arise. The policies are intended to guide the conservation and long term maintenance of the place and its surrounds, and to guide any future development and change.

The policies have the following principle objectives:

- the preservation and enhancement of those parts of the Whakatāne Airport Terminal building(s) of significant heritage value
- that full consideration is given in any change process to ensure that the heritage values of the place are respected
- to enable the discrete incorporation of new elements where necessary to enable the continued use of the buildings, with the least possible effect on the heritage values of the place. This includes but is not limited to: services, structure, new facilities, additions and alterations
- the establishment and implementation of a conservation process to manage ongoing maintenance and repair, and future planning processes to ensure that these works are carried out in accordance with sound conservation practice.

6.3 GUIDING CONSERVATION PRINCIPLES

ICOMOS: The ICOMOS NZ Aotearoa Charter (Appendix 1) sets out the definitions and guiding principles of building conservation. These methods and principles are intended to give clear guidelines as to how change can be managed, especially appropriate methods for carrying out building work. The intention of these principles is to ensure that the fabric of the building of significant heritage value is retained and appropriately treated.

Policy 1. ICOMOS: The fabric of the place which has been assessed as significantly contributing to the understanding of the building as a place of cultural heritage value (as set out in the Statement of Cultural Significance) must be protected.

Policy 2. ICOMOS: The principles and guidelines of the ICOMOS NZ Aotearoa Charter are to be applied in determining the appropriate methods and /or treatment of the place and its parts to ensure the preservation and care of its significance

Policy 3. ICOMOS: A formal process should be established to ensure that the recommendations of this document are supported by the external authorities which may be involved in decisions regarding its future.

Policy 4. ICOMOS: In considering changes to be made to the place, whether for Building or Resource Consent, the Territorial Authority must give full consideration to the cultural significance of the building, and its parts (as set out in the tabulations of Heritage Values)

Policy 5. ICOMOS: Where possible, without compromising the heritage value of the place, new work is to comply with the requirements of the Building Act.

Policy 6. ICOMOS: All work on the place should be carried out by experienced trades people who are aware of (and sympathetic to) conservation requirements and are familiar with the conservation processes and methodologies set out in *the ICOMOS NZ Aotearoa Charter*

MINISTRY FOR CULTURE AND HERITAGE: The New Zealand government regards the management of the historic heritage within its care as an important part of its responsibilities and will ensure that historic heritage values are taken into account when decisions are made. It has therefore decided to adopt a best practice approach in order to:

- respect and acknowledge the importance of the historic heritage in its care;
- foster an appreciation of and pride in the nation's heritage;
- ensure that its historic heritage is cared for and, where appropriate, used for the benefit of all New Zealanders;
- ensure consistency of practice between government departments;
- set an example to other owners of historic heritage, including local government, public institutions and the private sector;
- contribute to the conservation of a full range of places of historic heritage value;
- ensure that places of significance to Māori in its care are appropriately managed and conserved in a manner that respects mātauranga Māori and is consistent with the tikanga and kawa of the tangata whenua; and
- contribute to cultural tourism and economic development.

'Policy for Government departments' management of historic heritage 2004 (August 2004)' is a guiding document put together by the New Zealand Ministry for Culture and Heritage which identifies key principles designed to inform a best practice approach to heritage management in New Zealand by government departments, and reflect national legislation and international and national charters and guidelines.[112]

The policies set out in this document (Refer Appendix 14) provide a framework for the management of government departments' historic heritage.

6.4 TERRITORIAL AUTHORITY

Whakatāne District Council.

The Whakatāne District Council, as a Territorial Authority, is responsible for administering the requirements of the Building Act (2011) and the Resource Management Act (1991). Council, as owner is required to follow proper procedures including making consent applications for change processes. Any proposed changes to the property will require building consent and /or resource consent approval.

The provisions of the Building Act area considered through any building consent application process. The Building Act covers all services (plumbing, drainage and electrical) and sets out all the provisions and regulations that apply. The Act also addresses the matters of fire safety, safety from falling, disabled access and facilities, and structural integrity. Assessment of seismic safety is also a matter for the Territorial Authority.

[112] Kelly, Greig and Cochran 'Policy for Government departments' management of historic heritage' (August 2004)' http://www.mch.govt.nz/research-publications/our-research-reports/policy-government-departments-management-historic-heritag

Should the place remain listed as a Heritage Item under the Proposed District Plan (2016) any activities that would alter the place or may have an effect on its heritage value would be subject to a Resource Consent. This would be assessed against the relevant District Plan criteria.

6.5 OWNERS REQUIREMENTS AND USES

The Whakatāne Airport Terminal Building is unusual as the building is jointly owned by the Whakatāne District Council and the Crown. The Civil Aviation Department of the Ministry of Transport is a 50% shareholder in the aerodrome and the Terminal. Council has the remaining 50%. The Whakatāne District Council, as the Aerodrome Operator, and 50% owner, has a significant role in the future care and maintenance of this place. This document is intended to assist with those processes.

The terminal building was commissioned in 1971 by the Whakatāne Aerodrome Committee, a combined committee of the Whakatāne Borough Council and the Whakatāne County Council.

The Council manages, and pays for the day to day running of the Airport through Council controlled joint venture company: Whakatāne Airport. The Crown has an ownership interest, a monitoring role and shares the commercial and capital costs associated with the airport as joint venture partner.[113]

The Whakatāne Airport is now run as a Council-controlled organization under the Local Government Act 2002. The building is run by a Council controlled organisation called Whakatāne Airport.

At present it costs Council more to run the aerodrome than the income it generates.

The airport is certified by the Civil Aviation Authority.

JNP Aviation run the terminal, providing some operational services to the Council under contract, and also ground handling services to Air Chathams.

6.6 NGATI AWA SETTLEMENT

The Whakatāne Aerodrome is within the rohe of Ngati Awa. Ngati Awa fought against the Crown during the Land Wars of the 1860s, and suffered confiscation and other injustices as a result.

Negotiations between the Crown and Ngati Awa to resolve historical claims against the Crown for its treatment of Ngati Awa began in 1995 and reached a conclusion in 1997.

The land on which the aerodrome was built is subject to Treaty of Waitangi settlement claims.

The Whakatāne Airport has been included in that settlement under:

> *1(f) Gifts: The Crown will gift the land under Whakatāne Airport to Ngati Awa, if it ever ceases to be reserved as an airport.*

The Crown has recently sold its interests in both the Rotorua Regional Airport and the Tauranga City Airport, it is possible that the Crown may step away from the Whakatāne Airport in the future. The wording of the Deed of Settlement does not address this.

[113] Whakatāne Airport Statement of Intent; 1 July 2016 -0 June 2017.

6.7 FUTURE USE OF THE TERMINAL BUILDING

Council commissioned Opus Consulting to provide a master plan for the Whakatāne Airport in 2008. This aspirational document suggested that Whakatāne could become an international airport provided that, among other things, the runway could be extended by 300 metres and a new terminal and business park created on the seaward side of the runway.

Opus based this master plan on an estimated 10 flights (Boeing 737) arriving each day from Australia, five flights from both Auckland and Wellington, and a single flight from Christchurch.[114] Since the master plan was completed in 2008 it has been acknowledged that some of the opportunities identified in the master plan are no longer appropriate.

On 28th April 2015 the last scheduled Air New Zealand flight left from Whakatāne. The same day the first Air Chathams flight arrived.[115] Air Chathams are now the flight service provider at the airport. At first Air Chathams used their 50-seat Convair 580 aircraft, but now use the 19-seat Metroliner for the three flights to and from Auckland each day.

Air New Zealand has since withdrawn services from Whanganui, and Air Chathams have become the flight service provider to that town. This demonstrates that the future use of a regional airport is dependent on the service provider, and that this depends in turn on local demand for that service.

It is unlikely that the number of scheduled flights to and from Whakatāne will increase by much, if at all, in the near future. Air Chathams are currently investigating adding a Whakatane to Wellington return flight service, planning to commence in February 2017.

The nearest airports to Whakatāne at Rotorua and Tauranga, are within 40 minutes by road to Whakatāne, both in the Bay of Plenty. Each of these has 8-10 scheduled arrivals each day with 50 seat aircraft used for those services. Both Rotorua and Tauranga Airports are solely owned by their respective local councils, both have been developed to allow for medium sized jet aircraft traffic, with an allowance for trans-Tasman traffic.

Rotorua and Tauranga terminals have areas allocated for security processing.

The use of the building should be compatible with the identified heritage values of the place. The relationship with the Whakatāne Airport and its use as a terminal is a significant factor in the heritage value of the place.

The building was purpose designed as the Terminal for the Whakatāne Airport. It was designed to be a significant feature of the Airport, a building that would be identified not just with the Airport but with Whakatāne as a gateway.

The Terminal was designed to accommodate passengers arriving and leaving on medium sized aircraft, 50-100 seat. The current operator, Air Chathams, uses 19 seat aircraft, (3 scheduled departures and arrivals per day). The scale and layout of the existing terminal accommodates the existing services.

When the building was designed consideration was given to allow for future change. Correspondence relating to this is on record but not the design work. Several changes were made to the design during the course of construction. The largest of these, the Equipment Rooms, a free standing building at the southern side of the Terminal, demonstrates that larger additions and alterations can be made to

[114] p. 19, Opus International Consultants, Whakatāne Airport Masterplan, 20 May 2008
[115] p 6 Whakatāne Airport Joint Venture, Annual Report 2014/15

the building and that new structure, sympathetic to the original structure, can be built in the vicinity of the Terminal.

Recent reports have recommended full redevelopment of the terminal area to create a much larger terminal facility and to enable the terminal to accommodate international travel. In such a scenario it would be possible to incorporate the existing terminal into a new development as a key element, whether connected in some way or free standing.

The current operators of the terminal, JNP Ltd, consider that the building does not function well and consider that is has serious problems with water tightness and other matters that affect conditions in the terminal.[116]

Regardless of any future use, the building(s) require maintenance and repair, and need services and facilities upgraded. These matters are addressed under 6.9 Remedial Works and 6.10 Cyclical Maintenance.

The terminal building can and should be incorporated into future plans for the aerodrome.

Policy 7: The heritage values of the Airport Terminal Building are to be respected in plans for the future use of the area. This applies in particular to any plans to modify the building or to create new development close to the building. Conservation expertise is required in the consideration and implementation of proposed changes, alterations or future expansion to the building. Guidelines should be established for the design of any buildings proposed adjacent to the Whakatane Airport Terminal building.

Policy 8: Conservation expertise is required to establish the preferred location of any future additions and to identify relevant view shafts and building curtilage. This is to ensure that the buildings organic and additive quality, geometric compositional rhythm, the prominence of the tower and design philosophy be preserved and maintained.

Policy 9: Recording and documentation is necessary where any changes are to be carried out to document the pre-change condition of the building.

Recommendation: Any future additions should be designed to complement the character of the place. Any future additions to the terminal should defer to the original terminal building to ensure it remains the pre-eminent building on the airport site.

Recommendation: The original architect of the terminal building, Roger Walker should be consulted regarding the design of any proposed additions or alterations to the building.

6.8 BUILDING ACT REQUIREMENTS (refer also to 6.4 Territorial Authority)

6.8 (a). Structural Integrity

The overall structural system is a major feature of the building as first designed. The structure of the building was designed, Bruce-Smith Chapman and Amos Structural Engineers Ltd of Wellington. Some of the features of the building, in particular the 'heroic' exposed timber structural framework with expressed bolted connections, are signature details of Roger Walker from this period, and are outside all the rules of standard building construction and design. The timber structure of the building

[116] p.com Josh Payne, JNP Ltd, 27 May 2016

demonstrates specific design at the highest level, it is a seamless combination of the aesthetic and the structural.

Council commissioned Skytec Engineering Consultants of Christchurch in 2014 to carry out a structural assessment report on the building. We read this report before undertaking our survey of the building. Skytec also highlighted other matters of concern; the presence of asbestos based materials, and problems with water-tightness that may be affecting the structural integrity of the building. These matters are addressed in this document under ASBESTOS, and PHYSICAL CONDITION.

Skytec concluded that the building as it stands meets 25% of the New Building Standard, and would be considered a seismic risk under the Whakatāne District Council's earthquake prone policy. This was based on an earlier assessment carried out by GHD Engineering, earlier in 2014, that concluded that the building was an 'Importance Level 2 building' as defined in Table 3.1 of NZS 1170.0: 2002, a place that carried a 'medium consequence for loss of human life or considerable economic, social or environmental consequences.'[117]

It is noted in the Skytec report that no geotechnical assessment had been undertaken to determine the ground conditions at the airport. Skytec considered that there is a risk of liquefaction and this is reflected in their recommendations.

A geotechnical report by IRBA – Geological Engineering Consultants, commissioned by the Whakatane District Council has since been completed and is included as Appendix 17 of this report.

As part of the Skytec survey of the building levels were taken across the floor, these showed a variation of 34mm from highest to lowest. Skytec concluded that the level difference was a consequence of ground settlement.

In our inspection on 27th May 2016 we saw no evidence to indicate foundation movement. There were no signs of cracking or other failure of masonry walls nor any cracks or other signs of failure in the floor slab. All the structural timbers, and these are fully exposed, had tight connections with no visible gaps between the timbers or between the timbers and the blockwork. From our observations we consider that the floor level differential recorded by Skytec is most likely historic, and that the floors were slightly out of level when first poured. 34mm from one corner to another in such a complex building is not a huge level variation.

The Skytec report also refers to a missing 'reinforced concrete block wall' separating the baggage room and the reception. This wall is a timber framed wall and was designed as a timber framed wall. The original structural design of the building would have allowed for this.

The report states that the building was 'designed in 1965 and constructed in 1972'. The building was designed in 1971. This may be of little consequence as the code referred to by Skytec, NZS 1900 (1965) was likely to have been the standard used for the design work.

Skytec provided a concept design for the seismic upgrading of the building, (appendix C of their report) based on their assessment. This involves adding a second layer of blockwork to the exterior of the 'L' shaped block walls, set on a larger, more widely spread foundation. The design also adds a steel framework structure to the upper levels of the mezzanine and control cab, a frame that connects to the new 'L' walls and back to vertical steel columns against the central tower.

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[117] p.2 Skytec Engineering; Detailed Structural Assessment Report; Whakatāne Airport Passenger Terminal Building, 216 Aerodrome Road, Thornton, Whakatāne, November 2014.

The Skytec concept does not have the elegance needed to complement the existing structure. The fabric of the building and its exposed structure contributes significantly to the heritage value of this place. There are many ways to upgrade the existing structure and any structural solution should be based on the best possible understanding of the existing structure, and the significance of its parts to the overall heritage value of the place.

Recommendation: The geotechnical report carried out by IRBA (Appendix 17) should be referred to in order to determine the ground conditions around the building and to provide appropriate guidance for any structural assessment/design of the building

Policy 10: Any structural solution must be based on the best possible understanding of the existing structure, including an aesthetic understanding, and the significance of its parts to the overall heritage value of the place.

6.8 (b). Asbestos

Materials containing asbestos were specified for certain parts of the building. The flat roof areas were specified with a flat sheet asbestos substrate. The circular corner posts are formed using asbestos cement storm water pipes filled with concrete. The recessed curved telephone booths at the side of the entry lobby are formed of asbestos cement sheet. Various services pipes shown on the documentation, including the cable duct to the control cab are also referred to on the drawings as asbestos cement.

These materials contain asbestos in a bound form. The materials do not pose a risk to health and safety except when cut, drilled, sanded or otherwise physically disturbed. Any activity that requires holes to be made in areas known to be constructed of asbestos material, or to change the surface using grinding or sanding would cause a significant hazard, and such activity must be limited to the greatest extent possible and where necessary carried out in accordance with strict protocols. Such work has to be carried out in accordance with building industry and government health and safety guidelines by persons approved to work with hazardous substances.

It is possible that other forms of asbestos have been used in the construction of the building. Asbestos material in loose form is far more difficult to deal with than bound material. The insulation shown within the roof cavities of the building is not clearly specified on the documents. It is possible that the material used may have an asbestos component. It is recommended that this is checked as soon as possible. If the material used does contain asbestos, the material should be removed using methodologies in accordance with building industry and government health and safety guidelines, with the work carried out by persons approved to work with hazardous substances.

Policy 11: Fixed asbestos, such as the pipes and sheet material, are to be noted, and left undisturbed (no cutting, no drilling, no sanding). The record of where asbestos materials are located is to be provided to all contractors before any work is carried out.

Recommendation: When the surfaces of these components are to be refinished a methodology is to be provided for approval that ensures that no asbestos material is released as dust or otherwise released in a manner that exposes people to asbestos contamination.

Recommendation: It is recommended that the roof insulation is checked as soon as possible for asbestos content. If the material used does contain asbestos, the material should be removed using methodologies in accordance with building industry and government health and safety guidelines, with the work carried out by persons approved to work with hazardous substances.

6.8 (c). F 4 Safety From Falling:

The balustrades of the stair, the mezzanine and the deck balconies do not comply with current standards for safety barriers.

The design of these elements is a component of the overall design character of the place. Any solution should be designed to fit with that character to the greatest extent possible.

The balustrade rails have horizontal gaps that do not fit with the limitations of section F4 of the Building Act. The balustrades do not meet the height requirements of F4.

The balustrade of the stair, that consists of vertical rails fixed only at the bottom, does not provide a rail to hold, and the design is unlikely to meet the strength requirements of the code.

The fire egress deck from the cab has an unprotected cut out section in the deck to give access to the ladder stair down the roof.

Policy 12: The design of these elements is a component of the overall design character of the place. Any solution should be designed to fit with that design character to the greatest extent possible, and should incorporate the existing structure to the greatest extent possible.

6.9 PHYSICAL CONDITION – REMEDIAL WORKS

The Whakatāne Airport Terminal has been regularly maintained. The building was well detailed and very well built. It is by no means in perfect condition. Some deterioration is expected in all buildings and this building is now 43 years old.

There are no signs of slumping or any other structural failure. There are no areas where the timber structure has moved relative to the blockwork. It is a very robust building.

The building was constructed to the standards of the 1970s. Building regulations have changed substantially since then. In considering the condition of the building and the type of construction we have not applied current code requirements. This is addressed under 6.8 Building Act Requirements.

Staff at the airport at the time of our visit discussed their experiences of the building and showed us problem areas, particularly areas of leakage.

Many of the physical problems occur in areas that have been changed or modified.

For a detailed description of the current physical condition of the terminal and recommended remedial works please refer to Appendix 12

Recommendation: All urgent remedial works should be carried out to ensure that the building remains watertight and to prevent deterioration of its fabric and structure.

Recommendation: Under-utilised areas of the building, particularly service areas and working areas should be upgraded and made fit for purpose.

Policy 13: All works to remedy physical problems with the building are to match the original details and materials to the greatest extent possible. Where those details and finishes do not meet current code requirements, the remedial work is to be designed to visually blend with the overall aesthetic of the original detailing.

6.10 PREVENTATIVE/CYCLICAL MAINTENANCE

A regular program of cyclical maintenance is necessary for all buildings. Cyclical maintenance means a program of regular works from daily tasks such as surface cleaning, through to major items such as the periodic replacement of roofing. Carrying out basic testing of systems is also part of this mahi.

A preventative maintenance plan should be prepared for the building to ensure that there is a regular program of maintenance and that the right thing is done at the right time.

All inspections should use a place specific checklist which must be dated, signed off, documented and retained and established as a log. Tasks should be ticked off as performed.

For an example of a Cyclical Maintenance Programme Chart please refer to Appendix 13

Recommendation: Establish a cyclical maintenance program, that takes full account of the heritage values of the place.

6.11 SERVICES

Because of its construction the building has not adapted well to changing services needs. There are few voids and no conduits to allow for new services, with the exception of the dramatic yellow services conduit from the equipment room to the control cab. As a consequence, the building is carelessly draped with an array of wires, cables and pipes.

Appropriate design solutions, and methodologies are required to resolve this problem.

Recommendation: Survey the existing services (plumbing + drainage, electrical services, security wiring, smoke and heat alarms, telecommunications) to identify areas of redundancy, inefficiency.

Recommendation: Establish current requirements allowing as much as possible for future needs.

Policy 14: All services should be run and placed as discretely as possible, out of sight if possible, utilising the few original void spaces that exist.

Policy 15: New equipment in public areas, such as the heat-pumps and flat screen televisions, should be fitted as discretely as possible with a little damage as possible to surfaces.

Policy 16: Original light fittings should be re-instated.

6.12 FIRE PROTECTION AND EGRESS

At present the Terminal Building is a single occupancy. There are no clearly visible smoke alarms and no other obvious fire alarm systems.

The building has no overall fire protection or alarm systems. There is a single fire hose reel within the building in the kitchen area, and other hand held equipment was sighted in the manager's office.

Fire alarm system. A full fire alarm system is required to ensure public safety.

Egress from the upper floors. The current egress stairs do not comply with the regulations. This is a matter that also relates to general compliance with the safety from falling requirements of the Building Act.

The existing stairs, both the internal stair and the external escape stair, are important features of the building. It is not possible to retain these as they are and to meet fire and egress requirements, however any re-design should respect the existing design qualities of these elements.

Recommendation: It is recommended to engage a fire engineer, with experience of heritage projects, to fully survey the building and to make recommendations for fire protection services and egress. (refer also to 6.11 new services)

Recommendation: Fire Protection: The best fire control systems should be considered for these buildings as the Terminal is a public facility of considerable importance to the greatest extent possible the system should be discrete, in location and appearance.

Policy 17: Establish a full fire protection system for the building.

Recommendation: Egress Stairs. The egress stairs must comply with current fire egress requirements. The design should also be based on consideration of the least amount of change/modification to the existing stair as the stair is a key element in the building interior.

6.13 SECURITY

The building is fitted with security cameras. The overall security system was not clear, there were no visible alarms. Generally security alarms are connected to the fire alarm systems. Refer 6.11 Services, 6.12 Fire and Egress.

Recommendation: A full security system should be fitted with the system and associated fixtures placed as discretely as possible.

The Whakatāne Airport Ten Year Business Plan 2012 -22, states that the Whakatāne Airport is a non-security designated aerodrome, as it does not provide international flights.

Part 139 of the Civil Aviation Rules requires; a stock proof perimeter fence, and 1200mm high barrier continuous barriers in areas where the public has access to the operational areas. The proposed rule amendment to Part 139 requires; the development of a contingency plan to respond to a security threat (Rule Part 139.205); the need to provide and maintain lighting and emergency lighting in the event of a failure of normal lighting systems, and the provision of lighting on any designated isolated parking area used at night; a program to ensure that personnel undergo a security programme and establish procedures for dealing with breaches of and deficiencies in any security procedures (Rule Part 139.203 (d) (2) (3) (8) and (9); to provide safeguards to prevent inadvertent entry of animals into the movement area; safeguards to deter the entry of unauthorized persons or vehicles to the aerodrome operations area; and reasonable protection of people and property from aircraft blast.[118]

The existing terminal meets these requirements.

Assuming that it remains in use, airport security in the existing terminal is not an issue for domestic flights unless; the numbers of passengers increase tenfold or more; or accreditation is sought for international travel; or if segregation of departing and arriving passengers is required by the Director of Civil Aviation.

[118] p.11 The Whakatāne Airport Ten Year Business Plan 2012 -22

The nearest local centres that have facilities for international flights are Rotorua and Tauranga, both within easy travel distance of Whakatāne. These airports do not currently have any scheduled international flight services.

Policy 18: Monitor the Department of Civil Aviation rules and requirements for domestic airports and have a temporary response strategy in place to allow for segregation of passengers should this be required by the Director.

6.14 DISABLED ACCESS AND FACILITIES

The lower floor of the building is fully accessible.

The new toilet area at the side of the entry lobby could be modified to meet disabled use requirements.

The mezzanine and the control cab levels of the building are only accessible by winding stairways. The stairs do not meet disabled access requirements.

Creating compliant disabled access to the upper floor areas is an insurmountable design challenge. It would require a reconfiguration of the existing stairs, beyond the changes anticipated to meet Building Act and Fire Egress requirements, and consideration of other alternatives.

Policy 19: Provide/retain full disabled facilities and access on the ground floor.

Recommendation: Investigate possible access for the disabled to the upper levels. Refer also to 6.8 (c) F4 Safety from Falling, 6.12 Fire + Egress.

6.15 LANDSCAPE CHARACTER

Whakatāne is set on the Bay of Plenty coast, at the base of Kohi Point on the southern side of the outlet of the Whakatāne River, and faces out across the Rangitaiki plain to the hills of Matata to the north west. The plain, formed by the Tarawera, Rangitaiki and Whakatāne rivers runs inland to the hills of the Taraweras, with the volcanic cone of Putauaki (Mt Edgecumbe) standing out against the skyline.

The coastal plain is an intimate landscape contained by the hills and the sea.

Just off the coast sits the moulded form of Moutohora Island (Whale Island), and well beyond on the horizon line to the north is the active volcanic island Whakaari (White Island).

The Whakatāne aerodrome is located on the coast west of Whakatāne. It is within the coastal dune landscape, at the edge of the flat farm land between the Whakatāne River and the Rangitaiki River. The runway is laid out parallel to the coastline. To the east is the local golf course, to the west the outlet of the Rangitaiki River.

The Terminal building, and all the other buildings associated with the aerodrome are sited on the southern side of the runway. The terminal building sits alone at the centre of the apron area. It has a considerable presence in this setting, despite its relatively small scale, and is a focal element that enhances the airport.

The road to the airport, Aerodrome Road, runs parallel to the runway from the east, past the golf course, through an avenue of trees and sweeps to the south-west at the approach to the terminal area before turning into the car parking area south of the building.

At the elbow of the bend in the road in to the terminal area a new building has recently been constructed for Frontier Helicopters (this building is not present in the 2010 Google street view). This is a relatively large building and very plain barnlike structure. Its presence distracts from the experience of arriving at the terminal area. Frontier Helicopters use imagery of the Terminal building in their on-line advertising.

There are several other industrial type buildings to the west of the terminal building. The largest of these buildings is occupied by Aerohire Flight Training This building has been substantially expanded since 2010. All of these building are pragmatic sheds, and all detract from the overall environment.

The other businesses with a presence on the airfield are:
White Island Flights, a company that runs scenic flights to Whakaari, and elsewhere around the Bay of Plenty; East Bay Aviation a charter flight company and Sunair Aviation Ltd, a Mt Maunganui based air charter company.

The building has small areas of garden spaces within the alcoves at the sides of the doorway to the apron, to the eastern side of the toilet, and between the refreshment wing and the equipment rooms.

Policy 20: Retain an open landscape around the building (diagram?) to ensure that the form of the building remains a significant element in the local landscape.

6.16 HERITAGE COLOURS

The original colours of the building were:

Concrete blocks:	White
Roofs:	Slate grey
Weatherboards:	Tan
Pipe windows and skylights:	Chrome yellow
Joinery frames:	Chocolate
Doors and sashes:	Orange
Corner pipes:	Purple
Rough sawn timber:	Deep brown
Spouting and downpipes:	Deep brown

Recommendation: Ask Roger Walker his opinion on the current colours used on the building.

Policy 21: Investigate the original colours and return the building to those colours.

6.17 THERMAL INSULATION – THERMAL ENVIRONMENT

The building has little or no thermal insulation. None of the walls are insulated. The concrete block exterior walls are unlined. The timber framed walls are un-insulated.

The large areas of glass, both windows and skylights, are not thermal glass, and are not double glazed. The glass panels in the control cab are specified as double glazed. These windows have a failing layer of reflective material.

The glass skylights and the tubular skylights are not insulated

The construction drawing indicate a 2inch (50mm) layer of 'insulation' within the depth of the purlins. The material used is not noted. It is not known at this stage what that product is. As noted in our discussion of asbestos (6.8 (b)) it is possible that the product used may have an asbestos component.

The building does not meet current standards for thermal efficiency.

Very little can be done to improve the thermal efficiency of the building, it is a building of its time, constructed without consideration of heat loss or heat gain.

Domestic heat-pumps have been installed into the building in order to provide some heating.

Policy 22: A creative approach is required to improve the thermal performance of the building without compromising the heritage value of its exposed materials. It is recommended that whenever works are carried out, that consideration is given to fitting insulation within voids, and to improving the thermal efficiency of the products used, such as joinery elements and glazing, by substituting better products where this is possible without compromising the heritage values.

Recommendation: Engage an expert in zero energy building systems, who has a full understanding of the heritage values of this place, and understands the challenge of working with this type of construction, to provide guidance on how this can be done.

6.18 INTERPRETATION

The building has the potential to attract and inform through appropriate promotion and interpretation. The building is already used to promote the airport, it features strongly in all the Airport Company annual reports, and could be further used as a promotional tool for the region.

The Terminal building is nationally recognized as an outstanding work of architecture. Roger Walker is an architect whose work has had a profound influence on the development of New Zealand architecture. His designs from this period drew international attention.

The Whakatāne Terminal building is well known in the architectural community. The place has the potential to become a destination for visitors interested in New Zealand architecture, and the work of Roger Walker in particular.

'In a prescient example of what is now called the 'Bilbao-effect'[119], the terminal was commissioned by local councilors in 1971 as a positive statement, they wanted a place that would put Whakatāne on the map, and considered that air travel would become increasingly important for Whakatāne. This place was constructed as a gateway to the region.

[119] p.181 Long Live the Modern. Whakatāne Airport Terminal Andrew Barrie

The role of local councilors, and council officers, Mr. Tassell in particular, is of great significance to this place. The terminal building would not have been built to this design without the visionary commitment of these people. Their story is an integral part of the building and should be acknowledged through appropriate interpretative material.

Recommendation: Establish an archive relating to the airport terminal. Encourage further research to increase the understanding of this place, and the relationships and events that it represents.

6.19 INSURANCE

Recommendation: It is recommended that the building is insured for its full replacement value.

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Appendix - Table of Contents

ICOMOS New Zealand Charter

for the Conservation of Places of Cultural Heritage Value

Revised 2010

Preamble

New Zealand retains a unique assemblage of **places** of **cultural heritage value** relating to its indigenous and more recent peoples. These areas, **cultural landscapes** and features, buildings and **structures**, gardens, archaeological sites, traditional sites, monuments, and sacred **places** are treasures of distinctive value that have accrued meanings over time. New Zealand shares a general responsibility with the rest of humanity to safeguard its cultural heritage **places** for present and future generations. More specifically, the people of New Zealand have particular ways of perceiving, relating to, and conserving their cultural heritage **places**.

Following the spirit of the International Charter for the Conservation and Restoration of Monuments and Sites (the Venice Charter - 1964), this charter sets out principles to guide the **conservation** of **places** of **cultural heritage value** in New Zealand. It is a statement of professional principles for members of ICOMOS New Zealand.

This charter is also intended to guide all those involved in the various aspects of **conservation** work, including owners, guardians, managers, developers, planners, architects, engineers, craftspeople and those in the construction trades, heritage practitioners and advisors, and local and central government authorities. It offers guidance for communities, organisations, and individuals involved with the **conservation** and management of cultural heritage **places**.

This charter should be made an integral part of statutory or regulatory heritage management policies or plans, and should provide support for decision makers in statutory or regulatory processes.

Each article of this charter must be read in the light of all the others. Words in bold in the text are defined in the definitions section of this charter.

This revised charter was adopted by the New Zealand National Committee of the International Council on Monuments and Sites at its meeting on 4 September 2010.

Purpose of conservation

1. The purpose of conservation

The purpose of **conservation** is to care for **places** of **cultural heritage value**.

In general, such **places**:

(i) have lasting values and can be appreciated in their own right;
(ii) inform us about the past and the cultures of those who came before us;
(iii) provide tangible evidence of the continuity between past, present, and future;
(iv) underpin and reinforce community identity and relationships to ancestors and the land; and
(v) provide a measure against which the achievements of the present can be compared.

It is the purpose of **conservation** to retain and reveal such values, and to support the ongoing meanings and functions of **places** of **cultural heritage value**, in the interests of present and future generations.

Conservation principles

2. Understanding cultural heritage value

Conservation of a **place** should be based on an understanding and appreciation of all aspects of its **cultural heritage value**, both **tangible** and **intangible**. All available forms of knowledge and evidence provide the means of understanding a **place** and its **cultural heritage value** and cultural **heritage significance**. **Cultural heritage value** should be understood through consultation with **connected people**, systematic documentary and oral research, physical investigation and **recording** of the **place**, and other relevant methods.

All relevant **cultural heritage values** should be recognised, respected, and, where appropriate, revealed, including values which differ, conflict, or compete.

The policy for managing all aspects of a **place**, including its **conservation** and its **use**, and the implementation of the policy, must be based on an understanding of its **cultural heritage value**.

3. Indigenous cultural heritage

The indigenous cultural heritage of **tangata whenua** relates to **whanau**, **hapu**, and **iwi** groups. It shapes identity and enhances well-being, and it has particular cultural meanings and values for the present, and associations with those who have gone before. Indigenous cultural heritage brings with it responsibilities of guardianship and the practical application and passing on of associated knowledge, traditional skills, and practices.

The Treaty of Waitangi is the founding document of our nation. Article 2 of the Treaty recognises and guarantees the protection of **tino rangatiratanga**, and so empowers **kaitiakitanga** as customary trusteeship to be exercised by **tangata whenua**. This customary trusteeship is exercised over their **taonga**, such as sacred and traditional **places**, built heritage, traditional practices, and other cultural heritage resources. This obligation extends beyond current legal ownership wherever such cultural heritage exists.

Particular **matauranga**, or knowledge of cultural heritage meaning, value, and practice, is associated with **places**. **Matauranga** is sustained and transmitted through oral, written, and physical forms determined by **tangata whenua**. The **conservation** of such **places** is therefore conditional on decisions made in associated **tangata whenua** communities, and should proceed only in this context. In particular, protocols of access, authority, ritual, and practice are determined at a local level and should be respected.

4. Planning for conservation

Conservation should be subject to prior documented assessment and planning.

All **conservation** work should be based on a **conservation plan** which identifies the **cultural heritage value** and **cultural heritage significance** of the **place**, the **conservation** policies, and the extent of the recommended works.

The **conservation plan** should give the highest priority to the **authenticity** and **integrity** of the **place**.

Other guiding documents such as, but not limited to, management plans, cyclical **maintenance** plans, specifications for **conservation** work, interpretation plans, risk mitigation plans, or emergency plans should be guided by a **conservation plan**.

5. Respect for surviving evidence and knowledge

Conservation maintains and reveals the **authenticity** and **integrity** of a **place**, and involves the least possible loss of **fabric** or evidence of **cultural heritage value**. Respect for all forms of knowledge and existing evidence, of both **tangible** and **intangible values**, is essential to the **authenticity** and **integrity** of the **place**.

Conservation recognises the evidence of time and the contributions of all periods. The **conservation** of a **place** should identify and respect all aspects of its **cultural heritage value** without unwarranted emphasis on any one value at the expense of others.

The removal or obscuring of any physical evidence of any period or activity should be minimised, and should be explicitly justified where it does occur. The **fabric** of a particular period or activity may be obscured or removed if assessment shows that its removal would not diminish the **cultural heritage value** of the **place**.

In **conservation**, evidence of the functions and intangible meanings of **places** of **cultural heritage value** should be respected.

6. Minimum intervention

Work undertaken at a **place** of **cultural heritage value** should involve the least degree of **intervention** consistent with **conservation** and the principles of this charter.

Intervention should be the minimum necessary to ensure the retention of **tangible** and **intangible values** and the continuation of **uses** integral to those values. The removal of **fabric** or the alteration of features and spaces that have **cultural heritage value** should be avoided.

7. Physical investigation

Physical investigation of a **place** provides primary evidence that cannot be gained from any other source. Physical investigation should be carried out according to currently accepted professional standards, and should be documented through systematic **recording**.

Invasive investigation of **fabric** of any period should be carried out only where knowledge may be significantly extended, or where it is necessary to establish the existence of **fabric** of **cultural heritage value**, or where it is necessary for **conservation** work, or where such **fabric** is about to be damaged or destroyed or made inaccessible. The extent of invasive investigation should minimise the disturbance of significant **fabric**.

8. Use

The **conservation** of a **place** of **cultural heritage value** is usually facilitated by the **place** serving a useful purpose.

Where the **use** of a **place** is integral to its **cultural heritage value**, that **use** should be retained.

Where a change of **use** is proposed, the new **use** should be compatible with the **cultural heritage value** of the **place**, and should have little or no adverse effect on the **cultural heritage value**.

9. Setting

Where the **setting** of a **place** is integral to its **cultural heritage value**, that **setting** should be conserved with the **place** itself. If the **setting** no longer contributes to the **cultural heritage value** of the **place**, and if **reconstruction** of the **setting** can be justified, any **reconstruction** of the **setting** should be based on an understanding of all aspects of the **cultural heritage value** of the **place**.

10. Relocation

The on-going association of a **structure** or feature of **cultural heritage value** with its location, site, curtilage, and **setting** is essential to its **authenticity** and **integrity**. Therefore, a **structure** or feature of **cultural heritage value** should remain on its original site.

Relocation of a **structure** or feature of **cultural heritage value**, where its removal is required in order to clear its site for a different purpose or construction, or where its removal is required to enable its **use** on a different site, is not a desirable outcome and is not a **conservation** process.

In exceptional circumstances, a **structure** of **cultural heritage value** may be relocated if its current site is in imminent danger, and if all other means of retaining the **structure** in its current location have been exhausted. In this event, the new location should provide a **setting** compatible with the **cultural heritage value** of the **structure**.

11. Documentation and archiving

The **cultural heritage value** and **cultural heritage significance** of a **place**, and all aspects of its **conservation**, should be fully documented to ensure that this information is available to present and future generations.

Documentation includes information about all changes to the **place** and any decisions made during the **conservation** process.

Documentation should be carried out to archival standards to maximise the longevity of the record, and should be placed in an appropriate archival repository.

Documentation should be made available to **connected people** and other interested parties. Where reasons for confidentiality exist, such as security, privacy, or cultural appropriateness, some information may not always be publicly accessible.

12. Recording

Evidence provided by the **fabric** of a **place** should be identified and understood through systematic research, **recording**, and analysis.

Recording is an essential part of the physical investigation of a **place**. It informs and guides the **conservation** process and its planning. Systematic **recording** should occur prior to, during, and following any **intervention**. It should include the **recording** of new evidence revealed, and any **fabric** obscured or removed.

Recording of the changes to a **place** should continue throughout its life.

13. Fixtures, fittings, and contents

Fixtures, fittings, and **contents** that are integral to the **cultural heritage value** of a **place** should be retained and conserved with the **place**. Such fixtures, fittings, and **contents** may include carving, painting, weaving, stained glass, wallpaper, surface decoration, works of art, equipment and machinery, furniture, and personal belongings.

Conservation of any such material should involve specialist **conservation** expertise appropriate to the material. Where it is necessary to remove any such material, it should be recorded, retained, and protected, until such time as it can be reinstated.

Conservation processes and practice

14. Conservation plans

A **conservation plan**, based on the principles of this charter, should:

- (i) be based on a comprehensive understanding of the **cultural heritage value** of the **place** and assessment of its **cultural heritage significance**;
- (ii) include an assessment of the **fabric** of the **place**, and its condition;
- (iii) give the highest priority to the **authenticity** and **integrity** of the **place**;
- (iv) include the entirety of the **place**, including the **setting**;
- (v) be prepared by objective professionals in appropriate disciplines;
- (vi) consider the needs, abilities, and resources of **connected people**;
- (vii) not be influenced by prior expectations of change or development;
- (viii) specify **conservation** policies to guide decision making and to guide any work to be undertaken;
- (ix) make recommendations for the **conservation** of the **place**; and
- (x) be regularly revised and kept up to date.

15. Conservation projects

Conservation projects should include the following:

- (i) consultation with interested parties and **connected people**, continuing throughout the project;
- (ii) opportunities for interested parties and **connected people** to contribute to and participate in the project;
- (iii) research into documentary and oral history, using all relevant sources and repositories of knowledge;
- (iv) physical investigation of the **place** as appropriate;
- (v) use of all appropriate methods of **recording**, such as written, drawn, and photographic;
- (vi) the preparation of a **conservation plan** which meets the principles of this charter;
- (vii) guidance on appropriate **use** of the **place**;
- (viii) the implementation of any planned **conservation** work;
- (ix) the **documentation** of the **conservation** work as it proceeds; and
- (x) where appropriate, the deposit of all records in an archival repository.

A **conservation** project must not be commenced until any required statutory authorisation has been granted.

16. Professional, trade, and craft skills

All aspects of **conservation** work should be planned, directed, supervised, and undertaken by people with appropriate **conservation** training and experience directly relevant to the project.

All **conservation** disciplines, arts, crafts, trades, and traditional skills and practices that are relevant to the project should be applied and promoted.

17. Degrees of intervention for conservation purposes

Following research, **recording**, assessment, and planning, **intervention** for **conservation** purposes may include, in increasing degrees of **intervention**:

- (i) **preservation**, through **stabilisation**, **maintenance**, or **repair**;
- (ii) **restoration**, through **reassembly**, **reinstatement**, or removal;
- (iii) **reconstruction**; and
- (iv) **adaptation**.

In many **conservation** projects a range of processes may be utilised. Where appropriate, **conservation** processes may be applied to individual parts or components of a **place** of **cultural heritage value**.

The extent of any **intervention** for **conservation** purposes should be guided by the **cultural heritage value** of a **place** and the policies for its management as identified in a **conservation plan**. Any **intervention** which would reduce or compromise **cultural heritage value** is undesirable and should not occur.

Preference should be given to the least degree of **intervention**, consistent with this charter.

Re-creation, meaning the conjectural **reconstruction** of a **structure** or **place**; replication, meaning to make a copy of an existing or former **structure** or **place**; or the construction of generalised representations of typical features or **structures**, are not **conservation** processes and are outside the scope of this charter.

18. Preservation

Preservation of a **place** involves as little **intervention** as possible, to ensure its long-term survival and the continuation of its **cultural heritage value**.

Preservation processes should not obscure or remove the patina of age, particularly where it contributes to the **authenticity** and **integrity** of the **place**, or where it contributes to the structural stability of materials.

i. Stabilisation

Processes of decay should be slowed by providing treatment or support.

ii. Maintenance

A **place** of **cultural heritage value** should be maintained regularly. **Maintenance** should be carried out according to a plan or work programme.

iii. Repair

Repair of a **place** of **cultural heritage value** should utilise matching or similar materials. Where it is necessary to employ new materials, they should be distinguishable by experts, and should be documented.

Traditional methods and materials should be given preference in **conservation** work.

Repair of a technically higher standard than that achieved with the existing materials or construction practices may be justified only where the stability or life expectancy of the site or material is increased, where the new material is compatible with the old, and where the **cultural heritage value** is not diminished.

19. Restoration

The process of **restoration** typically involves **reassembly** and **reinstatement**, and may involve the removal of accretions that detract from the **cultural heritage value** of a **place**.

Restoration is based on respect for existing **fabric**, and on the identification and analysis of all available evidence, so that the **cultural heritage value** of a **place** is recovered or revealed. **Restoration** should be carried out only if the **cultural heritage value** of the **place** is recovered or revealed by the process.

Restoration does not involve conjecture.

i. Reassembly and reinstatement

Reassembly uses existing material and, through the process of **reinstatement**, returns it to its former position. **Reassembly** is more likely to involve work on part of a **place** rather than the whole **place**.

ii. Removal

Occasionally, existing **fabric** may need to be permanently removed from a **place**. This may be for reasons of advanced decay, or loss of structural **integrity**, or because particular **fabric** has been identified in a **conservation plan** as detracting from the **cultural heritage value** of the **place**.

The **fabric** removed should be systematically **recorded** before and during its removal. In some cases it may be appropriate to store, on a long-term basis, material of evidential value that has been removed.

20. Reconstruction

Reconstruction is distinguished from **restoration** by the introduction of new material to replace material that has been lost.

Reconstruction is appropriate if it is essential to the function, **integrity**, **intangible value**, or understanding of a **place**, if sufficient physical and documentary evidence exists to minimise conjecture, and if surviving **cultural heritage value** is preserved.

Reconstructed elements should not usually constitute the majority of a **place** or **structure**.

21. Adaptation

The **conservation** of a **place** of **cultural heritage value** is usually facilitated by the **place** serving a useful purpose. Proposals for **adaptation** of a **place** may arise from maintaining its continuing **use**, or from a proposed change of **use**.

Alterations and additions may be acceptable where they are necessary for a **compatible use** of the **place**. Any change should be the minimum necessary, should be substantially reversible, and should have little or no adverse effect on the **cultural heritage value** of the **place**.

Any alterations or additions should be compatible with the original form and **fabric** of the **place**, and should avoid inappropriate or incompatible contrasts of form, scale, mass, colour, and material. **Adaptation** should not dominate or substantially obscure the original form and **fabric**, and should not adversely affect the **setting** of a **place** of **cultural heritage value**. New work should complement the original form and **fabric**.

22. Non-intervention

In some circumstances, assessment of the **cultural heritage value** of a **place** may show that it is not desirable to undertake any **conservation intervention** at that time. This approach may be appropriate where undisturbed constancy of **intangible values**, such as the spiritual associations of a sacred **place**, may be more important than its physical attributes.

23. Interpretation

Interpretation actively enhances public understanding of all aspects of **places** of **cultural heritage value** and their **conservation**. Relevant cultural protocols are integral to that understanding, and should be identified and observed.

Where appropriate, interpretation should assist the understanding of **tangible** and **intangible values** of a **place** which may not be readily perceived, such as the sequence of construction and change, and the meanings and associations of the **place** for **connected people**.

Any interpretation should respect the **cultural heritage value** of a **place**. Interpretation methods should be appropriate to the **place**. Physical **interventions** for interpretation purposes should not detract from the experience of the **place**, and should not have an adverse effect on its **tangible** or **intangible values**.

24. Risk mitigation

Places of **cultural heritage value** may be vulnerable to natural disasters such as flood, storm, or earthquake; or to humanly induced threats and risks such as those arising from earthworks, subdivision and development, buildings works, or wilful damage or neglect. In order to safeguard **cultural heritage value**, planning for risk mitigation and emergency management is necessary.

Potential risks to any **place** of **cultural heritage value** should be assessed. Where appropriate, a risk mitigation plan, an emergency plan, and/or a protection plan should be prepared, and implemented as far as possible, with reference to a conservation plan.

Definitions

For the purposes of this charter:

Adaptation means the process(es) of modifying a **place** for a **compatible use** while retaining its **cultural heritage value**. **Adaptation** processes include alteration and addition.

Authenticity means the credibility or truthfulness of the surviving evidence and knowledge of the **cultural heritage value** of a **place**. Relevant evidence includes form and design, substance and **fabric**, technology and craftsmanship, location and surroundings, context and **setting**, **use** and function, traditions, spiritual essence, and sense of place, and includes **tangible** and **intangible values**. Assessment of **authenticity** is based on identification and analysis of relevant evidence and knowledge, and respect for its cultural context.

Compatible use means a **use** which is consistent with the **cultural heritage value** of a **place**, and which has little or no adverse impact on its **authenticity** and **integrity**.

Connected people means any groups, organisations, or individuals having a sense of association with or responsibility for a **place** of **cultural heritage value**.

Conservation means all the processes of understanding and caring for a **place** so as to safeguard its **cultural heritage value**. **Conservation** is based on respect for the existing **fabric**, associations, meanings, and **use** of the **place**. It requires a cautious approach of doing as much work as necessary but as little as possible, and retaining **authenticity** and **integrity**, to ensure that the **place** and its values are passed on to future generations.

Conservation plan means an objective report which documents the history, **fabric**, and **cultural heritage value** of a **place**, assesses its **cultural heritage significance**, describes the condition of the **place**, outlines **conservation** policies for managing the **place**, and makes recommendations for the **conservation** of the **place**.

Contents means moveable objects, collections, chattels, documents, works of art, and ephemera that are not fixed or fitted to a **place**, and which have been assessed as being integral to its **cultural heritage value**.

Cultural heritage significance means the **cultural heritage value** of a **place** relative to other similar or comparable **places**, recognising the particular cultural context of the **place**.

Cultural heritage value/s means possessing aesthetic, archaeological, architectural, commemorative, functional, historical, landscape, monumental, scientific, social, spiritual, symbolic, technological, traditional, or other **tangible** or **intangible values**, associated with human activity.

Cultural landscapes means an area possessing **cultural heritage value** arising from the relationships between people and the environment. **Cultural landscapes** may have been designed, such as gardens, or may have evolved from human settlement and land use over time, resulting in a diversity of distinctive landscapes in different areas. Associative **cultural landscapes**, such as sacred mountains, may lack **tangible** cultural elements but may have strong **intangible** cultural or spiritual associations.

Documentation means collecting, **recording**, keeping, and managing information about a **place** and its **cultural heritage value**, including information about its history, **fabric**, and meaning; information about decisions taken; and information about physical changes and **interventions** made to the **place**.

Fabric means all the physical material of a **place**, including subsurface material, **structures**, and interior and exterior surfaces including the patina of age; and including fixtures and fittings, and gardens and plantings.

Hapu means a section of a large tribe of the **tangata whenua**.

Intangible value means the abstract **cultural heritage value** of the meanings or associations of a **place**, including commemorative, historical, social, spiritual, symbolic, or traditional values.

Integrity means the wholeness or intactness of a **place**, including its meaning and sense of **place**, and all the **tangible** and **intangible** attributes and elements necessary to express its **cultural heritage value**.

Intervention means any activity that causes disturbance of or alteration to a **place** or its **fabric**. **Intervention** includes archaeological excavation, invasive investigation of built **structures**, and any **intervention** for **conservation** purposes.

Iwi means a tribe of the **tangata whenua**.

Kaitiakitanga means the duty of customary trusteeship, stewardship, guardianship, and protection of land, resources, or **taonga**.

Maintenance means regular and on-going protective care of a **place** to prevent deterioration and to retain its **cultural heritage value**.

Matauranga means traditional or cultural knowledge of the **tangata whenua**.

Non-intervention means to choose not to undertake any activity that causes disturbance of or alteration to a **place** or its **fabric**.

Place means any land having **cultural heritage value** in New Zealand, including areas; **cultural landscapes**; buildings, **structures**, and monuments; groups of buildings, **structures**, or monuments; gardens and plantings; archaeological sites and features; traditional sites; sacred **places**; townscapes and streetscapes; and settlements. **Place** may also include land covered by water, and any body of water. **Place** includes the **setting** of any such **place**.

Preservation means to maintain a **place** with as little change as possible.

Reassembly means to put existing but disarticulated parts of a **structure** back together.

Reconstruction means to build again as closely as possible to a documented earlier form, using new materials.

Recording means the process of capturing information and creating an archival record of the **fabric** and **setting** of a **place**, including its configuration, condition, **use**, and change over time.

Reinstatement means to put material components of a **place**, including the products of **reassembly**, back in position.

Repair means to make good decayed or damaged **fabric** using identical, closely similar, or otherwise appropriate material.

Restoration means to return a **place** to a known earlier form, by **reassembly** and **reinstatement**, and/or by removal of elements that detract from its **cultural heritage value**.

Setting means the area around and/or adjacent to a **place** of **cultural heritage value** that is integral to its function, meaning, and relationships. **Setting** includes the **structures**, outbuildings, features, gardens, curtilage, airspace, and accessways forming the spatial context of the **place** or used in association with the **place**. **Setting** also includes **cultural landscapes**, townscapes, and streetscapes; perspectives, views, and viewshafts to and from a **place**; and relationships with other **places** which contribute to the **cultural heritage value** of the **place**. **Setting** may extend beyond the area defined by legal title, and may include a buffer zone necessary for the long-term protection of the **cultural heritage value** of the **place**.

Stabilisation means the arrest or slowing of the processes of decay.

Structure means any building, standing remains, equipment, device, or other facility made by people and which is fixed to the land.

Tangata whenua means generally the original indigenous inhabitants of the land; and means specifically the people exercising **kaitiakitanga** over particular land, resources, or **taonga**.

Tangible value means the physically observable **cultural heritage value** of a **place**, including archaeological, architectural, landscape, monumental, scientific, or technological values.

Taonga means anything highly prized for its cultural, economic, historical, spiritual, or traditional value, including land and natural and cultural resources.

Tino rangatiratanga means the exercise of full chieftainship, authority, and responsibility.

Use means the functions of a **place**, and the activities and practices that may occur at the **place**. The functions, activities, and practices may in themselves be of **cultural heritage value**.

Whanau means an extended family which is part of a **hapu** or **iwi**.

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This revised text replaces the 1993 and 1995 versions and should be referenced as the *ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value* (ICOMOS New Zealand Charter 2010).

This revision incorporates changes in conservation philosophy and best practice since 1993 and is the only version of the ICOMOS New Zealand Charter approved by ICOMOS New Zealand (Inc.) for use.

Copies of this charter may be obtained from
ICOMOS NZ (Inc.)
P O Box 90 851
Victoria Street West
Auckland 1142
New Zealand

Appendix 2.

HISTORY OF AVIATION IN THE EASTERN BAY OF PLENTY

Civil Aviation in New Zealand benefitted greatly from World War II, for hundreds of light and not so light aircraft released by the RNZAF from 1945 onwards found their way into the large fleets of aircraft used by the aero clubs, topdressing and spraying companies, air charter operators and the major airlines.

New technology led to the development of new aircraft types and America replaced Great Britain as the western world's leading aircraft manufacturer as Cessna, Piper and Beech aircraft and Bell, Hiller and Hughes helicopters flooded into New Zealand.

In the Eastern Bay of Plenty, most aviation operations were carried out by companies and groups based in the three large cities that surround the area: Rotorua, Tauranga and Gisborne.

SCHEDULED AIR SERVICES IN THE REGION

Between 1946 and 1954, there were no scheduled or non-scheduled air services operating through the Eastern Bay of Plenty.

In 1954, Hamilton-based James Aviation Ltd. purchased its third De Havilland Canada Beaver aircraft (ZK BFO). In June of that year, this aircraft was put into operation flying a twice daily Auckland- Kinleith-Rotorua - Kawerau- Auckland air service. Due to poor patronage, the service closed within a few months and the aircraft was converted for top dressing.

Tauranga Air Service Ltd. began charter operations from Tauranga in 1956 using a Cessna 182 (ZK BRI). A year later the company beagn scheduled air services between Tauranga, Whakatane and Auckland. At Whakatane an existing strip known as Bloor's Paddock, was used.

By early 1958, Tauranga Air Services' Whakatane-Tauranga-Auckland service was being flown 6 days a week. In July that year, the Company changed its name to Bay of Plentv Airways Ltd. reflecting the companys wider operations. A twin-engined six-seater Aero Commander 680 (ZK BWA) was delivered in October and on 10 November a new timetable was introduced.

Monday to Saturday Tauranga-Auckland/Tauranga-Rotorua-Auckland service was introduced using the Aero Commander. A similar service was operated between Tauranga and Whakatane using the Cessna. Later, the Whakatane service was extended to include Opotiki; this latter service was operated three days a week, but ceased on 31 March 1959.

The airline's prospects looked good and a Tauranga-Rotorua-Wellington service was introduced. This created a need for a third and larger capacity aircraft and on 20 January 1961, a twin-engine ten-seater De Havilland Dove (ZK BZP) entered service, on a lease from an Australian operator. However, the arrival of the Dove marked the beginning of the end for the airline. The Dove proved too expensive to operate and the company began to lose money. In April 1961, the airline was placed in receivership.

On 7 July 1961, the Dove was returned to Australia and the airline slowly began to trade itself out of its difficulties. But, on 21 November 1961, while on a flight to Wellington, the Aero Commander suffered structural failure over Mt. Ruapehu and crashed on the mountain, killing the pilot and all five passengers. Four days later, an Australian registered, Italian built twin-engine Piaggo Pl66 (VH BBG) was demonstrated to the airline and visited airfields throughout the Bay of Plenty. There were hopes that the company would continue operations, but it was not to be. Bay of Plenty Airways Ltd. went into liquidation in December 1961.

In February 1962, the Kawerau Aero Club applied for a licence to operate non-scheduled passenger services and charter flights from Kawerau. James Aviation Ltd. opposed the application as they held a similar licence, and the application was declined. Between February and November 1962, James Aviation (Rotorua) Ltd. operated a Rotorua-Whakatane air service, using Cessna 180 aircraft under charter from NAC. The service connected with arrivals and departures from Rotorua with flights between Auckland and Wellington.

In 1 November 1962 the National Airways Corporation (NAC) and South Pacific Airlines of New Zealand (SPANZ) commenced air services through Whakatane using Douglas DC3s, these twin-engine aircraft seated 20-30 passengers and had 2 pilots and a hostess. A new era in passenger air services was ushered in. SPANZ later collapsed and ceased service on 28 February 1966.

On 19 February 1968 Sky Travel (NZ) Ltd. commenced third level air services throughout the North Island, including a Tauranga-Whakatane-Rotorua route. Two twin-engine, eight-seat Cessna 402 aircraft (ZK CSX, ZK CSZ) were used. The service did not last long, the last flight through Rotorua was flown on 19 June 1968.

NAC continued its DC3 service until October 1968 when Fokker F27 Friendship series 100 twin turboprop aircraft were introduced into scheduled air services through Whakatane. Pressurised, with three crew and seating up to 40 passengers, this was another improvement in air services.

On 28th April 2015 the last scheduled Air New Zealand flight left from Whakatane. The same day the first Air Chathams flight arrived.[1] Air Chathams are now the flight service provider at the airport. At first Air Chathams used their 50-seat Convair 580 aircraft, but now use the 19-seat Metroliner for the three flights to and from Auckland each day.

AERO CLUBS

With the end of World War II, the way was open for the re-establishment of civil aviation, and one of its most important facets - flying training provided by the aero clubs. In the late 1940s, the Rotorua based Rotorua-Bay of Plenty Aero Club served the local Bay of Plenty area. The Whakatane Aero and Glider Club was established at the time but had no aircraft and no base to operate from. The club was mainly involved in trying to get an airport built at Whakatane.

On 29 November 1959 the Whakatane Gliding Club began operations using a Tiger Moth tow plane (ZK BAD) and a Slingsby glider (ZK GAU) , based at the Whakatane Aerodrome. By 1961 the Rotorua Aero Club was making weekly visits to Whakatane and Galatea carrying out flying training. That same year saw the Opotiki Aero Club begin a liaison with the Kawerau Aero Club, and several members trained to private pilot level. The Kawerau Aero Club also tried to enter the field of passenger air services in 1962, but were unsuccessful.

By 1967 the Rotorua Aero Club was providing flying instruction at Whakatane (with resident instructor), Opotiki (in conjunction with Opotiki Aero Club), Ruatoria and Kawerau (in conjunction with the Eastern Bay of Plenty Aero Club).

Whakatane-based Bell Air Executive Air Travel Ltd. began operations in 1968 with a Cessna 185 (ZK CGH) and provided flying training from Whakatane Airport

[1] p 6 Whakatåne Airport Joint Venture, Annual Report 2014/15

NZIA GUIDE – ROGER WALKER

Roger Walker 1: Civic & Commercial

In the 1960s, New Zealand's most exciting architecture emerged from Christchurch – Miles Warren, Peter Beaven and a host of other talented architects turned the city into the architectural hothouse now referred to as The Christchurch School. However, in the early 1970's a series of shifts – the ebbing of confidence in modernist principles, and key Christchurch architects moving their focus to large commercial projects – the Christchurch School seemed to lose its urgency and Wellington took over as New Zealand's architectural laboratory. At the center of this scene were the young architects Ian Athfield and Roger Walker.

The best remembered 1970s work of both architects is their extroverted houses, but both were also active from their earliest days in the public and commercial realms. Walker had moved to Wellington to work under Calder, Fowler & Styles, his early contributions including the Link Span buildings and a church in Taumarunui, both indicating what was to come. With a few years he had completed The Wellington Club, a colorful cluster of low-rise forms that stood out among the high-rise offices of The Terrace. It created a sensation and became Walker's first claim to fame.

The building demonstrated a radical break with the sensible Christchurch modernism of Warren & Mahoney (although not with the romantic direction Beaven was by then pursuing). However, Walker's career emulated W&M's in several ways, the most startling being the extreme rapidity with which he was able move from houses up to much larger buildings – he completed complex, high-profile projects such as Centrepoint and Whakatane Airport within a few years of making the transition into independent practice.

His career also mirrored that of W&M in that the unique architectural vocabulary that would define his work for years appeared almost fully formed in his earliest projects. At The Wellington Club, a relatively simple palette of concrete block, in-situ concrete, and timber (oddly similar to that of W&M's early work) was formed into, as Gerald Melling wrote, "cylindrical towers, tall pyramids, truncated pyramids with mysterious attic rooms nestled behind dormer windows, nooks and crannies and secret corners, spiral staircases, [and] circular windows". This language was a mash-up of numerous influences – elements from local colonial and High Victorian architecture, aspects of New Brutalism, and ideas drawn from Japanese maestro Kenzo Tange and the Metabolists who developed under his influence. Walker's visit to Japan in 1970, particularly to the Osaka Expo, was particularly influential, giving him direct experience of robust way Tange expressed a building's internal functions externally. In the early 1980s, only a few shifts - the addition of trellis and polycarbonate to the material palette, a re-orientation from colonial towards classical references, slightly flatter and more graphic manipulation of façades – would bring Walker's work into alignment with the bold Postmodernism then emerging from Europe and the US.

Walker's exuberant architecture has provoked mixed reactions. Controversial buildings often become our most loved, but a number of Walker's buildings have met premature ends. Some, such as The Wellington Club and Centrepoint, have succumbed to economic pressure, while others (Park Mews, THC Queenstown) suffered insensitive alterations. Even nature has been unkind to Walker, a fire destroying his Waitomo Caves complex. The future of the Whakatane Airport is also uncertain, with plans for the area requiring a much larger terminal. Rather than being discouraged in the face of conservatism, controversy, and destruction, Walker maintains, as Russell Walden put it, "the joy and creative rebellion of the free spirit." Long may it continue. *Andrew Barrie & Kirsten Zink*

Biography:

Roger Neville Walker was born in Hamilton on 21 December 1942. Much has been made of his childhood construction efforts, particularly his wooden trucks and the Fort Nyte play hut constructed as a 10-year-old. Walker attended Hamilton Boys High School; he wanted to design cars but his high school career advisor suggested designing buildings instead. Walker studied architecture at the University of Auckland, and during his studies he had holiday jobs with Rodney Smith Architects in Hamilton, Warren & Mahoney in Christchurch, and the established Wellington firm of Calder Fowler & Styles. On graduating in 1964, he was recruited to work for CF&S, where he was handed design responsibility for a number of surprisingly high-profile projects such as The Wellington Club. He gradually transitioned from CF&S into independent practice in the early 1970s. His practice has had as many as six staff, but currently has two.

Walker has continued his fascination with cars, as evidenced by his large collection of cars and his sideline as presenter of local motoring TV program, the *AA Torque Show*.

1 1968-69

Link Span
Taranaki Street Wharf
Wellington

Designed by Walker during his time at CF&S, this building was originally a customs post for the port - the elevated viewpoint allows for easy surveillance of the area. The building has since been adapted for the Wellington Free Ambulance, and the amenities block that was built alongside it has been since been removed. Both buildings pioneered Walker's use of concrete block and steep profiled steel roofs, which contrasted with the low gables of existing port sheds. Walker established popular usage of these elements throughout the 70's. The ground floor toilet is apparently Walker's first use of his signature porthole window.

2 1968-72

The Wellington Club
88 The Terrace
Wellington

Completed under the auspices of CF&S, this mix of historical and contemporary elements provided visual relief among the filing-cabinets that line The Terrace. The club had two buildings on either side of a central courtyard with a large pohutukawa tree marking the street entry. The low-rise design was controversial from the start, with many seeing it as a waste of valuable land. Despite being deliberately over-structured in hope that demolition would be too costly to justify re-development, the building was demolished in the mid-1980s to make way for a high-rise Warren & Mahoney scheme.
See *Transition* Sept./Dec. 1981, *Arch. Review* Feb. 1981 and *NZ Architect* 4/1984 and 5/1985.

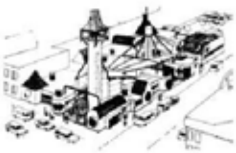
3 1971

Whakatane Airport
Aerodrome Rd
Whakatane

Walker's first commercial building completed in his own office, this project answered a request from the Whakatane Airport Authority for a building that would benefit local tourism and 'put Whakatane on the map'. Set on a flat, open plain, the expressive cluster of forms was designed to be viewed from all sides and to reflect the mounded form of Whale Island that is visible in the distance. This relatively small-scale terminal remains a refreshing change from the sterility typical of airports, but the future of the building is uncertain as predictions for increased usage are sparking plans for further development on the site. The project received an NZIA Enduring Architecture Award in 2003.
See *Home & Building* April 1975.

4 1971

Centrepoint
161 Queen Street
Masterton



With this small town shopping development, property magnate Robert Jones gave Walker complete design freedom (requiring only the inclusion of a courtyard), the result being a marketplace marked by a 20m tower. The tower acted as both a landmark and a viewpoint from which to overlook the town. Just a few fragments of Walker's design now remain. After closing off the tower to prevent vandalism the building became, as Walker himself puts it, Centerpointless and was it largely demolished. Jones would later describe the project as "as heap of trouble all the way and a lesson against pioneering." See *Home & Building* June 1973 and Bob Jones, *Jones on Property: The Property Game for Fun & Profit* (Wellington: Fourth Estate Books, 1977).

5 1972

The Sandcastle Motel
20 Paetawa Road
PekaPeka

This small motel, tucked in just behind the dunes on the Pekapeka Beach waterfront, has just eight units. A low-cost construction project, the composition is vintage Walker - the cellular rooms are each topped by a steeply pitched roof with exposed internal structure, while concrete-walled circular bathrooms each have a skylight tube sprouting from the roof. See: www.sandcastlemotel.co.nz and *Architecture NZ*, Jan./Feb. 2004. This is an interesting neighborhood architecturally. Walking south along the beach from the Motel you might spot Architecture Workshop's Pekapeka House (2006) and Fritz Eisenhofer's own under-the-dunes dome house (1970s).

6 1975-1981

Rainbow Springs
192 Fairy Springs Rd
Rotorua

The Rainbow Springs Kiwi House (1976) was the first enclosure to display kiwis out of the wild. Walker paid close attention to achieving 'nocturnal' light, even designing an adjustable skylight that could replicate moon phases. He was later advised that the kiwis would never have noticed it due to extremely weak eyesight. Walker went on to design the souvenir shop and admin facilities (1977) and tearooms (1981). The buildings display Walker's typical eccentricities – porthole windows, primary colors, cylindrical towers and steep gables – but overall the design is more restrained. The project received an NZIA Waikato-BOP Branch Award in 1977.
See *Home & Building* June 1977.

7 1979

Willis Street Village
142-148 Willis Street
Wellington

Conceived as a Wellington's answer to Auckland's Parnell Village, this complex brought colonial charm to central Willis Street. Walker's whimsical architecture accommodates a mix of boutique shops, cafes and housing over two levels. The combination of commercial with theatrical elements resulted in glazed shop frontages topped by pitched roofs, dormer windows, entrance arches, and elevated turrets. Surrounded by a humpbacked bridge, rounded tower and a collection of colorful stores, the central courtyard provides a delightful haven from the busy street. The intimate scale of the complex still creates a specifically pedestrian-friendly zone in an increasingly high-rise area.

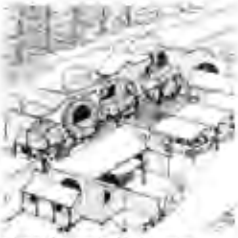
8 1980

Waitomo Caves Reception Ctr
39 Waitomo Caves Road
Waitomo

An increasingly popular tourist attraction, the Waitomo Caves required a reception area to welcome and hold tourists while they waited for guided tours of the caves. Walker situated public toilets, staff facilities and a souvenir shop along a meandering path that gently guided people to the reception building beyond. The strong, expressive forms of the various buildings were clad in timber shingle for walls and roofs, respecting the forest surrounds without needing to be invisible. The project won a Tourist & Publicity Department Award in 1982 and an NZIA Branch Award in 1983, but was destroyed by fire in 2005 – Architecture Workshop's elegant replacement was completed in 2010.
See *NZ Architect* no.3 1984.

9 1982

THC Chateau Tongariro Housing
State Highway 48
Mt. Ruapehu



The THC wanted to improve the standard of staff facilities to encourage skilled workers from European and North American ski resorts to shift to this side of the world. Walker managed to work within the tight budget to provide five self-contained units clustered around a central courtyard. The stark contrast to the grandiose Georgian architecture of the nearby Chateau (1929) makes the design even more delightful. The staff housing at Chateau Tongariro was one of three developments Roger worked on for the Tourist Hotel Corporation —he also designed buildings for THC in Wairakei and Queenstown (see Other Addresses).

10 1982

Gas House
436 Palmerston Road
Gisborne

The Gas House was constructed when gas first arrived in Gisborne. A local plumber saw the potential of the energy source and asked Walker to design a signature building that would appeal to a new market. Walker's futuristic design proved that even industrial buildings could be attractive. The roof of the showroom and workshop cascades down in large rounded steps. The corrugated iron cladding was chosen for its industrial image and structural strength. The building won the 1984 Steel Awards, but is now a Guthrie Bowron paint store and (perhaps appropriately) has had its silver metalwork painted over in beige.
See *Construction* July 84 and *New Zealand Architect* no.4 1983 and no.4 1984.

11 1992

Chesterman Building
21 Rostrevor Street
Hamilton

buildings in his hometown, the Chesterman Building sits on the banks of the Waikato River and has multiple balconies and a tower to allow appreciation of the view. The building received a NZIA Waikato & Bay of Plenty Branch Award in 1993, with the jury stating: "Demands attention through form and colour, expressing the vitality of the occupant's [advertising agency] business. Sited in an area of transition between commercial and residential, the building portrays the appropriate residential scale with commercial flair." The building was also a finalist for an NZIA National Award in 1994.
See *Architecture NZ* March/April 1994.

12 1978/1995

Margrain Vinyard
Cnr Ponatahi & Huangarua Rds
Martinborough

Photo: Walker Architecture & Design

The Margrain Vineyard was planted in 1992. Recognising the success of wine-based tourism in the Martinborough region, the owners commissioned Walker to design various buildings for the vineyard. Fourteen villas were designed in 1995 to accommodate guests right by the vines with stunning views over the Tararua Ranges. Walker's edgy and colorful style makes the villas stand out in the landscape. He later designed the conference center (2001) and winery building (2005). Also in Martinborough is the Booth House (25 Ferry Rd), one of Walker's Vintage Homes.

13 1997/2004

Thorndon Primary School
20 Turnbull Street, Thorndon,
Wellington

Walker's work on this compressed inner city site involved two classrooms and an admin block (1997), with a further classroom added later (2004). The efficient layout makes the most of the site – the buildings fold around a sunny central courtyard, defining a safe and sheltered play area within a built-up urban environment. School-aged children are among the the most appreciative clients of Walker's expressive and imaginative architecture, enjoying his free-flowing curves and splashes of color as much as the playground itself. The school received a NZIA Wellington Branch Award and Color Award in 2005.
See *Architecture NZ* May/June 2001.

Other Addresses:

St. Patricks Church (1966)
14 High Street, Taumaranui
This was one of Walker's projects at CF&S. The diagonal plan and exposed timber interior acknowledge John Scott's famed churches. Walker's fondness for "Noddy" towers, crisp geometry and verticality are already apparent. While in Taumaranui, check out Walker's 1967 Wiles & Hayes Chemists (now Unichem) at 93 Hakiaha Street, apparently NZ's first glass verandah.

Cream Can Outlets (1974-76)
These bold ice cream stores were completed in Tauranga (1974, demolished), at 57 Ranolf St, Rotorua (1975), and in Hamilton (1976, demolished).

James Cook Arcade (1979)
294-296 Lambton Quay, Wellington
Designed with Gus Watt. See *NZ Architect* no.3 1980.

THC Wairakei Hotel (1980-81)
State Highway One, Taupo
Now Bayview Wairakei Resort. Walker's projects on the site include a laundry, spa, toilets, villas and a playground. See www.wairakei.co.nz.

Solitaire Lodge (1982)
16 Ronald Rd, Lake Tarawera
See www.solitairelodge.com.

Centre City Shopping Center
11 Gill St, New Plymouth ('86)
This 50,000m² includes department stores, a supermarket, 50 shops, a large food court and 750 car parks. See *Architecture NZ* May/June 1989 and Jan./Feb. 1990.

THC Queenstown Hotel ('80)
Earl Street, Queenstown
This complex won an NZIA National Award in 1986. It is now a Novotel - its recent top floor addition was not appreciated by Walker. See *Architecture NZ*, Nov/Dec 87, and Jul/Aug 1988.

Thorndon New World (1997)
41 Murphy St., Thorndon, Wellington
Included surrounding developments. See *Architecture NZ*, Mar/Apr 1999. Walker also completed New World supermarkets at Lower Hutt (1999) and Wainuiomata (2000).

Il Cavallino Restaurant (1997)
13 Pirie St., Wellington
Now the Hop Garden.

Sources:

Except where noted, the photos are by Kirsten Zink or Andrew Barrie. Many thanks to Roger Walker for his generous help in preparing this guide.

The best source on Walker is Gerald Melling's exuberant monograph, *Positively Architecture: New Zealand's Roger Walker* (Dunedin: Square One Press, 1985). Key articles on Walker include Alastair Best's "The Architecture of Ebullience", *Architects Journal* 8 Nov. 1978 and Russell Walden's response to Best, "Walker's Double Code", *Architects Journal* Feb. 1979; Walden's "NZ Audacity: The Work of Roger Walker" *Architectural Review*, Feb. 1981; Walden's "The Romantic Rebellion of New Zealand's Roger Walker" *Transition* v2 n3/4 Sep/Dec 1981, and "Profile: Roger Walker", *Home & Building* Dec./Jan. 1986/87.
See also Chris Brooke-White's interview, "A survival kit for small offices" *NZIA Journal* Oct. 1977; Roger Walker's "Voluntary Article for NZ Architect", *NZ Architect* n2, 1978, "New Zealand in America: Lectures 'Up from Down Under'", *NZ Architect* 1/1987, and Keith Stewart's "Bending the Rules" Architecture New Zealand, Nov. Dec. 1988.

WHAKATANE COUNCIL ARCHIVE MATERIAL

DESIGN CERTIFICATE

MEMBER OF
CONSULTING ENGINEERS DIVISION
N.Z. INSTITUTION OF ENGINEERS

To The County Engineer
Whakatane County Council
P.O. Box 244 Whakatane

I, Reginald Charles Amos

being registered under the provisions of the Engineers Registration Act 1924 and currently holding an Annual Practising Certificate, hereby certify that I have supervised the design of, and the computations for the Whakatane Airport Terminal Building

shown on the accompanying plan(s) prepared in ~~my office, numbered~~ the office of R.N. Walker, Architect, Wellington, numbered 14, 15, 16 & 17
titled Whakatane Airport Terminal Building

dated Dec. 1971 and described in the accompanying specifications for a

Concrete Block + timber framed structure
[TYPE OF STRUCTURE]

proposed to be erected for

on lot Section Deposited Plan No

Located at Whakatane Airport

I further certify that the works defined above have been designed in accordance with sound and widely accepted engineering principles; that they have been designed to support the loads specified in

NZS. 1900 Chapter 8. 1965 with Amend's No 1, 2 & 3

and further that I have ascertained to the best of my ability that the stresses and combinations of stresses in the various materials of construction under the above loads will not exceed the maxima to ensure the safety and stability of the structure if erected in accordance with these plans and specifications.

Various aspects of the design are in accord with the following relevant authorities

All structural parts to appropriate Sections of NZS 1900 as at Dec 1971

Signature: R C Amos Division Member Date 12th Oct 72

Professional Qualifications BE (Civil) MNZIE MICE Regd Engr.

For and on behalf of

Address

BRUCE-SMITH CHAPMAN & AMOS
CONSULTING CIVIL & STRUCTURAL ENGINEERS
[illegible] VICTORIA STREET WELLINGTON
PHONE [illegible] P.O. BOX [illegible]

BRUCE-SMITH CHAPMAN & AMOS
CONSULTING CIVIL & STRUCTURAL ENGINEERS
56 VICTORIA STREET **WELLINGTON**
PHONE 46241 **P. O. BOX 2703**

D. BRUCE-SMITH BE MICE FNZIE FIStructE
T.J.W. CHAPMAN BE MICE MNZIE
R.C. AMOS BE MICE MNZIE

12th Oct 1972

The County Inspector
Whakatane County Council,
Whakatane.

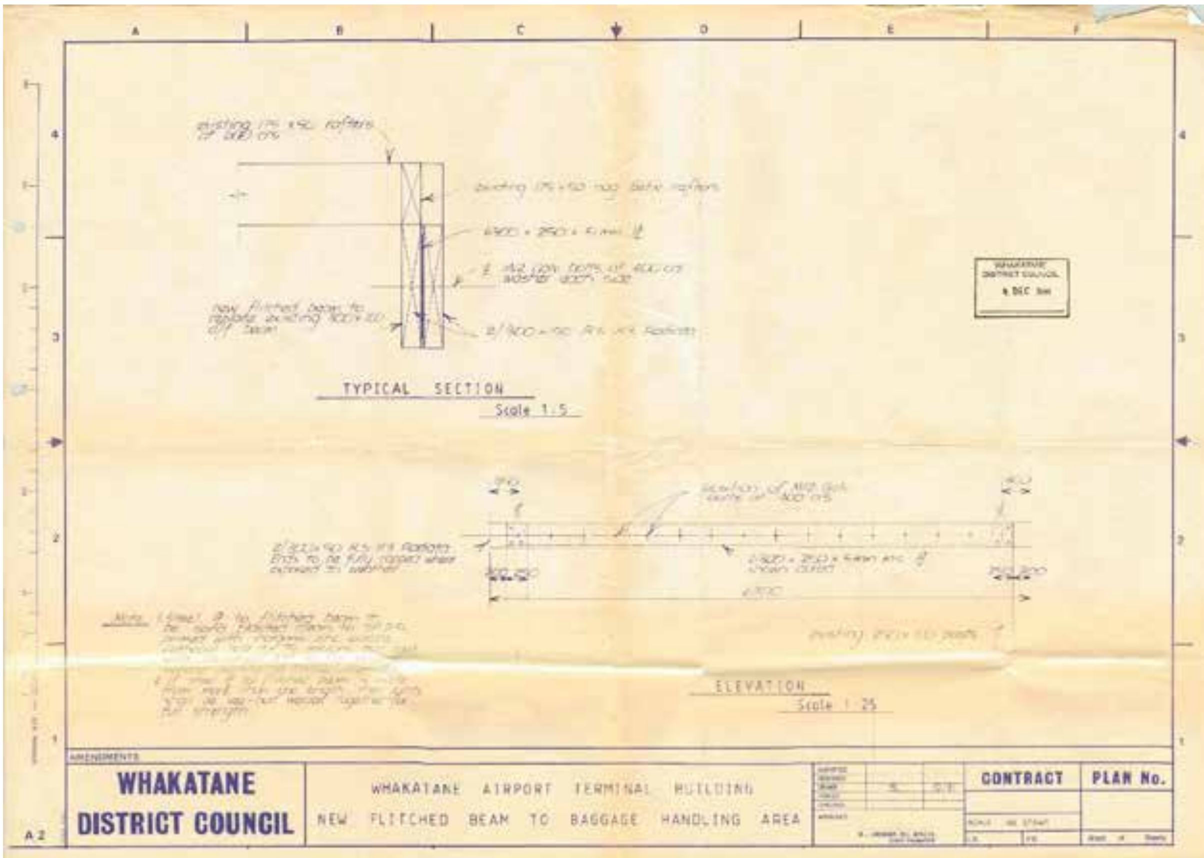
Dear Sir.

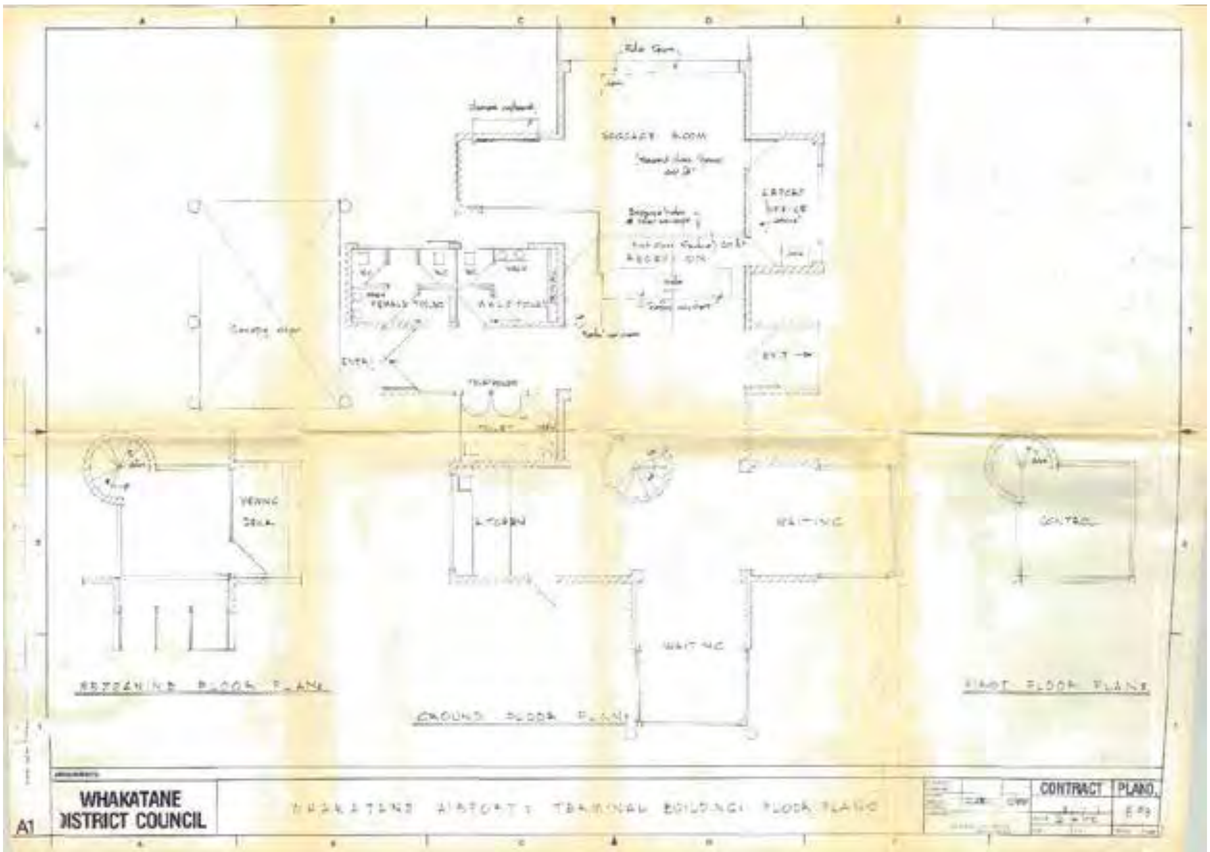
Airport Terminal Building
Your letter 11th Oct 72.

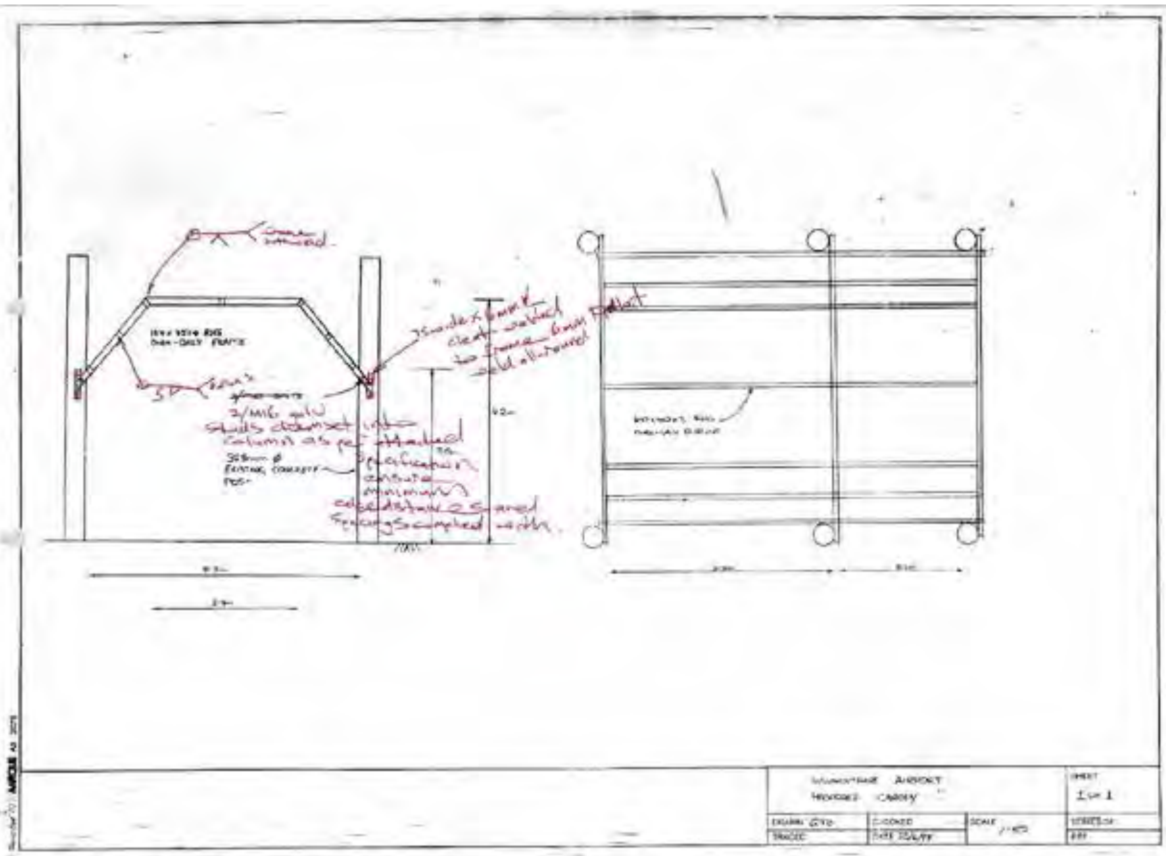
We forward herewith our design certificate as requested, and trust that the information supplied is adequate for permit purposes.

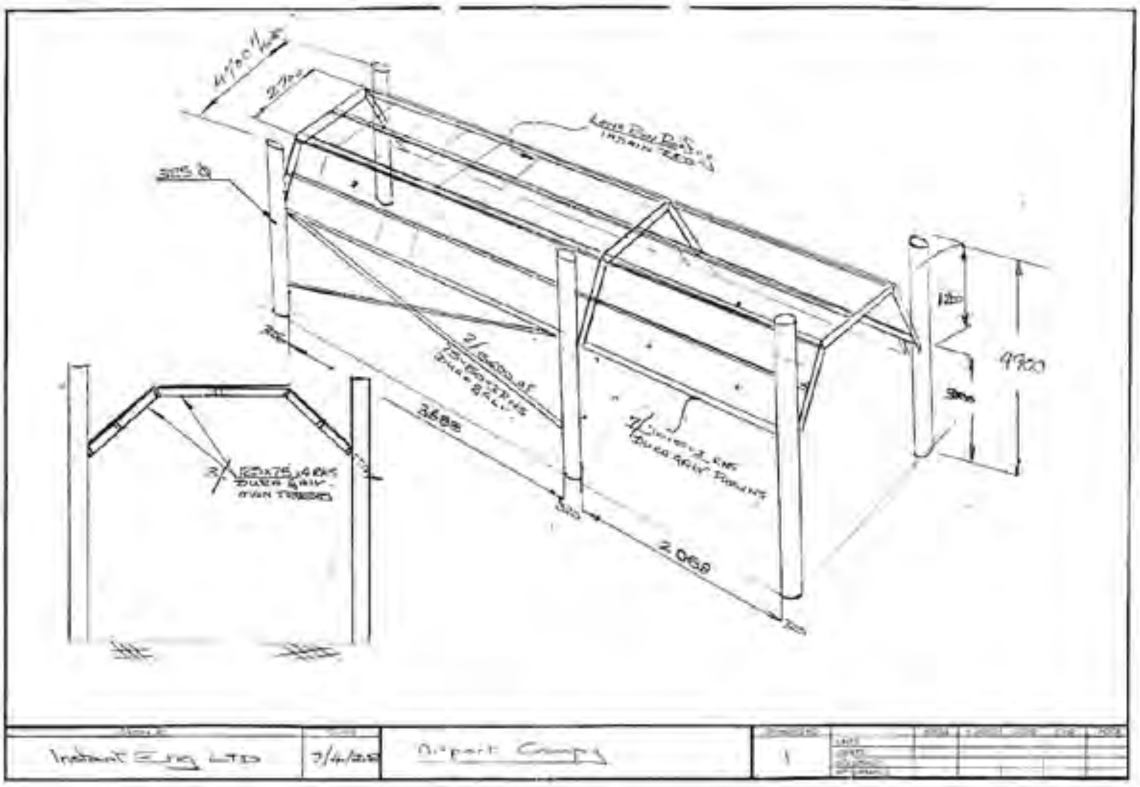
Yours faithfully
Bruce Smith Chapman + Amos.

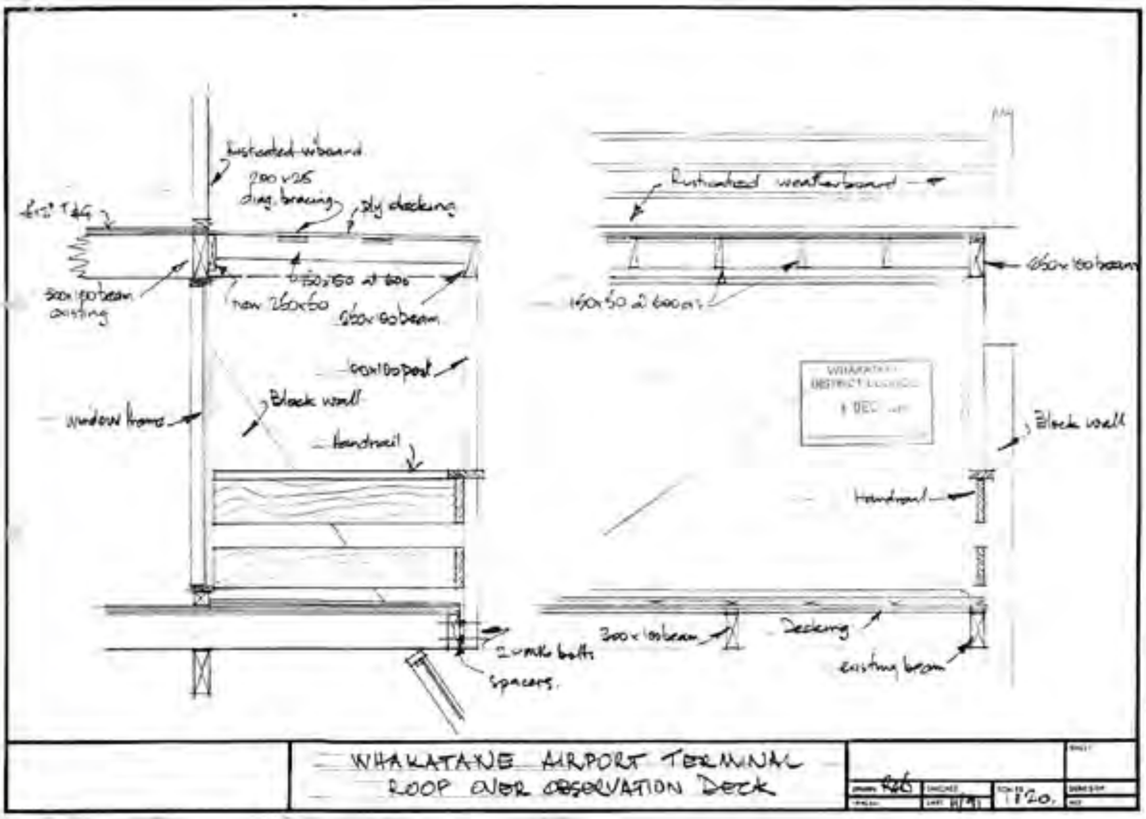
R.C. Amos.


TYPICAL SECTION
Scale 1:5
ELEVATION
Scale 1:25
AMENDMENTS
WHAKATANE
DISTRICT COUNCIL
WHAKATANE AIRPORT TERMINAL BUILDING
NEW FLITCHED BEAM TO BAGGAGE HANDLING AREA
CONTRACT
PLAN No.
A2

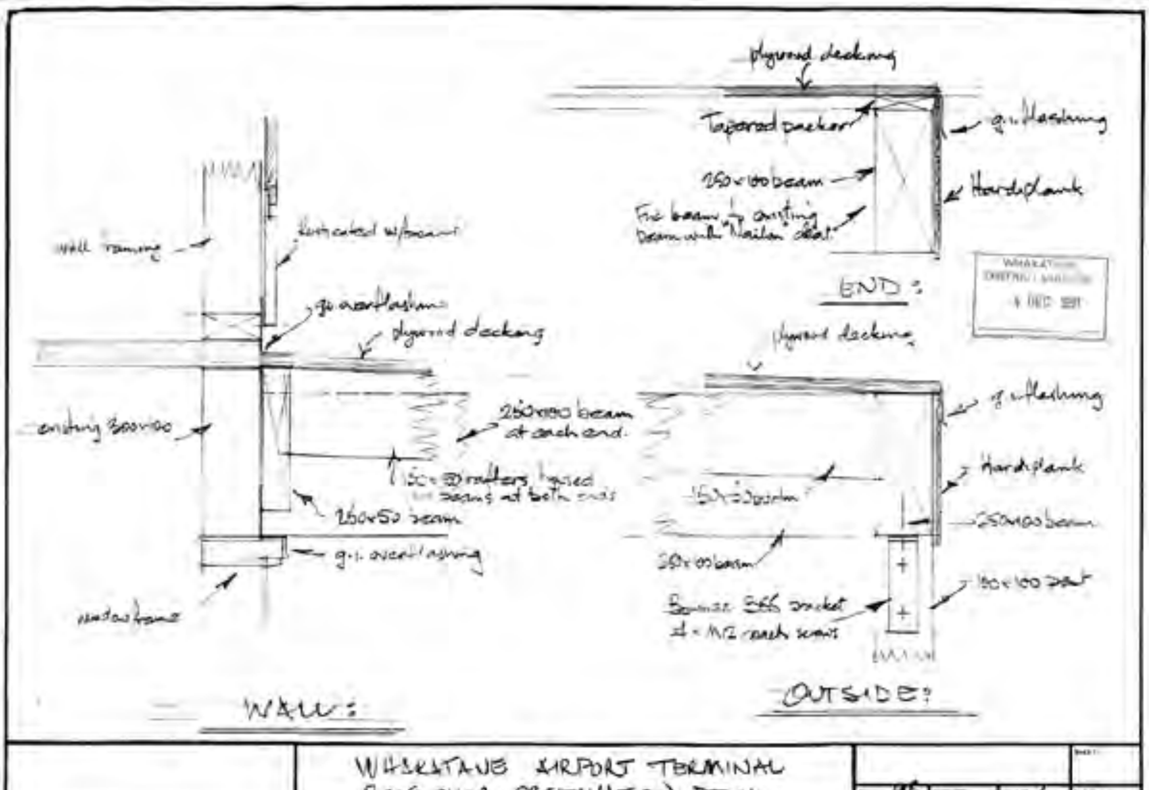

BAGGAGE ROOM
WAITING
CONTROL
MEZZANINE FLOOR PLAN
GROUND FLOOR PLAN
FIRST FLOOR PLAN
WHAKATANE
ISTRICT COUNCIL
WHAKATANE AIRPORT TERMINAL BUILDING FLOOR PLANS
CONTRACT
A1


2/M16 galv
studs cast set into
Column as per attached
Specification
350mm Ø
cleats ... welded
to frame
weld all round
SHEET
1 of 1
SCALE


325 Ø
2700
4700
3688
2,068
1200
4700
Instant Eng LTD
7/4/
Airport Canopy



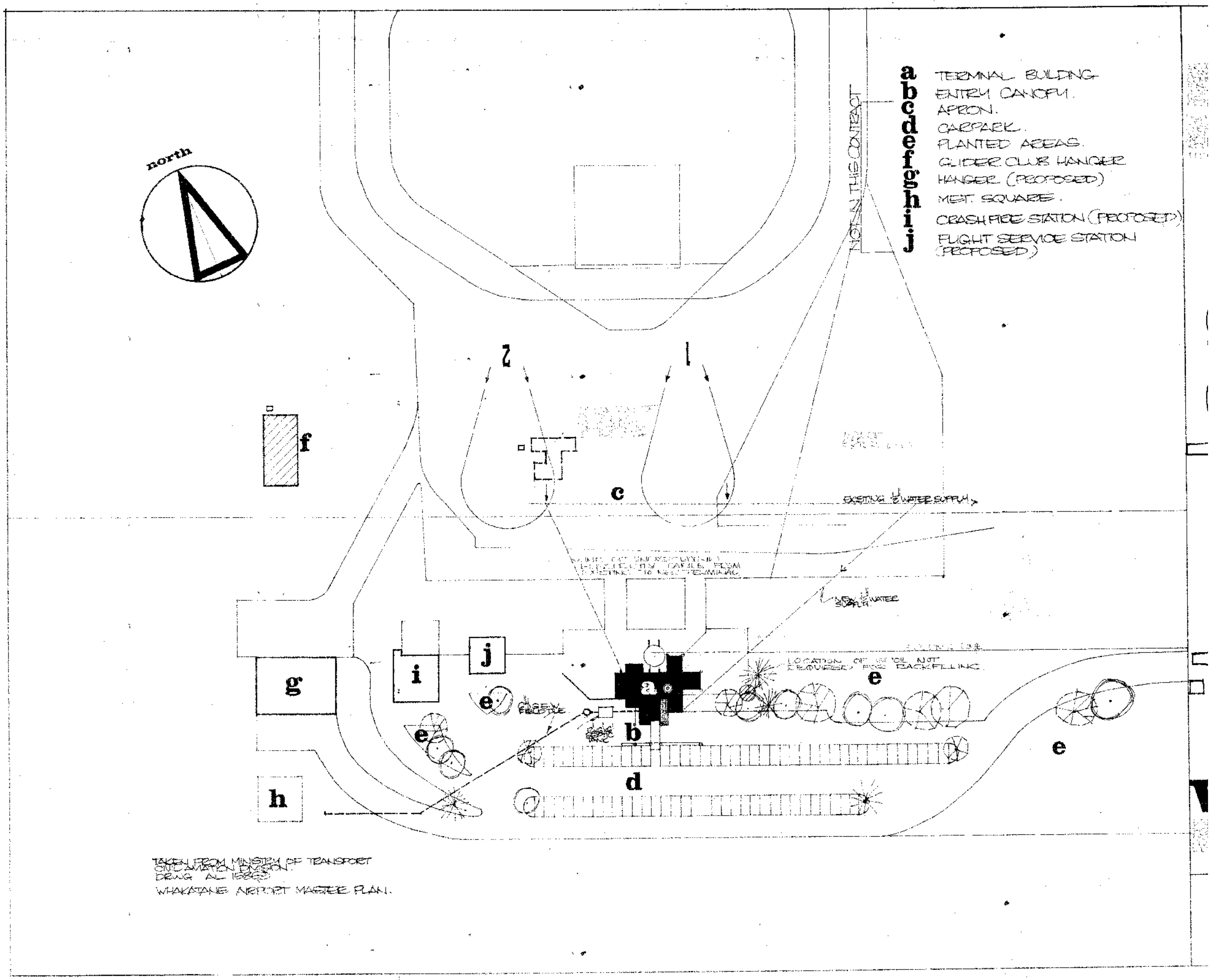
Rusticated w/board
200 x 25 diag. bracing
ply decking
Rusticated weatherboard
250 x 100 beam
300 x 100 beam existing
new 250x50
250 x 50 beam
150 x 50 @ 600 crs
Block wall
window frame
Handrail
Block wall
Handrail
300 x 100 beam
Decking
existing beam
spacers.
WHAKATANE AIRPORT TERMINAL
ROOF OVER OBSERVATION DECK



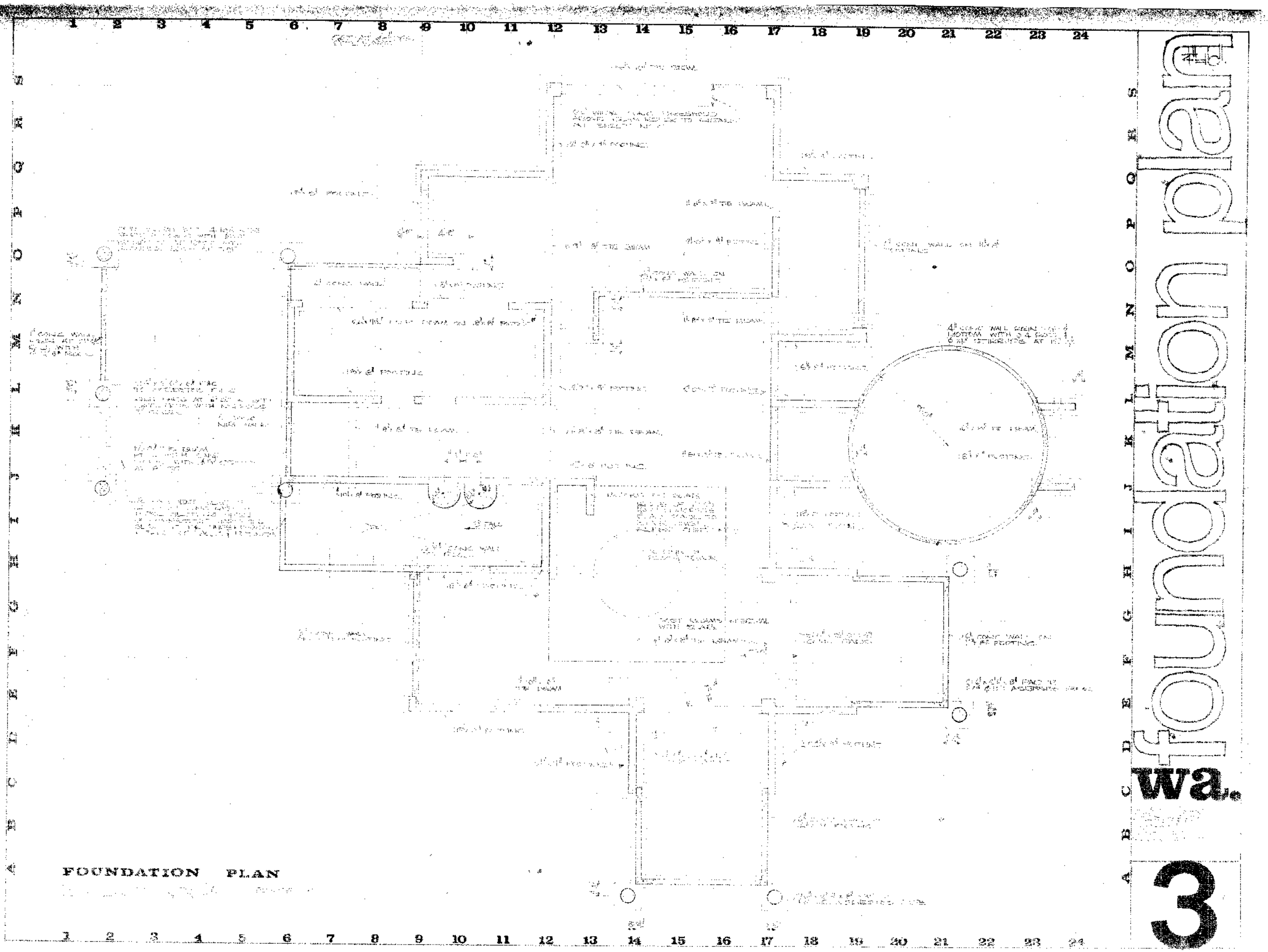
plywood decking
Tapered packer
g.i. flashing
250 x 100 beam
Hardiplank
wall framing
Rusticated w/board
plywood decking
plywood decking
END :
g.i. flashing
existing 300x100
250x100 beam at each end.
Hardiplank
250x50 beam
g.i. overflashing
150 x 100 post
window frame
WALL :
OUTSIDE :
WHAKATANE AIRPORT TERMINAL
ROOF OVER OBSERVATION DECK

Appendix 5.

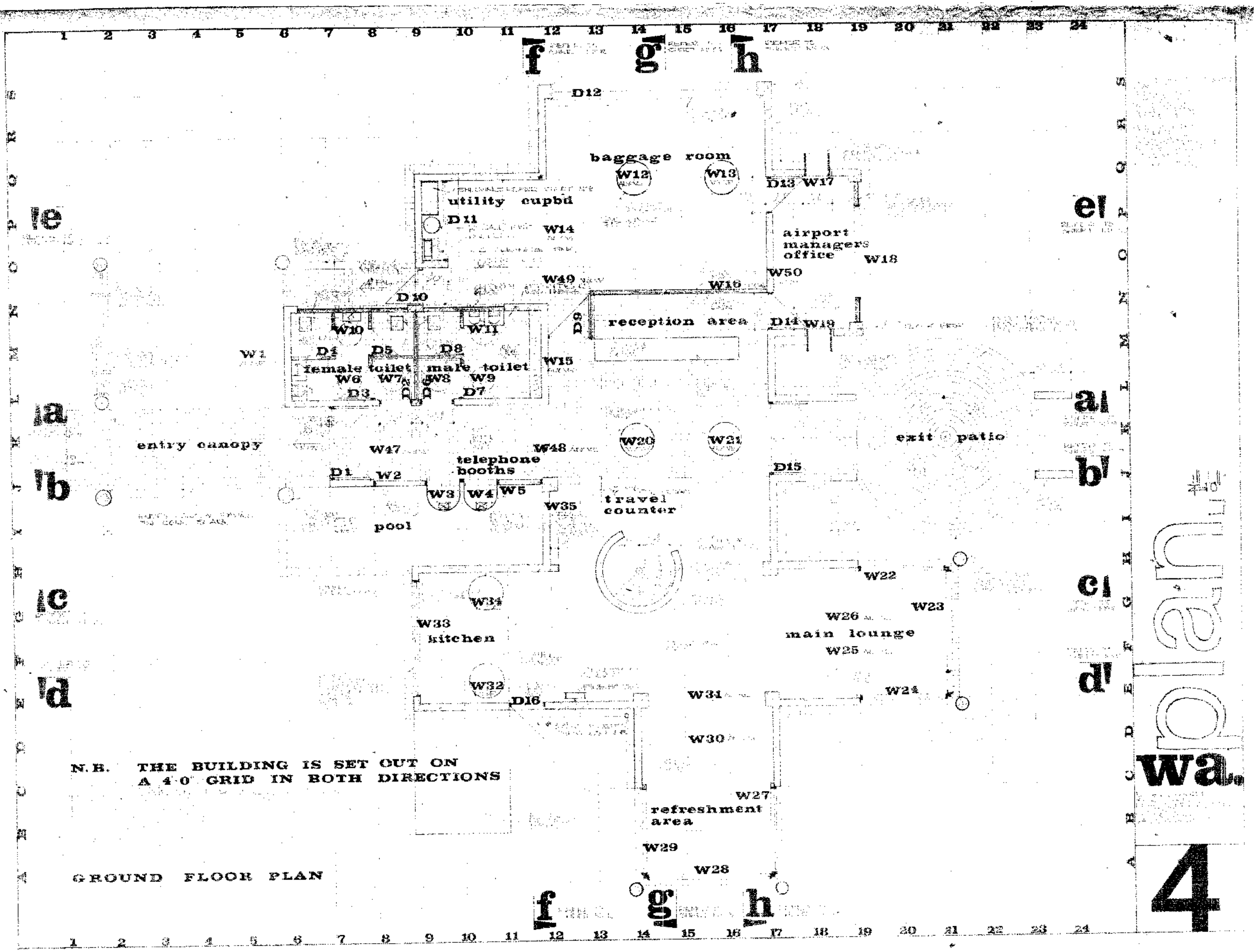
ARCHITECTURAL DRAWINGS - ROGER WALKER



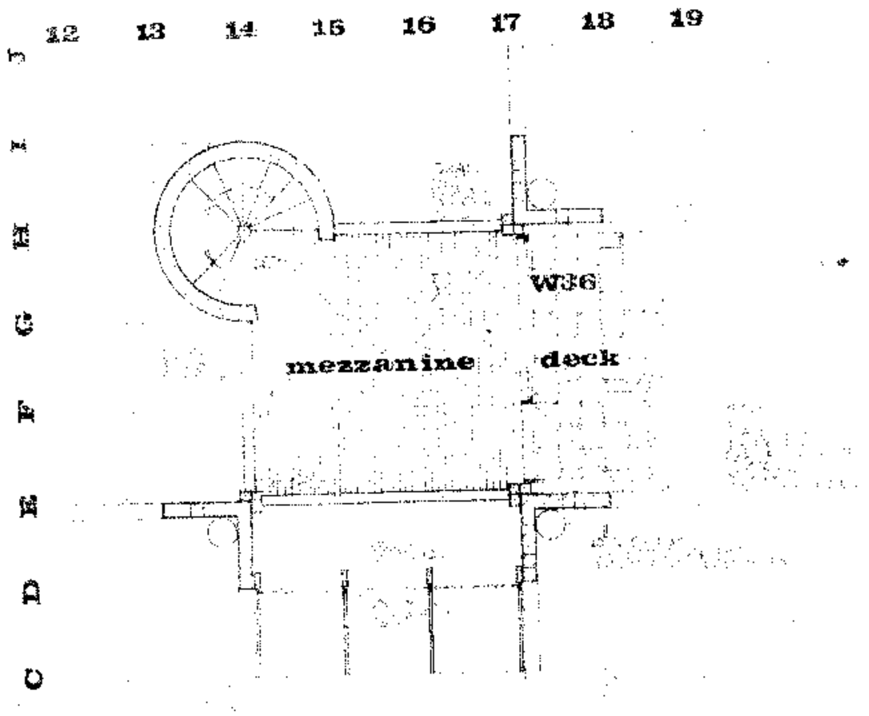
north
a TERMINAL BUILDING
b ENTRY CANOPY.
c APRON.
d CARPARK.
e PLANTED AREAS.
f GLIDER CLUB HANGER
g HANGER (PROPOSED)
h MET. SQUARE.
i CRASH FIRE STATION (PROPOSED)
j FLIGHT SERVICE STATION (PROPOSED)
NOT IN THIS CONTRACT
EXISTING WATER SUPPLY
NEW WATER SUPPLY
LOCATION OF SPOIL NOT REQUIRED FOR BACKFILLING
a
b
c
d
e
f
g
h
i
j
TAKEN FROM MINISTRY OF TRANSPORT CIVIL AVIATION DIVISION.
DRWG AL 15865
WHAKATANE AIRPORT MASTER PLAN.



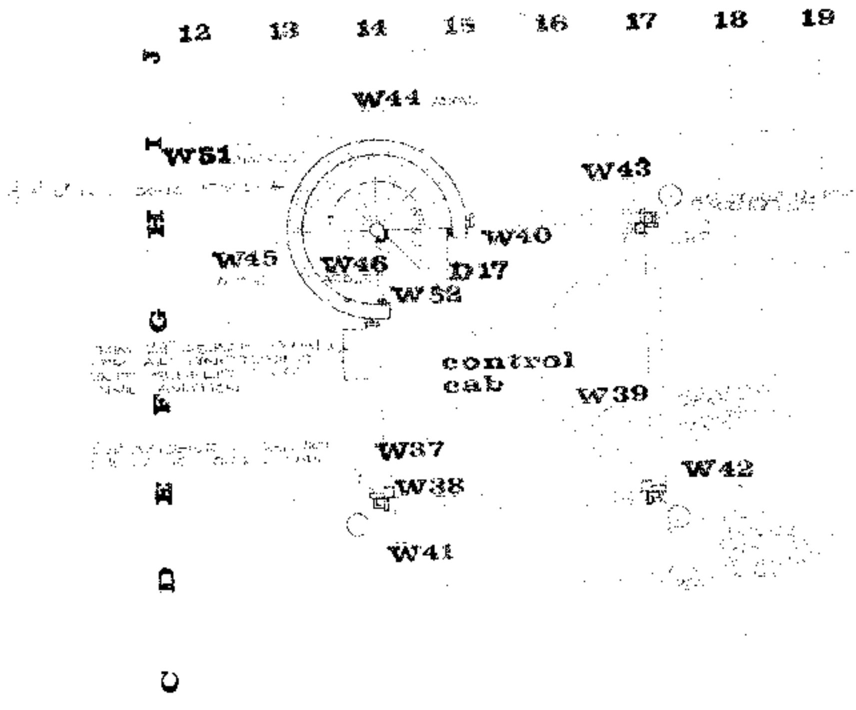
FOUNDATION PLAN



baggage room
utility cupbd
airport managers office
reception area
female toilet
male toilet
entry canopy
telephone booths
travel counter
exit patio
pool
kitchen
main lounge
refreshment area
D1 D3 D4 D5 D7 D8 D9 D10 D11 D12 D13 D14 D15 D16
W1 W2 W3 W4 W5 W6 W7 W8 W9 W10 W11 W12 W13 W14 W15 W16 W17 W18 W19 W20 W21 W22 W23 W24 W25 W26 W27 W28 W29 W30 W31 W32 W33 W34 W35 W47 W48 W49 W50
a b c d e f g h
N.B. THE BUILDING IS SET OUT ON A 4'0" GRID IN BOTH DIRECTIONS
GROUND FLOOR PLAN
wa.
plan
4



MEZZANINE FLOOR PLAN

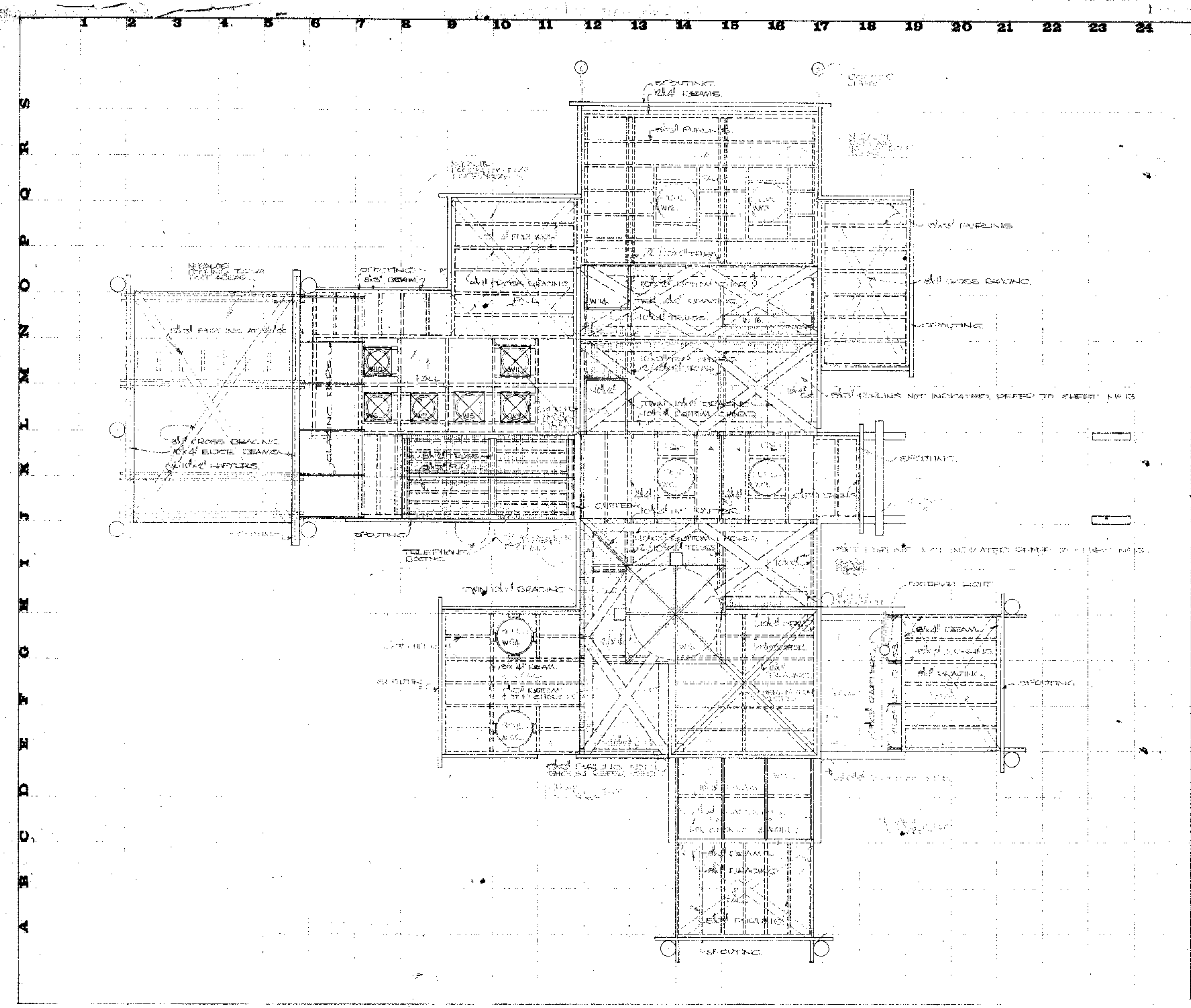


FIRST FLOOR PLAN

plan

wa.

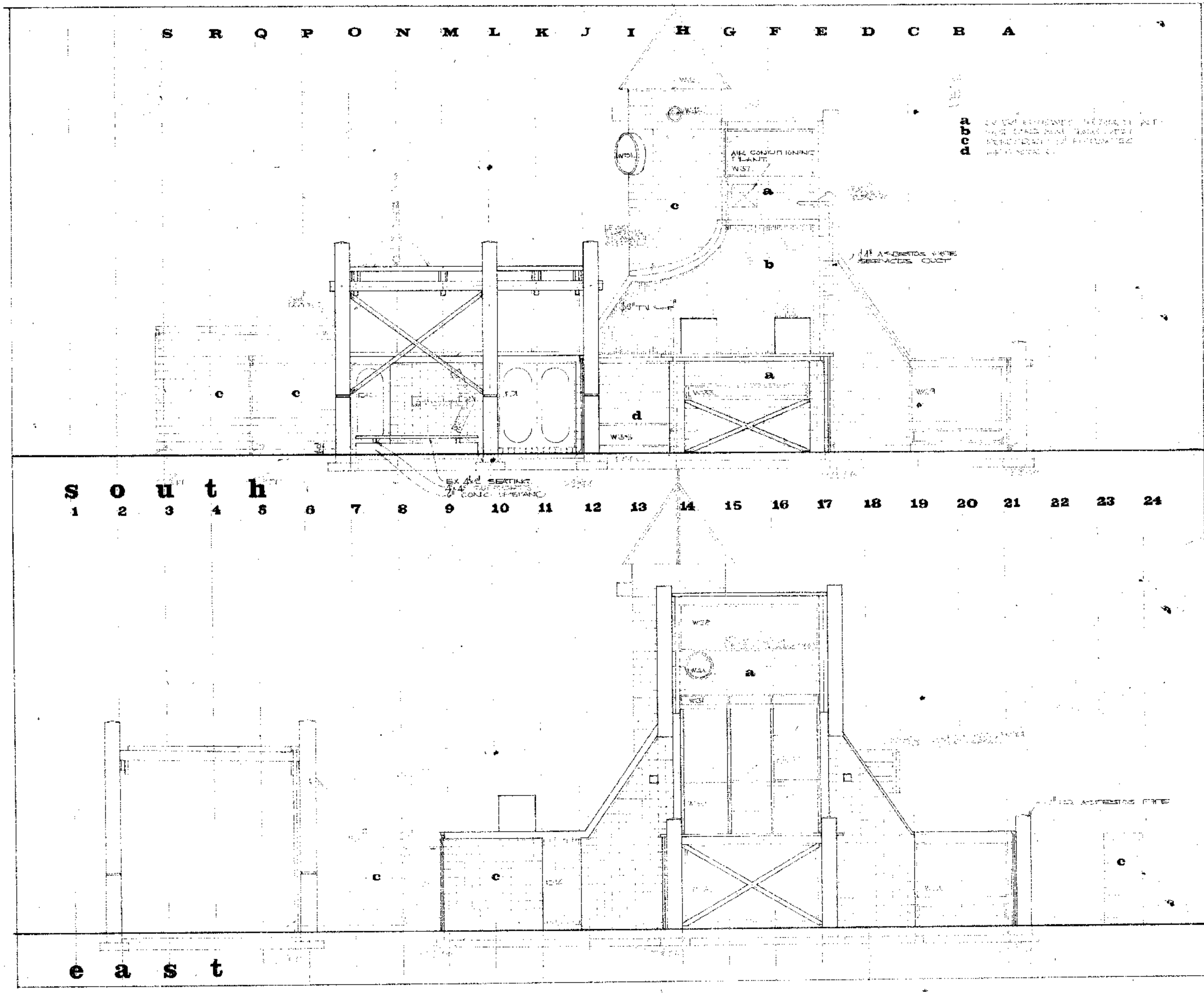
5



wa.

roof plan

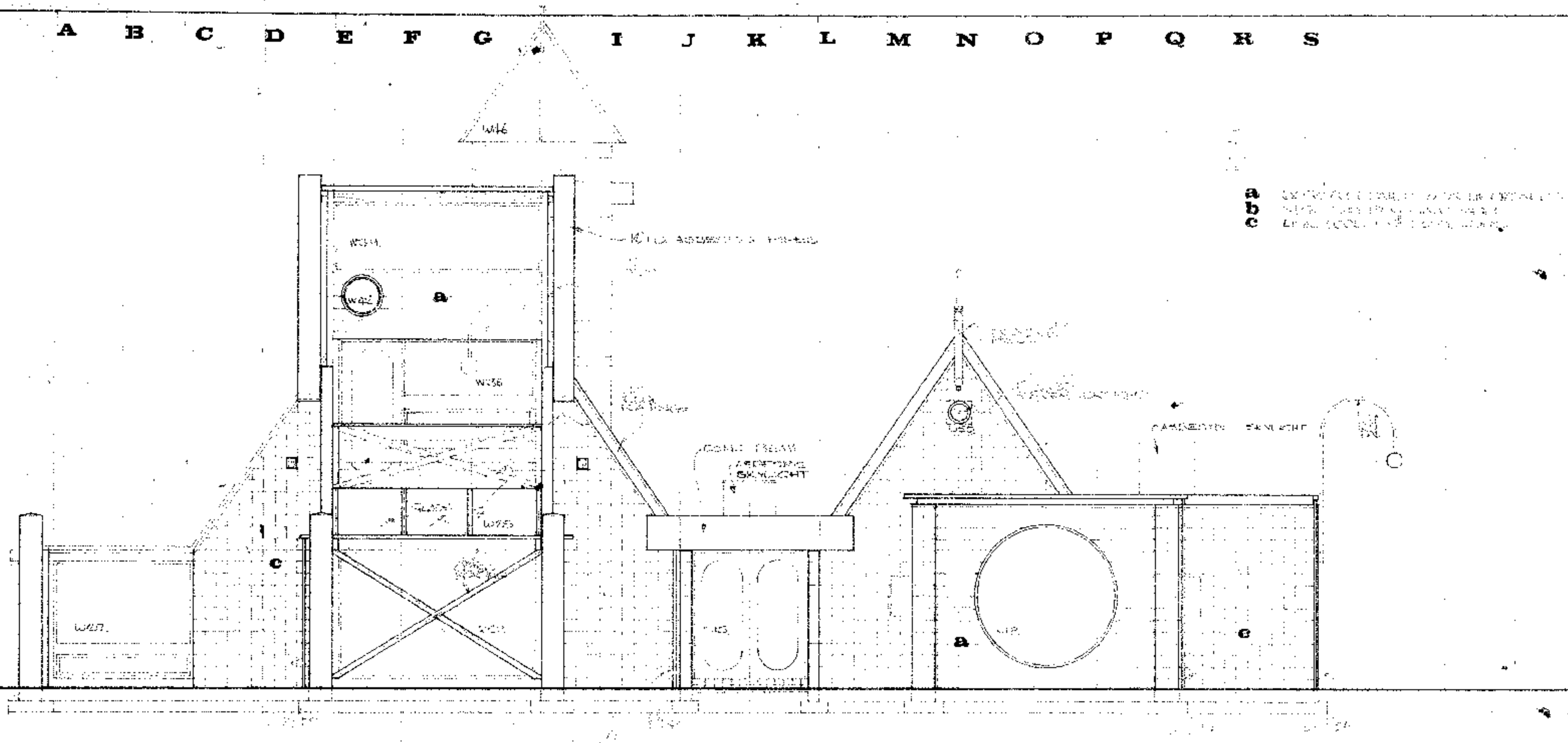
6



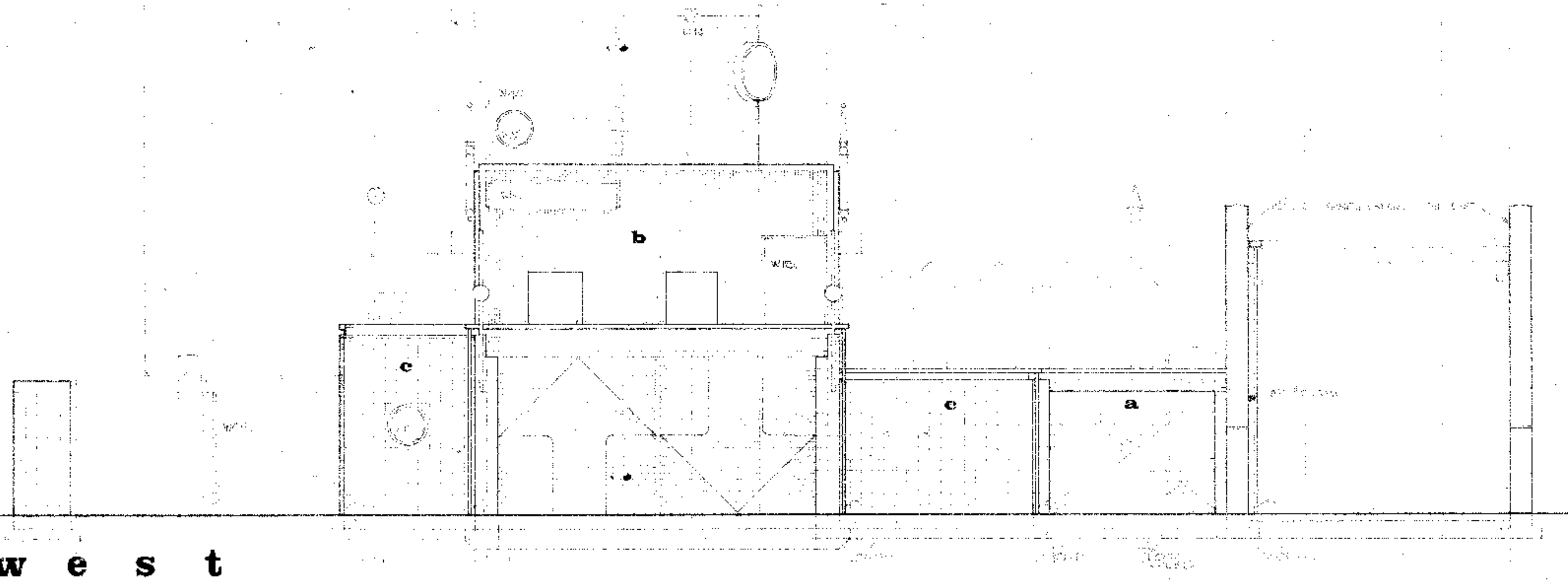
elevations

wa.

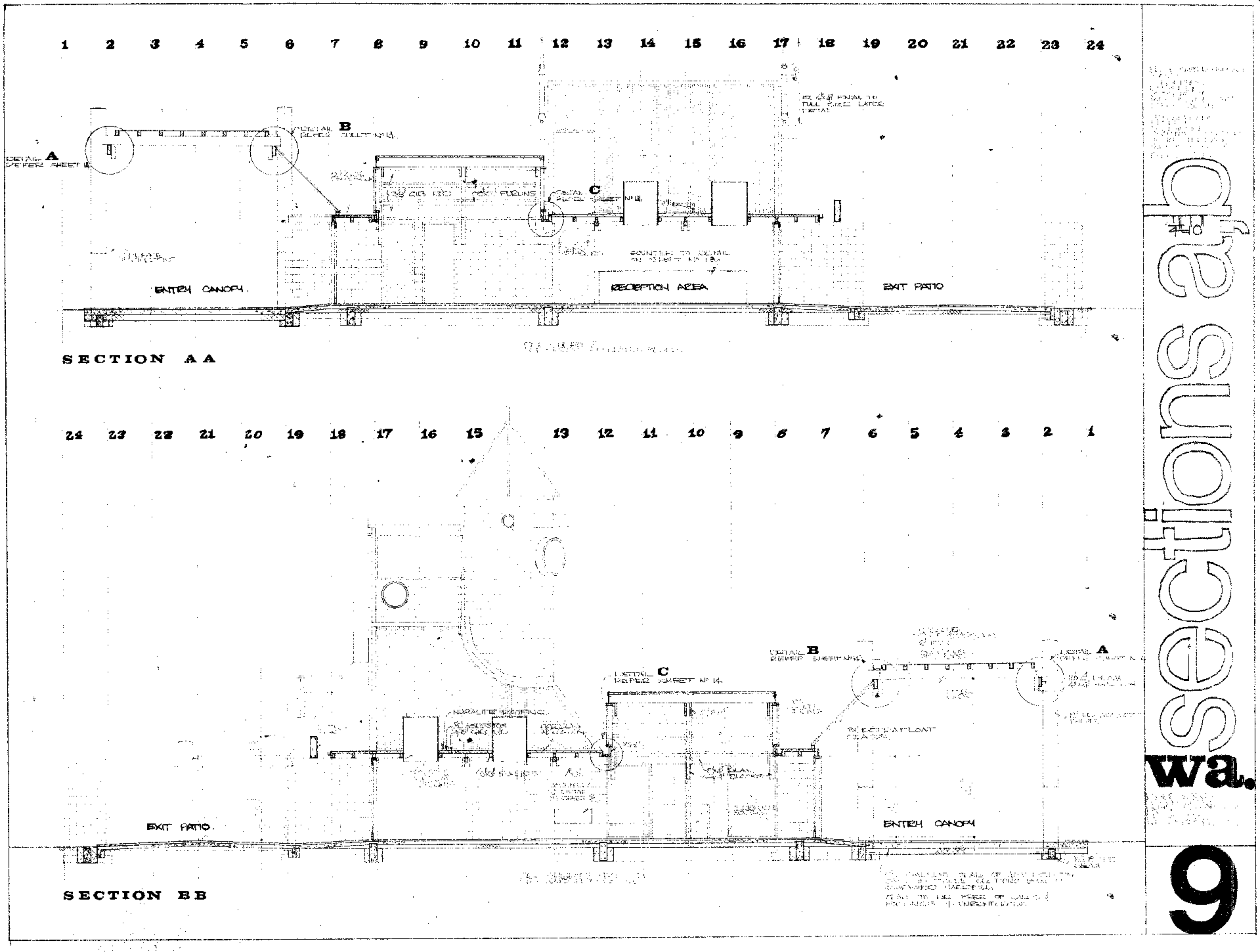
7



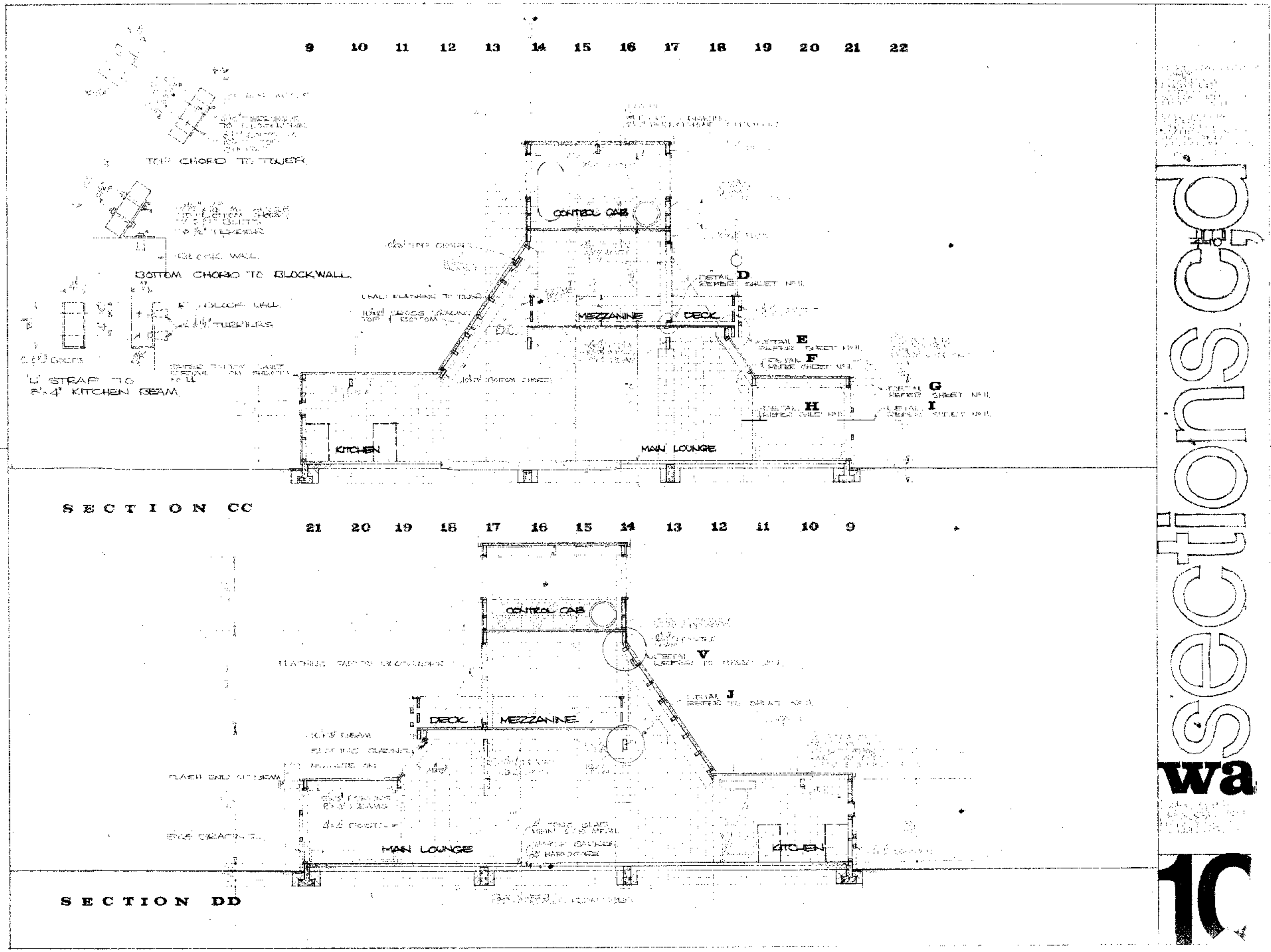
north



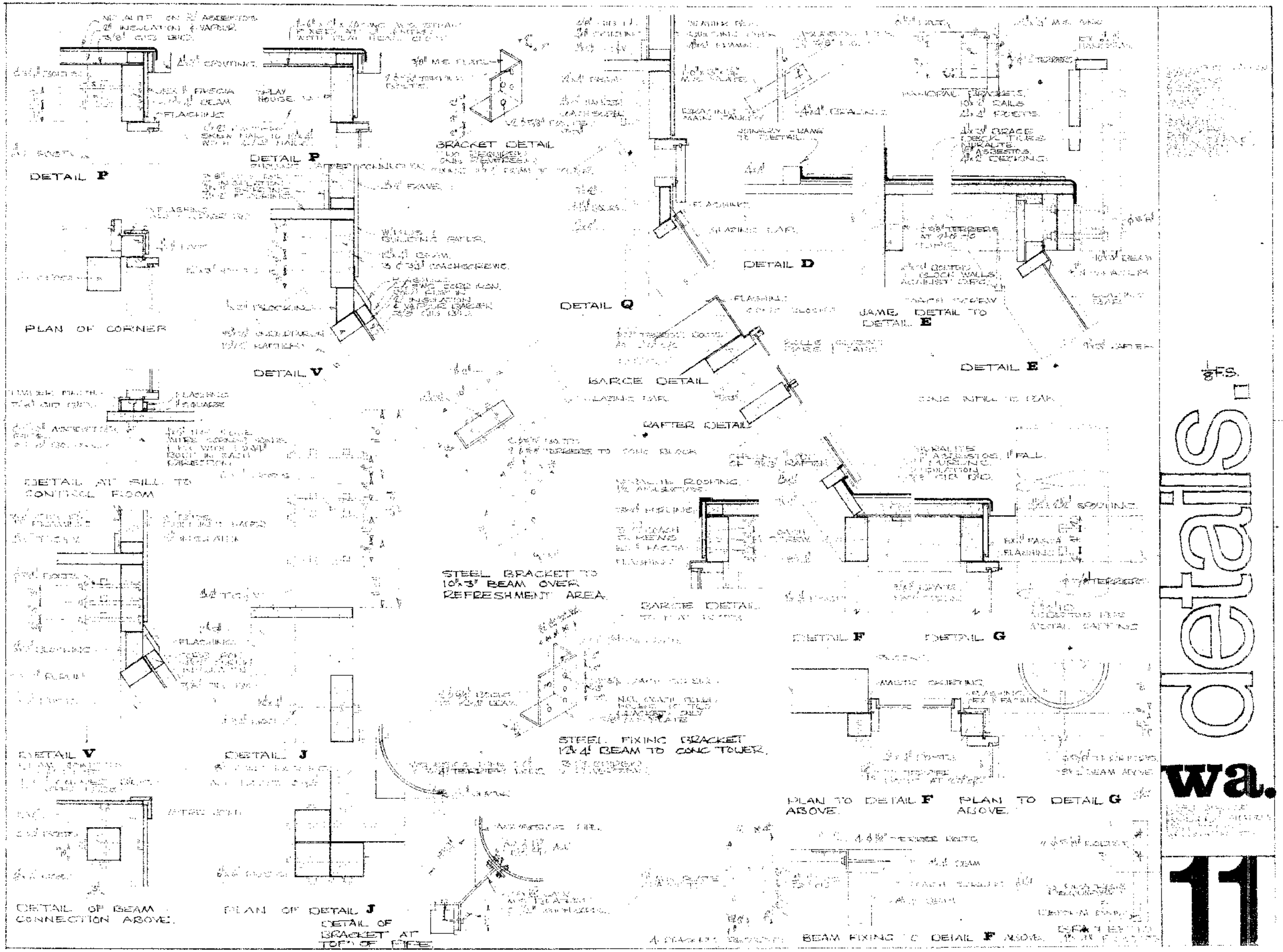
west

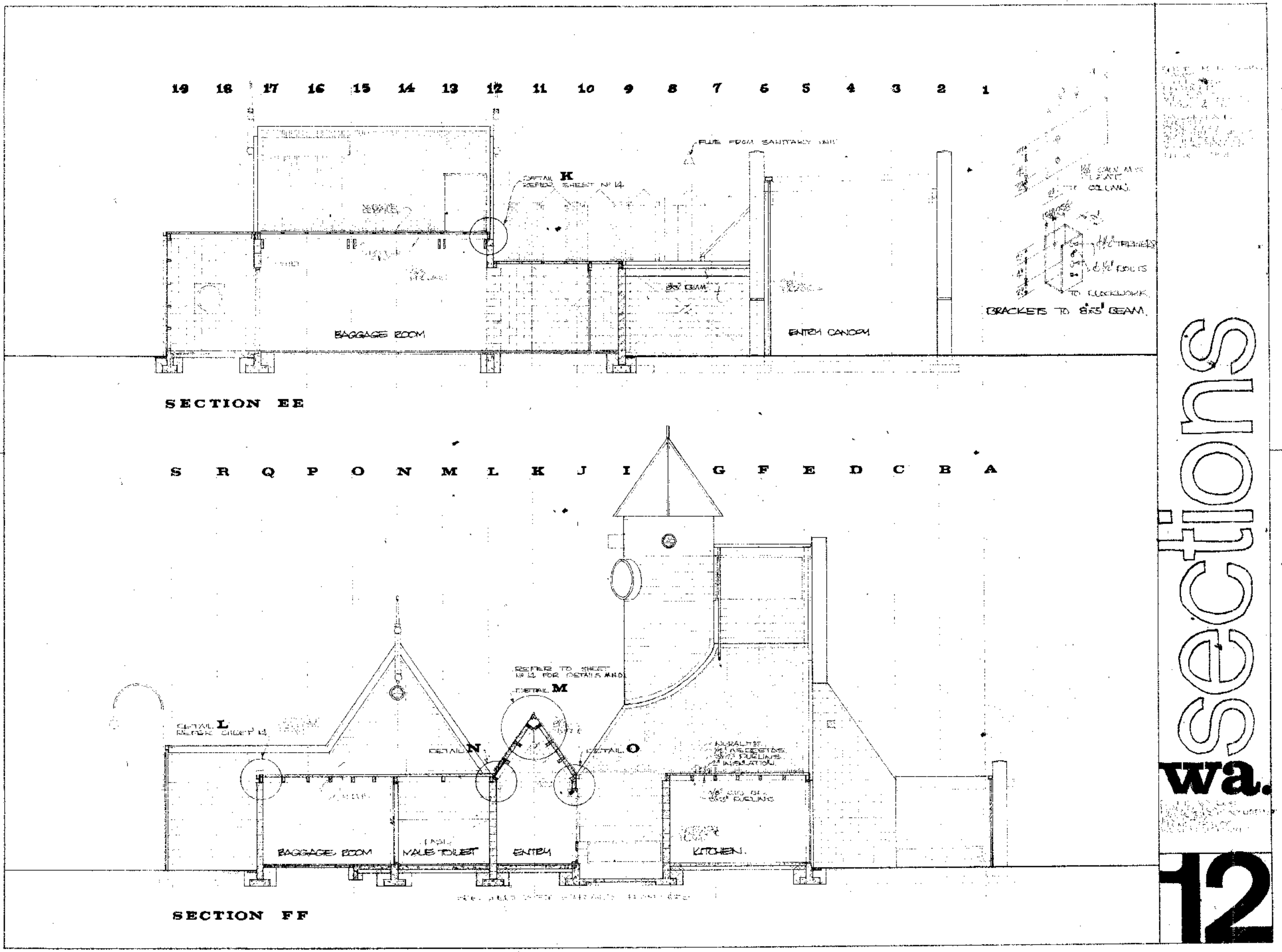


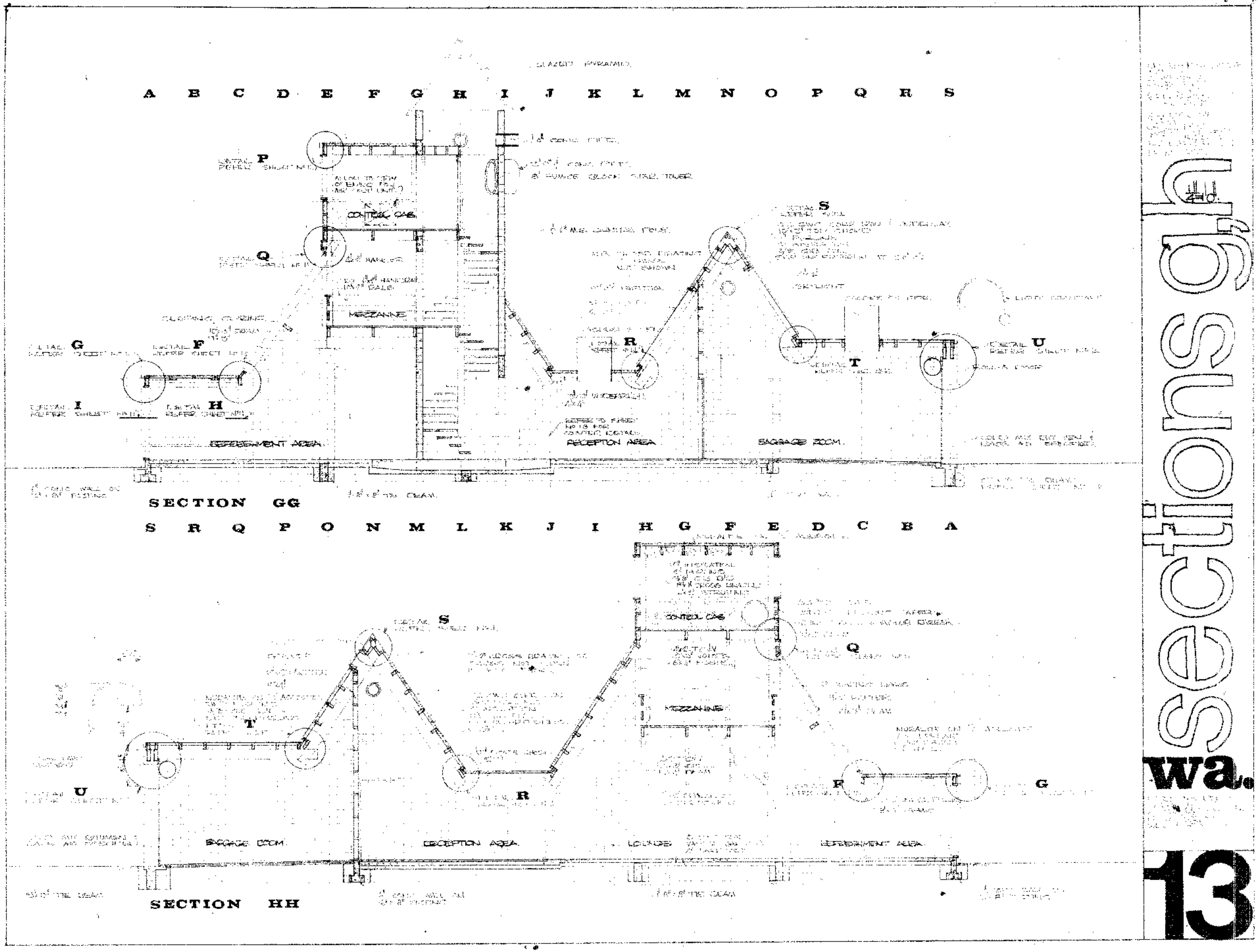
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
DETAIL A
DETAIL B
DETAIL C
ENTRY CANOPY
RECEPTION AREA
EXIT PATIO
SECTION AA
24 23 22 21 20 19 18 17 16 15 13 12 11 10 9 8 7 6 5 4 3 2 1
DETAIL C
DETAIL B
DETAIL A
EXIT PATIO
ENTRY CANOPY
SECTION BB
sections a,b
wa.
9

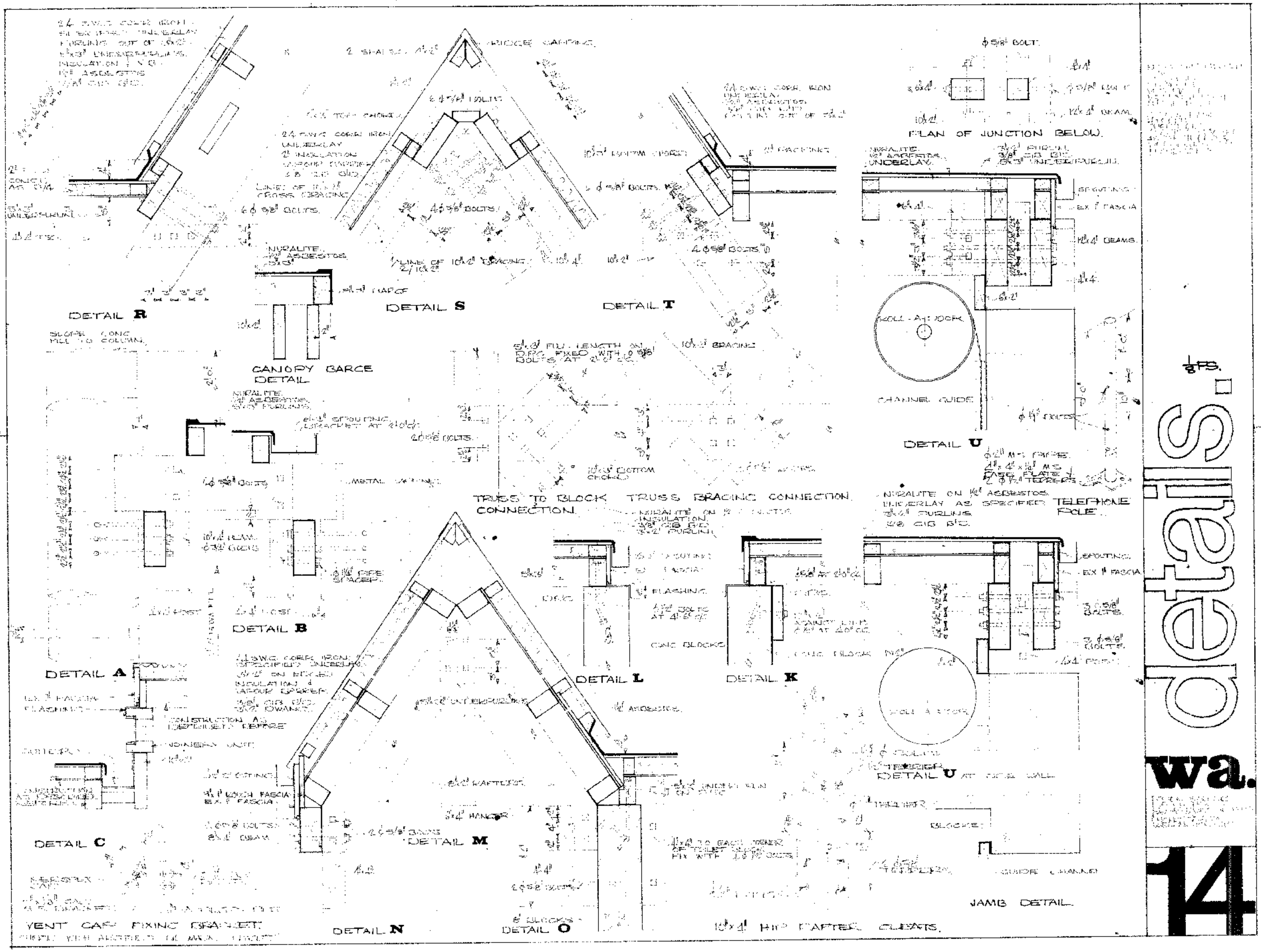


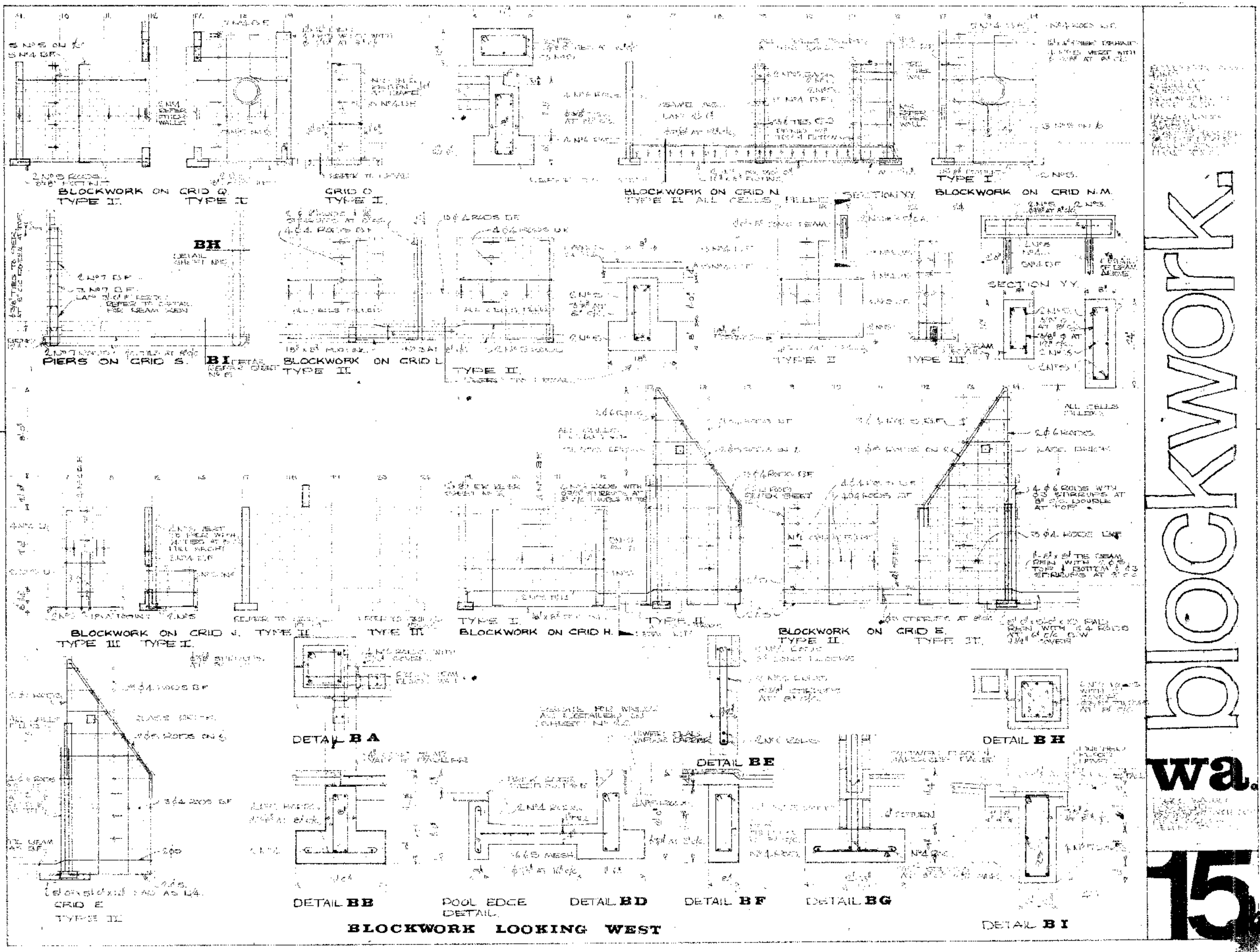
9 10 11 12 13 14 15 16 17 18 19 20 21 22
TOP CHORD TO TOWER
BOTTOM CHORD TO BLOCKWALL
'U' STRAP TO
8"x4" KITCHEN BEAM
CONTROL CAB
MEZZANINE
DECK
DETAIL D
DETAIL E
DETAIL F
DETAIL G
DETAIL H
DETAIL I
KITCHEN
MAIN LOUNGE
SECTION CC
21 20 19 18 17 16 15 14 13 12 11 10 9
CONTROL CAB
DETAIL V
DETAIL J
DECK
MEZZANINE
MAIN LOUNGE
KITCHEN
SECTION DD
sections cd
wa
10

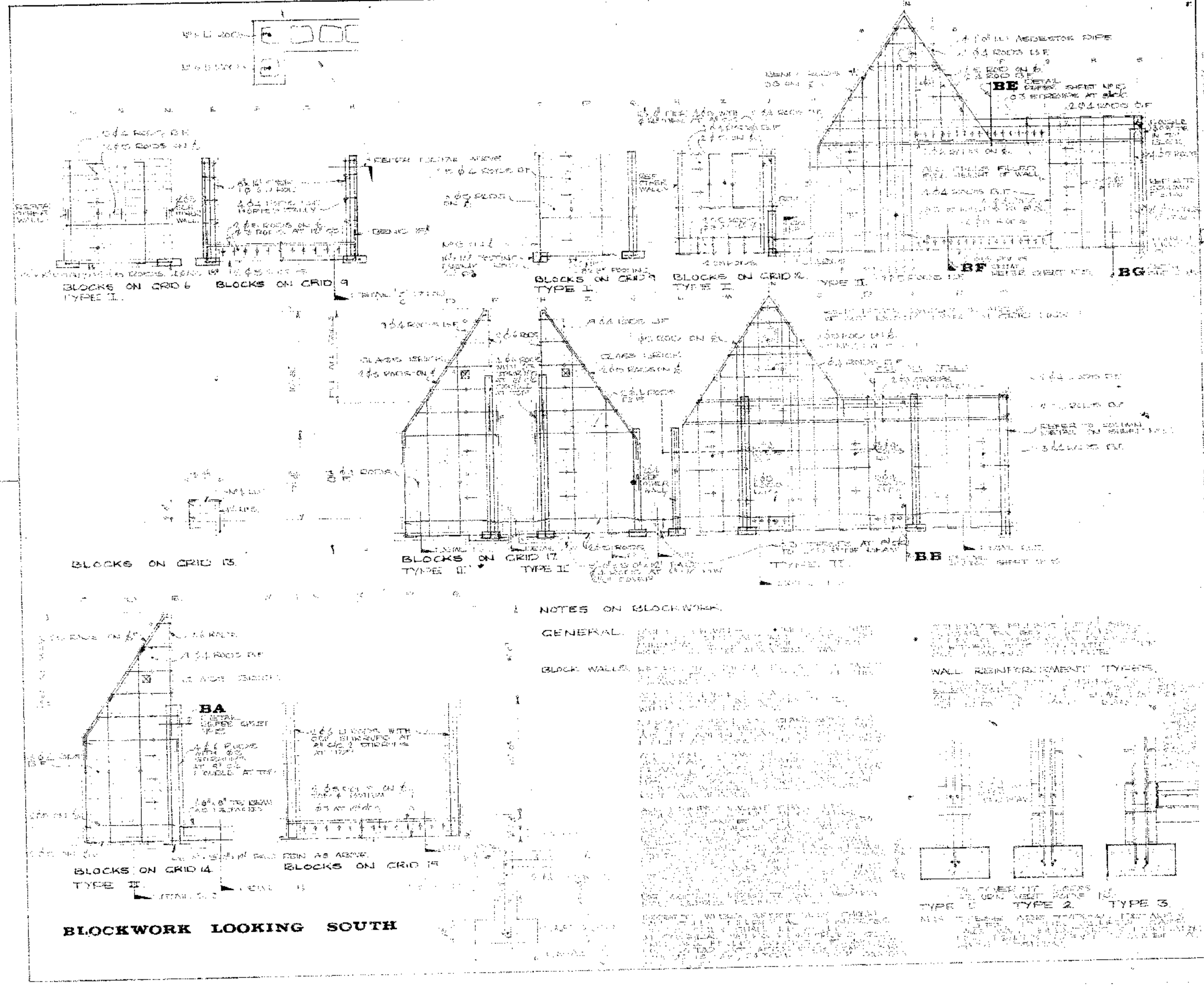

DETAIL P
DETAIL P
BRACKET DETAIL
PLAN OF CORNER
DETAIL V
DETAIL Q
DETAIL D
JAMB DETAIL TO DETAIL E
DETAIL E
BARGE DETAIL
RAFTER DETAIL
DETAIL AT SILL TO CONTROL ROOM
STEEL BRACKET TO 10x3" BEAM OVER REFRESHMENT AREA
BARGE DETAIL
DETAIL F
DETAIL G
STEEL FIXING BRACKET 12x4" BEAM TO CONC TOWER
DETAIL V
DETAIL J
PLAN TO DETAIL F ABOVE
PLAN TO DETAIL G ABOVE
DETAIL OF BEAM CONNECTION ABOVE
PLAN OF DETAIL J
DETAIL OF BRACKET AT TOP OF PIPE
BEAM FIXING TO DETAIL F ABOVE
details
wa.
11


19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
DETAIL K
REFER SHEET No 14
FLUE FROM SANITARY UNIT
BAGGAGE ROOM
ENTRY CANOPY
BRACKETS TO 8x5' BEAM
SECTION EE
S R Q P O N M L K J I G F E D C B A
REFER TO SHEET No 14 FOR DETAILS M.N.O.
DETAIL M
DETAIL L
REFER SHEET 14
DETAIL N
DETAIL O
BAGGAGE ROOM
MALE TOILET
ENTRY
KITCHEN
SECTION FF
sections
wa.
12


A B C D E F G H I J K L M N O P Q R S
DETAIL P
DETAIL Q
CONTROL CAB
MEZZANINE
DETAIL G
DETAIL F
DETAIL I
DETAIL H
DETAIL R
DETAIL S
DETAIL T
DETAIL U
REFRESHMENT AREA
RECEPTION AREA
BAGGAGE ROOM
SECTION GG
S R Q P O N M L K J I H G F E D C B A
CONTROL CAB
MEZZANINE
BAGGAGE ROOM
RECEPTION AREA
LOUNGE
REFRESHMENT AREA
SECTION HH
sections gh
wa
13


DETAIL R
DETAIL S
DETAIL T
DETAIL U
PLAN OF JUNCTION BELOW.
CANOPY BARGE DETAIL
CHANNEL GUIDE
TRUSS TO BLOCK CONNECTION
TRUSS BRACING CONNECTION
TELEPHONE POLE
DETAIL A
DETAIL B
DETAIL C
DETAIL L
DETAIL K
DETAIL M
DETAIL N
DETAIL O
DETAIL U AT FIRE WALL
JAMB DETAIL
VENT CAP FIXING BRACKET
HIP RAFTER CLEATS
GUIDE CHANNEL
SPOUTING
FASCIA
FLASHING
details
wa.
14

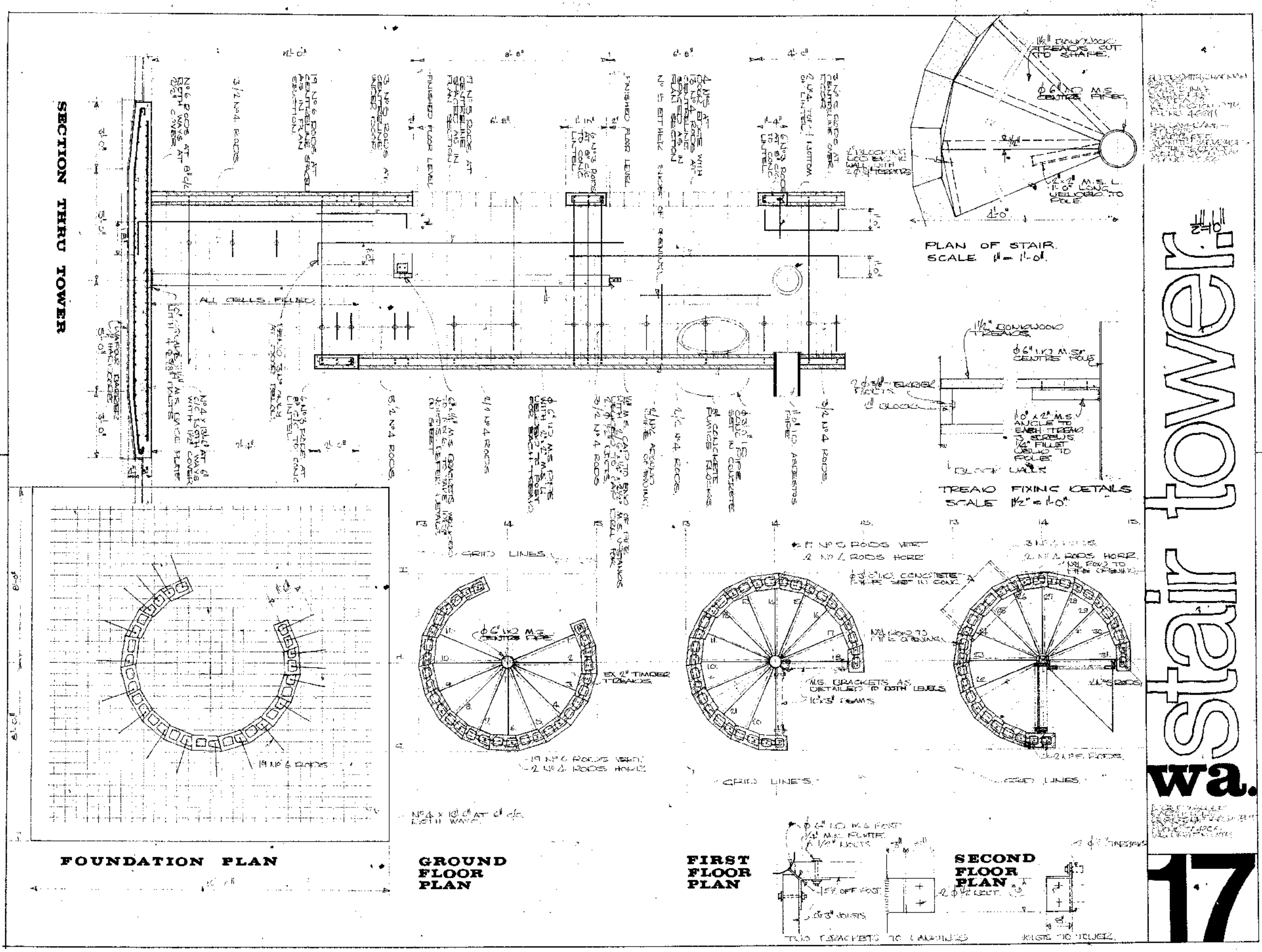

BLOCKWORK ON GRID Q.
TYPE II.
GRID O.
BLOCKWORK ON GRID N.
SECTION YY.
BLOCKWORK ON GRID N.M.
TYPE I.
BH
PIERS ON GRID S.
BI
BLOCKWORK ON GRID L
TYPE II.
TYPE III
BLOCKWORK ON GRID J.
BLOCKWORK ON CRID H.
BLOCKWORK ON GRID E.
DETAIL BA
DETAIL BE
DETAIL BH
GRID E
DETAIL BB
POOL EDGE DETAIL
DETAIL BD
DETAIL BF
DETAIL BG
DETAIL BI
BLOCKWORK LOOKING WEST
blockwork.
wa.
15

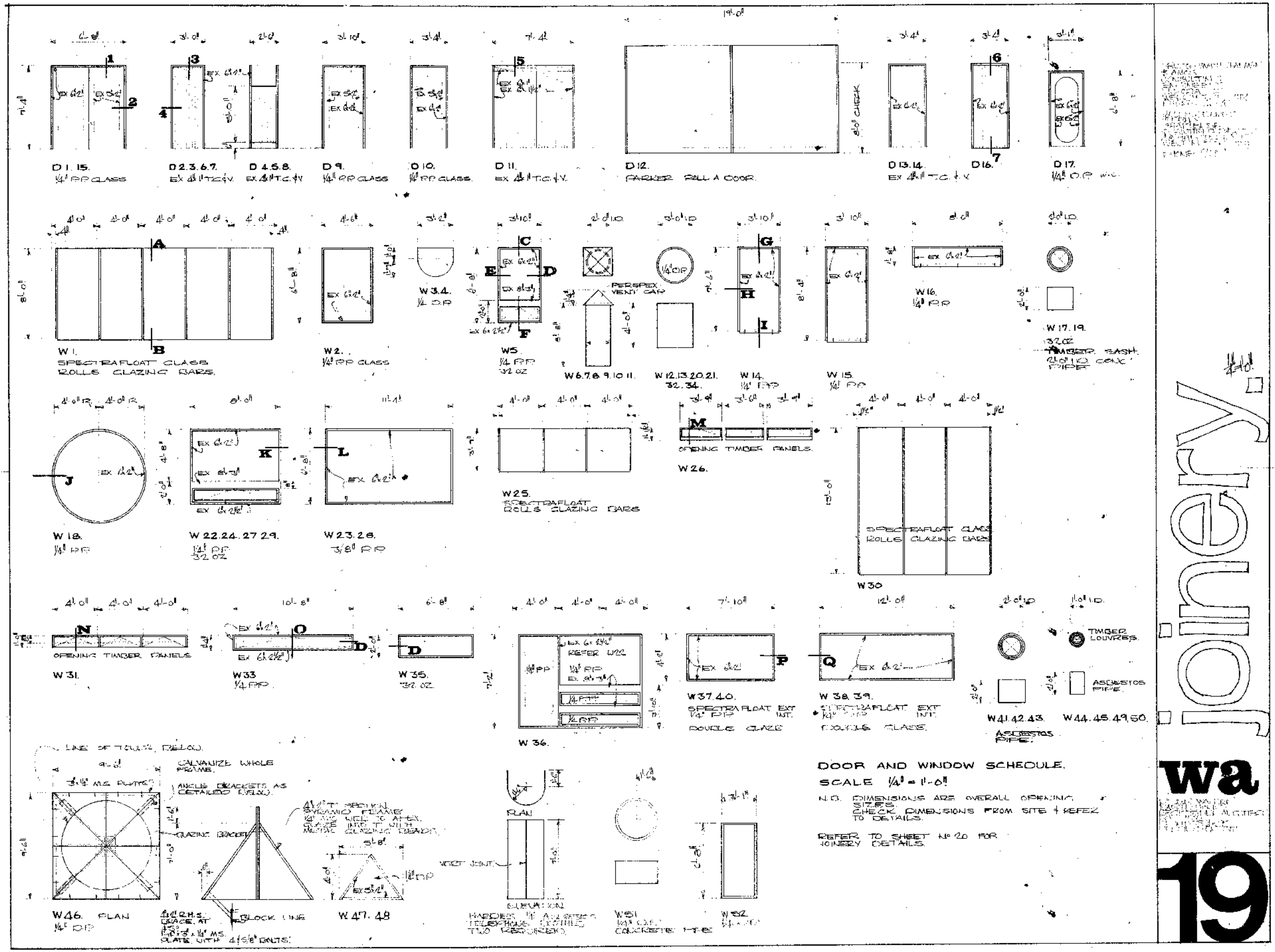


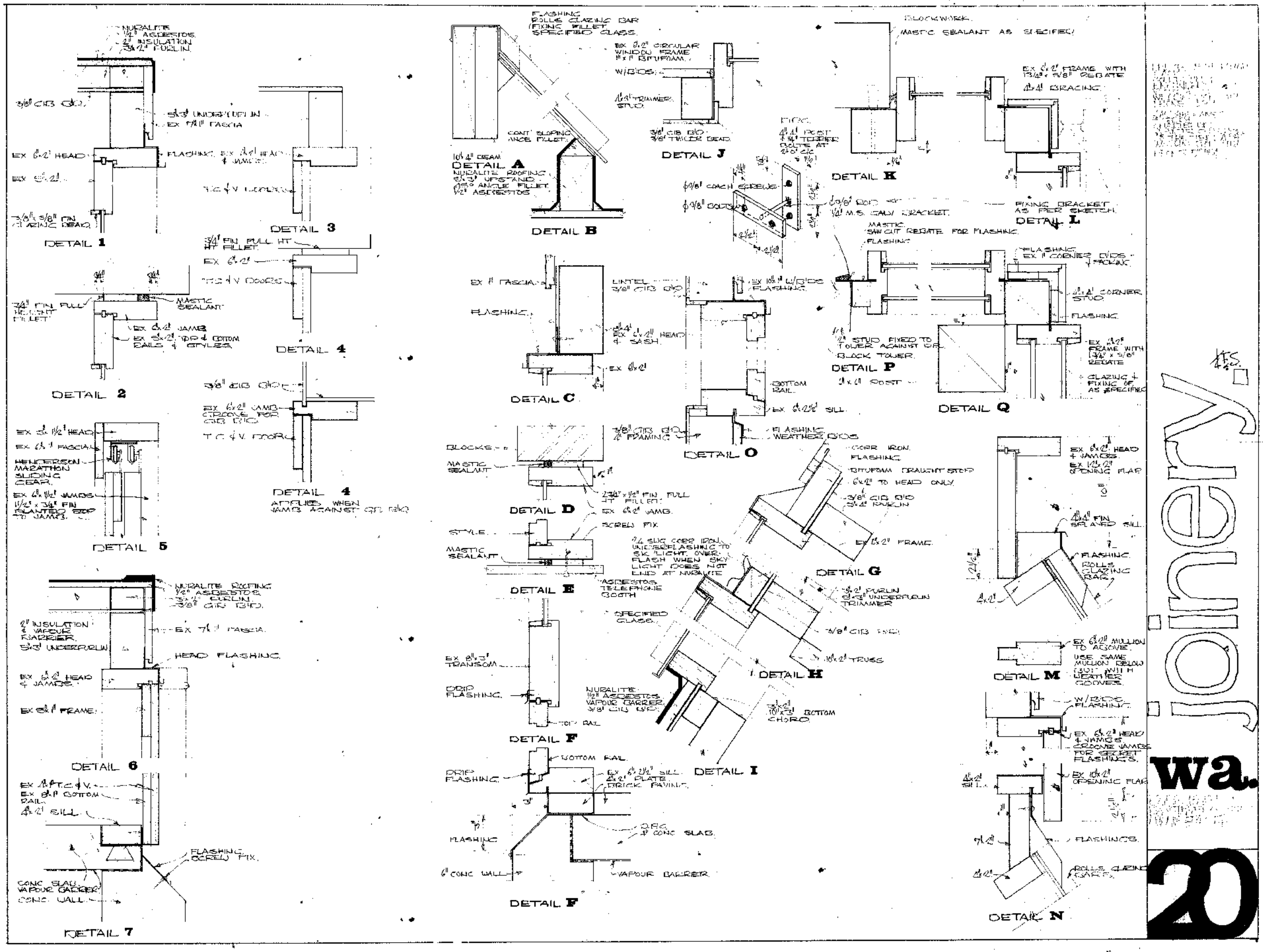
blockwork.

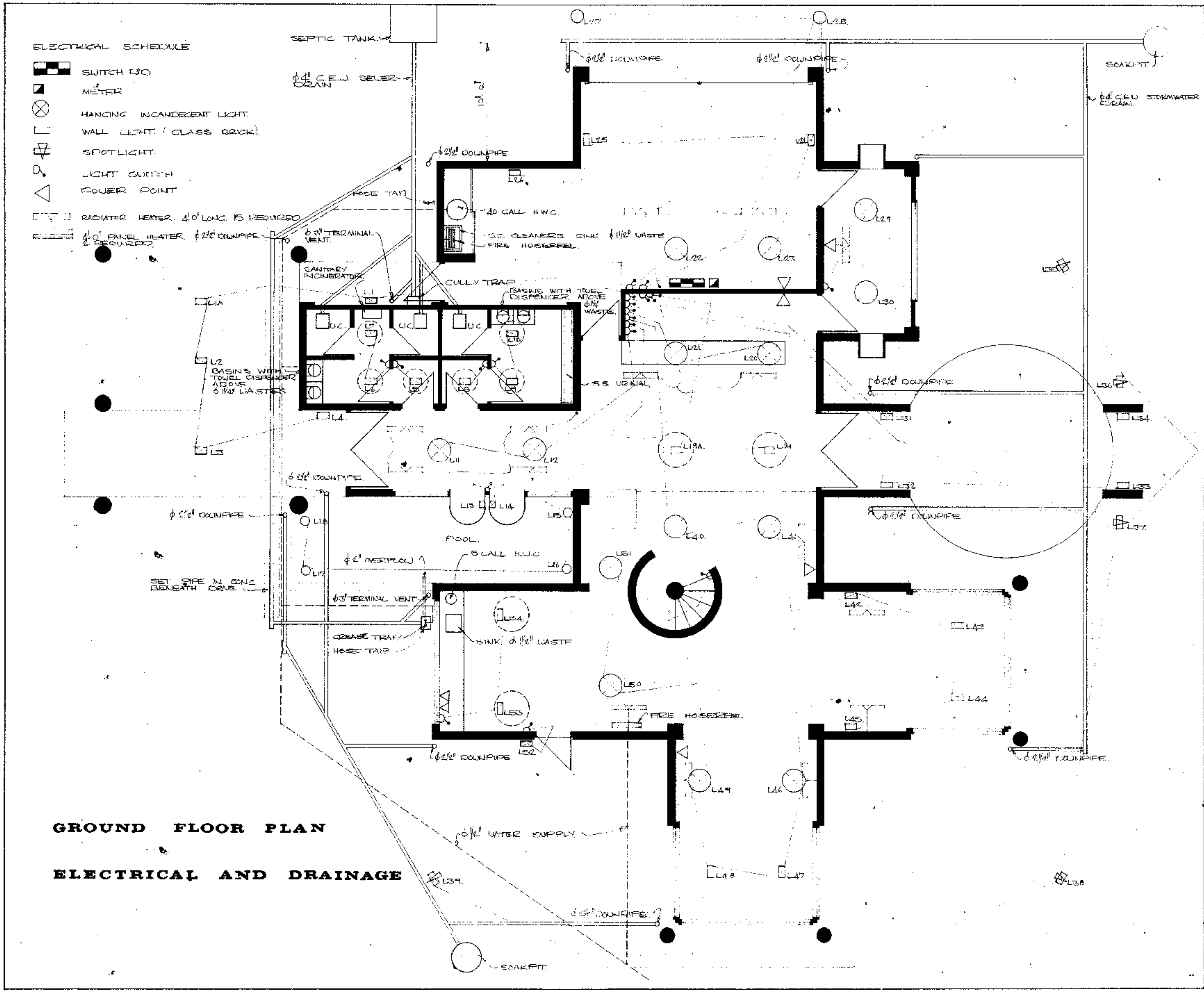
wa.

16


SECTION THRU TOWER
PLAN OF STAIR
SCALE 1" = 1'-0"
TREAD FIXING DETAILS
SCALE 1½" = 1'-0"
ALL CELLS FILLED
FOUNDATION PLAN
GROUND FLOOR PLAN
FIRST FLOOR PLAN
SECOND FLOOR PLAN
GRID LINES
stair tower
wa.
17


D 1. 15.
D 2.3.6.7.
D 4.5.8.
D 9.
D 10.
D 11.
D 12.
PARKER ROLL A DOOR.
D 13.14.
D 16.
D 17.
W 1.
SPECTRAFLOAT GLASS
ROLLS GLAZING BARS.
W 2.
W 3.4.
W 5.
PERSPEX VENT CAP
W 6.7.8.9.10.11.
W 12.13.20.21.
32.34.
W 14.
W 15.
W 16.
W 17.19.
TIMBER SASH.
W 18.
W 22.24.27.29.
W 23.28.
W 25.
SPECTRAFLOAT
ROLLS GLAZING BARS
OPENING TIMBER PANELS.
W 26.
SPECTRAFLOAT GLASS
ROLLS GLAZING BARS
W 30
OPENING TIMBER PANELS
W 31.
W 33
W 35.
W 36.
W 37.40.
SPECTRA FLOAT EXT INT.
DOUBLE GLAZE
W 38. 39.
SPECTRAFLOAT EXT INT.
DOUBLE GLAZE
TIMBER LOUVRES.
ASBESTOS PIPE.
W 41.42.43.
ASBESTOS PIPE.
W 44.45.49.50.
LINE OF TOWER BELOW.
CALVANIZE WHOLE FRAME.
ANGLE BRACKETS AS DETAILED BELOW.
PYRAMID FRAME
GLAZING BRACKET
BLOCK LINE
W 46. PLAN
W 47. 48
PLAN
VERT JOINT
ELEVATION
W 51
CONCRETE PIPE
W 52
DOOR AND WINDOW SCHEDULE.
SCALE 1/4" = 1'-0"
N.B. DIMENSIONS ARE OVERALL OPENING SIZES.
CHECK DIMENSIONS FROM SITE & REFER TO DETAILS.
REFER TO SHEET No 20 FOR JOINERY DETAILS.
joinery
wa
19


DETAIL 1
DETAIL 2
DETAIL 3
DETAIL 4
DETAIL 4
APPLIES WHEN JAMB AGAINST C/B B/K
DETAIL 5
DETAIL 6
DETAIL 7
DETAIL A
DETAIL B
DETAIL C
DETAIL D
DETAIL E
DETAIL F
DETAIL F
DETAIL G
DETAIL H
DETAIL I
DETAIL J
DETAIL K
DETAIL L
DETAIL M
DETAIL N
DETAIL O
DETAIL P
DETAIL Q
NURALITE ROOFING
HEAD FLASHING
MASTIC SEALANT
FLASHING
BOTTOM RAIL
DRIP FLASHING
VAPOUR BARRIER
SPECIFIED GLASS
FIXING BRACKET AS PER SKETCH
joinery
wa.
20



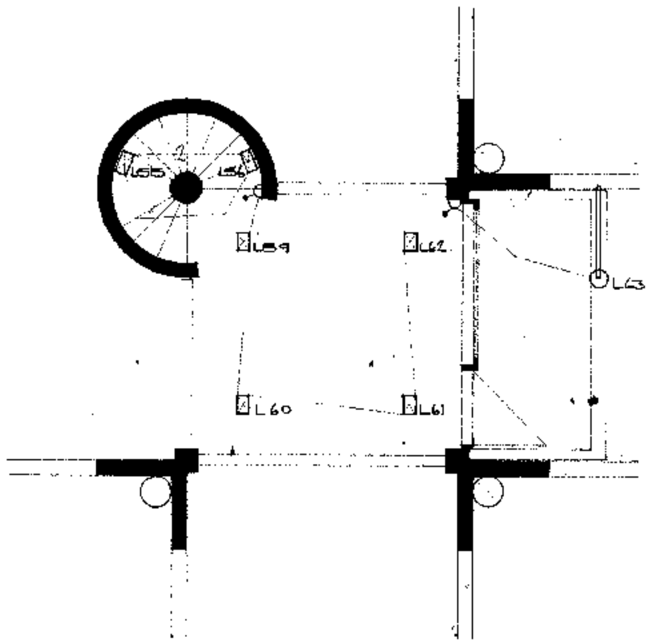
GROUND FLOOR PLAN

ELECTRICAL AND DRAINAGE

services

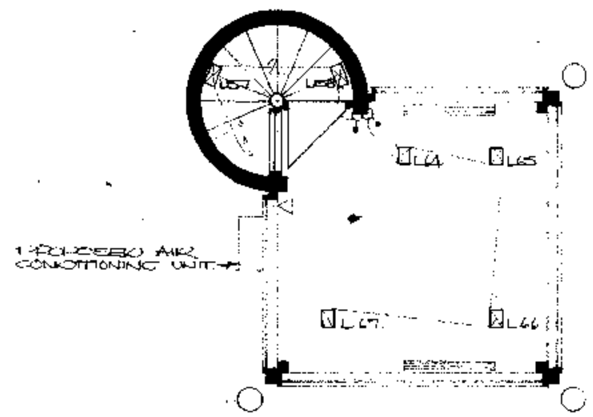
wa.

21



MEZZANINE FLOOR PLAN

ELECTRICAL PLANS



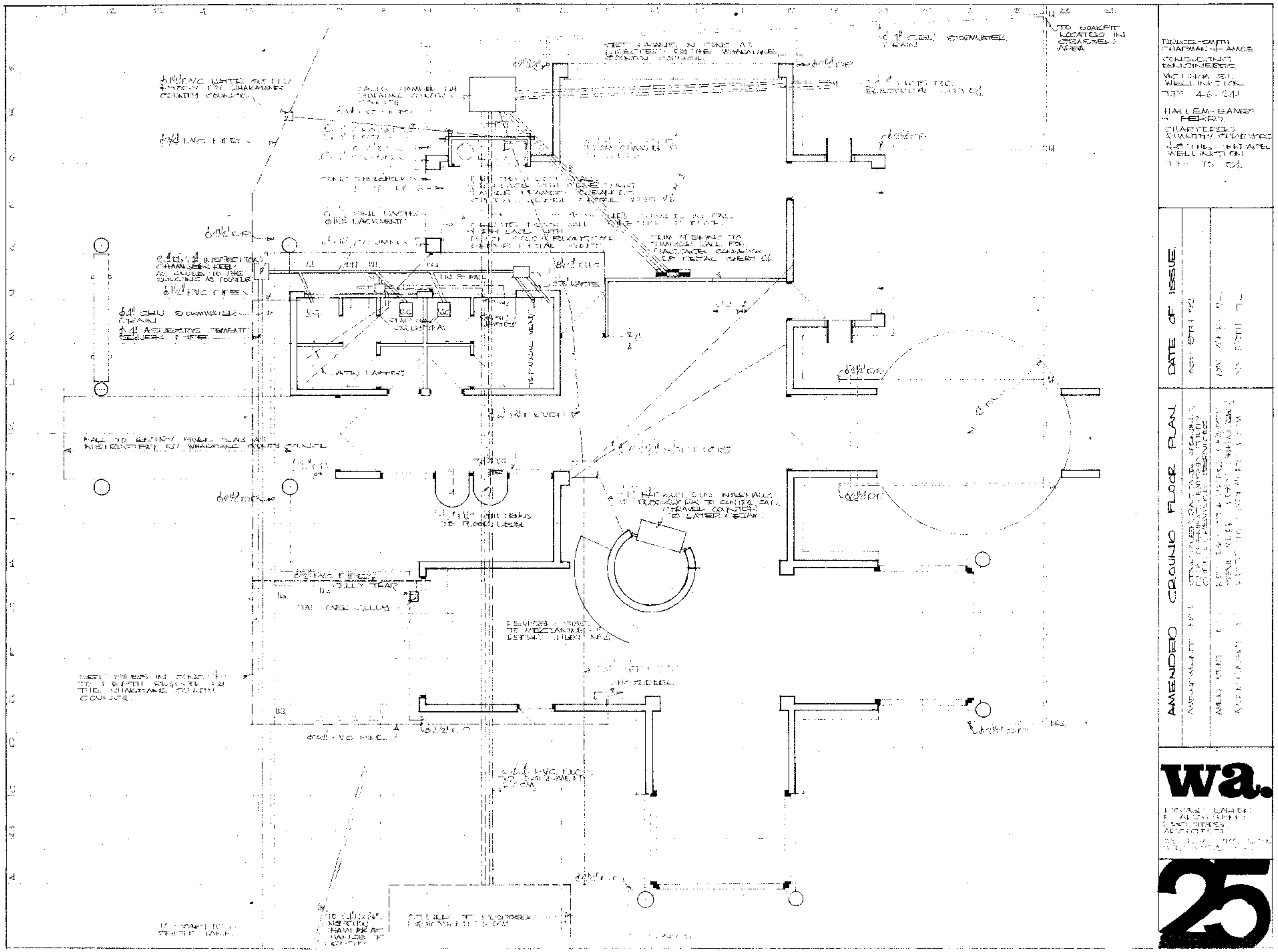
FIRST FLOOR PLAN

services.

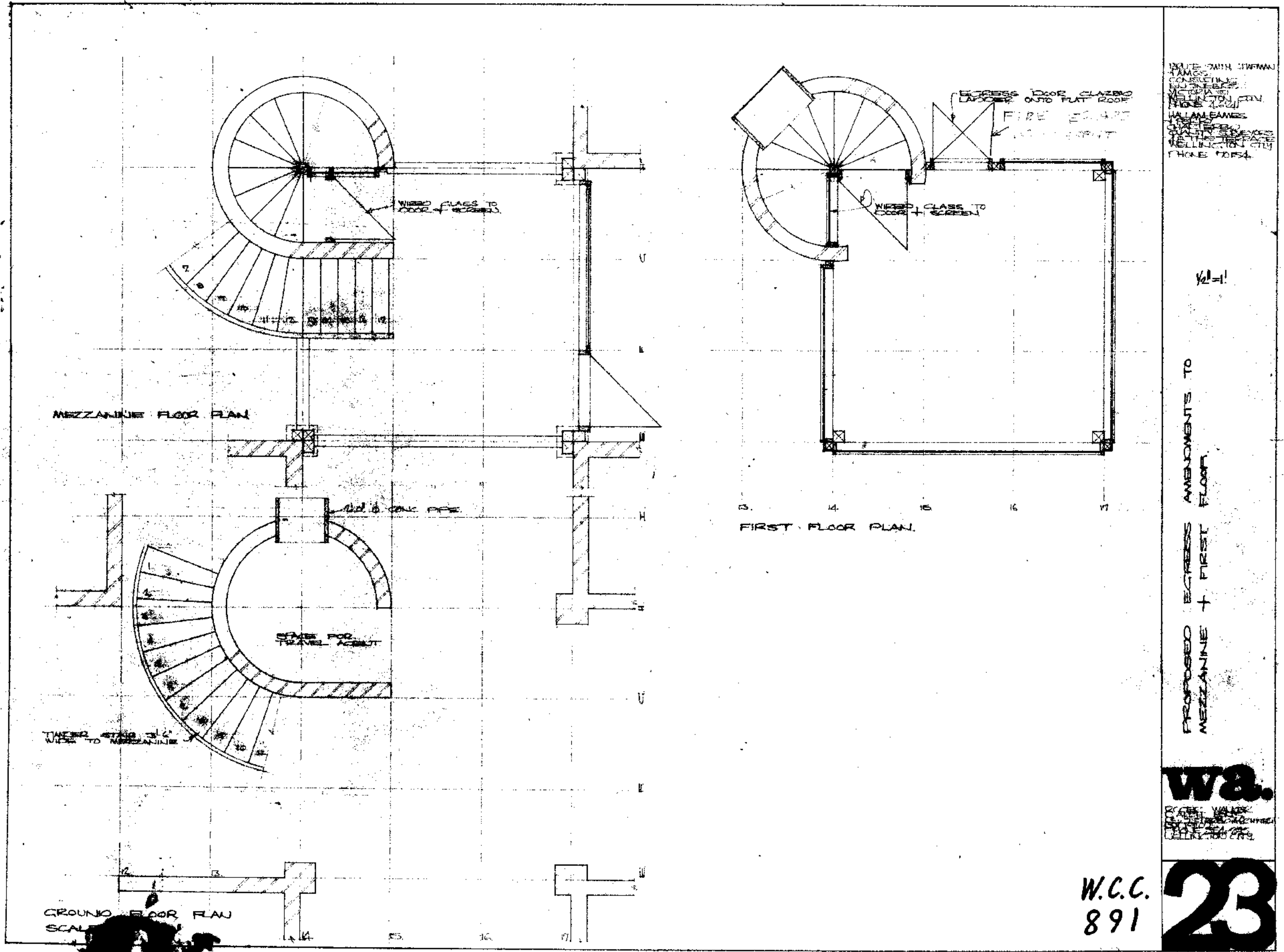
$\frac{1}{4}$"=1'-0"

wa.

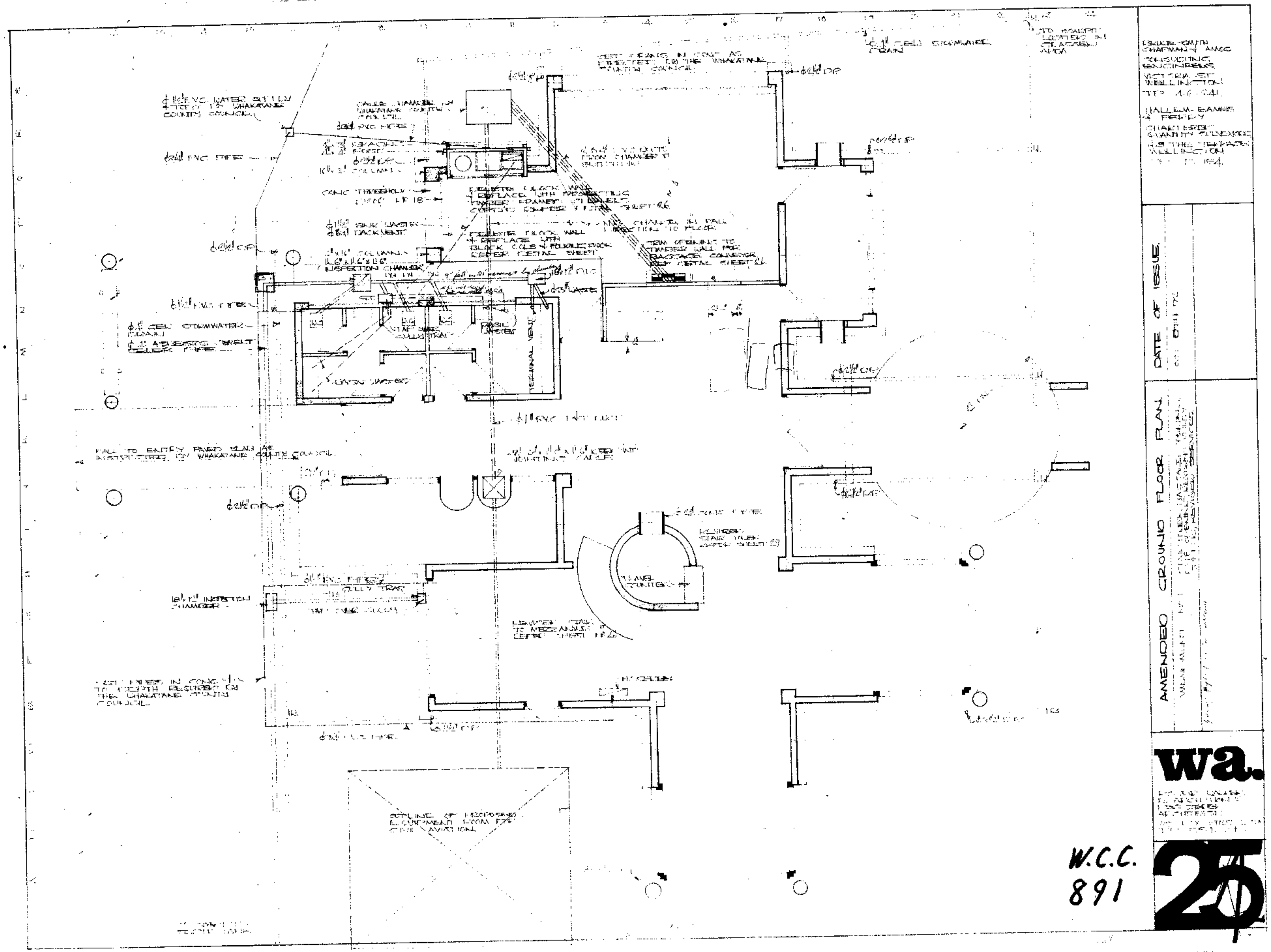
22

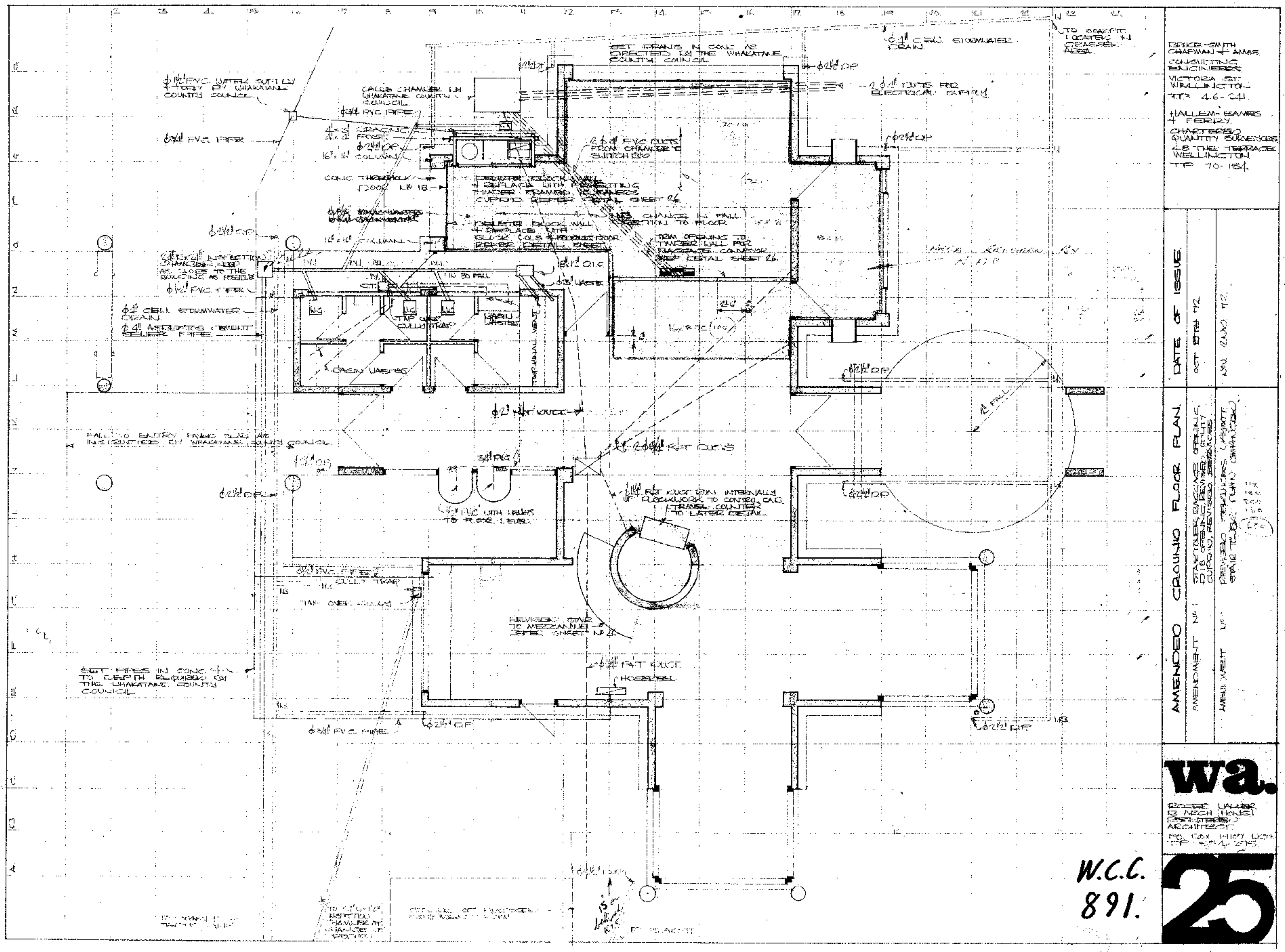


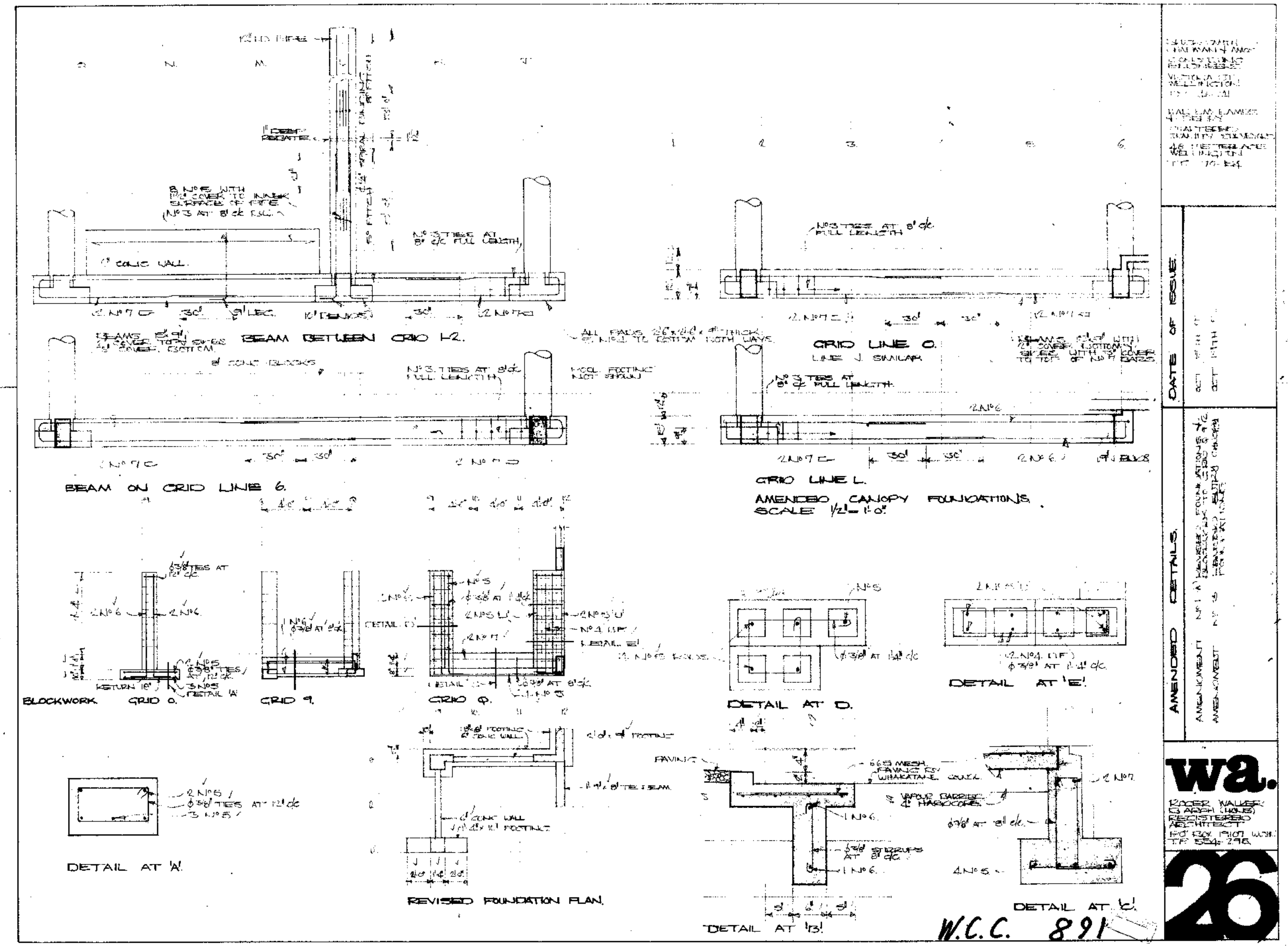
CHAPMAN + AMOS
CONSULTING ENGINEERS
WELLINGTON
HALLEM-BANKS + PERRY
CHARTERED QUANTITY SURVEYORS
WELLINGTON
DATE OF ISSUE
AMENDED GROUND FLOOR PLAN
wa.
25

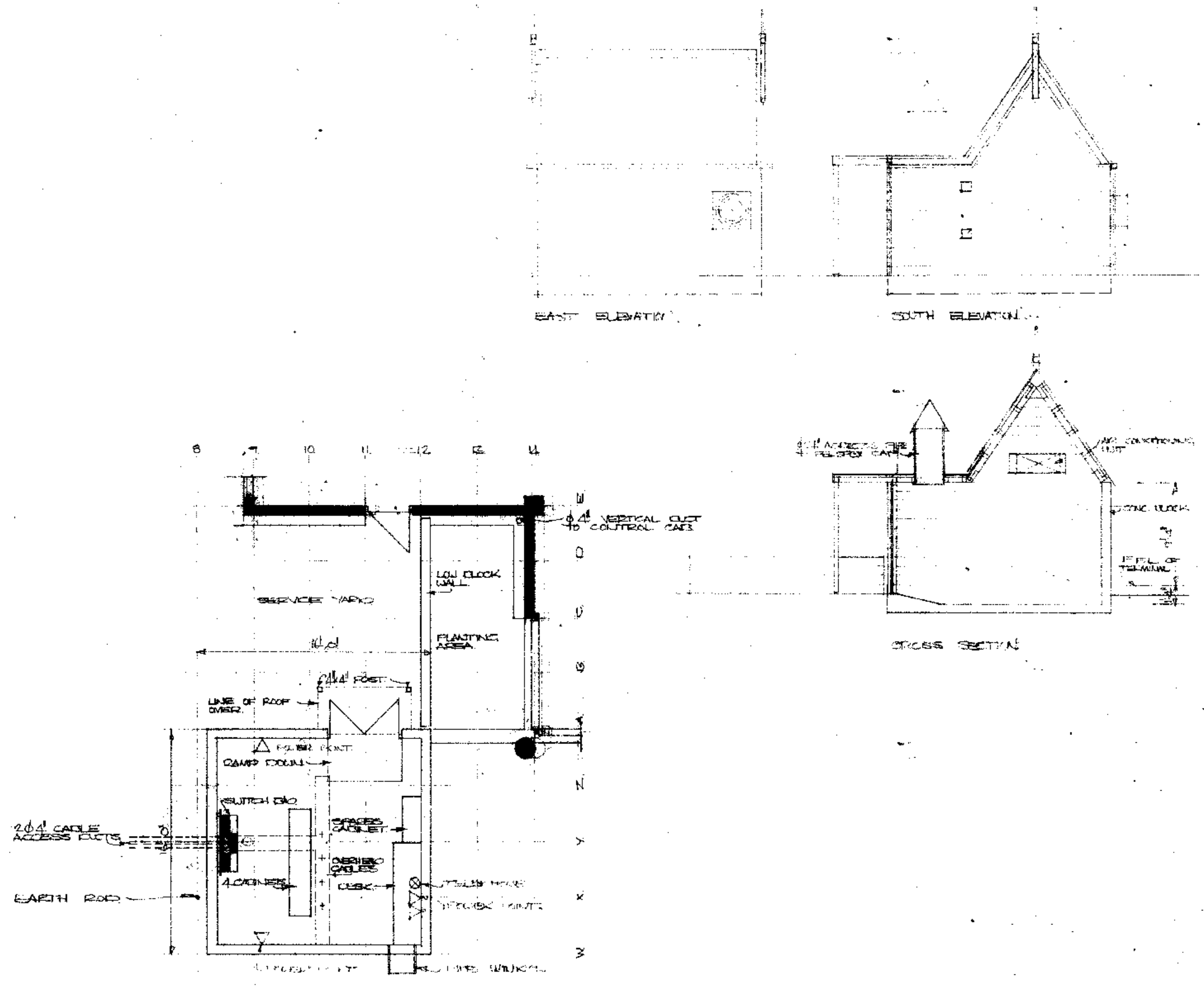


MEZZANINE FLOOR PLAN
WIRED GLASS TO DOOR + SCREEN.
FIRST FLOOR PLAN.
EGRESS DOOR GLAZED LADDER ONTO FLAT ROOF
FIRE ESCAPE
WIRED GLASS TO DOOR + SCREEN
SPACE FOR TRAVEL ADULT
TIMBER STAIR 3'6" WIDE TO MEZZANINE
GROUND FLOOR PLAN
1/2" = 1'
PROPOSED EGRESS AMENDMENTS TO MEZZANINE + FIRST FLOOR.
wa.
W.C.C. 891
23


AMENDED GROUND FLOOR PLAN.
DATE OF ISSUE.
CONSULTING ENGINEERS
VICTORIA ST. WELLINGTON
WELLINGTON
wa.
W.C.C. 891
25


AMENDED GROUND FLOOR PLAN.
DATE OF ISSUE
AMENDMENT No 1
AMENDMENT
BRUCE-SMITH CHAPMAN + AMES.
CONSULTING ENGINEERS
VICTORIA ST. WELLINGTON
HALLEM-EAMES + FERRY.
CHARTERED QUANTITY SURVEYORS
48 THE TERRACE WELLINGTON
wa.
ARCHITECT
25
W.C.C. 891.
SET DRAINS IN CONC AS DIRECTED BY THE WHAKATANE COUNTY COUNCIL
SET PIPES IN CONC TO DEPTH REQUIRED BY THE WHAKATANE COUNTY COUNCIL
REVISED STAIR TO MEZZANINE


BEAM BETWEEN GRID 1-2.
GRID LINE O.
LINE J. SIMILAR
BEAM ON GRID LINE 6.
GRID LINE L.
AMENDED CANOPY FOUNDATIONS.
SCALE 1/2" = 1'0"
ALL PADS 26" x 26" x 9" THICK. 5 No.4 TO BOTTOM BOTH WAYS.
BLOCKWORK.
GRID O.
GRID 9.
GRID Q.
DETAIL AT D.
DETAIL AT 'E'.
DETAIL AT 'A'.
REVISED FOUNDATION PLAN.
DETAIL AT 'B'.
DETAIL AT 'C'.
DATE OF ISSUE
AMENDED DETAILS.
wa.
ROGER WALKER
B ARCH (HONS)
REGISTERED
ARCHITECT
P.O. BOX 19107 WGN
TP 554-296
26
W.C.C. 891



FLOOR PLAN
SCALE 1/4" = 1' 0".

PROPOSED EQUIPMENT ROOM.

W.C.C.
891

BRUCE SMITH
CHAPMAN + AMOS
CONSULTING ENGINEERS
VICTORIA ST
WELLINGTON
T.P. 46-241

HALLEM, EAMES + PERRY
CHARTERED QUANTITY SURVEYORS
48 THE TERRACE
WELLINGTON
T.P. 70-154

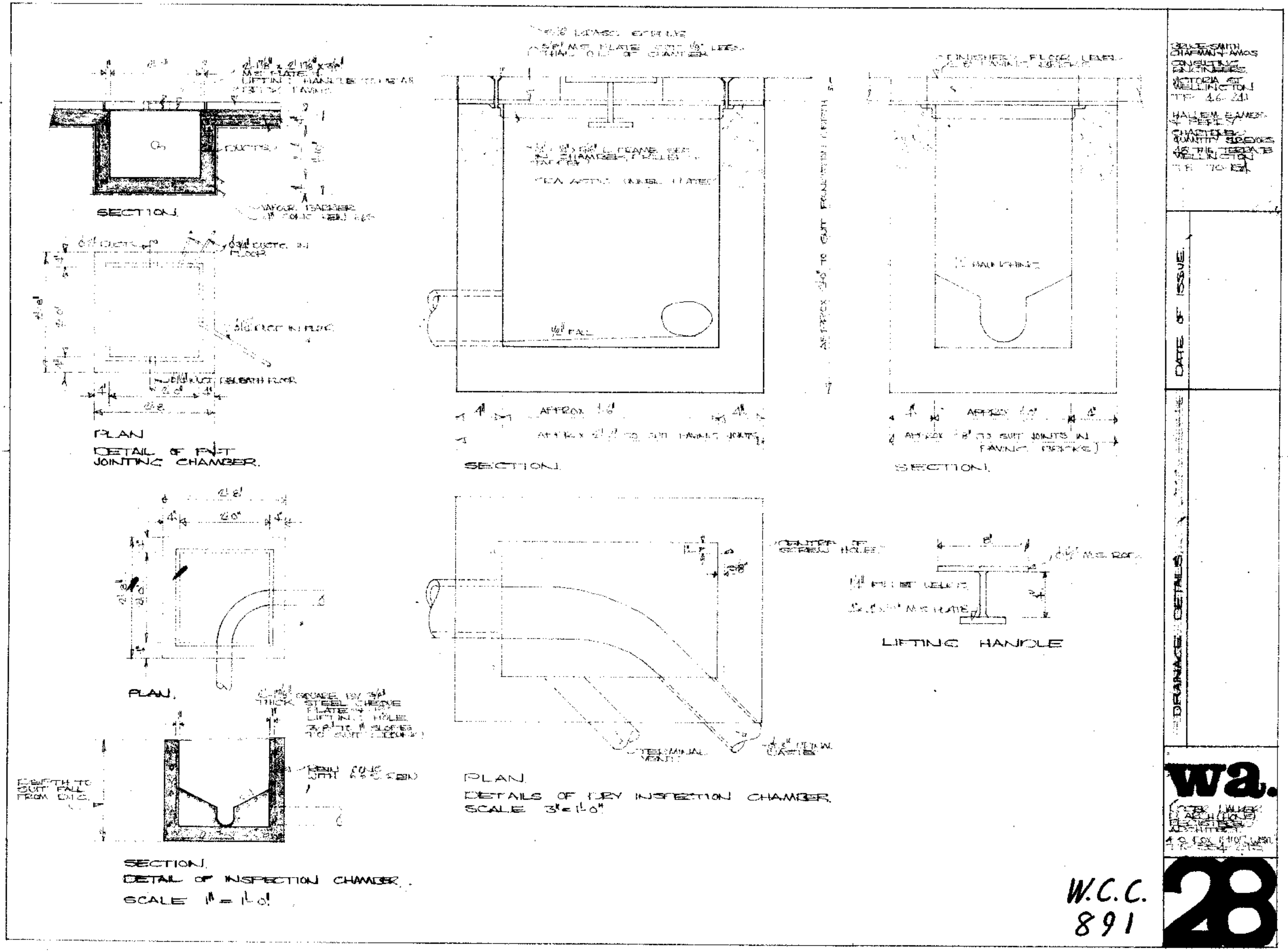
DATE OF ISSUE

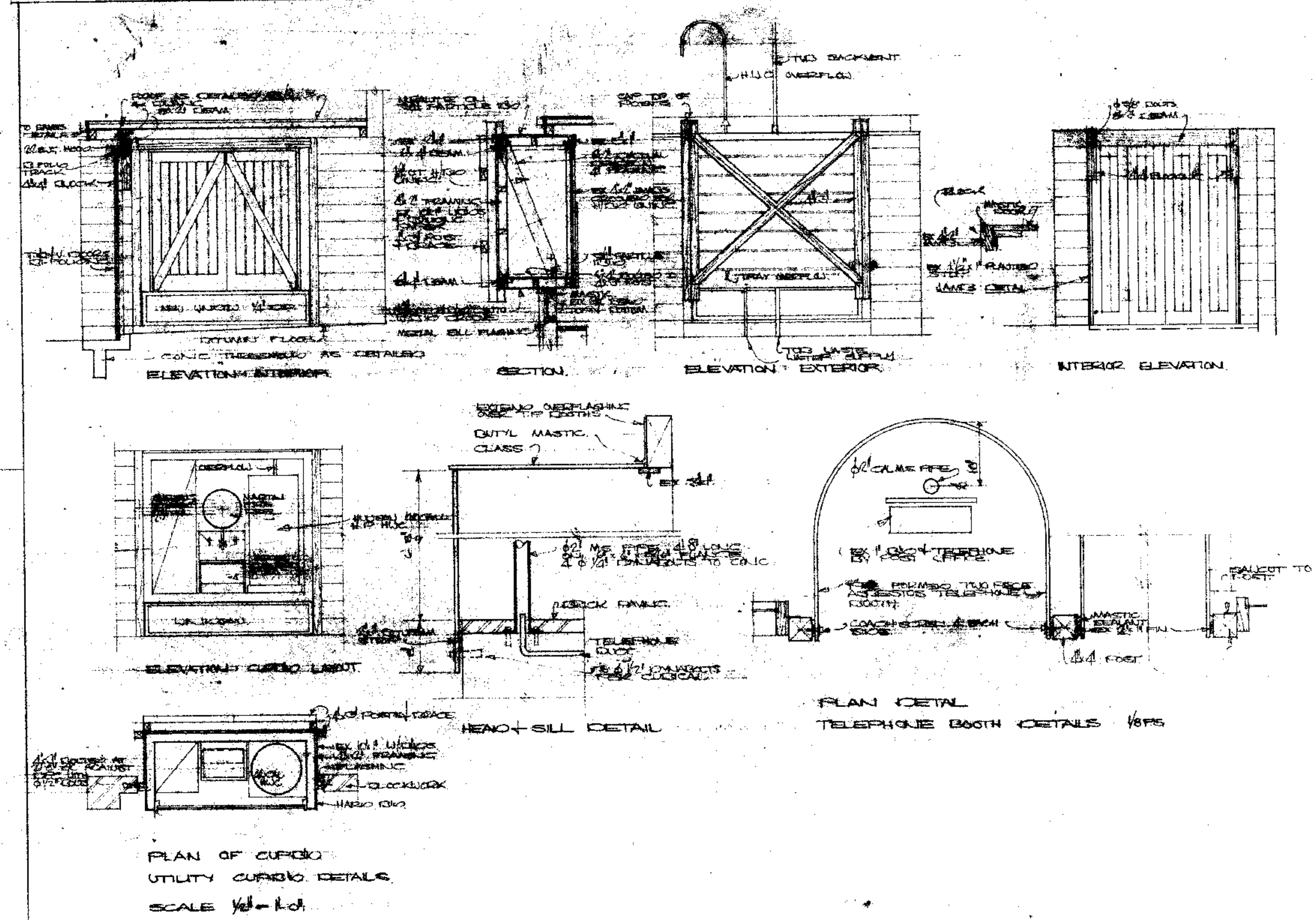
PROPOSED EQUIPMENT ROOM.

wa.

ROOKE WALKER & ASSOC. (HOLDS)
REGISTERED ARCHITECTS
P.O. BOX 19107 WELLN
T.P. 384-295

27


SECTION.
PLAN
DETAIL OF P/T JOINTING CHAMBER.
SECTION.
SECTION.
LIFTING HANDLE
PLAN.
SECTION.
DETAIL OF INSPECTION CHAMBER.
SCALE 1" = 1'-0"
PLAN.
DETAILS OF DRY INSPECTION CHAMBER.
SCALE 3" = 1'-0"
DATE OF ISSUE.
DRAINAGE DETAILS
wa.
W.C.C.
891
28



BRUCE SMITH CHAPMAN-AMOS
CONSULTING ENGINEERS
VICTORIA ST WELLINGTON
TP 46 241

HALLEM-EAMES + PERRY
CHARTERED QUANTITY SURVEYORS
48 THE TERRACE WELLINGTON
TP 70 151

DATE OF ISSUE
10th JAN 72

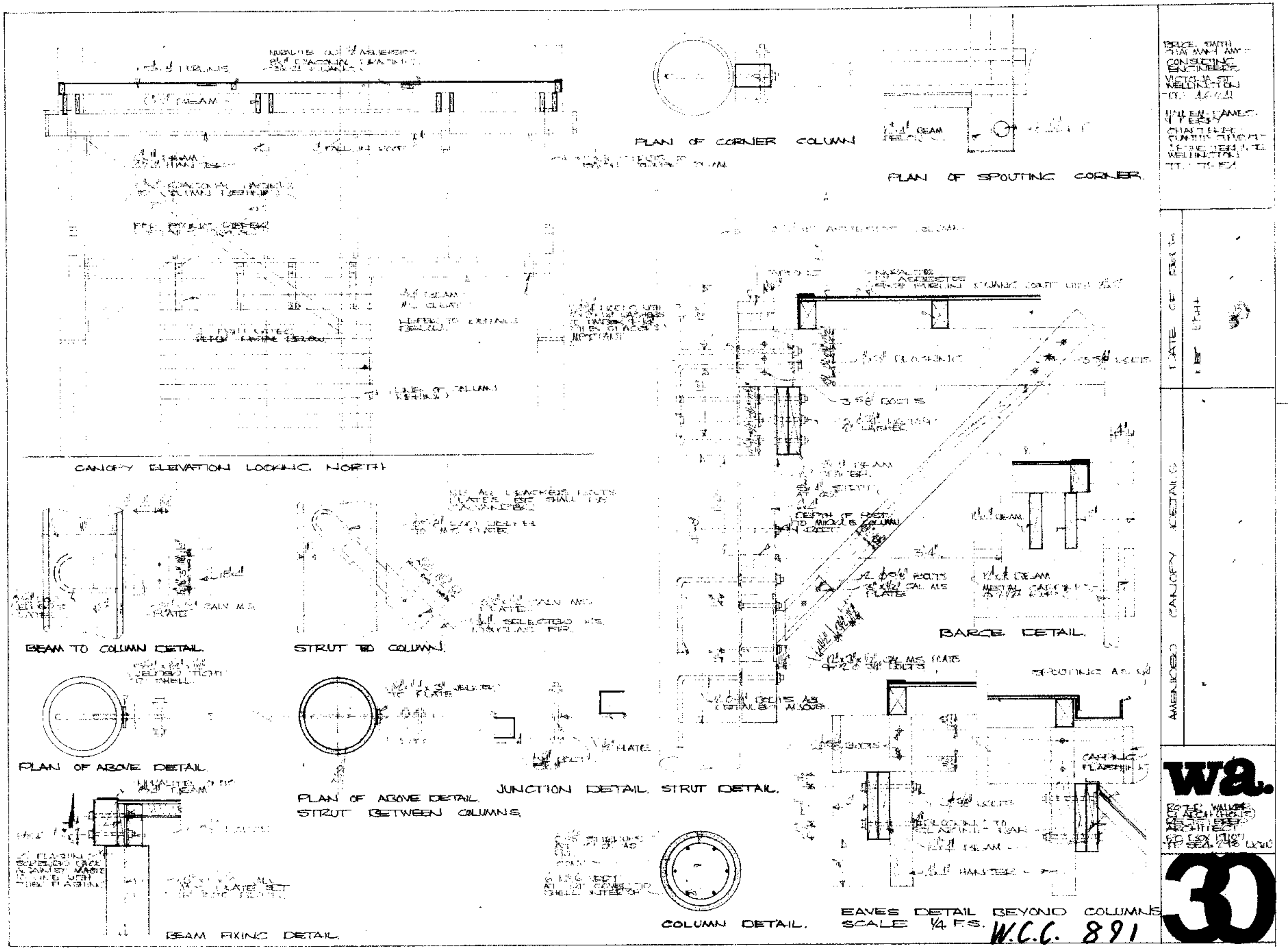
DETAILS

wa.

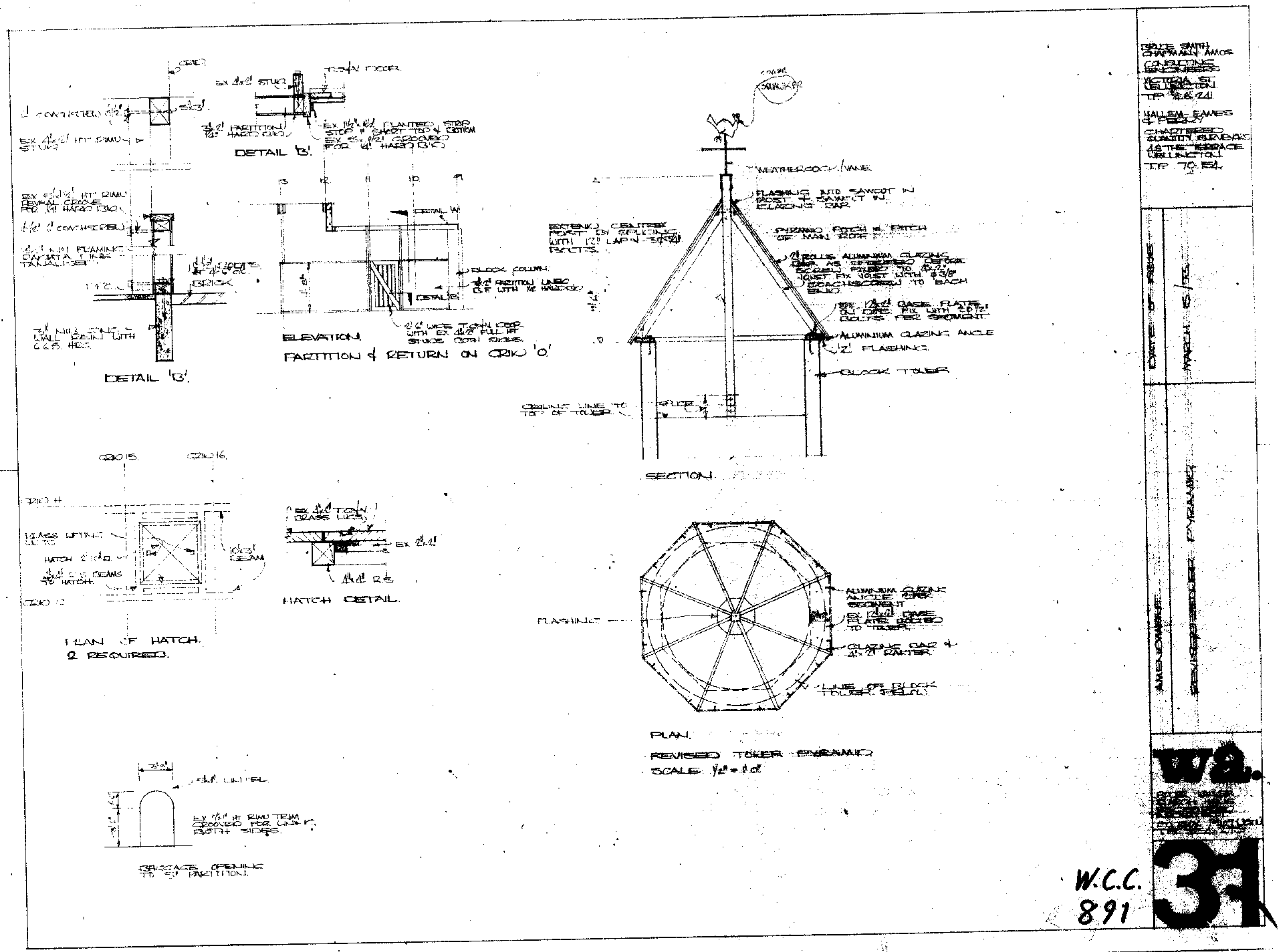
ROGER WALKER
B. ARCH (HONS)
REGISTERED ARCHITECT
P.O. BOX 1910 WGN
TP 554 295

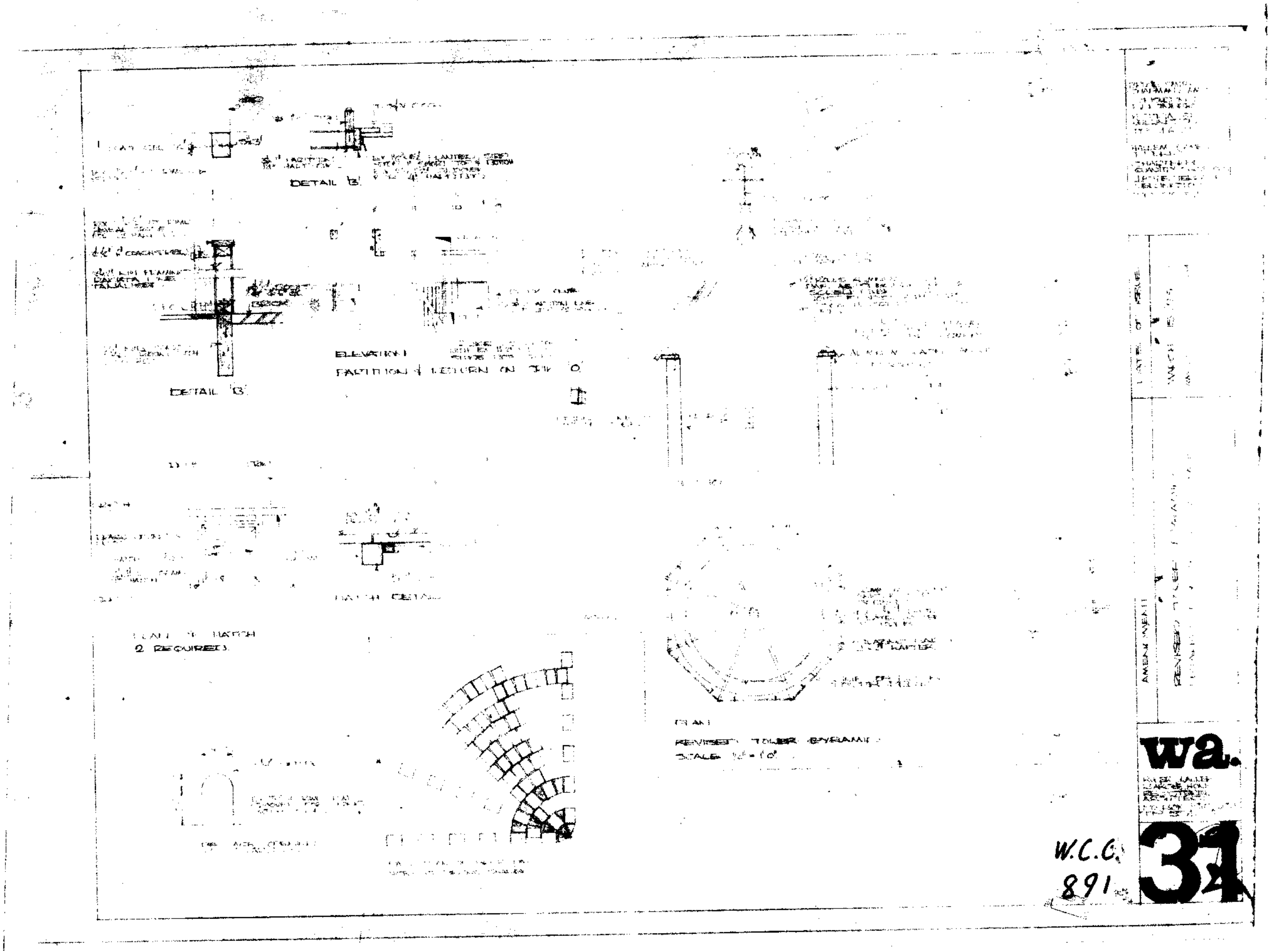
W.C.C.
891

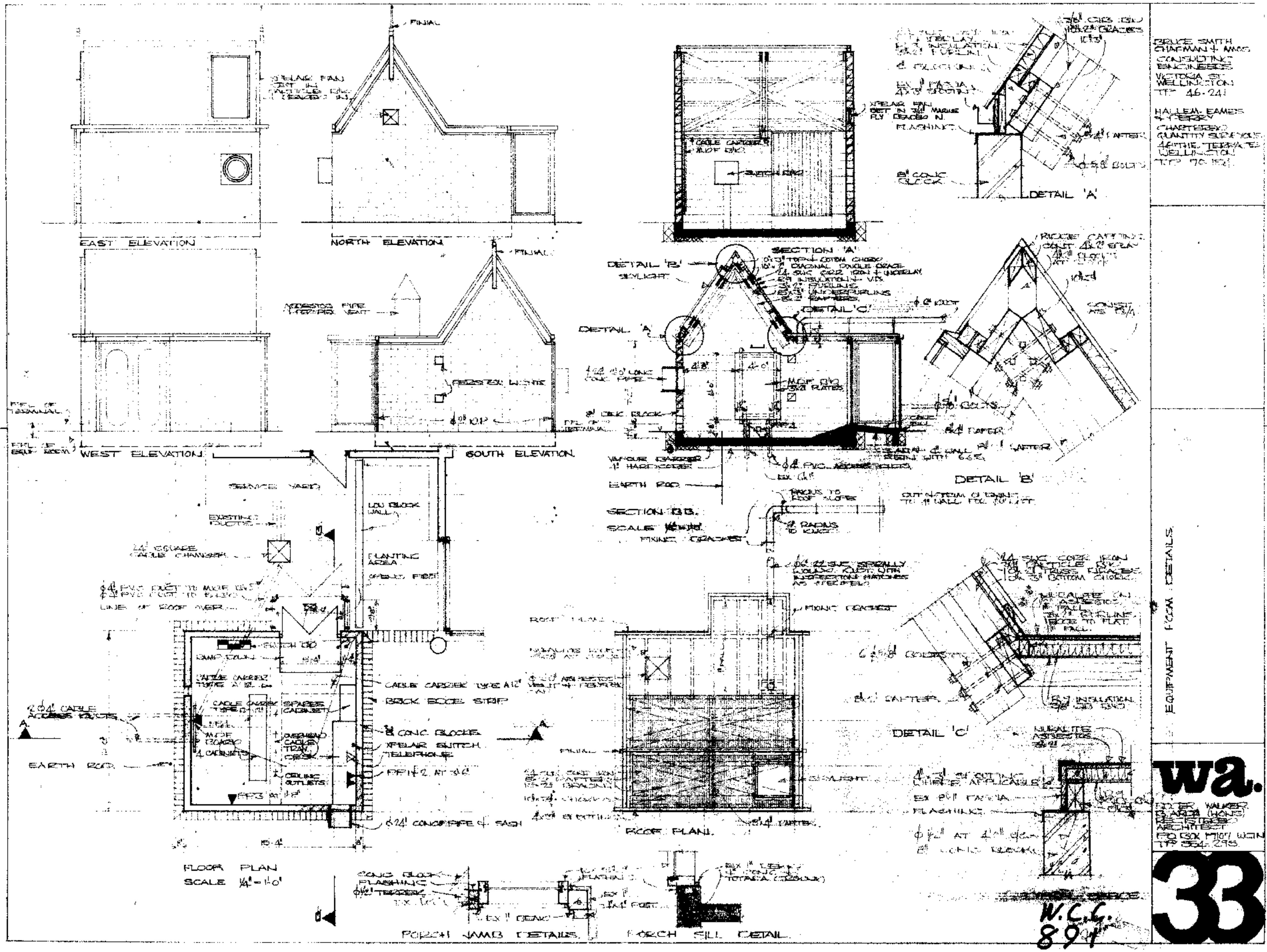
29

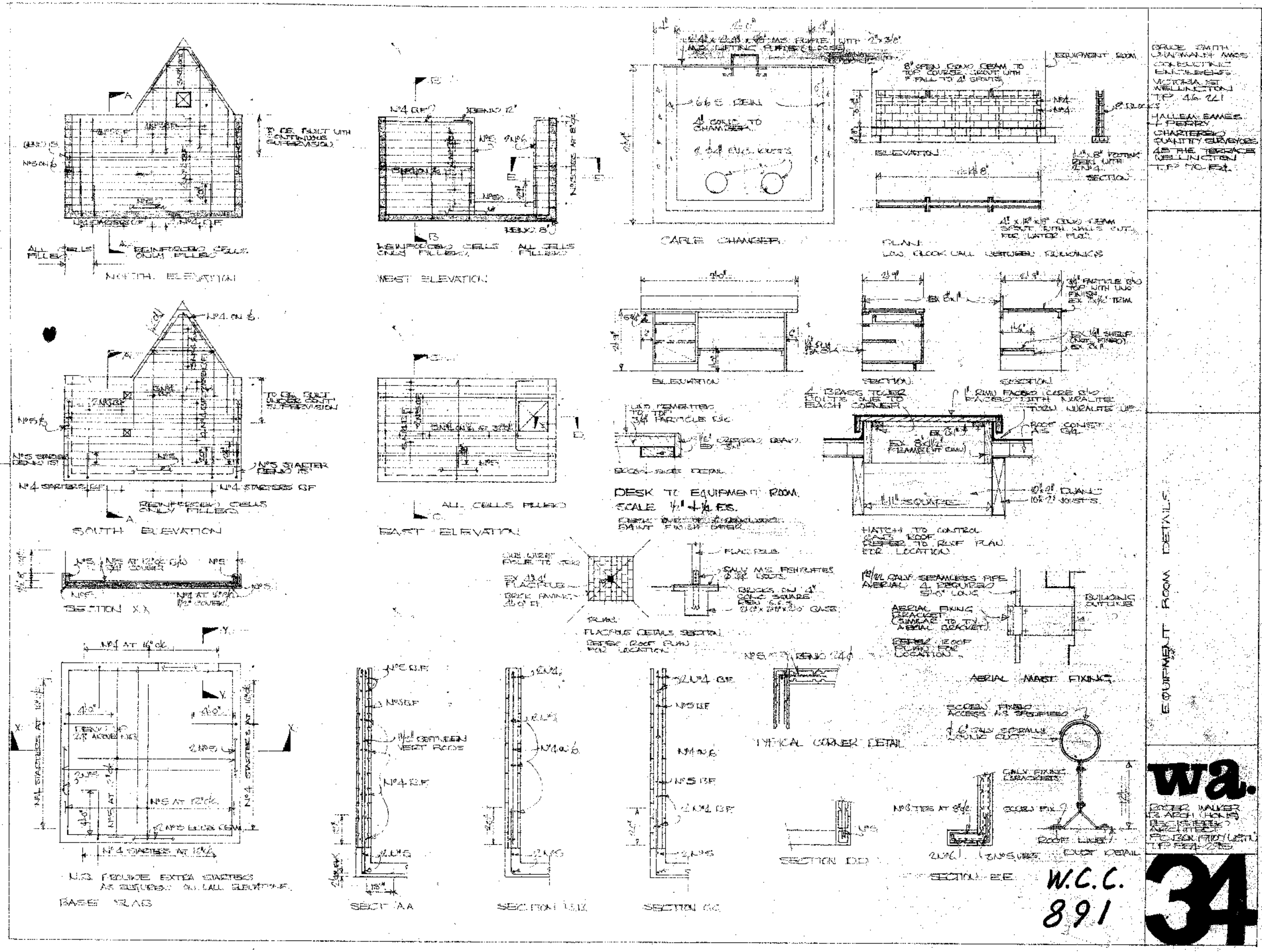


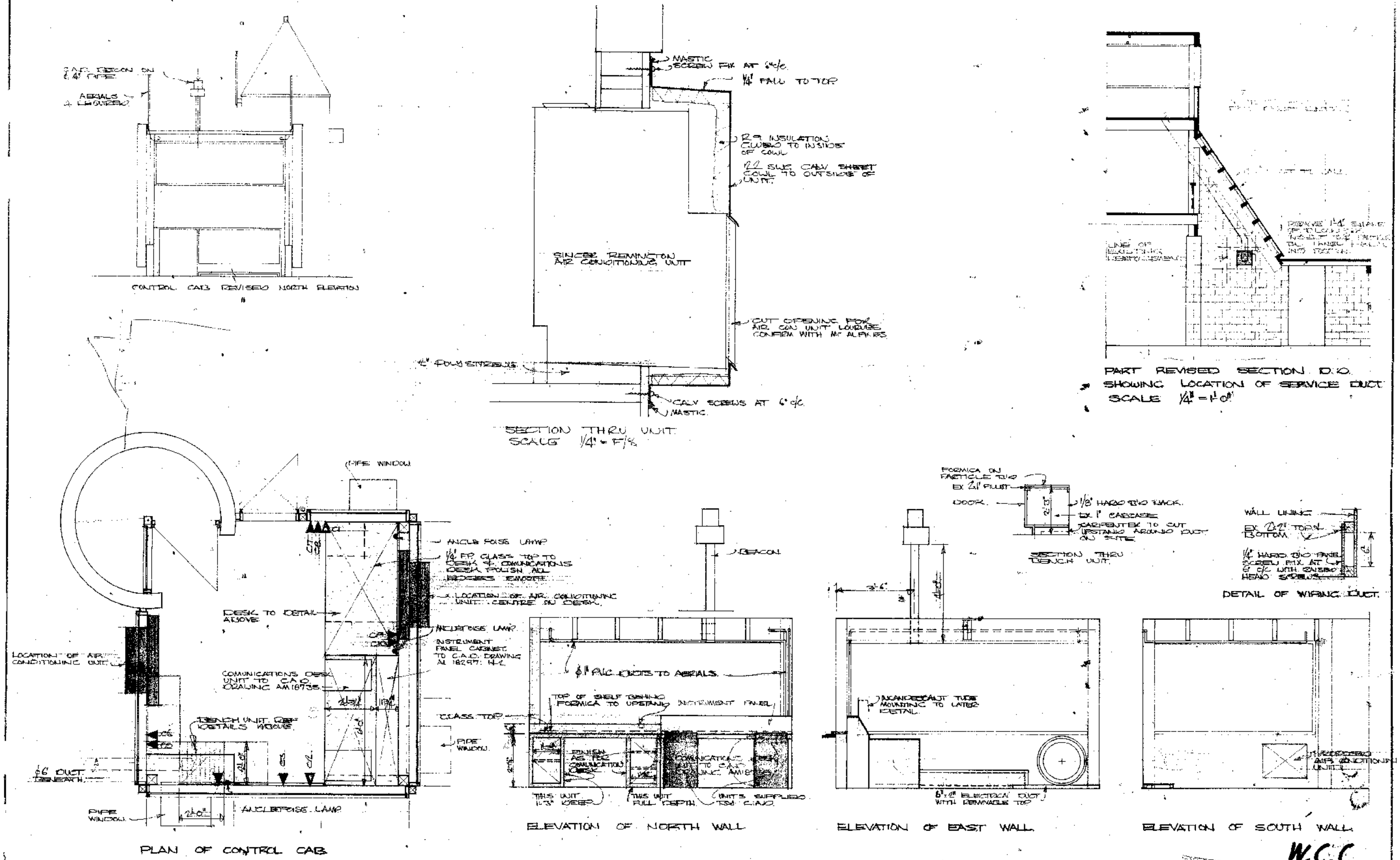
CANOPY ELEVATION LOOKING NORTH
PLAN OF CORNER COLUMN
PLAN OF SPOUTING CORNER
BEAM TO COLUMN DETAIL
STRUT TO COLUMN
BARGE DETAIL
PLAN OF ABOVE DETAIL
PLAN OF ABOVE DETAIL
STRUT BETWEEN COLUMNS
JUNCTION DETAIL
STRUT DETAIL
COLUMN DETAIL
BEAM FIXING DETAIL
EAVES DETAIL BEYOND COLUMNS
SCALE 1/4 F.S.
W.C.C. 891
CONSULTING ENGINEERS
WELLINGTON
DATE OF ISSUE
AMENDED CANOPY DETAILS
wa.
30


DETAIL 'B'.
DETAIL 'B'.
ELEVATION.
PARTITION & RETURN ON GRID 'O'.
WEATHERCOCK/VANE.
BRICK
BLOCK COLUMN
ALUMINIUM GLAZING ANGLE
BLOCK TOWER
SECTION.
PLAN OF HATCH.
2 REQUIRED.
HATCH DETAIL.
FLASHING
PLAN.
REVISED TOWER PYRAMID
SCALE ½" = 1'0"
DATE OF ISSUE
MARCH 15/72
AMENDMENT
REVISED TOWER PYRAMID
VICTORIA ST WELLINGTON
HALLEN, EAMES & FIELD
CHARTERED QUANTITY SURVEYORS
44 THE TERRACE WELLINGTON
T.P. 70-154
W.C.C. 891
31


DETAIL 'B'
ELEVATION
DETAIL 'B'
PLAN OF HATCH
2 REQUIRED
HATCH DETAIL
PLAN
REVISED TOWER PYRAMID
AMENDMENT
wa.
W.C.C.
891


FINIAL
EAST ELEVATION
NORTH ELEVATION
WEST ELEVATION
SOUTH ELEVATION
SECTION 'A'
DETAIL 'A'
DETAIL 'B'
DETAIL 'C'
SKYLIGHT
SECTION BB
SERVICE YARD
LOW BLOCK WALL
PLANTING AREA
EXISTING DUCTS
SPARES CABINETS
XPELAIR SWITCH
TELEPHONE
BRICK EDGE STRIP
8" CONC. BLOCKS
EARTH ROD
FLOOR PLAN
SCALE 1/4" = 1'-0"
ROOF PLAN
PORCH JAMB DETAILS
PORCH SILL DETAIL
BRUCE SMITH CHAPMAN & ASSOC
CONSULTING ENGINEERS
VICTORIA ST WELLINGTON
TEL 46-241
HALLEM EAMES & TERRY
CHARTERED QUANTITY SURVEYORS
44 THE TERRACE WELLINGTON
EQUIPMENT ROOM DETAILS
wa.
PETER WALKER
B.ARCH (HONS)
REGISTERED ARCHITECT
33
W.C.C.
894


NORTH ELEVATION
WEST ELEVATION
SOUTH ELEVATION
EAST ELEVATION
SECTION X.X
BASE SLAB
SECTION AA
SECTION BB
SECTION CC
CABLE CHAMBER
PLAN
ELEVATION
SECTION
DESK TO EQUIPMENT ROOM
SCALE 1½" = 1 FT.
TYPICAL CORNER DETAIL
SECTION DD
SECTION EE
AERIAL MAST FIXING
EQUIPMENT ROOM DETAILS
BRUCE SMITH CHAPMAN & AMOS CONSULTING ENGINEERS VICTORIA ST WELLINGTON
HALLEM EAMES & PERRY CHARTERED QUANTITY SURVEYORS 42 THE TERRACE WELLINGTON
wa.
ROGER WALKER
W.C.C. 891
34



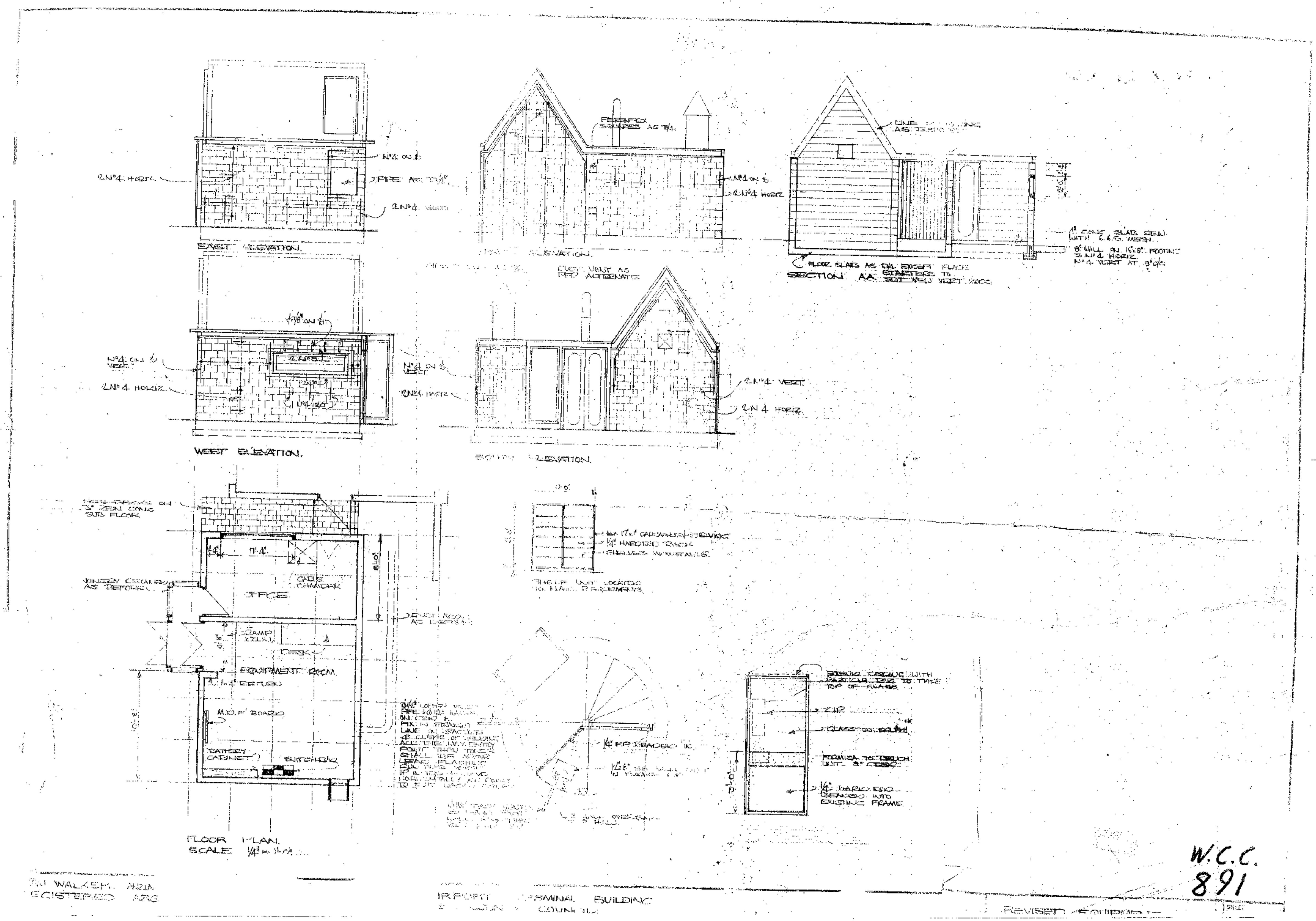
W.C.C.
891

R.N. WALKER ANZIA.
REGISTERED ARCHITECT.
P.O. BOX 19107 T.P. 564-295 WGTN.

WHAKATANE AIRPORT TERMINAL BUILDING
WHAKATANE AIRPORT
FOR THE WHAKATANE COUNTY COUNCIL.

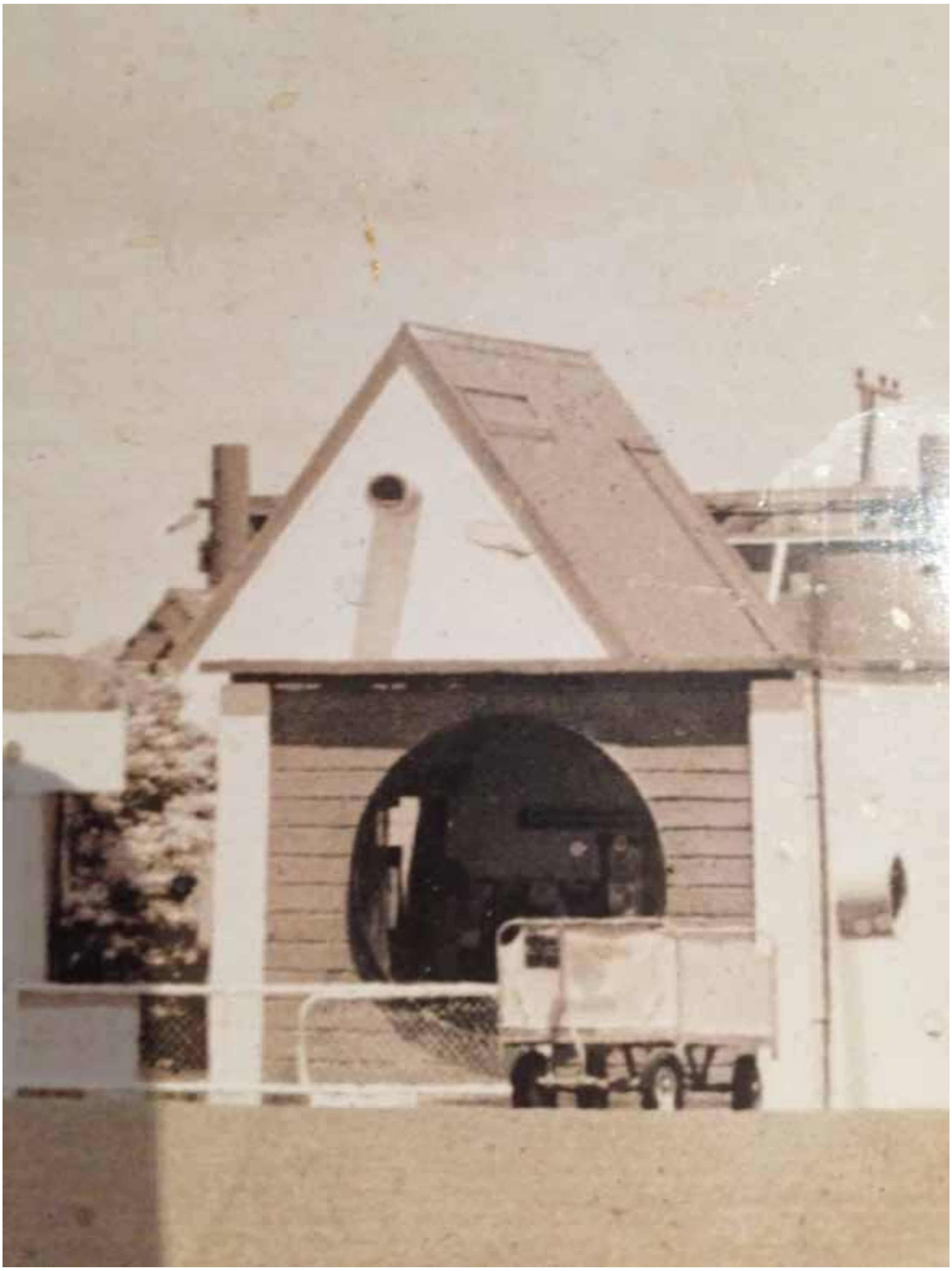
CONTROL CAB DETAILS.
DUCT TO CONTROL CAB DETAIL
AIR CONDITIONING UNIT LOCATION & DETAIL.

DRAWN	CHECKED	SCALES	SHEET 36
TRACED	DATE AUG '75	1/4" = 1'0"	SERIES OF REF. 122


EAST ELEVATION.
WEST ELEVATION.
SECTION AA
FLOOR PLAN.
OFFICE
EQUIPMENT ROOM
DESK
BATTERY CABINET
SWITCHBD.
2 No 4 HORIZ.
2 No 4 VERT.
W.C.C.
891

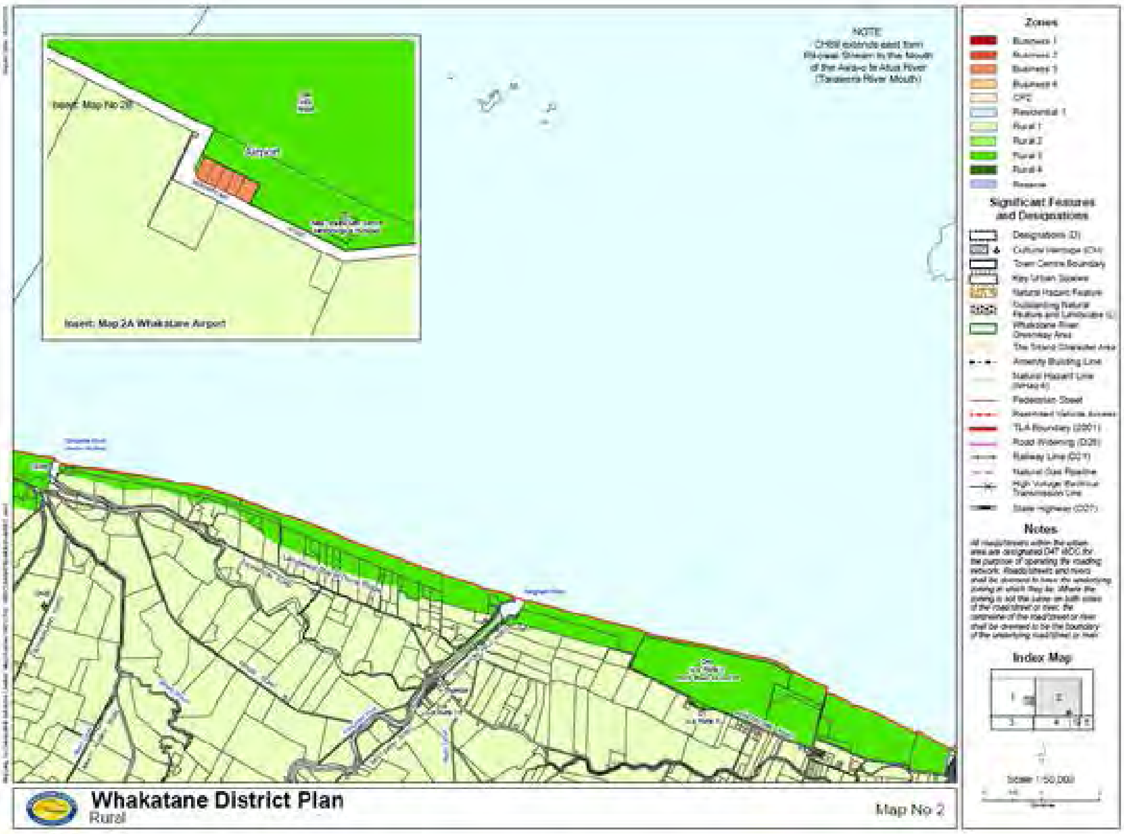
Appendix 6.

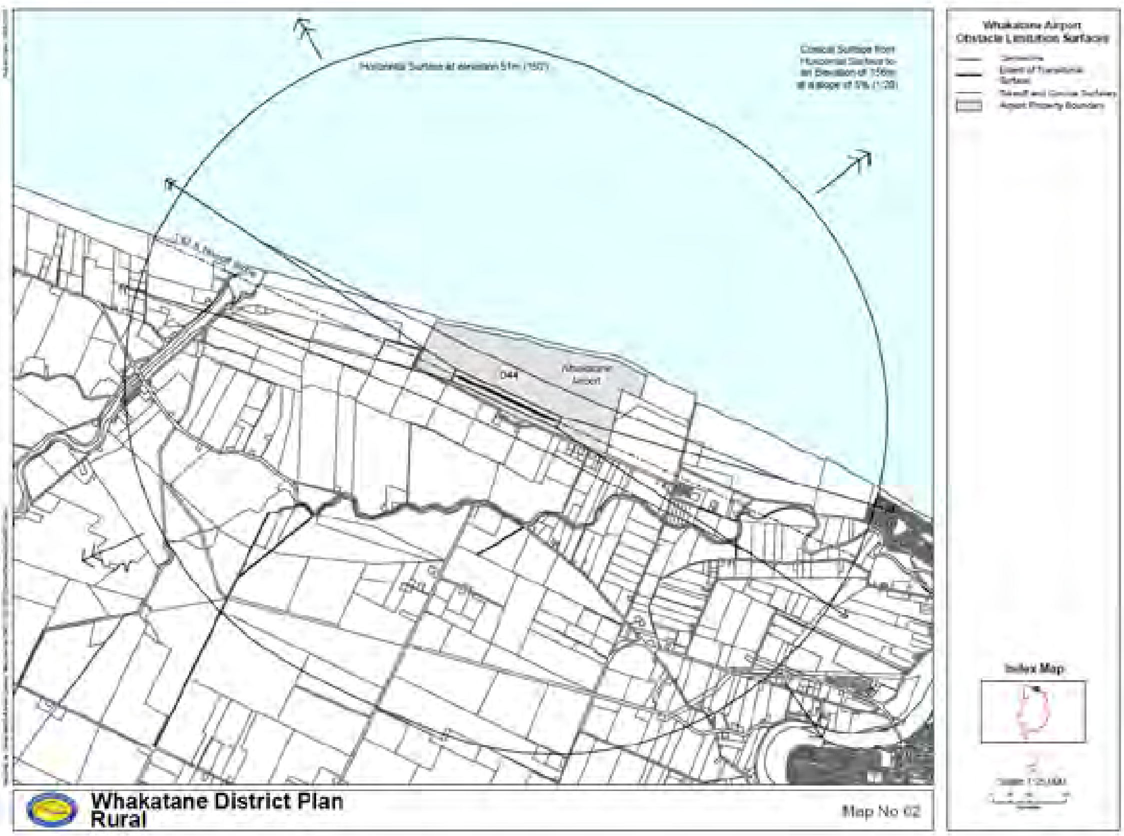
HISTORIC PHOTOGRAPHS – SOURCE: ROGER WALKER PERSONAL COLLECTION




whakatane

WHAKATANE DISTRICT COUNCIL DISTRICT PLAN MAPS





Appendix 8.

WHAKATANE AIRPORT STATEMENT OF INTENT


WHAKATĀNE
District Council

Whakatāne Airport Statement of Intent for the Period 1 July 2016 to 30 June 2017

Statement of Accounting Policies

Statement of Intent

for the Period 1 July 2016 to 30 June 2017

The Whakatāne Airport is a Council-controlled organisation (CCO) under the Local Government Act 2002. It was formed as a CCO in 2006. The Whakatāne Airport is a valued community asset, which contributes to residents' quality of life and is considered crucial to the economic well-being of the District, as it provides an important transportation link to other parts of the country.

Planning for an aerodrome was initiated by the Whakatāne County and Borough Council's in 1944, but it was not until 1960 that it was officially opened. A sealed airstrip was completed a few years later in 1962 to provide adequate services for the larger DC3 aircraft. Today, daily scheduled services are provided to and from Auckland.

This statement is submitted by the partners of the Whakatāne Airport Authority in accordance with section 64 of the Local Government Act 2002. It sets the overall intentions and objectives of the Joint Venture for the period 1 July 2016 to 30 June 2017.

The airport is operated under a Joint Venture agreement between the Whakatāne District Council and the New Zealand Government established under the Airport Authorities Act (1966). The Joint Venture is a deemed company under the Income Tax Act (2004).

Air Chathams is the commercial flight service provider for the Whakatāne Airport. Air Chathams provides regular daily return services to and from Auckland using their Metroliner SA-227 19 seat aircraft or their Convair C-580 50 seat aircraft depending on demand. They also operate themed scenic flights in their historic DC3 on weekends.

In addition to Air Chathams service, Sunair also offer scheduled passenger flights from Whakatāne Airport to Gisborne, Napier and Hamilton using their Piper Chieftain and Aztec Aircraft.

1. DEFINITIONS

"JV" means Joint Venture between the Crown and Council.

"CCO" means the Whakatāne Airport Authority, being a Council Controlled Organisation.

"Council" means the Whakatāne District Council.

"Crown" means the New Zealand Government.

"CAR " means Civil Aviation Rule.

2. OBJECTIVES

The JV's primary objectives are to:

- Provide high quality facilities and services commensurate with existing levels of aviation activity and in accordance with all the appropriate Acts, Regulations and Rules pertaining to airport and aviation operations in line with the size of Whakatāne Airport.
- Operate the airport in a sound and business-like manner.
- Ensure that the airport is administered efficiently, effectively and safely to the benefit of scheduled flight operations, commercial operators and recreational users.
- Improve the long term value and financial performance of the airport.
- Promote a safe, accessible, affordable and reliable air transport system for the Eastern Bay of Plenty region.

3. GOVERNANCE

The JV partners have different responsibilities for the governance of Whakatane Airport. The Council manages the day-to-day operation of the airport. The Crown has an ownership interest, a monitoring role, and shares the commercial and capital costs associated with airport.

4. NATURE AND SCOPE OF ACTIVITIES

The airport provides a range of services, both aeronautical and non-aeronautical. Aeronautical services are those that directly assist in the take-off and landing of aircraft. Non-aeronautical are all other activities.

4.1 Aeronautical Services

The airport provides a range of services supporting the safe arrival and departure of aircraft and passengers. Primarily these relate to physical assets and the services around ensuring their collective safety and fitness for purpose.

Runways, taxiways and aprons

The sealed 1,280 metre runway, taxiways and aprons are adequate to meet the unrestricted take-off and landing requirements of Air Chathams' and Sunair current fleet of aircraft; and the requirements of other commercial and recreational operators. As a CAR Part 139 Certificated aerodrome the Whakatāne Airport is able to service aeroplanes with a seating capacity of greater than 30 passengers for any regular flight services.

Grass runway

The existing grass runway is expected to be adequate to meet the current and future needs of both resident and visiting light fixed wing aircraft (which are also capable of using the sealed runway). The limitation of the grass runway is that it does not have the required separation from the main sealed runway to permit simultaneous operation of both runways.

Aircraft parking

Sealed apron space is provided directly in front of the terminal and is used primarily by scheduled services.

Approach services

There are a range of infrastructural assets which include runway perimeter lights, windsocks, emergency power supply, and Visual Approach Slope Indicator System (VASIS) lights.

Fuel services

Whakatāne Airport has adequate storage facilities for fuel for existing requirements. The services are provided by BP Oil NZ Ltd. and Airfuels.com Ltd.

4.2 Non-Aeronautical Services

Non aeronautical services are services that support activities on the aerodrome.

Terminal facilities

The terminal building has an existing ground floor area of 249 m2. There is provision for one primary airline check-in facility and this is currently leased to Air Chathams.

Lease of airport land and buildings

Land surplus to the airport's present operational requirements is leased for grazing. Areas of the terminal building are leased for activities compatible with the operation of the airport. Lease of airport land is also available to commercial operators and associated industry.

Car parking services

A large car parking space is provided free of charge at the Whakatāne Airport (approximately 80 spaces, including six set aside for rental vehicles).

5. RATIO OF JOINT VENTURE PARTNERS FUNDS TO TOTAL ASSETS

- For the year ended 30 June 2015, consolidated shareholders' funds as a ratio to total assets was 0.50. Per the JV's Annual Report 2015, consolidated funds were $890 million and total assets $1.768 million.
- The consolidated funds include: Capital, Reserve Funds and Current Accounts.
- The minimum equity ratio to total assets shall not be less than 0.5 therefore ensuring the airport authority remains financially viable, unless with agreement by the JV partners and Council.

6. ACCOUNTING POLICIES

The JV partners' estimate of the commercial value of their investments is equal to the net assets of the JV being $890 million.

7. PERFORMANCE TARGETS

7.1 *Financial performance measures and targets*

Operate and maintain the airport's assets within the following operational expenditure and capital expenditure budgets (excluding corporate overheads and depreciation).

Financial performance measures and targets provided are based on the flight services at the time of preparing the Statement of Intent.

OPERATIONAL EXPENDITURE	2015/16	2016/17	2016/17
	LTP	LTP	Draft SOI (AP)
Income (excluding interest and general rates)	208,708	227,985	227,985
Expenditure (excluding corporate overheads and depreciation)	272,725	272,951	270,765
Surplus (Deficit)	(64,017)	(44,966)	(42,780)

CAPITAL EXPENDITURE	2015/16	2016/17	2016/17
	LTP	LTP	Draft SOI (AP)
Airport Expansion (Security)	-	-	12,000
Pavement Resurfacing	-	-	-
Runway Lighting & Navigation	8,000	8,000	8,000
Whakatāne Airport Terminal	2,500	2,500	2,500
Parking Facility	25,000	-	7,290
Runway Resurfacing	-	-	-
Airport Certification	10,000	-	-
TOTAL	45,500	10,500	29,790

7.2 *Non-financial performance measures and targets*

MEASURE	KEY PERFORMANCE INDICATOR	TARGET
The Airport is maintained to Civil Aviation Authority (CAA) requirements	The Airport is maintained as a CAR Part 139 Certificated aerodrome in accordance with CAA aerodrome design for all aircraft undertaking Air Transport Operations and aircraft above 5,700 kg Maximum Combined Take-Off Weight (MCTOW)	Certification status is maintained.

Aircraft parking

Sealed apron space is provided directly in front of the terminal and is used primarily by scheduled services.

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8. DISTRIBUTIONS TO JOINT VENTURE PARTNERS

Appropriations will be made annually to reserves to provide for future renewals and upgrading of facilities. Annual surpluses or deficits will be transferred to a current account. The current account will have an appropriate minimum amount specified to cover short-term operating deficits. If the current account balance exceeds the amount necessary to cover short to medium term operating deficits the joint partners will consider whether a distribution of some of the surplus is warranted. Any distribution to the joint venture partners would be in proportion to the respective equity holdings.

9. INFORMATION TO BE SUPPLIED

The following reports will be supplied to the joint venture partners within two months after the end of the first half of each financial year and within three months of the end of each financial year:

- Statement of Comprehensive Income
- Statement of Financial Position
- Statement of Performance Compared to Targets
- Other statements as may be required by legislation or to comply with Generally Accepted Accounting Practice (GAAP)

10. PROCEDURE FOR ACQUISITION OR SALE OF SHARES AND PROPERTY

Before the JV subscribes for, purchases or acquires shares in any other company, or acquires any interest in any business or property whatsoever, the JV shall give at least 21 days' notice to Council and, in turn the Crown, of such proposals prior to the JV deciding whether or not to proceed.

The JV shall not proceed to purchase without an ordinary resolution first being completed by Whakatāne District Council.

11. COMPENSATION

Other than normal business transactions provided to Whakatāne District Council there are no activities for which the JV will be seeking compensation from any local authority.

12. COMMERCIAL VALUE

The JV partners' estimate of the commercial value of their investments is equal to the net assets of the JV being $890 million.

13. OTHER MATTERS

- The JV operates in accordance with the Joint Venture agreement at all times.
- A Master Plan has been developed to be used as a reference guide for long term strategic planning purposes by the JV partners.
- A Ten Year Business Plan for Whakatāne Airport for the period of 2012-22 has been adopted by the Council. This plan provides a strategic framework for the Airport, identifies opportunities for growth and development, and outlines a set of actions to support its future capacity.


Ohope Beach
Whakatane District

APPENDIX ONE

Statement of Accounting Policies

14. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of the financial report are set out below.

15. ENTITIES REPORTING

The financial statements are for Whakatāne Airport, which is a 50:50 joint equity venture between the Council and the Crown.

The primary objective of Whakatāne Airport is to provide goods or services for the community or social benefit rather than making a financial return. Accordingly, the Whakatāne Airport has designated itself as a public benefit entity for the purposes of New Zealand equivalents to International Financial Reporting Standards (NZ IFRS).

The financial statements of Whakatāne Airport are for the six months ended 31 December 2015.

16. BASIS OF PREPARATION

The financial statements have been prepared in accordance with New Zealand generally accepted accounting practice (NZ GAAP). They comply with New Zealand equivalents to International Financial Reporting Standards (NZ IFRS), and other applicable Financial Reporting Standards, as appropriate for public benefit entities.

Whakatāne Airport has taken advantage of certain exemptions available under NZ IFRS.

The financial statements are presented in New Zealand dollars and all values are rounded to the nearest dollar. Some rounding variances may occur in the Finance Statements due to the use of decimal places in the underlying financial data. The functional currency of Whakatāne Airport is New Zealand dollars.

17. STATUTORY BASE

Whakatāne Airport is a Council Controlled Organisation (CCO) registered under the Local Government Act 2002. This Act requires compliance with New Zealand Generally Accepted Accounting Practice (GAAP). The financial statements have been prepared in accordance with the requirements of the Local Government Act 2002.

18. DIFFERENTIAL REPORTING

The Whakatāne Airport is a qualifying entity within the Framework of Differential Reporting. The Airport is able to apply differential reporting exemptions as it meets the criteria of a differential entity because:

(a) the Airport is not publicly accountable;

(b) the Airport is not large.

All differential reporting exemptions have been taken advantage of.

19. HISTORICAL COST CONVENTION

These financial statements have been prepared under the historical cost convention. The Whakatāne District Council will continue to provide the necessary support to enable the Whakatāne Airport Joint Venture to pay its liabilities as they fall due, including providing funds through the District Fund Account.

20. CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements in conformity with NZ IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying Whakatāne Airport's accounting policies.

No material estimates were required this accounting period.

21. REVENUE RECOGNITION

Revenue comprises the fair value for the sale of goods and services, net of rebates and discounts. All revenue is recognised when earned.

22. RENTAL REVENUE

Rental revenue is recognised in the period that it relates to.

23. INTEREST INCOME

Interest income is recognised on a time-proportion basis using the effective interest method.

24. INCOME TAX

The Income Tax expense is calculated using the taxes payable method. As a result, no allowance is made for deferred tax. Tax expense includes the current tax liability and adjustments to prior year tax liabilities.

25. GOODS AND SERVICES TAX (GST)

All items in the financial statements are stated exclusive of GST. Commitments and contingencies are disclosed exclusive of GST.

26. LEASES

Assets leased to third parties under operating leases are included in property, plant and equipment in the Statement of Financial Position. They are depreciated over their expected useful lives on a basis consistent with similar owned property, plant and equipment. Rental income (net of any incentives given to lessees) is recognised on a straight line basis over the lease term.

27. IMPAIRMENT OF ASSETS

Items of property, plant and equipment and intangible assets with finite useful lives are reviewed at each balance date to determine whether there is any indication that the asset might be impaired. Where such an indication exists, the asset is tested for impairment by comparing its carrying value to its recoverable amount. Intangible assets with indefinite useful lives, intangible assets not yet available for use and goodwill are tested for impairment annually. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount.

The recoverable amount is the higher of the assets fair value less costs to sell and its value in use. Where the future economic benefits of the asset are not primarily dependent on its ability to generate net cash inflows, and where Whakatāne Airport would, if deprived of the asset, replace its remaining future economic benefits, value in use is determined as the depreciated replacement cost of the asset. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash generating units).

28. CURRENT ACCOUNT

Cash and cash equivalents includes cash on hand, deposits held at call with financial institutions, other short term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities on the statement of financial position. Investments held are recorded at cost price. The bank account is held by Whakatāne District Council as part of its General Funds.

29. RECEIVABLES

Receivables are recognised initially at fair value and subsequently measured at amortised cost, less provision for doubtful debts. Collectability of receivables is reviewed on an ongoing basis. Debts which are known to be uncollectable are written off. A provision for doubtful receivables is established when there is objective evidence that Whakatāne Airport will not be able to collect all amounts due according to the original terms of receivables.

The amount of the provision is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the effective interest rate. The amount of the provision is recognised in the Statement of Comprehensive Income.

30. INVESTMENTS AND OTHER FINANCIAL ASSETS

30.1 Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise when Whakatāne Airport provides money, goods or services directly to a debtor with no intention of selling the receivable. They are included in current assets, except for those with maturities greater than 12 months after the balance date which are classified as non-current assets.

30.2 Property, plant and equipment

Property, plant and equipment consist of operational assets, which include land, buildings, plant & equipment and furniture & fittings. Items of property, plant and equipment are initially recognised at cost, which includes purchase price plus directly attributable costs of bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Where a physical asset is acquired for nil or nominal consideration the fair value of the asset received is recognised as revenue.

All property, plant and equipment is shown at cost less depreciation and impairment costs. Cost includes expenditure that is directly attributable to the acquisition of the items. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to Whakatāne Airport and the cost of the item can be measured reliably. All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

The expected lives, in years, of major classes of fixed assets are as follows:

OPERATIONAL ASSETS:	YEARS	METHOD
Airport Runways, Taxiways and Apron	50	Straight Line
Building	50	Straight Line
Water Supply	100	Straight Line
Plant & Equipment	10	Diminishing Value
Furniture & Fittings	5	Diminishing Value
Fence	5-10	Diminishing Value

The Airport land is vested in the Council under the Reserves Act 1997 for use as an Airport. The Airport holds the land "in substance" and is shown at the value at the date of vesting. Land is not depreciated.

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance date.

Assets under construction are not depreciated. The total cost of a project is transferred to the relevant asset class on its completion and then depreciated.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing proceeds with carrying amount. These are included in the Statement of Comprehensive Income.

31. INTANGIBLE ASSETS

Acquired computer software and software licences are capitalised on the basis of the costs incurred to acquire and bring to use the specific software. These costs are amortised over their estimated useful lives of 3 to 10 years.

32. TRADE AND OTHER PAYABLES

These amounts represent liabilities for goods and services provided to Whakatāne Airport prior to the end of financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

WHAKATĀNE DISTRICT COUNCIL

Civic Centre, Commerce Street, Whakatāne
Private Bag 1002, Whakatāne 3158

Email: information@whakatane.govt.nz
Phone: 07 306 0500
Fax: 07 307 0718
Website: www.whakatane.govt.nz

SERVICE CENTRE MURUPARA

Pine Drive, Murupara
Phone: 07 366 5896
Fax: 07 366 5897

WHAKATĀNE
District Council
Kia Whakatāne au i ahau

NGATI AWA - DEED OF SETTLEMRNT

Deed of Settlement

Between the Crown and Ngati Awa

General Background

Ngati Awa is an iwi of the Eastern Bay of Plenty descended from Awanuiarangi II of the Mataatua waka. Ngati Awa has approximately 13,000 members and 22 hapu.

Ngati Awa's early interactions with the Crown were outlined in the Waitangi Tribunal's Ngati Awa Raupatu Report, published in 1999.

An account of the historical background agreed between the Crown and Ngati Awa is included in the Deed of Settlement along with acknowledgements of Crown breaches of the Treaty of Waitangi and a Crown Apology for those breaches. Summaries of these are included in the attached material. Ngati Awa's claims relate in general terms to the confiscation of land, the compensation process and the operation and impact of the Native land laws.

Pre-negotiations with Ngati Awa began in 1995 and formal negotiations leading to the Deed of Settlement commenced in 1997. A Heads of Agreement indicating the broad outline of a settlement package was signed in December 1998. A revised settlement offer was agreed in October 2000.

A full Deed of Settlement, which details the formal Crown offer to settle all of Ngati Awa's historical claims against the Crown, was then developed and was initialled by the Crown and the mandated representatives of Ngati Awa on 8 July 2002. The Deed was then ratified by the members of Ngati Awa through a postal ballot. The Deed of Settlement will be implemented following the ratification and establishment by Ngati Awa of a governance entity to receive and manage the settlement redress, and the passage of settlement legislation.

Te Runanga o Ngati Awa was mandated by Ngati Awa to represent them in settlement negotiations with the Crown. The Runanga is chaired by Dr Hirini Mead, Ngati Awa's Chief Negotiator. The Office of Treaty Settlements, headed by Andrew Hampton, and Chief Crown Negotiator Brian Roche, with the support of Te Puni Kokiri, the Treasury, and the Department of Conservation represented the Crown in day-to-day negotiations. The Minister in Charge of Treaty of Waitangi Negotiations, Hon Margaret Wilson, represented the Crown in high-level negotiations with Ngati Awa.

Summary of Historical Background to the Claims by Ngati Awa

Some Ngati Awa chiefs signed the Treaty of Waitangi at Pohaturoa, near Whakatane in June 1840. Prior to the 1860s, however, there were few European settlers within the Ngati Awa rohe.

Fighting broke out between the Crown and Maori in the early 1860s in Taranaki and later Waikato. In 1864 some Ngati Awa hapu joined a Te Tai Rawhiti force planning to go to Waikato to assist the tribes there. Most of the force was prevented from travelling through the Rotorua region by local iwi, supported by Crown warships and military personnel.

In July 1865 a Crown official, James Te Mautaranui Fulloon, and three others were killed at Whakatane by some Ngati Awa supporters of Pai Marire. In August 1865, a Crown expeditionary force of approximately 500 men, drawn largely from some neighbouring iwi, entered the rohe of Ngati Awa to execute an arrest warrant for the killing of Fulloon and others. This force destroyed Ngati Awa kainga, wharenui, pataka and waka, seized cattle, horses and other property, and was involved in skirmishes with Ngati Awa in which some were killed.

In September 1865 the Crown issued a Proclamation of Peace declaring that the war, which began in Taranaki, was at an end. The proclamation pardoned those who had been in arms against the Crown but excluded those responsible for the killing of Fulloon. It stated that if those responsible were not given up then the Crown would take parts of the lands of those tribes who concealed the murderers.

Subsequently, the Crown expeditionary force laid siege to pa at Matata, Whakatane and Te Teko. In October 1865 over 30 men were arrested for the killing of James Fulloon and related offences. Many were found guilty at trial by Courts-Martial and sentenced to death. They were re-tried before the Supreme Court in Auckland. All were found guilty of at least one charge and were sentenced to imprisonment or execution. Two men were subsequently executed for the murder of Fulloon and three others died while in prison.

Governor George Grey deemed the Bay of Plenty tribes to have been in rebellion and in January 1866 approximately 448,000 acres of land was confiscated. Ngati Awa state that approximately 245,000 acres of this land was within their rohe. Confiscation affected all Ngati Awa and all bore the stigma of being 'tangata hara' or rebels including the many hapu who had not been involved in any conflict.

Approximately 77,000 acres were returned to Ngati Awa through the compensation process but this land was returned to individuals rather than to iwi or hapu and did not reflect customary forms of land tenure. It often took up to 10 years before a Crown grant was issued for returned land and some hapu received land which had previously been occupied by other hapu.

From the 1870s Ngati Awa claimed land south of the confiscation line before the Native Land Court but in many cases the Court awarded parts of those lands, regarded by Ngati Awa as theirs, to other iwi. Those lands Ngati Awa did gain title to were awarded to individuals rather than to iwi or hapu and became more susceptible to partition, fragmentation and alienation. This contributed to the erosion of the traditional tribal structures of Ngati Awa. Further land was lost through acquisitions under public works legislation in the twentieth century, including urupa and other waahi tapu.

Since 1867 Ngati Awa have sought redress for the wrongs inflicted on the iwi by the Crown. Several petitions were sent to the Crown relating to the confiscations, imprisonments and the loss of land. The Sim Commission considered the Ngati Awa claims in 1927 but generally did not find in their favour. The Commission did find, however, that there were insufficient reserves for two hapu and recommended the award of land at Matata. This never eventuated. As a result of the Sim Commission other iwi had annuities paid by the Crown and Trust Boards were established for some raupatu iwi, but not for Ngati Awa.

Summary of the Ngati Awa settlement

Overview

The Ngati Awa Deed of Settlement is a package that includes:

- An agreed historical account, Crown acknowledgements and a Crown Apology to Ngati Awa
- Cultural redress
- Financial and commercial redress.

No private land is included as redress, only Crown assets.

The benefits of the settlement will be available to all members of Ngati Awa, wherever they may live.

Crown Apology

The Crown apologises to Ngati Awa for past dealings that breached the Crown's obligations under the Treaty of Waitangi including the confiscation of land, the compensation process, the operation and impact of the native land laws and the cumulative impact of these events on Ngati Awa, which undermined traditional tribal structures and left Ngati Awa virtually landless.

Cultural Redress

1. Recognition of Ngati Awa's traditional, historical, cultural and spiritual associations to places and sites, within their area of interest, that are owned by the Crown. This includes:

1(a) STATUTORY ACKNOWLEDGEMENTS

Statutory Acknowledgements register the special association Ngati Awa has with an area. They are recognised for certain purposes relating to standing and notification under the Resource Management Act and the Historic Places Act. There are eleven such acknowledgements: part of the Whakatane, Rangitaiki and Tarawera rivers, Moutohora (Whale) Island Wildlife Management Reserve, Part of Ohiwa Harbour, Te Kaokaoroa Historic Reserve, Kohi Point Scenic Reserve, Ohope Scenic Reserve, Mokorua Scenic Reserve, Uretara Island Scenic Reserve, and the former Matahina A5 block.

1(b) DEEDS OF RECOGNITION

A Deed of Recognition requires the Crown to consult Ngati Awa and have regard for their views about Ngati Awa's special association with a particular Crown-owned site. The Deed specifies the nature of Ngati Awa's input into management of those areas by the Department of Conservation and Commissioner of Crown Lands. There will be four Deeds of Recognition covering the Crown-owned parts of the Whakatane, Rangitaiki and Tarawera riverbeds and Uretara Island.

1(c) PROTOCOLS WITH GOVERNMENT DEPARTMENTS AND COMMITMENTS TO CONTACT THIRD PARTIES

The Deed of Settlement provides for the establishment of protocols to promote good working relationships between Ngati Awa and the Ministry of Fisheries, the Department of Conservation and the Ministry of Culture and Heritage on matters of cultural importance to Ngati Awa.

The Department of Internal Affairs has undertaken to consult Ngati Awa should the Department conduct a review of the administration by local government of the following: Motiti Island, Tokata Island, Rurima Island, Moutoki Island, Moutohora Island, Whakaari/White Island and Te Paepae o Aotea (Volkner Rocks).

Ngati Awa will also be able to express their views to the Ministry for the Environment on the application of the Treaty and relevant parts of the Resource Management Act in Ngati Awa's area of interest. The Ministry will monitor the performance of local authorities in Ngati Awa's area of interest in relation to these matters.

In addition, the Crown has written to a number of third parties, such as Environment Bay of Plenty, inviting them to consider meeting with Ngati Awa to discuss matters of importance to the iwi.

1(d) PLACE-NAMES

Three official place-name changes have been agreed between the Crown and Ngati Awa. Once the settlement legislation has been enacted, Volkner Rocks (owned by Ngati Awa on behalf of Mataatua) will be known as Te Paepae o Aotea. Awaateatua Beach will be known as Te Awa a Te Atua Beach. Braemar Springs will be known as to Te Waiu o Pukemarie/Braemar Springs. In addition, Thornton Wildlife Management Reserve will be known as Okorero/Thornton Wildlife Management Reserve.

1(e) SITES TRANSFERRED AND MANAGEMENT INPUT

Seven areas of special significance to Ngati Awa will be returned to the iwi. These are:

- Kaputerangi Historic Reserve
- Te Paripari Pa Historic Reserve
- Otitapu Pa (within the Mangaone Scenic Reserve)
- Former Matahina A4 Block
- Te Toangapoto (within the Western Whakatane Recreation Reserve)
- Te Ihukatia (part of the Port Ohope Recreation Reserve), and
- Whakapaukorero (within the Matata Scenic Reserve).

These sites total approximately 64 hectares. Kaputerangi Historic Reserve, Te Paripari Pa Historic Reserve, Te Toangapoto, Te Ihukatia, and Whakapaukorero will be re-reserved under the Reserves Act, which means that public access will be maintained. Otitapu Pa will be subject to a protected private land agreement to protect conservation values.

The Kaputerangi Historic Reserve and Te Toangapoto site are currently vested in or administered by the Whakatane District Council and the Council has agreed to relinquish their interests in the areas subject to Ngati Awa managing these reserves in a way that is compatible with the existing management plans. Under the Deed of Settlement, Ngati Awa has undertaken to acknowledge the significance of the site to other iwi in any published and interpretation material that it produces about the Kaputerangi Historic Reserve.

Two joint committees, one advisory and one management committee, are to be established over five reserves.

- A Joint Advisory Committee is to be established over the Matata Scenic Reserve and the Matata Wildlife Refuge Reserve. This committee will be made up of equal numbers of members nominated by Ngati Awa and the Department of Conservation.

- A Joint Management Committee is to be established for Moutohora (Whale) Island Wildlife Management Reserve, Tauwhare Pa Scenic Reserve, and Ohope Scenic Reserve. This committee will have representatives nominated by Ngati Awa, the Department of Conservation and the Bay of Plenty Conservation Board. Ngati Awa will, as part of the agreement on Moutohora Island, no longer require permits to extract hangi stones traditionally sourced from the island, but will still need a permit to gain access to the island.

1(f) GIFTS

The Crown will gift Ngati Awa $1 million to assist in the redevelopment of the Mataatua meeting house complex. The Mataatua meeting house was returned to Ngati Awa in 1996 in partial settlement of Ngati Awa's historical claims.

The Crown will also gift the land under the Whakatane Airport to Ngati Awa, if it ever ceases to be reserved as an airport.

1(g) WAHI TAPU SITES

The Deed of Settlement acknowledges that certain sites on Crown-owned land, within Ngati Awa's area of interest, are considered by Ngati Awa to be wahi tapu.

2. Restoration of Ngati Awa access to traditional foods and food gathering areas, including:

2(a) CUSTOMARY FISHERIES

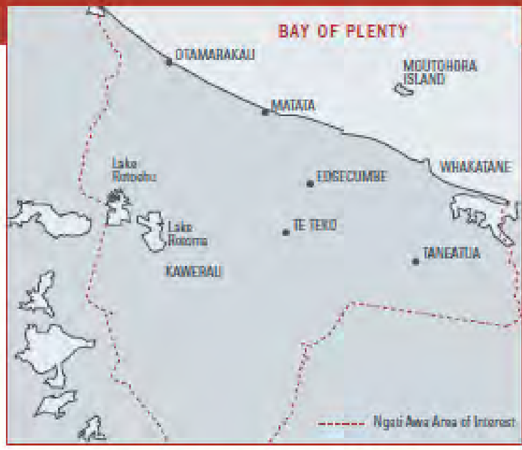
Ngati Awa will be appointed as an Advisory Committee to the Minister of Conservation and the Minister of Fisheries. One committee will provide advice to the Minister of Conservation on all matters concerning the management and conservation by the Department of Conservation of freshwater fish. The other committee will provide advice to the Minister of Fisheries on all matters concerning the utilization of aquatic life and seaweed administered by the Ministry of Fisheries.

The Deed of Settlement will include a provision that if the Minister of Conservation offers by public tender any part of the coastal marine area within a specified part of the Ohiwa Harbour, Ngati Awa will have a preferential right to purchase up to 5% of the authorisations that are the subject of that tender.

2(b) CAMPING LICENCES OR NOHOANGA

Camping licences are an area of up to one hectare near a waterway that give access to traditional food gathering areas. The camping licences will not impede existing public access to or along the waterway. Subject to gaining any necessary resource consent, Ngati Awa members will have an exclusive right to use this entitlement for non-commercial, lawful fishing and food gathering for up to 210 days a year.

Four nohoanga will be established. They are located in: the Matata Wildlife Refuge Reserve, the Thornton Lagoon Wildlife Management Reserve, the Port Ohope Recreation Reserve, and the Ohineteraraku Scenic Reserve.



Financial and Commercial Redress

3. This redress recognises the economic loss suffered by Ngati Awa arising from breaches by the Crown of its Treaty obligations. It is aimed at providing Ngati Awa with resources to assist it to develop its economic and social well-being. It includes;

3(a) A combination of Crown-owned land selected by Ngati Awa and cash up to a value of $42.39 million. Among the properties Ngati Awa has selected are portions of the Kaingaroa and Rotoehu Forests (land only).

3(b) Right of First Refusal – Ngati Awa will have, for a period of 50 years, a Right of First Refusal to buy, at full market value, Crown-owned properties in a specified area, should they be disposed of by the Crown.

Awanuiarangi II Title

The Deed of Settlement provides that Ngati Awa may hold any land in a new category of land title (Awanuiarangi II Title). Ngati Awa may declare settlement properties held under Awanuiarangi II Title to also be Protected Land. In such case the settlement properties will have some of the characteristics of "Maori Land" (as defined in Te Ture Whenua Maori Act 1993).

Previous Redress

Ngati Awa have already received the following in part-settlement of their historical claims:

- Ngati Awa Station, a former Landcorp property near Whakatane (1990)
- The Mataatua meeting house, formerly in the Otago Museum (1996)
- A statutory pardon from the Crown in 1988 for those who were arrested, tried and labelled as rebels and in respect of all matters arising out of the land wars in 1865.

Ngati Awa Ancillary Claims

On the recommendation of the Waitangi Tribunal in 1999 the Crown also intends to settle three ancillary claims separate from the broader Ngati Awa claim. There will be separate Deeds of Settlement for the three ancillary claims and the timeline for settlement will differ from the main Ngati Awa settlement. The ancillary claims are:

- Wai 79 concerning Awakeri Springs
- Wai 247 concerning a quarry site in the Waiohau C26 block
- Wai 248 concerning a quarry site in the Rangitaiki 60C block.

Questions and Answers

1. What is the total cost to the Crown?

$42.39 million plus interest from the date of the signing of the Deed of Settlement plus the cost of the cultural sites returned under 1(e), and the gifts made under 1(f).

2. Is there any private land being transferred?

No.

3. Are the public's rights affected?

Generally, no, but:

- camping licences or nohoanga, which are similar to other concessions granted by the Department of Conservation, will be for the exclusive use of Ngati Awa for up to 210 days a year. A site is up to one hectare in size. It will not affect public access to waterways.
- The site of Otitapu Pa, totalling approximately six hectares, will no longer be available for public access as of right. However public access to the remainder of the Mangaone Scenic Reserve will be unaffected.

4. What is a camping licence or Nohoanga?

It is an entitlement to temporarily occupy a piece of land of up to one hectare near a traditional Ngati Awa food gathering area such as a river or lake. It is set back from the marginal strip and does not impede public access to or along a waterway. It is the same concept as a nohoanga in the Ngai Tahu settlement.

5. What are a Statutory Acknowledgement and a Deed of Recognition?

Statutory Acknowledgments acknowledge areas or sites on Crown-owned land with which a claimant group has a special relationship and will be recognised in any proceedings under the Resource Management Act or the Historic Places Act. This provision aims to avoid past problems with land development for roading and other purposes when areas of significance to claimant groups, such as burial grounds, were simply cleared or excavated without either permission or consultation. It does not give claimant groups any specific property rights.

A Deed of Recognition sets out an agreement between the administering Crown body (the Minister of Conservation or the Minister of Crown Lands) and the iwi, which recognises the claimant group's special association with a site as stated in a Statutory Acknowledgement and specifies the nature of the claimant group's input into the management of the site.

6. Are any place-names changed?

There are three official place-name changes. Volkner Rocks (owned by Ngati Awa on behalf of Mataatua) will be amended to Te Paepae o Aotea, Awaateatua Beach will be changed to Te Awa a Te Atua Beach to reflect the correct grammatical spelling and a name will be allocated to a spring currently not officially named, Te Waiu o Pukemairie/Braemar Springs. In addition, Thornton Wildlife Management Reserve will be renamed with a dual name, Okerero/Thornton Wildlife Management Reserve.

7. Are any National Parks affected in the settlement?

No.

8. What happens to memorials on private titles?

The settlement legislation will remove the Waitangi Tribunal's statutory power to order the Crown to resume certain former Crown land (which have memorials noted on the title, and may be in private ownership) within a specified area.

9. Does the settlement create any special rights for Ngati Awa?

Aside from a new legal mechanism for Ngati Awa to hold land (Awanuiarangi II Title), no new rights are being created. Provisions in relation to conservation, such as Statutory Acknowledgements, give practical effect to existing provisions of both the Resource Management Act (e.g. section 6) and the Conservation Act (e.g. section 4) which provide for Maori participation in conservation and planning matters.

10. Does Ngati Awa have the right to come back and make further claims about the behaviour of the Crown in the 19th and the 20th Century?

No. A Deed of Settlement is a fair and final settlement for all Ngati Awa's historical or pre 1992 claims against the Crown, wherever they may be. The settlement legislation, once passed, will prevent Ngati Awa from re-litigating their historical claims (or bringing any new historical claims) before the Waitangi Tribunal or the courts.

The settlement package will still allow Ngati Awa or members of Ngati Awa to pursue claims based on the continued existence of aboriginal title or customary rights, or claims against the Crown for acts or omissions after 21 September 1992. The Crown also retains the right to dispute such claims or the existence of such title rights.

11. Who benefits from the settlement?

All members of Ngati Awa, wherever they may now live.

This and other settlement summaries are also available at www.beehive.govt.nz & www.ots.govt.nz

DETAILED STRUCTURAL ASSESSMENT REPORT - SKYTEC

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Detailed Structural Assessment Report

Whakatane Airport Passenger Terminal Building

216 Aerodrome Road, Thornton, Whakatane

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Detailed Structural Assessment Report

Whakatane Airport Passenger Terminal Building

216 Aerodrome Road, Thornton, Whakatane

Revision	Status	Prepared by	Checked by	Approved by	Date of issue
A	DRAFT	HN		BT	14 November 2014
B	FINAL	HN	BT	BT	20 November 2014

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1. Summary

Item	Recommended Actions
Airport Terminal Building	We would recommend that the superstructure be repaired by: a) Carry out structural seismic strengthening adopting the concept as shown in Appendix C. Skytec is able to carry out further detailed structural design for the purpose of building consent should it be decided to progress the project further. b) Carry out further ground investigation to assess liquefaction risk of ground and provide design parameters for new foundations. Skytec is able to carry out this work, if required. c) Carry out testing to confirm presence of asbestos within and around the building. Remove and replace with other forms of construction material to meet requirements. d) Investigate leaks in roof and replace or repair as needed. e) Carry out invasive investigation in a few locations to the foundation to confirm reinforcements and sizes. f) Provide additional fastening to diagonal timber brace at mid height of wall plate between the timber staircase and RC block wall at ground floor level.

2. Introduction

In accordance with Whakatane District Council's (WDC) earthquake prone policy, all commercial and/or infrastructure buildings have to be structurally assessed for seismic strength. The seismic strength of the Passenger Terminal Building located in the existing Whakatane Airport has been assessed by GHD (2014) using the Initial Evaluation Procedure methodology as recommended in NZSEE (2006). The building has been assessed as an Importance Level 2 (IL2) building as defined in Table 3.1 of NZS 1170.0:2002. Building which fall in this class are those that have been determined as having "medium consequence for loss of human life, or considerable economic, social or environmental

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consequences". From this assessment, the building structure has been assessed as having a seismic strength of only 25% New Building Standard (NBS). According to Whakatane District Council's Earthquake Prone Policy, the building is therefore classified as a potentially earthquake prone building and structural strengthening is required.

Whakatane District Council has engaged Skytec Engineering Consultants Ltd to carry out a detailed structural assessment of the Whakatane Airport Passenger Terminal Building.

3. Scope

For the purpose of detailed structural assessment, the following were carried out:

(a) Review existing architectural and structural drawings and any relevant reports for the site or building.

(b) Carry out site visual structural together with invasive investigations, as needed, to confirm structural condition and reinforcement of structural members.

(c) Carry out a floor level survey of the building to provide an assessment of the existing foundation.

(d) Carry out bracing analysis for the seismic hazard in Whakatane as defined in NZS 1170.5 (2004).

(e) Provide a structural strengthening concept to 100% NBS.

(f) Carry out a ballpark cost estimate based on the structural concept plans in (d).

In line with the above scope, a site structural inspection and investigation was carried out on 21 and 22 October 2014.

4. Building Description

From our review of GHD (2014) report, the building was designed in 1965 and constructed in 1972. It was also noted in the report that the structure is likely to have been designed to the prevailing loadings code, NZS 1900 (1965).

The structural system consists of load bearing 20 series reinforced concrete (RC) block walls supporting a lightweight profiled metal roof cladding. The roof of the building comprises of a mix of dual and mono-pitch roof systems. There are timber cross braces at roof level. From our review of the existing structural drawings, the foundation consists of shallow strip footing supporting internal and external load bearing RC block walls and internal tie beams. Externally, the RC block walls are uncladded and have been painted over.

There is a turret located approximately in the middle of the building, which provides access to the control tower. This tower is constructed from 20 series RC blocks and laid in a staggered fashion in every course to provide a textured surface effect. The turret supports a timber staircase, mezzanine and control cab. The GHD (2014) report has also highlighted a severe vertical irregularity due to the presence of this central turret.

From our review of the existing architectural drawings by Walker Architecture, the elevation drawings indicated that the existing 12 in or 304.8 mm (I.D.) external feature pipes around the building and at high and low levels together with circular 30 in or 762 mm (I.D.) skylight within the building and over the baggage check-in area have been specified as asbestos pipes. Elsewhere, between the Gib ceiling and the roof, a layer of 0.5 in thick asbestos lining has also been specified.

A search of the available information from Council did not provide any relevant geotechnical reports made for the site and/or building.

5. Structural inspection and investigation results

From our floor level survey (refer to Appendix A), the building appears to have some differential settlement across the property. The maximum measured level difference is 34mm, from 282mm to 324m at the ground floor (discounting the level difference between carpet and tile). The maximum slope recorded was approximately 0.9%, from 308mm to 324mm in 1.7m, in the Pilot's office. This maximum slope has exceeded the acceptable tolerance MBIE (2012) guidance document of 0.5% indicating that the floor requires re-levelling. However, it is to be noted that this tolerance guideline does not apply to non-residential buildings and have been included in this report for a comparison. Based on the floor level survey results, the settlement of the foundation appears to be concentrated towards the southeast corner of the room. This differential settlement may indicate possible foundation issues and hence would require some invasive investigation to be carried out prior to recommending a repair strategy.

From our invasive investigation of the RC block walls in 8 locations of the Airport Terminal Building, our findings indicated that the existing steel reinforcing are consistent with those shown in the available structural drawings.

During our survey of the existing building we have also noted that the wall currently separating the check-in counter and the baggage room is not separated by an RC block wall (as shown in the structural drawings) but a timber wall. We have considered this discrepancy in our seismic strengthening concept enclosed in Appendix C of this report.

The diagonal timber bracing adjacent to the staircase from ground floor to mezzanine had been constructed without any visible form of fastening to the timber wall plate at the mid level of the RC block wall (refer to Photo 19 in Appendix A).

Further to the GHD (2014) report, we have undertaken further seismic bracing check to the building using the seismic hazard factor, $Z = 0.3$ as recommended in NZS1170.5:2004 and a ductility factor, $\mu = 1.35$. Based on our bracing check, we have estimated the overall structural seismic performance for the building to be as shown in Table 1.

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Table 1: Seismic bracing strength in % New Building Standard (NBS).

%NBS	Along Direction	Across Direction
Ground Level	100%	98%
Mezzanine Level	23%	23%
Control Cab Level	14%	14%

A moisture measurement of a timber beam and column supporting the control cab and at mezzanine level adjacent to the waiting area on the east indicated moisture content of approximately 22%. This appears to indicate slightly high moisture content and corresponded well with the observations of Air New Zealand staff. They have also indicated that in the waiting area on the east, a bucket had to be used to arrest the ingress of rainwater into the building during inclement weather.

6. Seismicity, liquefaction and lateral spreading risks

The following is an excerpt taken from the Whakatane District Council's Earthquake Prone, Dangerous and Insanitary Building Policy dated May 2011.

"The Whakatane District is located in an active geological environment with many known active faults that can cause strong ground shaking when they rupture.

The Whakatane Fault extends from Ruatahuna into the coastal waters of the Bay of Plenty. This fault has the greatest possible MM10 (Modified Mercalli scale) ground shaking and down-warping. Rupture of this fault through the Whakatane urban area is expected to produce a 2m to 3m high scarp with down-throw of the ground surface on the western side. The interval between ruptures of the Whakatane Fault is 1,140 to 2,230 years.

Other active faults exist within the District. These have the potential to occur every 30-200 years and have the capability to generate ground shaking in Whakatane of MM7 to 8 (similar to what was experienced in the 1987 Edgecumbe earthquake).

A ground shaking intensity of MM8 or greater is likely to also produce liquefaction in areas with high ground water tables as well as landslides of the cliffs behind the Whakatane township and of the coastal escarpments along Ohope and Matata."

At the time of writing this report and as noted in Section 4 of this report, there was no available geotechnical information available to confirm the ground conditions underlying the Airport. However based on our discussion with WDC and our knowledge of the ground conditions underlying the Airport, this is likely to consist of loose to medium dense silty sand to sandy silt and clean sand deposits. Due to the proximity of the Airport to the coastline of the Bay of Plenty, the ground water table is likely to be influenced by tidal variations. We understand that in the 1987 Edgecumbe Earthquake, some liquefaction

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within the Whakatane township had been observed but not like the scale observed in the September 2011 Christchurch Earthquake.

We are of the opinion that the ground underlying the Airport may be liquefiable and further testing to assess the ground's liquefaction risk would be required.

7. Cost estimate for seismic strengthening

To provide a high-level ball park cost estimate for the seismic strengthening of the Airport Terminal Building, a concept design was carried out and documented in Appendix C of this report.

From our preliminary estimate, the ballpark cost estimate would likely to be in the range of $70 - $90,000 + GST. This estimate does not include any strengthening to the existing foundation and/or replacement of any asbestos in the building.

It is to be noted that the seismic structural strengthening concept in Appendix C may require fine tuning to consider the findings of the ground and foundation investigation and from consultations with Council and the heritage architect/advisor. We estimate the cost associated with the foundation investigation to be between $10,000 - $15,000 + GST + disbursements.

8. "Hot" spots

Following our inspections and investigations, we have noted the following "hot" spots that require further attention and investigation:

a) Carry out sampling and testing to confirm presence of asbestos in the building. If the results were positive, the asbestos would require specialist contractors to properly remove and dispose.

b) The staff of Air New Zealand have highlighted watertightness issues. Although this does not relate to the seismic performance of the building, it is our opinion that this issue still falls within Whakatane District Council's Earthquake Prone, Dangerous and Insanitary Building Policy dated May 2011.

c) Foundation investigations could not be carried out as the building is still in use. Some invasive investigation would be required to confirm the sizes and reinforcements in the foundation.

d) Pending further ground investigations, it is our opinion that the ground underlying the Airport is susceptible to liquefaction.

9. Recommendations

In addition to carrying the seismic strengthening to the Airport Terminal Building as indicated in Appendix C, we further recommend the following actions to be taken:

a) Carry out structural seismic strengthening adopting the concept as shown in Appendix C.

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b) Carry out further ground investigation to assess liquefaction risk of ground and provide design parameters for new foundations. Skytec is able to carry out this work, if required.

c) Carry out testing to confirm presence of asbestos within and around the building. Remove and replace with other forms of construction material to meet requirements.

d) Investigate leaks in roof and replace or repair as needed.

e) Carry out invasive investigation of the existing foundation in a few locations to confirm reinforcements and sizes.

f) Provide additional fastening to diagonal timber brace at mid height of wall plate between the timber staircase and RC block wall at ground floor level.

10. References

(a) GHD (2014), Initial Evaluation Procedure Assessment for Whakatane Airport Terminal dated 11 June 2014.

(b) NZSEE (2006), Assessment and Improvement of the Structural Performance of Buildings in Earthquakes, June 2006 together with Corrigendum Nos 1 to 3.

(c) NZS 1900 (1965), New Zealand Standard Model Building Bylaw, Chapter 8 Basic Design Loads, New Zealand Standards Institute Wellington, December 1965.

(d) MBIE (2012), Ministry of Building, Innovation and Employment, Revised guidance on repairing and rebuilding houses affected by the Canterbury earthquake sequence, December 2012.

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APPENDIX A - Photographs

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Airport Terminal Building, 216 Aerodrome Road, Thornton, Whakatane

Ref	Description	Photograph
Photo 1	View of the front entrance, south elevation of the building, looking west.	
Photo 2	View along the east elevation, looking north. Note the separated office and storage building.	
Photo 3	View of the east elevation.	

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Ref	Description	Photograph
Photo 4	View along south elevation, looking east. Note the entrance canopy constructed in c1998.	
Photo 5	View of the south east corner of the building. Note the external timber cross braces on the timber walls.	
Photo 6	View of the external corner between pilot office and toilet. Note the timber cross braces at ceiling level.	
Photo 7	View of the extension of the baggage room at the west elevation. Note the timber cross braces on extended timber wall.	

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Ref	Description	Photograph
Photo 8	View of the north elevation, looking east.	
Photo 9	View from control cab's timber deck, looking toward front entrance. Note the mix of dual pitch and mono pitch roof systems.	
Photo 10	Another view from control cab's timber deck. Note the asbestos pipe for skylight.	

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Ref	Description	Photograph
Photo 11	View from mono pitch roof above reception area, looking toward front entrance.	
Photo 12	View from mono pitch roof above reception area, looking toward RC block turret and control cab. Note staggered courses of the turret wall.	
Photo 13	Internal view of control cab, Noted the water leaking between double glazed windows.	
Photo 14	View of the timber stair inside RC turret, to control cab.	

Ref	Description	Photograph
Photo 15	Internal view of mezzanine, note the timber cross brace at ceiling level and duel pitch roof system.	
Photo 16	Internal view of pilot office, note the timber cross brace at ceiling level.	
Photo 17	View of high-level glass at the common area, note the timber cross braces at ceiling level.	

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Ref	Description	Photograph
Photo 18	View under mezzanine, looking toward kitchen. Note the timber ceiling cross braces under mezzanine.	
Photo 19	Closer view of diagonal timber brace adjacent to timber staircase. Note lack of fasteners at the bottom end of the diagonal bracing.	

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APPENDIX B - Floor plan and level survey

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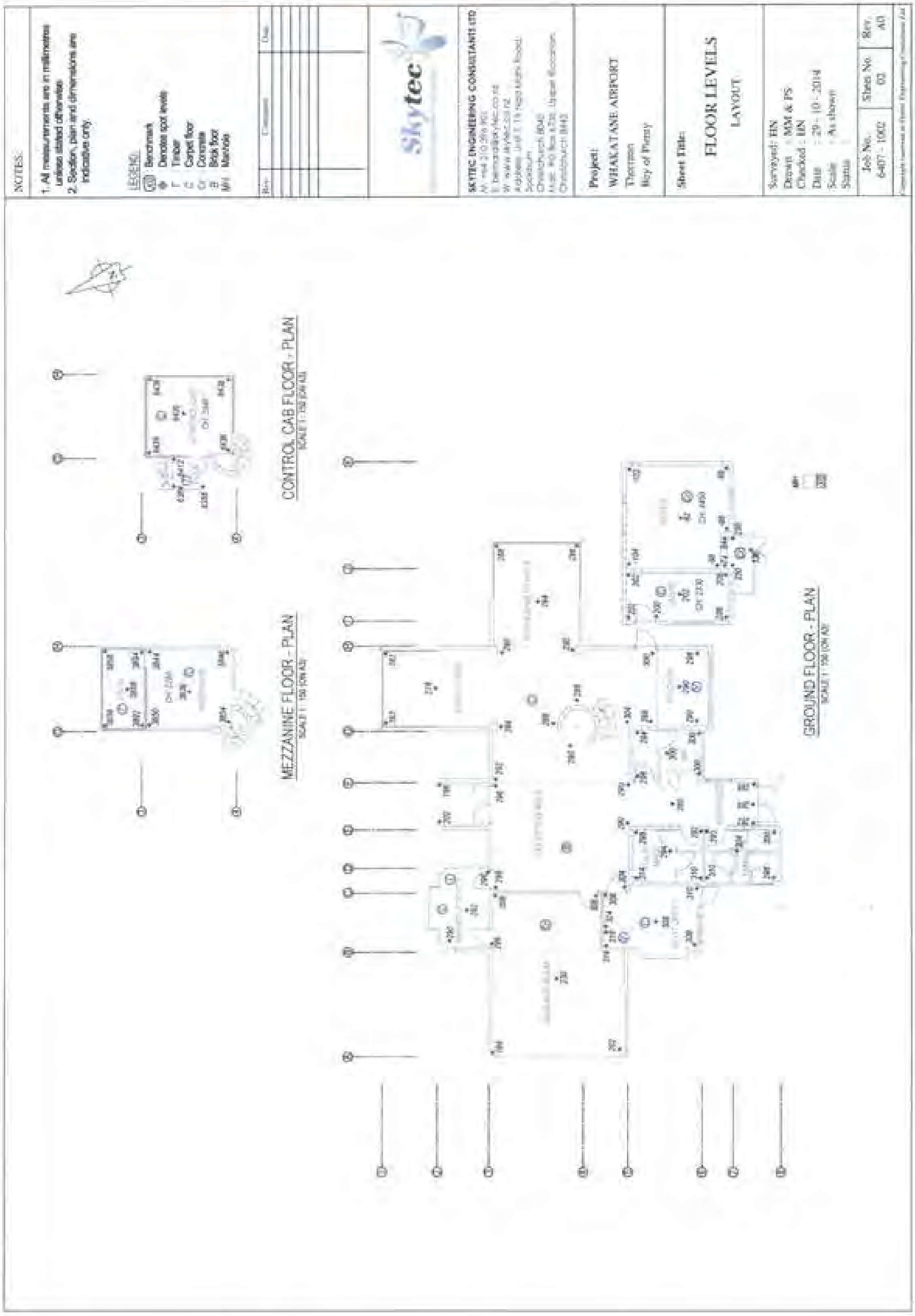

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APPENDIX C - Seismic strengthening concept

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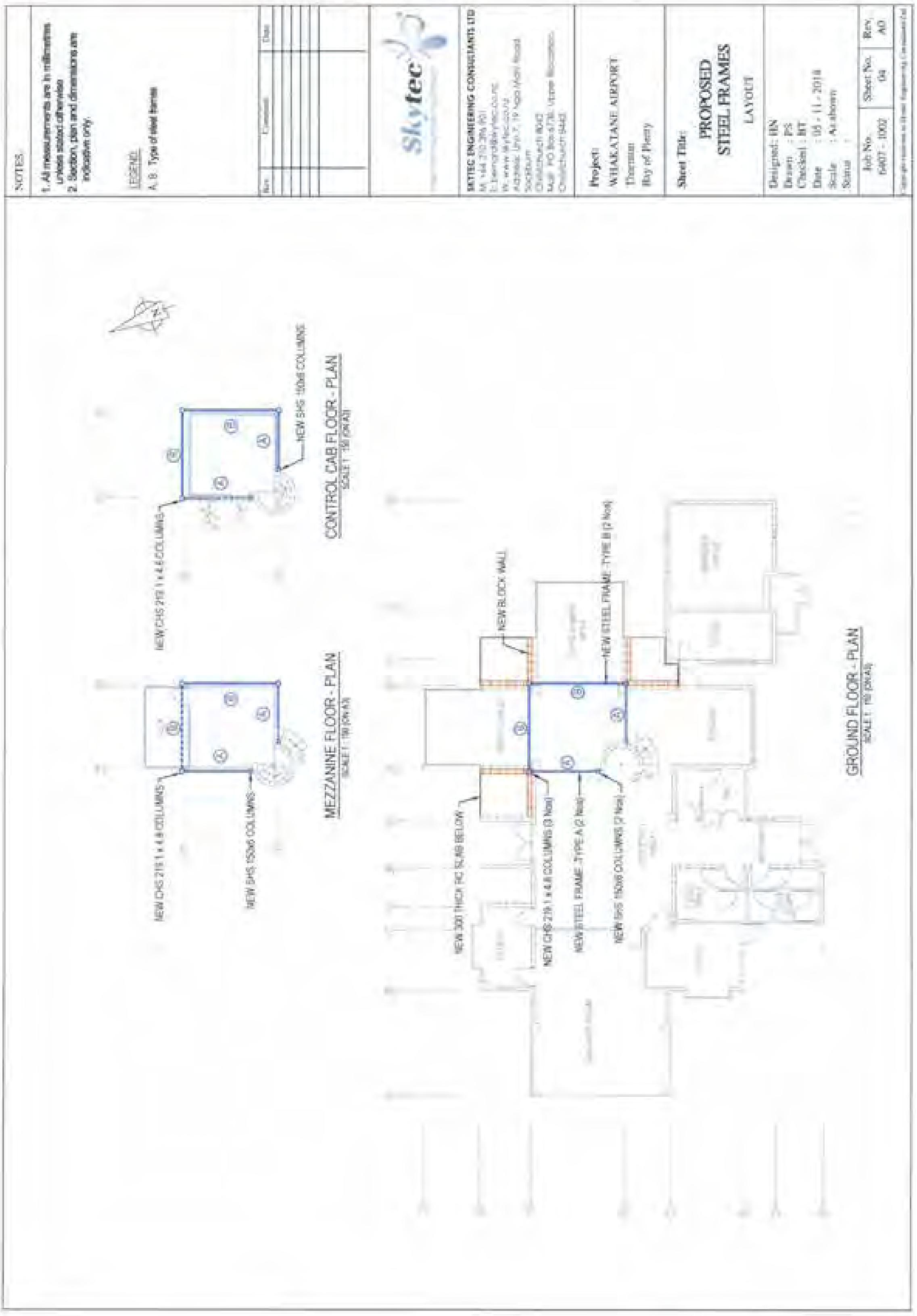

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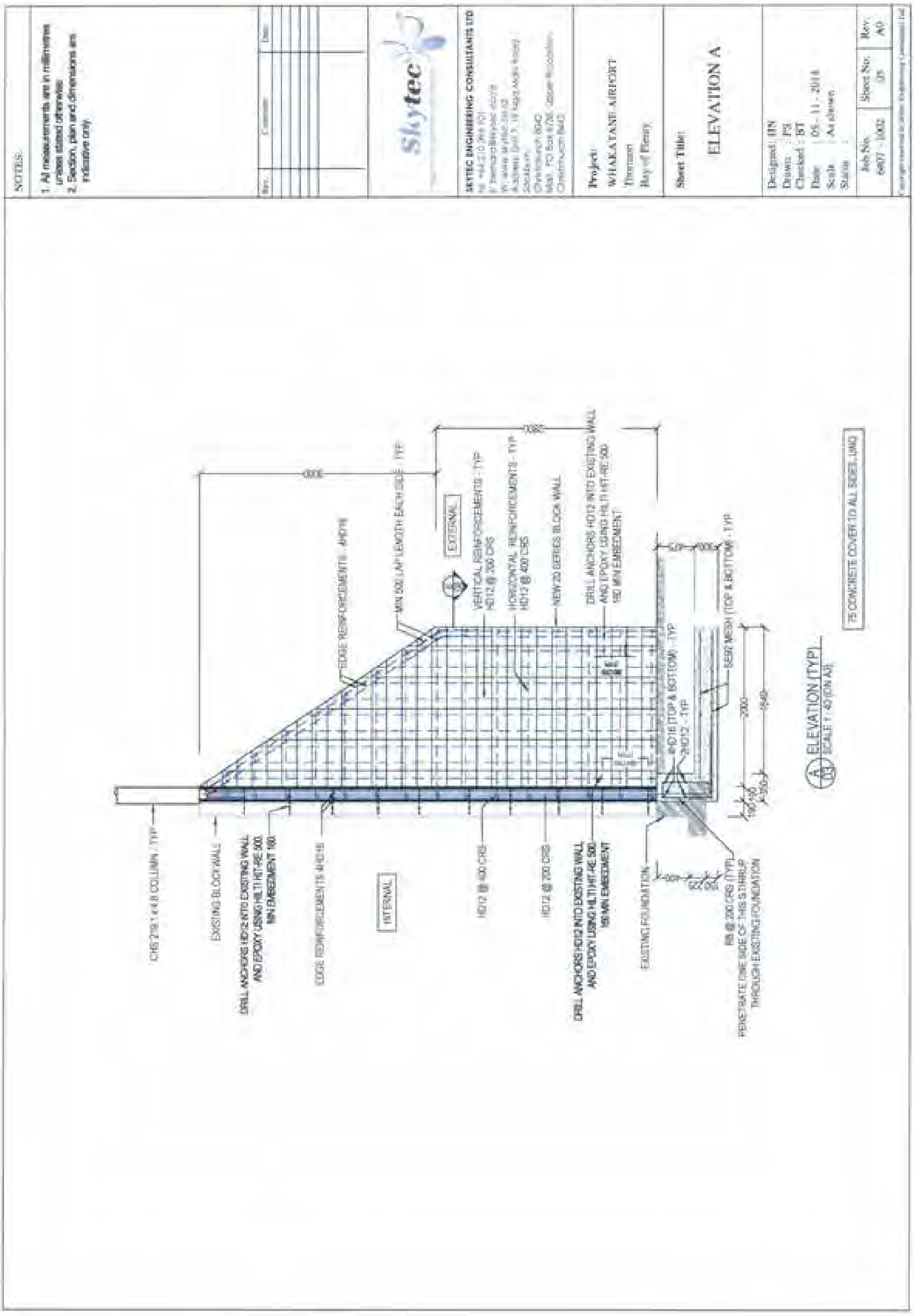

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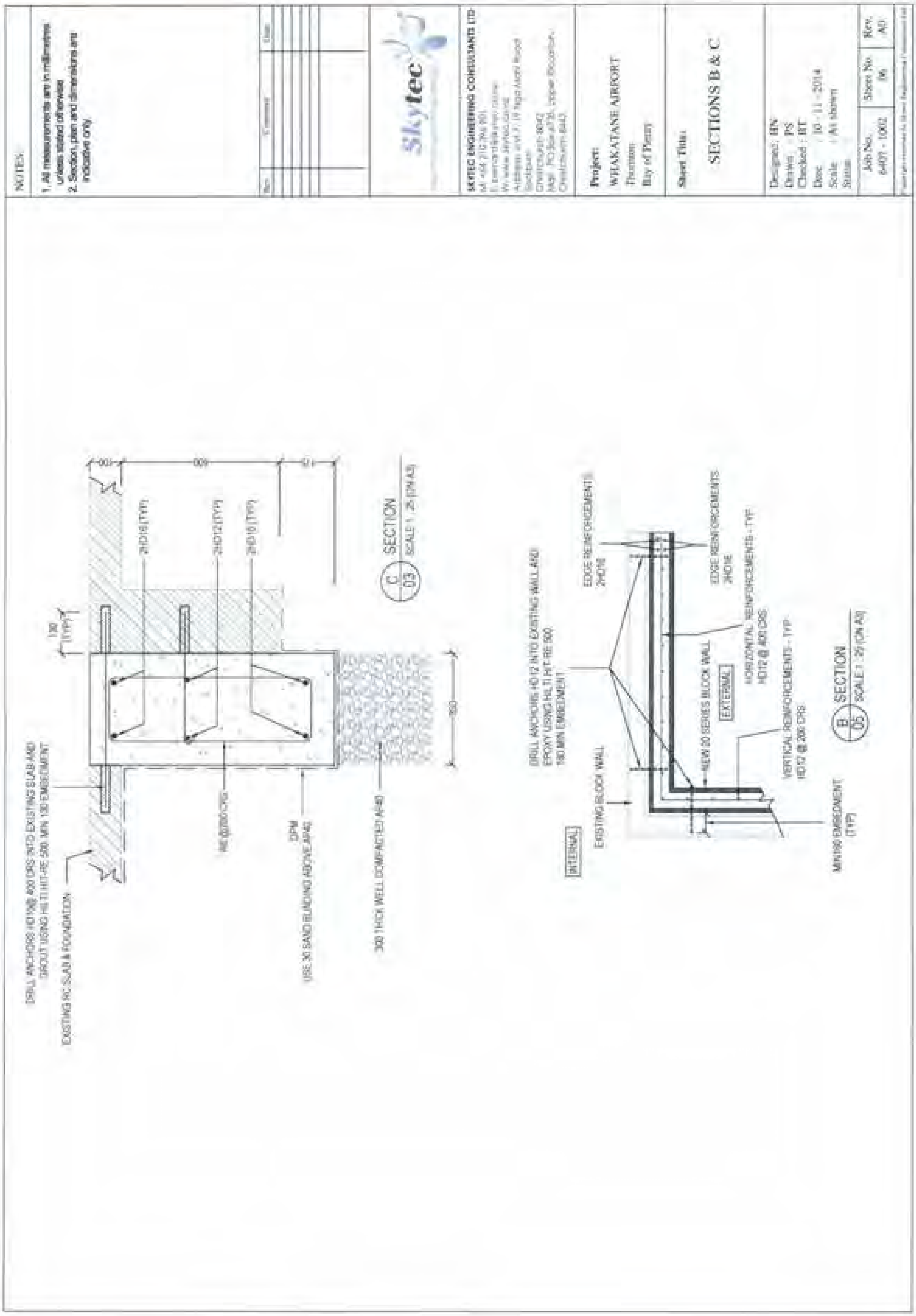

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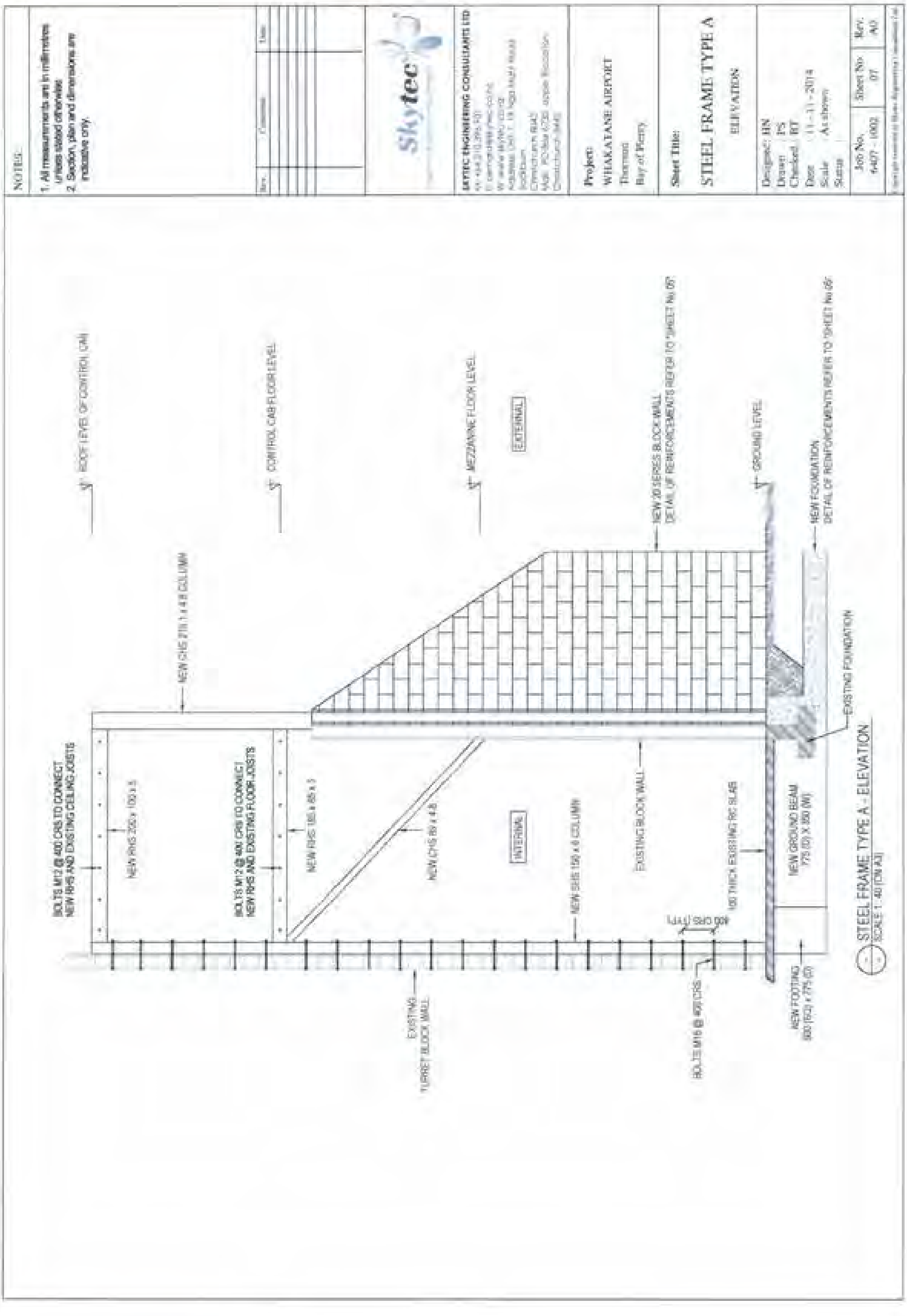

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NOTES:

1. All measurements are in millimetres unless stated otherwise
2. Section, plan and dimensions are indicative only.

Rev.	Comment	Date

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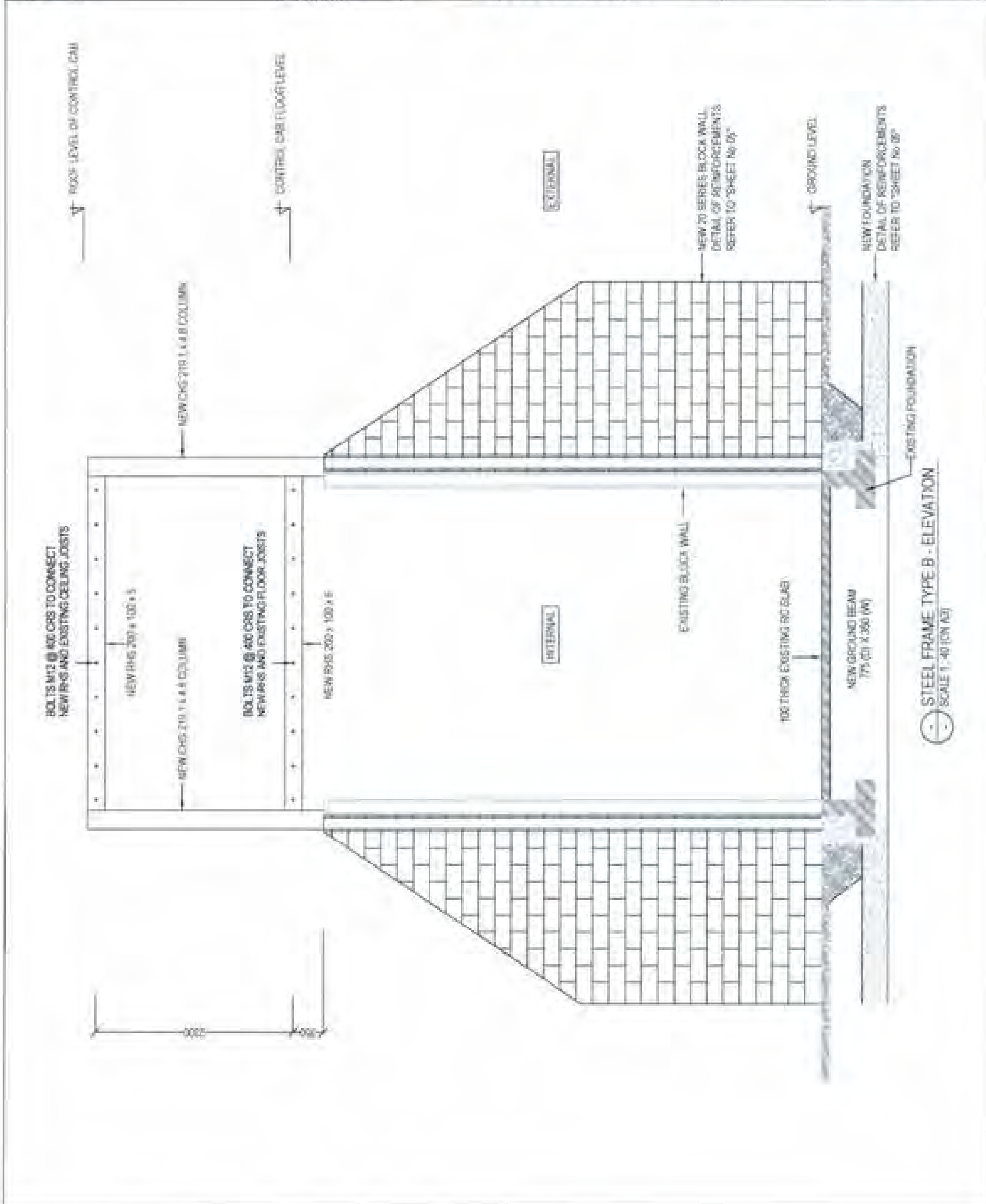
Project:
WHAKATANE AIRPORT
Thornton
Bay of Plenty

Sheet Title:
STEEL FRAME TYPE B
ELEVATION

Designed : HN
Drawn : PS
Checked : BT
Date : 11 - 11 - 2014
Scale : As shown
Status :

Job No.	Sheet No.	Rev.
6407 - 1002	08	A0



STEEL FRAME TYPE B - ELEVATION
SCALE 1 : 40 (ON A3)

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WHAKATANE AIRPORT MASTER PLAN – WHAKATANE DISTRICT COUNCIL 2008

Whakatane District Council

Whakatane Airport Master Plan

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Report # 08/006

Status: Final

Contents

FOREWORD

"The master plan is a strategic planning tool to ensure the most effective and efficient development of the airport's land holdings and infrastructure over time.

The actual scope, staging and timing of airport development should be subject to continuous review and development should only be undertaken after having regard to the circumstances prevailing at the time, to airport policy, to detailed planning and to rigorous business case analysis.

The aviation industry is dynamic and as a consequence the joint venture partners' investment programme should need to be flexible, incremental and based on the benefits to the community shareholders commensurate with the risks involved.

The master plan is a living document and should be used to ensure the provision of the safe, secure movement of aircraft passengers and freight. The Airport Authority should continue to refine its long term strategy to ensure that the airport supports the growth and aviation capacity needs of the Eastern Bay of Plenty District. Within this framework it should plan and manage the expansion of the airport in a responsive, sustainable and secure manner. This strategy is focused on providing a strong platform for growth by implementing a range of key initiatives.

Ultimately the airport should have a 1950 metre runway with a starter extension at each end, providing a take-off run of 2210 metres on one runway and 2250 metres on another. It should have a safety zone of 800 metres at either end of the runway incorporating the required 300 metre runway-end safety area plus a 500 metre public safety zone. The airport should have a total of six aircraft aprons, a 12000m^2 passenger terminal and a public car parking capacity of 700 vehicles. It should provide an air traffic control service, rescue fire service and aviation security service. If sufficient demand eventuated prior to the redevelopment of the main terminal complex, the airport should have a 20 hectare terminal and business park complex situated at the north-western end of the property with a 2 kilometre access road off Aerodrome Road.

EXECUTIVE SUMMARY

The option with the greatest potential for the future growth and development of Whakatane Airport is a combined terminal and business park complex, linked to a runway of sufficient length to permit the design aircraft to operate without restriction within New Zealand and to the eastern seaboard cities of Australia.

This option can be achieved by developing a new terminal and business park complex on more than 20 hectares of land situated in the north-western sector of the airport - and by extending and strengthening the existing runway 450 metres to the east and 780 metres to the west. This would provide the length of take-off run necessary to operate the Boeing 737 800 design aircraft to Melbourne, Sydney and Brisbane.

The issues associated with this proposal are:

1. the need to extend the runway 300 metres beyond the airport western boundary requiring –
    - the 'stopping' of a 250 metre section of unformed legal road which runs parallel with the airports western boundary (an area of approximately 0.5 hectares) and the establishment of a new legal road (unformed) to the north of the runway strip
    - the need to acquire 7.5 hectares of private farmland measuring 300 metres in length and 250 metres in width which would extend the runway strip in a westerly direction
2. the construction of 2 kilometres of sealed access road from Aerodrome Road along the eastern boundary with the golf club then following the northern boundary of the runway strip to the proposed site. Utilities such as water, electricity and telephone would need to be similarly extended
3. levelling of the site to the same relative level as the runway strip would be required

However, establishing a new terminal and business park complex on the north-western site would be logistically more difficult and considerably more expensive than developing the existing site. It would be an unwarranted additional expense unless there is a significant 'known' demand for an airport business park. Until that demand is known the preference must be for redevelopment of the existing terminal complex.

Any major airport development will be many years away and there is adequate time to survey the market and establish whether a demand exists for an airport business park in this location. A concept plan and artists impression would be a useful to generate interest. If a large prospective tenant or group of tenants is found, a business case would determine whether the Airport Authority would receive sufficient revenue to justify the establishment costs.

Unless there is a strong business case for moving to the north-west site, it should remain where it is. It is imperative that both options remain open until the contracts are let for the development of one of the sites, which would be the point of no return.

Development of the existing complex can be progressive, an option which is not available on the new site. For example, a new high-strength apron could be developed alongside the existing aprons, where sufficient space is available to set a new apron back a further 20 metres from the runway centreline.

However, the existing site is less than 3 hectares – and a minimum of 5.8 hectares is required to develop the new terminal complex. The acquisition of 3.5 hectares adjoining the southern boundary of the existing terminal is essential for the redevelopment of the site. This does not include the land required for light aircraft hangars.

If a decision is made to develop the north-west terminal and business park complex the 3.5 hectares of land acquired for the re-development of the existing site would no longer be required. It may therefore be sufficient to designate the 3.5 hectares for future airport purposes, but not purchase the land until it is actually required.

Alternatively, the land could be purchased with a lease-back to the current owner until such time as the land is required or the owner elects to surrender the lease, whichever is the sooner. If the land is acquired using the provisions of the Public Works Act, the current land-owner would have the right to re-purchase the land in the event of it not being required for airport purposes.

Another ‘key’ strategy should be the encouragement of commercial light aircraft activity including pilot training and recreational flying. This would increase the profile of Whakatane Airport and generate much needed additional revenue from ground rents and landing charges.

The additional land required for the western runway extension should also be designated for airport purposes and all options considered for the eventual acquisition of the area.

There is an urgent need for a site on which to construct light aircraft hangars. The most suitable area is private land adjoining the western boundary of the existing terminal complex. Negotiations are currently in progress between a private developer and the landowner for the construction of the first stage of a proposed 44 hangars with direct access to the airport operational area. It will therefore be necessary for the Airport Authority to have discussions with the parties concerned and it is recommended that during these discussions the Authority seek to acquire the land either by lease or purchase. Hopefully an early resolution of this issue would allow earthworks to proceed and the first hangars to be available for use within six months.

There is also an urgent need for two commercial helicopter hangars. A site adjoining Aerodrome Road to the east of the existing terminal complex may be suitable, provided that the prospective tenants are able to design their hangars within the constraints of the site. Considerable cut and fill is required to prepare the site.

Selection of the existing terminal site as the preferred location for a new terminal complex will require that the lessees of Lots 1 to 5 be informed that upon expiry their leases will not be renewed, or may be terminated earlier if the land is required for airport development.

In the event of a new terminal and business park complex being developed on the north-western site, it is proposed that the existing terminal complex be utilised as a commercial light aircraft facility for aircraft of less than 5700 kilograms.

The establishment of an airport business park relies heavily on the Council's ability to offer prospective lessees an acceptable length of tenure. As the Council itself has a limited leasehold tenure of the airport land expiring in 2098, there is a need to clarify whether the Council has the ability to offer tenures of acceptable duration.

It is recommended –

- that the contents of this Plan be classified 'commercially sensitive' to protect the airports negotiating position and commercial advantage with regard to land acquisition and the business park concept.

- that this Plan be updated and reviewed every 5 years

1 BACKGROUND

1.1 PLANNING HORIZON

Airport planning is typically limited to a 10 to 30 year timeframe incorporating noise limits based on the forecast maximum number of aircraft movements reached during that period.

The forecast growth in airport activity is normally based on historic patterns of population growth and passenger numbers projected forward using low, medium and high growth scenarios. The limitation of this approach is that the residual capacity of the airport beyond that protected by the time-based planning horizon is vulnerable to the encroachment of incompatible land use activities. It is the encroachment of incompatible land uses which will ultimately prevent the realisation of the full potential of the airport to meet the communities increasing demand for air transport services.

Given that aerodromes are valuable regional and national infrastructural assets which are extremely expensive and difficult to replace, there is increasing concern that existing aerodromes are not being adequately protected against the encroachment of incompatible land use activities such as residential development. While Whakatane aerodrome has been in existence for more than 50 years it is not yet seriously compromised by the encroachment of residential development or other potentially restrictive land uses.

The growth in demand for air transport services at Whakatane Airport has not been as great as at Rotorua and Tauranga Airports due to the slower rate of population growth in the Eastern Bay of Plenty over the past 50 years.

The catchment population for Tauranga Airport has grown by 780% in the past 50 years[1] and the catchment for Rotorua Airport has grown by 460% during the same period. These compare with a 250% growth rate in the catchment population for Whakatane Airport.

As a consequence, any population or usage-based forecasts are likely to expose the residual capacity at Whakatane airport to a greater risk of encroachment of incompatible land use activities. If this occurs, when the demand eventuates the ability to meet that demand may already be compromised.

Tauranga and Rotorua Airports and numerous others throughout New Zealand are already suffering the consequences of inadequate protection against the encroachment of incompatible land use activities. The advantage of the slower growth rate in the Eastern Bay of Plenty during the past 50 years has been that there is still the opportunity to protect Whakatane Airport from being placed in a similar situation.

Airports are important economic drivers for the growth and development of any district or region. It is therefore essential that airport capacity be protected in order to meet the community's future demand for air transport services, whenever that demand may occur. In order to achieve this objective, this plan is based on airport capacity and not a time-restricted forecast. Similarly, the commencement of development activities are 'triggered' by specific events or requirements rather than projected dates or timelines

[1] Source: Statistics NZ population statistics for 50 year period ended 31 March 2006

1.2 DEMAND FOR AIRPORT SERVICES

The development of airport infrastructure is normally in response to a known or perceived demand. While demand may be predictable, such as the demand for domestic passenger services based on population growth trends, there are many other factors which influence demand which cannot be forecast with any reasonable degree of certainty.

These factors include airline economics and competition, public demand for air travel, the cost and perceived safety of air travel, changes in the size of the airport catchment area and the services on offer at neighbouring airports, public perception of the environmental impacts of air travel, the cost and convenience of alternative forms of travel, the effects of Government policy and statutory requirements, the relativity of the $NZ to other currencies, the development of new industries and businesses, changes in the popularity of New Zealand as a tourism destination, the unpredictability of 'growth spurts' in population growth, immigration policy and demand, the disposable income levels of sectors within the community, the availability and frequency of 'cheap' airfares, advances in technology which reduce the need to travel, world events – and so the list goes on. Demand forecasts are based on 'known' growth indicators, but the number of growth factors which cannot be forecast with any degree of certainty are so great that another approach is necessary when it comes to airport planning.

Population-based demand

The population statistics used in the following table were provided by Statistics NZ. They were collated from the 1956 and 2006 national population census and reflect the normally resident populations for Tauranga, Rotorua and Whakatane airport catchments.

The table shows the population growth in the respective airport catchments in the past 50 years, both as a number and as a percentage.

Airport Catchment Population Growth : 50 years (1956 - 2006)

Airport Catchment	Current TLA Districts	1956	2006	Increase	% growth
Tauranga Airport	Western Bay, Tauranga	18,853	147,100	128,247	780%
Whakatane Airport	Opotiki, Whakatane, Kawerau	20,248	49,000	28,752	242%
Rotorua Airport	Rotorua	14,507	69,000	54,493	476%
Total Bay of Plenty		53,608	265,100	211,492	495%

[Source: Statistics NZ]

The table indicates that the Eastern Bay of Plenty has experienced relatively slow growth in the past 50 years compared to the Western Bay and Rotorua sub-regions.

As the normally resident populations are generally regarded as the basis for the number of services provided to and from Auckland and Wellington, the following tables compare the number of seats and frequency of services provided by Air New Zealand to and from similarly-sized regions throughout the country.

Auckland

Airport	Airport Catchment (TLA's)	Airport Catchment Population	Return per day	Aircraft	Available seats	Total seats per day (one way)	Ratio Seats per 1000 population
Rotorua	Rotorua	69,000	5	190D	19	95	1.38
Timaru	Timaru, Mackenzie, Waimate	53,877	4	190D	19	76	1.41
Gisborne	Gisborne, Wairoa	52,947	6	190D	19	114	2.15
Whakatane	Whakatane, Opotiki, Kawerau	49,000	5	190D	19	95	1.94
Blenheim	Blenheim, Kaikoura	46,170	5	190D	19	95	2.06
Taupo	Taupo	32,421	3	190D	19	57	1.78

Wellington

Airport	Airport Catchment (TLA's)	Airport Catchment Population	Return per day	Aircraft	Available seats	Total seats per day (one way)	Ratio Seats per 1000 population
Rotorua	Rotorua	69,000	5	Dash Q300	50	250	3.62
Timaru	Timaru, Mackenzie, Waimate	53,877	4	190D	19	76	1.41
Gisborne	Gisborne, Wairoa	52,947	5	190D	19	95	1.79
Whakatane	Whakatane, Opotiki, Kawerau	49,000	0		0	0	0
Blenheim	Blenheim, Kaikoura	46,170	12	190D	19	228	4.96
Taupo	Taupo	32,421	5	190D	19	95	2.97
AVERAGE	(excluding Whakatane)	50,800	6.2			149	2.92

The above analysis shows that there are clearly factors other than population statistics which influence an airlines decision whether to provide a service and how many seats are provided on any particular route.

It also shows that the Eastern Bay of Plenty is the only district of its size which does not have a minimum of four direct daily services to and from Wellington. Air New Zealand's claim that there is insufficient demand to justify a regular service to and from Wellington is not consistent with the evidence.

Following recent representations by the Whakatane District Council, Air New Zealand has agreed to a trial once-daily service to and from Wellington. On the basis of the above analysis there should be 5 direct return services per day with a 19 seat Beechcraft 190D aircraft between Whakatane and Wellington– a total of 95 seats per day in each direction.

Passengers from the Eastern Bay of Plenty currently travel to Wellington via Auckland or travel by road to Rotorua, Tauranga or Gisborne to catch a direct flight to Wellington.

It is believed that Air New Zealand's failure to provide a direct service between Whakatane and Wellington has been a significant impediment to the growth and development of the Eastern Bay of Plenty region.

Visitor-based demand

Tourism

The tourism industry can have a significant benefit to a regions air services in terms of destinations, frequency and aircraft size. An example of this are the daily direct services between Rotorua and Christchurch, which meet the tourist demand for group tour travel between Rotorua and Queenstown. During the main tourist season (September to March) this route is serviced by 476 seats per day in each direction, provided by both jet and turboprop aircraft.

Conferences

The demand created by larger conferences has a different pattern to normal passenger travel in that conferences frequently require a large number of seats on the day the conference commences and the day the conference ends. The typical requirement is to move delegates into and out of the venue without a further nights accommodation. Unless there are overlapping conferences on an ongoing basis, fluctuating seat requirements are therefore more suited to charter than scheduled services.

Events

Events are similar to conferences in that they create a demand for a large number of seats for persons to arrive at the location within 12 hours of the event and to depart within 12 hours of it finishing.

Consideration could be given to developing an area to the north of the airfield which has a natural contour which would appear to be suitable for the development of an outdoor events venue for hosting trade shows, sporting events, concerts etc. (such as the Mystery Creek Events Centre next to Hamilton Airport)

Regular sporting and recreational events are an effective means of increasing the demand for airline seats and increasing the frequency of services.

Corporate Meetings and Seminars

The promotion of Whakatane as a venue for corporate meetings, training camps and seminars would boost the demand for airline seats and support the case for a full schedule of services between Wellington and Whakatane.

Industry-based demand

Airfreight

Companies marketing produce or goods which rely on air freight delivery may be attracted to site their factories, warehouses or offices on or close to an airport. A business park sited on the airport could attract such industries to Whakatane, thereby creating a demand for air freight services which may in some instances be combined with new or existing airline passenger services.

While New Zealand's airports carry only a small amount of freight in terms of weight, it represents 20% of the total value of goods imported and exported. Auckland, Christchurch and to a lesser extent Wellington airports dominate the air freight market with only small amounts being handled at other airports. International freight, particularly exports are generally high-value perishable goods. The bulk of domestic freight is mail, parcels and critical spare parts.

Most of New Zealand's freight exports use belly-holds of passenger aircraft. Boeing 737s do not have containerised holds, meaning that freight must be loose-loaded, which is less efficient and more expensive, particularly for transfers. Airbus A320s are containerised, but the containers are incompatible with Boeing aircraft. While they offer greater efficiency for point-to-point freight, transfers remain expensive.[2]

Aviation Industry

An attractive option is to have an airline base its operations at your airport. Nelson, Hamilton, Christchurch and Auckland currently have resident scheduled airlines and numerous airports have resident smaller airlines offering both scheduled and charter services. The north-west site would be an ideal location if such an opportunity arises, provided that the necessary investigations and planning have been undertaken in order to take advantage of the opportunity.

Within the past 12 months news reports indicated that an airline proposing to establish a base in New Zealand was considering Hamilton and Rotorua as potential options. When Whakatane Airport has reached a ‘state of readiness’ to proceed with development it could well be considered for future opportunities.

Air New Zealand’s subsidiary which fits-out luxury privately-owned 737 800 jet aircraft at Blenheim Airport is a recent example of the type of industrial activity which can be undertaken at smaller airports. Having sufficient land available for large hangars with runway access creates opportunities to attract aircraft maintenance, construction, rebuilding, fit-outs, painting, signage and refurbishment for both the domestic and international markets.

[2] Extract from Ministry of Economic Development : Airport Infrastructure Stocktake/Audit : 2004

1.3 AIRCRAFT REQUIREMENTS

The following table shows the takeoff and landing requirements for a range of aircraft which may in the future provide services to and from Whakatane. These are tabulated for aircraft carrying a maximum payload under typical ambient conditions.

Aircraft takeoff and landing distance requirements

Aircraft	Destination	Takeoff weight required for full payload kg	Takeoff field length required m	Landing weight required for full payload kg	Landing distance required on wet runway m
B1900D	All New Zealand	7767	1162	7605	978
Q300	All New Zealand	19505	1010	19051	1162
Q400	All New Zealand	29257	1404	28009	1481
ATR72	All New Zealand	22500	1280	22350	1254
B737-300	Wellington	54900	1543		
	Christchurch	55900	1609		
	Queenstown	57100	1686		
	Whakatane			52900	1647
A320	Wellington	66100	1490*		
	Christchurch	66900	1500*		
	Queenstown	68000	1560*		
	Sydney	73600	1860		
	Melbourne	75200	1980		
	Brisbane	74300	1910		
	Whakatane			64300	1682*
B737-800	Wellington	68400	1724*		
	Christchurch	69300	1766		
	Queenstown	70400	1817		
	Sydney	76200	2121		
	Melbourne	77900	2263		
	Brisbane	77000	2167		
	Whakatane			66400	1906

*Note: Minimum practical runway length based on airline experience for NZ operation of B737-300, A320 and B737-800 are 1520m, 1750m and 1750m respectively.

1.4 DESIGN AIRCRAFT

In order to determine the ultimate capacity and design of an airport it is useful to adopt a 'design aircraft' typical of those which are likely to use the airport when it reaches that capacity.

The design aircraft is used to determine issues such as runway dimensions, pavement strength, terminal size and obstacle clearances.

The Boeing 737 800 has been chosen as the 'design' aircraft for planning purposes at Whakatane Airport as it has been used for this purpose by several other regional airports throughout the country and sets a realistic maxima for 1900–2200 metre runways on domestic and short-haul international passenger services.

The following table shows the operational requirements for the 737 800.

Operational Requirements at Whakatane Airport : Boeing 737 800	
Take-off runway length to Melbourne with full payload (77,000kgs):	2263m
Braking distance required on wet runway:	1906m
Pavement strength required:	PCN 50
Minimum runway width required:	30m
Landing weight required with full payload:	66,400kgs
Tail height clearance on apron (push-out parking)	12.57m
Apron strength	80 tonnes
Rescue Fire Category required (Domestic flights):	Category 4
Rescue Fire Category required (International flights	Category 7
Passengers	
- Typical 2-class configuration	
- Typical 1-class configuration	

1.5 MITIGATION OF ADVERSE EFFECTS

Air transport is an essential component of modern lifestyle and is an important driver of economic growth and development within local communities. Airports are an essential component of the air transport system. However, aircraft cause adverse effects such as noise and emissions and these need to be addressed by the district planning process.

An important objective of this Plan has been to reduce, mitigate or where possible avoid the adverse effects associated with airport operations.

Issues such as aircraft noise, visual intrusion, level of aircraft activity, engine exhaust residues, obstacle height limits, tree topping and removal, public safety, restrictions on adjoining land utilisation, natural landform and vegetation disturbance, environmental pollution and the effects on landscape and amenity values have been taken account of in determining the final design characteristics.

Aircraft noise assessments have been undertaken by acoustic engineers Marshall Day Acoustics Ltd, a company with considerable experience in assessing the impacts of aircraft noise on and surrounding airports. The noise effects have been assessed in accordance with the principles and practices established by the New Zealand Standard NZS. 6805:1992, 'Airport Noise Management and Land Use Planning'.

The purpose of this Plan is to integrate the airport into the community to ensure that it retains its capacity to serve the community's increasing needs for air transport services into the future.

One of the objectives in designing the extended runway has been to minimise the adverse effects where possible on neighbouring properties. One of the limitations in extending the runway is the effect that any extension of the eastern threshold would have on the obstacle height limit over the Whakatane Golf course.

The trees along the extended centreline of the flight path are currently subject to height controls and any extension of the existing runway to the east will reduce the height limit which the trees must not exceed. For each additional 62.5 metres of runway length to the east the obstacle limitation surface over the golf course is lowered by 1 metre.

A realignment of the primary runway was investigated with a view to removing or mitigating this and other adverse effects arising from any runway extension. However, an assessment of the earthworks required made this option untenable from a cost perspective.

In order to minimise the adverse effect on the golf course it is recommended that an additional eight hectares of land be acquired at the western end of the airport, which will allow the proposed eastern extension of the existing runway to be shortened by 210 metres. This will also move the air noise boundary a further 200 metres from the residential dwellings on Aerodrome Road.

2 ASSESSMENT OF AIRPORT CAPACITY

Airports are capital-intensive long-term strategic assets which require correspondingly long-term protection in order to meet the future growth in demand for air transport services. This plan is therefore based on an assessment of the airports total capacity and not the percentage of that capacity which is likely to be achieved within a given time period, such as 10, 20 or 30 years.

Given the high capital cost of building new airports and the current environmental legislation, experts believe that it is highly unlikely that a new ‘green-fields’ airport will be constructed in this country. This is supported by Environment Bay of Plenty’s recent decision to not proceed with a proposal to establish a single regional airport for the Bay of Plenty region.

It is therefore important that the capacity of existing airports be protected in order to provide for the future air transport needs of the catchments they serve. It is not possible to forecast accurately when that demand will occur, but without such protection, the encroachment of incompatible land use activities will limit or prevent the utilisation of that capacity.

Many New Zealand airports have already been compromised by the encroachment of residential and industrial developments with consequent restrictions on their operational capacity. It is therefore vital that the remaining airports be protected to the fullest extent possible in order to retain their capacity.

From a practical perspective, airport protection should be based on capacity rather than time-limited forecasts of future demand. Airport Master Plans should be ‘blueprints’ for development of that capacity where each phase of development is activated by a given set of criteria.

The methodology used in preparing this plan includes an assessment of the airport’s optimum capacity. That capacity is an unrealised community asset which is ‘reserved’ to meet the community’s future requirements for air transport services, aviation-based recreational activities and other airport-related services.

What is airport capacity?

Airport capacity is ultimately the number of runways an airport can accommodated and the maximum number of aircraft which can take-off and land on those runways in any consecutive 24 hour period.

Maximum runway utilisation is affected by the skill and competence of the air traffic controller, the number of aprons available for aircraft parking and how quickly each aircraft can be unloaded, re-loaded and despatched. This in turn is influenced by the time taken to process passengers and freight and the physical capacity of the passenger terminal and freight-handling facilities.

Definition of Airport Capacity (for Whakatane Airport)

For the purposes of this plan airport capacity is defined as the "*optimum operational limit*" for the airport given its location and potential for growth and development"

The term "optimum operational limit" reflects the fact that Whakatane Airport will never achieve maximum runway utilisation". In fact, it is unlikely to ever achieve maximum runway utilisation during its busiest hour of the day. So the question is, what is a realistic optimum operational limit to be protected from the encroachment of incompatible land use activities.

What affects capacity?

Airport capacity is affected by factors such as –

- the number of take off and landing slots (this is determined by the necessary separation between aircraft and is essentially a function of the air traffic control system and the type of aircraft in use (e.g. the speed with which each aircraft clears the runway)
- weather conditions
- the configuration of the airport
- the size of aircraft the runway can accommodate (influenced by the length, surface and structure of the runway and its obstacle-free approach and take-off paths)
- the rate of passenger throughput at terminal facilities (which is a function of the number of aircraft stands at terminals as well as the terminal building capacity)
- the organisation and procedures for airspace use (i.e. air traffic management)
- airport operating procedures
- airmanship
- technology

Although the number of aeroplanes using an airport is subject to absolute limits, there is considerable flexibility to increase or decrease actual seat capacity through the size of the aircraft in use.

Capacity Assessment

The capacity assessment is based on the following criteria -

- the maximum runway length
- the operating range of the design aircraft
- the number of destinations likely to be serviced
- the maximum number of services per day to each of those destinations
- the size and capacity of aircraft servicing those destinations
- the maximum number of aircraft likely to utilise the runway during the busiest hour
- the runways capacity to handle that number of busy hour movements
- the number of aprons required to accommodate the busy hour traffic
- the size of terminal required to service the busiest hour

The maximum runway take-off distance has been set at 2250 metres and the landing distance at 1950 metres. The maximum range for the 737 800 design aircraft is 2800 kilometres. The following table summarises the remainder of the criteria used in the capacity assessment.

Possible Destinations	Distance (kms)	Arrivals [3]per day	Aircraft type or equivalent	Seating Capacity	Ave Load %	Busy hour arrival / departure	Aprons Required	Runway rime (seconds)	Domestic passengers		International passengers	
									Arr	Dep	Arr	Dep
Auckland		3	ATR72 500	68	75	1	1	40	51	51		
		2	Dash 300Q	50	75							
Wellington		2	737 300	136	75	1	1	50	102	102		
		3	ATR72 500	68	75							
Christchurch		1	ATR72 500	68	75	1	1	40	51	51		
Hamilton		-										
Palmerston North		-										
New Plymouth		-										
Melbourne	2,800	3	737 800	187	85	1	1	50			159	159
Sydney		4	737 800	187	85	1	1	50			159	159
Brisbane		3	737 800	187	85	1	1	50			159	159
Noumea		-										
Suva		-										
Apia		-										
TOTALS		21				6	6	4.7	204	204	477	477

Aircraft Movements

The following table shows the capacity assessment for aircraft movements. It is not the maximum operational capacity as that would never be achieved.

Capacity-based forecast of aircraft movements

Aircraft Type	Average Arrivals Per Day	Average Movements Per Day	Capacity-based forecast 1890m runway	
			Total Movements Per Year	% Night Movements
Boeing 737 800	10	20	7,300	33%
Boeing 737 300	2	4	1,460	10%
Aerospatiale ATR72	7	14	5,110	10%
Bombardier Dash 8 Q300	2	4	1,460	10%
Fokker Friendship F27	1	2	730	100%
GA Twin-engine fixed-wing	8	16	6,000	15%
GA Single-engine fixed-wing	27	55	20,000	15%
Helicopter	11	22	8,000	15%
Totals	69	137	50,060	

[3] These movements are consistent with the schedule of total movements per day

The number of movements is only relevant in that it has been used to calculate the air noise boundaries, which limits the total amount of noise which aircraft are permitted to cause within a given period of time. There is no limit on the number of movements provided that the airport remains within its noise ‘cap’.

Passenger Terminal

Provision has been made for a two-level terminal building with a total floor space of 12,000m^2.

The optimum capacity is based on a regional facility catering for 10 trans-Tasman services, 2 scheduled domestic jet services and 9 scheduled domestic turboprop services per day – plus 1 domestic turboprop freight service per night, 36 fixed-wing general aviation arrivals and 11 helicopter arrivals per day.

The table on the previous page shows the following one-way busy hour (OWBH) arrivals.

- domestic passenger 204
- international arrivals 477
- total 681

Based on a terminal size of 12,000m^2, the floor space per arriving passenger would be 17.6m^2. This compares with the International Civil Aviation guideline of 24.0m^2. Given that Whakatane is a regional airport only and not a major international airport, the provision of 17.6m^2 per person is believed to be realistic.

Runway Capacity

There are numerous methods of measuring airport capacity, but the most commonly used method in New Zealand is *“peak hour capacity”.*

Runway capacity is significantly influenced by *runway occupancy time* (ROT), that is the time the runway is occupied by an aircraft during landing or taking off.

The runway occupancy time for a B737 or A320 is 45-50 seconds and 35-40 seconds for a turboprop aircraft. Therefore the separation achieved between aircraft using the runway largely determines the runway service rate or runway capacity. Minimising the separation time between aircraft movements increases runway capacity.

However, maximum runway capacity depends on a blend of operational, physical, procedural and human factors, such as runway physical configuration, runway occupancy time, aircraft mix, ratio of arrivals to departures; air traffic control procedures, minimum separation standards, the skill of the pilot and air traffic controller and environmental factors such as daylight and weather conditions. Aircraft mix is the key determinant of capacity as it largely determines runway occupancy time. Delays increase as demand approaches capacity. The level of *unacceptable delay* determines the capacity limit for any airport or runway. The question arises as to what are unacceptable delays.

Runway occupancy time at Whakatane Airport is increased by not having a parallel taxiway for aircraft entering or exiting the runway – nor is one justified at such a low level of activity. The runway is also used as the taxiway. The following table shows the calculation of maximum movements per hour.

Estimated runway capacity : Whakatane Airport 1280m runway length				
	Approach		Takeoff	
	from west (seconds)	from east (seconds)	from west (seconds)	from east (seconds)
Landing	50	50		
Takeoff			40	40
Taxiing	30	50	50	30
Total ROT[4]	80	100	90	70
Frequency from direction	25%	75%	25%	75%
	20	75	23	53
Average ROT landing / takeoff	95		75	
Movements per hour	21			

Apron Capacity

Six aprons are required to meet the one-way-busy-hour traffic.

Limitation on Aircraft Noise

The noise boundaries are based on 50,000 movements per annum including 16,000 scheduled airline services and 34,000 general aviation movements. This compares with Palmerston North Airport which currently has 22,000 scheduled and 30,000 general aviation movements per annum.

Car Parking Capacity

The assessment of car parking requirements is 700 parks. This is based on a survey of existing car parking capacity at Tauranga, Rotorua, Napier, Palmerston North, Dunedin and Invercargill airports.

[4] *ROT Runway occupancy time*

3 OPTIONS INVESTIGATION

The planning process included an assessment of the options aimed at optimising airport capacity and locating appropriate sites for –

Operational Areas

- the primary sealed runway, airfield strip and 300 metre runway end safety areas
- paved taxiways and aprons
- a grass runway for light aircraft, microlights and gliders
- fuel storage tanks (above or below ground) and dispensing equipment
- navigation equipment (e.g. VOR, aerodrome beacon, PAPIS/VASIS, approach lights)
- airside equipment storage (baggage trailers, toilet carts, tractor units, aircraft steps, aircraft starter transformers, de-icing equipment, chemicals etc)
- jet-blast deflector shields
- engine testing bays

Buildings

- passenger terminal building
- air traffic control tower
- rescue fire station and emergency control centre
- air freight warehouses
- fuel tanker garage
- dangerous goods storage
- light fixed-wing aircraft hangars
- helicopter hangars
- aircraft maintenance hangars
- garaging for grounds maintenance vehicles, plant and equipment
- accommodation (for resident site manager and security officer)
- pilot information centre
- pilot education and training facilities
- airport accommodation, meeting and conference facilities (i.e. hotels, motels)

Internal Roads & Parking Areas

- internal roading network
- public car parking
- rental car parking
- coach parks

Designated Areas and Compounds

- aircraft isolation area
- emergency muster stations
- parachute drop zone
- telecommunications equipment
- helicopter training area for low flying and circuit training
- aviation industrial park (e.g. aircraft construction and re-construction)
- aviation fuel storage compound
- meteorological weather station/s
- car washing and grooming booth
- emergency fire training area

Utilities and Services

- aircraft starter power supply outlets on aprons
- back-up power generation
- back-up water supply tanks
- sewage pumping station
- water sumps and scrubbers for polluted run-off collection and treatment
- rubbish disposal (including items confiscated by international border control services)

3.1 RUNWAY STRIP

The runway strip is the prepared area within which the sealed runway is symmetrically located. The design of airspace protection around an airport is very dependent on the selection of the runway strip width.

The normal strip width for runways with non-precision approaches is 150m and this is almost universal at jet-capable airports in New Zealand. Exceptions include Auckland and Christchurch which have a strip width of 300m and Dunedin which has a strip width of 220m.

Constraints at Whakatane airport include Aerodrome Road which is too close to the runway to accommodate a 300m or even a 220m wide strip. For this reason a 150m strip, as exists currently, is proposed for the extended runway.

It is important to note that a "transitional side surface" of 1V:7H slope should be provided without any penetrations (including aircraft parked at hard stands) if at all possible. If 1:7 is not provided then airport operating minima may be adversely affected.

The ends of the extended strip are co-incident with the obstacle limitation surface (OLS) origin points described in the section on Flight Path Design.[5]

The width of the runway strip has an important bearing on the type of navigation systems which may be used by aircraft on approach to the airport. Navigation systems range from visual only to full precision instrument approaches. The latter allow aircraft to land and take-off in virtually any visibility conditions.

For example, for any reference code 3 or 4 airports (which includes Whakatane) the following runway airstrip widths are required for the specified levels of navigation performance −

Service Type	Approach System	Runway strip width (metres)
International	Precision	300
	Non-precision	150
Domestic	Precision	220
	Non-precision	150
	Non-instrument (aircraft less than 22700kg MCTOW)	90

5 Astral Consultants Ltd

The assessment of an alternate runway orientation also considered the possibility of increasing the strip width to 220 or 300 metres to permit instrument precision approaches.

3.2 PRIMARY RUNWAY

In order to realise the airports optimum capacity, provision must be made for the extension, strengthening and possible widening of the primary runway when the demand eventuates. This raises the issue as to whether the existing runway and other airport infrastructure is in the best possible location from an operational perspective. This section of the plan investigates and addresses these issues.

Option 1: Alternate alignment

The 'key' issues with the current runway alignment are –

- the highest terrain on Kohi Point ridge, which is situated within the Whakatane urban area approximately 8 kilometres in a direct line from the airport, intrudes the ICAO[6] maximum 2% obstacle limitation surface for take-offs on runway 09 and approaches on runway 27. The alternate circling approach path increases the operating minima for aircraft, placing greater restrictions on the use of the airport in adverse weather conditions. Fortunately, the weather conditions at Whakatane are generally favourable and informed sources report that there are very few occasions where commercial aircraft are diverted to another airport as a result of adverse weather conditions.

- any extension of the runway to the east will reduce the obstacle height limits over the Whakatane golf course, requiring that trees which intrude the obstacle limitation surfaces to be topped or removed. As it is likely to be many years before the recommended runway extensions are constructed, the Club should have more than adequate time to establish lower-growing species as replacements for trees which will need to be removed in the future.

- the air noise boundary within which it is recommended that residential dwellings be excluded will possibly affect up to three existing houses at some time in the future when the airport gets close to its optimum capacity for aircraft operations. There is no reliable way of knowing when that level will be reached and it is possible that it may not occur within the economic life of the dwellings concerned.

  The purpose of the air noise boundary is to protect the airports right to generate a specified level of aircraft noise and to provide certainty to property owners wishing to develop noise sensitive activities close to the airport or beneath airport flight paths by specifying a 'maximum' limit on aircraft noise.

  Calculation of the 'maximum' noise level represented by the air noise boundary takes account of the trend towards quieter aircraft, a trend which is expected to continue. Over time, this trend will allow an increase in the number of aircraft movements without exceeding the 'maximum' noise level permitted within the boundary.

[6] International Civil Aviation Organisation

The purpose of assessing an alternative alignment was to ascertain whether it is possible to mitigate or avoid the above-mentioned adverse effects. The 07/25 alignment was chosen to provide a straight-in approach over the sea from the east, crossing the coast within 200 metres of the runway threshold, thereby avoiding the Kohi Point ridge, golf course and all residential and other properties.

A CAD Civil assessment of the cut and fill required to develop the airfield established a 'cut' requirement of 109,000m^3 and a 'fill' requirement of 854,000m^3, leaving a net fill requirement of 745,000m^3. Subject to the necessary resource consents, the net fill requirement could be sourced from the sand-dunes adjoining the site. However, this volume of earthworks is likely to be considered excessive in terms of development cost and environmental effects.

The environmental issues associated with moving such a large quantity of fill at some future time are a significant risk in that they have the potential to divert attention away from the primary objective of protecting the operational capacity of the airport from the encroachment of incompatible land uses. While immediate construction of the new airfield embankment would minimise that risk, the expense of undertaking such major earthworks so far in advance of any known or likely demand would be unrealistic.

Another potential issue is the height of the ridge extending southwards from Matata which in places may intrude the airports 2% take-off and approach surfaces, as indicated in the diagram below. In the event of a decision being made to further investigate this option, it would be necessary to undertake a more detailed assessment of the potential flight path obstacles.

Option 2 : Extension of Existing Runway

The existing sealed runway measures 1280m in length by 30.5 metres in width. The objective is to extend the runway to achieve a minimum takeoff run (TORA) of 2200m and a landing distance (LDA) of 1910m when the demand eventuates.

These distances are based on the requirements of the Boeing 737-800 design aircraft for unrestricted operations to and from the eastern seaboard cities of Australia.[7] The B737-800 is a code 4C aircraft in terms of the aerodrome design standards contained in New Zealand Civil Aviation Advisory Circular (AC) 139-6.

The existing runway has an east-west alignment. The distance from the eastern end of the runway to the boundary with the Whakatane golf course is 720m.[8] A 20 metre-wide road is required immediately inside the boundary to access grazing leases and potential sites for a new terminal and business park complex to the north of the runway strip.

The following diagram shows the existing runway and the distances available for extensions in both directions within the airport boundaries, including the requirement for a 300 x 150 metre runway end safety area (RESA) at each end of the extended runway.

The following options have been considered for extending the runway.

[7] Refer to section [x] for the basis of these distances.

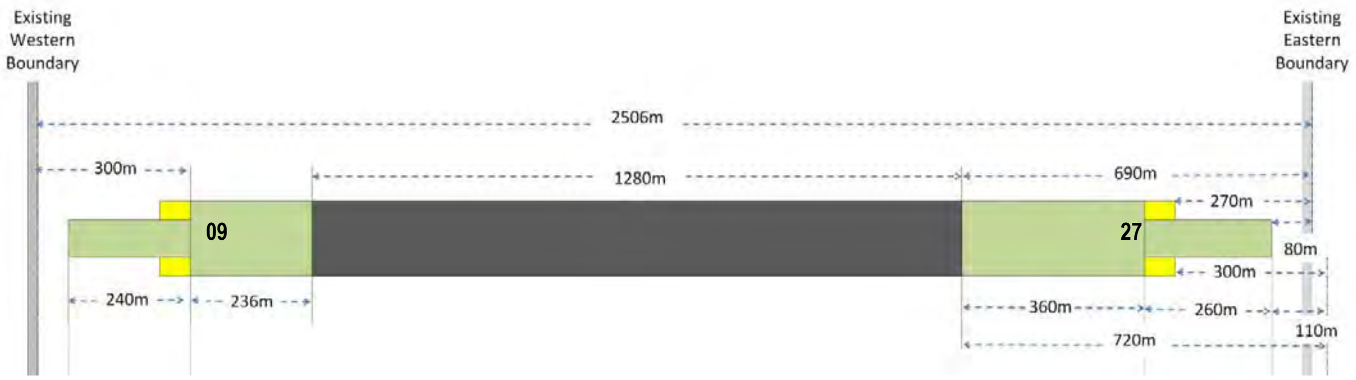
[8] Distances to the boundaries were provided by Osyris Group and take account of the oblique angle of the eastern boundary with the runway centreline.

Option 2.1

Option 2.1 utilises the available distance within the airport's existing boundaries. The approach slope on Runway 27 (from the east) is the limiting factor in that the design aircraft requires a braking distance of 1906 metres on a wet runway. The maximum 2% international approach slope means that in order to meet this requirement the obstacle height at the airport/golf course boundary would be reduced by 45% from 10.6 to 5.8 metres.

This option would provide a runway length of 1876 metres supplemented by a starter extension of 240 metres on runway 09 - providing a total take-off run of 2116 metres - and a starter extension of 250 metres on runway 27 - providing a take-off run of 2126 metres. The braking distance in both directions would be 1876 metres.

The following diagram shows the extended runway and starter extensions.



Option 2.1 : Extended runway located within existing airport boundaries with starter extensions

Option 2.2

Option 2.2 increases the runway length beyond the airport western boundary in order to achieve the unrestricted operational requirements of the 737 800 design aircraft for non-stop route distances of up to 2,800 kilometres.

This option requires the designation and eventual acquisition of the following land –

1) a section of unformed legal road adjoining the western boundary of the airport measuring 250 metres in length by approximately 20 metres in width (i.e. an area of 0.5 hectares). The road reserve would need to be 'stopped' and the land vested in the Airport Authority for airport purposes. The unformed road provides legal access to four separate allotments of land. It does not currently provide physical access. It is proposed that legal access be restored by an alternative route running parallel with the northern perimeter of the runway strip (broadly following the existing formed track which provides vehicle access to the northern side of the airport)

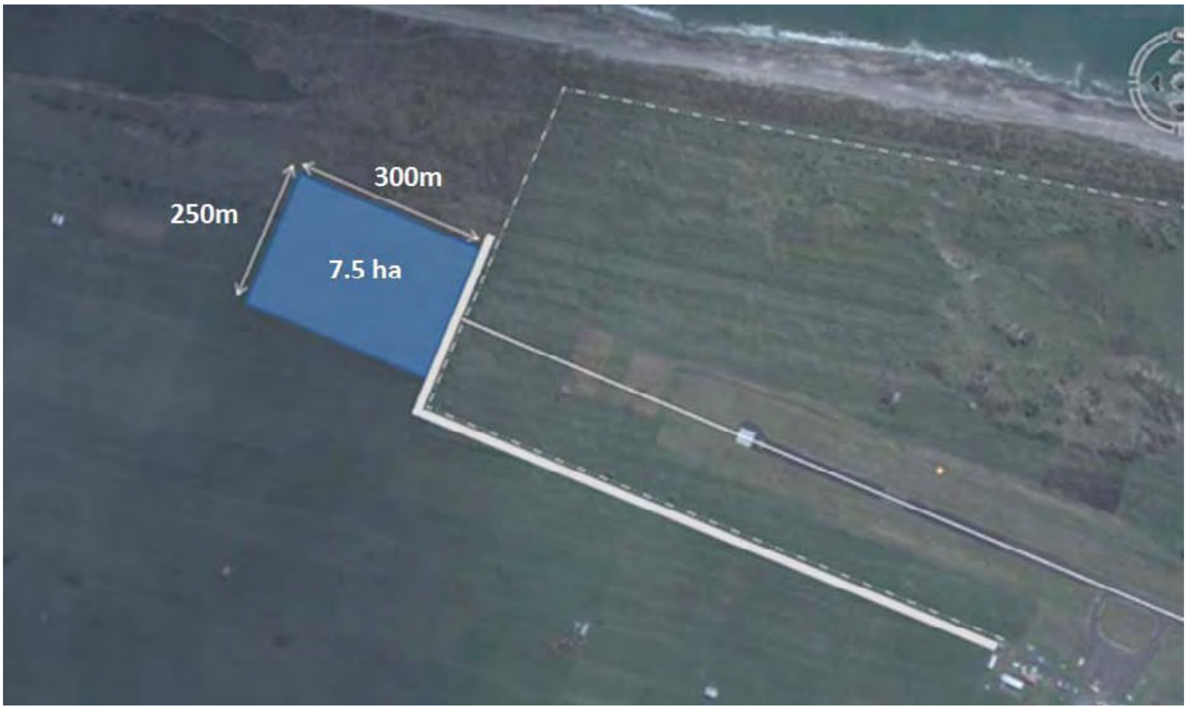
2) 7.5 hectares of neighbouring farmland measuring 300 metres in length by 250 metres in width, creating an extension of the 150 metre-wide runway strip. The extra 50 metres in width on either side of the strip is for protection of the 1:7 transitional side slope to a height of 7 metres above runway height.

The extended runway would be 1950 metres in length supplemented by a western starter extension of 256 metres on runway 09 - providing a take-off run of 2206 metres - and an eastern starter extension of 300 metres on runway 27 - providing a take-off run of 2250 metres.

Advantages of this option are –

- It meets the performance requirements of the Boeing 737 800 design aircraft for domestic and short-haul international services
- the air noise boundary would move 200 metres to the west away from the residential dwellings on Aerodrome Road
- the existing obstacle height limits over Whakatane golf course would be close to the existing levels
- the distance between the fan origin and flight-path tangent-point would increase by 3.5 kilometres for take-offs to and approaches from the east

The following diagrams show the location of the additional land required to achieve this proposal and the configuration of the proposed extended runway and starter extensions.



The following tables compare the performance of the 737 800 design aircraft for the two runway extension options 2.1 and 2.2

Runway Performance

Available	Existing Runway	Option 2.1 Extend runway within airport boundary	Option 2.2 Extend runway beyond airport boundary
Take-off run available	1280	2116 / 2126	2210 / 2250
Take-off distance available	1340	2176 / 2186	2270 / 2310
Braking distance available	1280	1876	1950

Design Aircraft Requirements

Take-Off Distance	Queenstown	Melbourne	Sydney	Brisbane
Take-off distance required	1560	2263	2121	2167
Existing runway (does not meet required strength)	-220	-923	-781	-827
Option 2.1 Extend runway within airport boundary	540	-163	-21	-67
Option 2.2 Extend runway beyond airport boundary	700	-3	39	93

Figures in red show the distance by which the runway is short of the design aircraft requirement
Figures in black show the distance by which the runway exceeds the design aircraft requirement

Braking Distance

Braking distance required (wet runway)	1906
Existing runway (runway not up to required strength)	-626
Extend runway with airport boundary	-30
Extend runway beyond airport boundary	44

Option 1 : Alternate alignment

This option is not recommended due to the environmental, financial and planning risks associated with such a project and the need to commit to the proposal well in advance of any known demand.

Option 2 : Extend existing runway

Two options have been considered for extending the runway. The first is the maximum length achievable within the airport boundaries and the second is the optimum length required to meet the unrestricted take-off and landing requirements of the 737 800 design aircraft for non-stop routes of up to 2800 kilometres.

2.1 : Within airport boundary

The 1876 metre full-width runway plus a 240 metre starter extension on runway 09 and a 250 metre starter extension on runway 27 provides 92% of the design aircrafts take-off distance requirement for unrestricted departures to Melbourne, which is the maximum route distance used for planning purposes. The runway configuration also provides 98% of the required braking length. The 2% shortfall will have only a small effect on the design aircrafts maximum landing weight at Whakatane Airport.

The road alignment for vehicle access to the northern side of the airport will need to be situated alongside the golf club boundary as there is barely sufficient area available for a 20 metre road reserve without cutting into one corner of the runway end safety area.

The major disadvantage of this option is a 4.8 metre reduction in the obstacle height permitted at the golf club boundary and that part of the course where the upslope is below tree height. The mitigating factor is that the runway extension is likely to be many years away, which allows adequate time for the Club to establish lower growing species in advance of the requirement to top or remove existing trees.

2.2 : Extend beyond airport boundary

This option is designed to meet the performance requirements of the 737 800 design aircraft. The additional advantages of this option are that it maintains the existing height limits above the Whakatane golf course and moves the air noise boundary 200 metres to the west of Option 2.1. The disadvantages are that it requires the designation and eventual purchase of 7.5 hectares of privately-owned farmland and requires the stopping and replacement of a section of unformed legal road which provides legal (not formed) access to four blocks of land.

When purchasing or leasing new aircraft, airlines are more likely to consider existing runway 'groups' than the length of individual runways. Therefore, from a risk management perspective it is prudent to remain within a particular group than to be the 'odd one out' when it comes to runway dimensions. The following table indicates where Whakatane Airport currently ranks alongside other New Zealand airports relative to runway length? It also shows where options 2.1 and 2.2 rank.

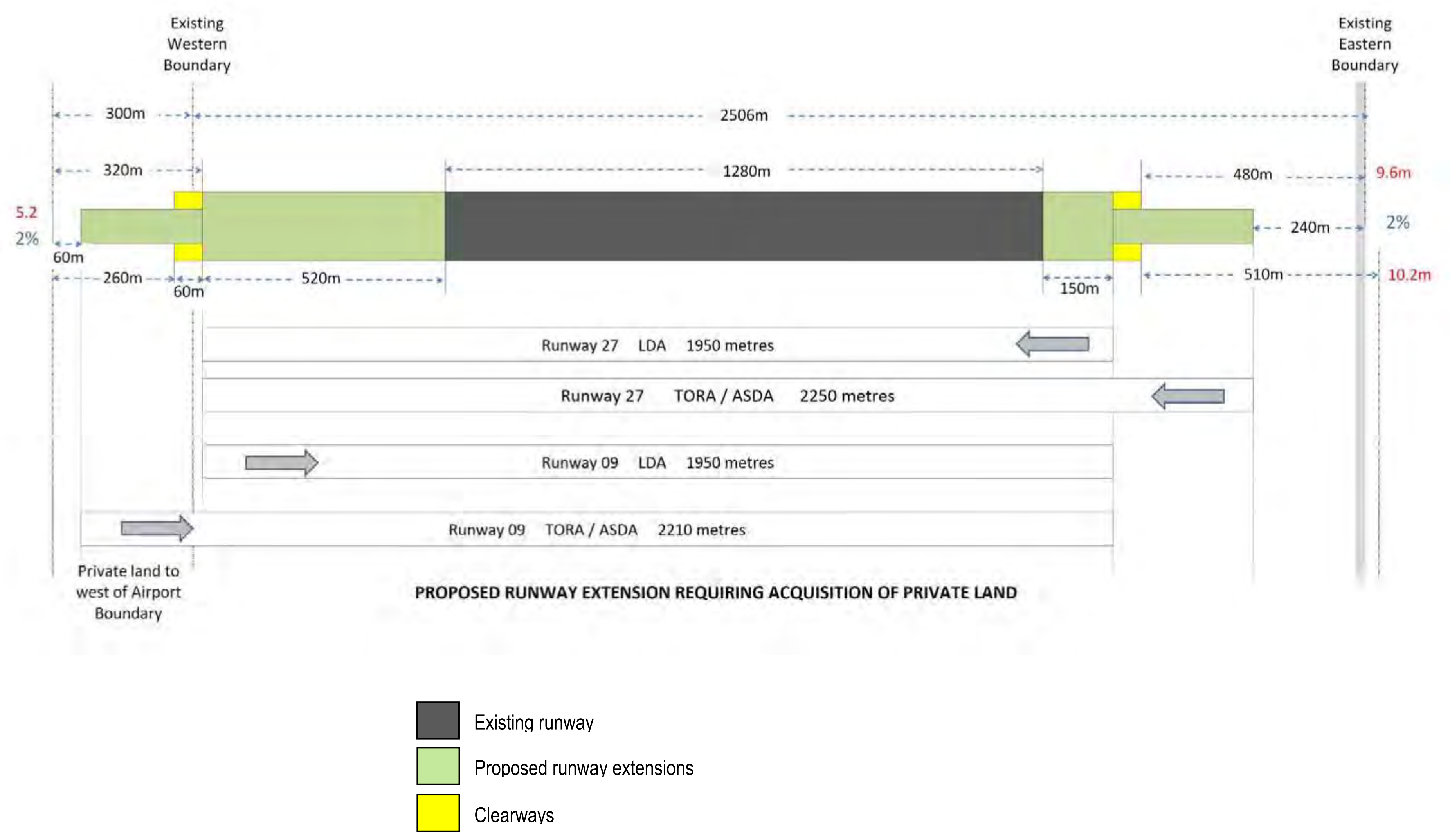
Comparison of Runway Lengths at New Zealand Airports							
International		Trans Tasman		Trans Tasman Capable		Regional	
>3,000m		>1,800m		>1,800m		>1,000m	
Auckland	3,635	Hamilton	1,960	Ohakea	2,447	Rotorua	1,622
Christchurch	3,287	Wellington	1,936	Invercargill	2,210	Blenheim	1,425
		Palmerston Nth	1,902	Tauranga	1,825	Kaitaia	1,402
		Dunedin	1,900	**Option 2.1**	**2,134**	Taupo	1,386
		Queenstown	1,892	**Option 2.2**	**2,250**	Wanganui	1,378
						Nelson	1,347
						Hokitika	1,314
						Gisborne	1,310
						Napier	1,310
						New Plymouth	1,310
						Oamaru	1,283
						Whakatane	**1,280**
						Timaru	1,280
						Wanaka	1,200
						Whangarei	1,097

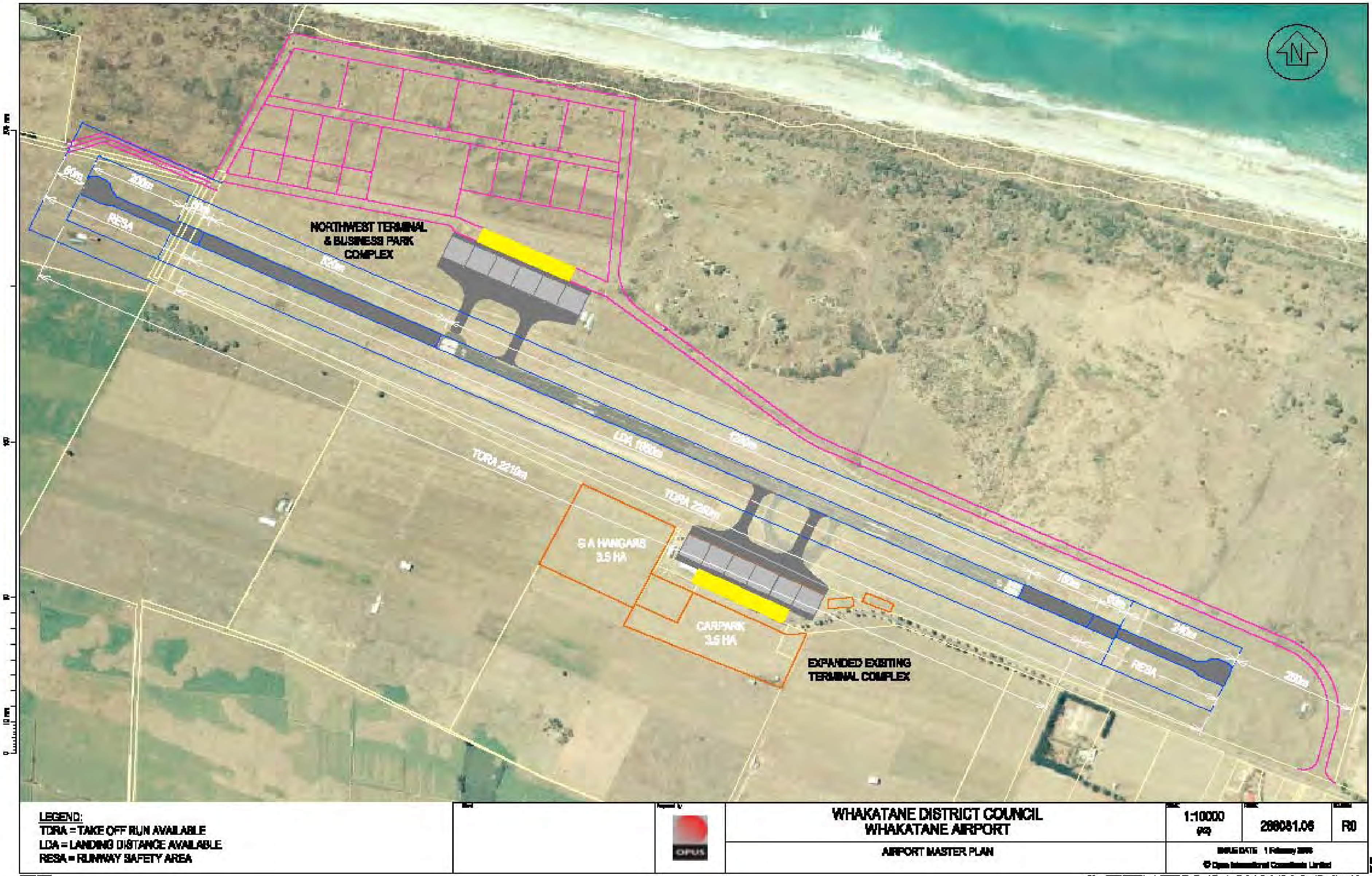
Recommendation

It is recommended that Option 2.2 be the preferred option with Option 2.1 being the backup option. The diagrams on the following pages show the relative positions and dimensions of the existing runway compared to options 2.1 and 2.2 It will be noted that the eastern boundary is not perpendicular to Aerodrome Road – hence two boundary lines are shown which reflect the relative boundary positions 75 metres either side of extended centre-line of the runway.

Option 2.1 Runway Extension

Option 2.2 Runway Extension




NORTHWEST TERMINAL
& BUSINESS PARK
COMPLEX
RESA
200m
60m
520m
LDA 1890m
1250m
TORA 2210m
TORA 2290m
G A HANGARS
3.5 HA
CARPARK
3.5 HA
EXPANDED EXISTING
TERMINAL COMPLEX
240m
280m
LEGEND:
TORA = TAKE OFF RUN AVAILABLE
LDA = LANDING DISTANCE AVAILABLE
RESA = RUNWAY SAFETY AREA
WHAKATANE DISTRICT COUNCIL
WHAKATANE AIRPORT
AIRPORT MASTER PLAN
1:10000
288081.06
R0

3.3 FLIGHT PATHS

With an east/west runway alignment and ranges of hills situated 8 kilometres to the east and 15 kilometres to the west of the airport, the location of the approach and take-off paths are an important aspect of operational planning.

Astral Aviation Consultants, which works extensively with airports and airlines throughout New Zealand and overseas, has assisted with the design and operational requirements for the runway, airstrip, navigation aids, flight paths and obstacle limitation surfaces. Astrals advice is contained in a separate report which has also been integrated into this plan.

Eastern approach and take-off paths

Divergence

A straight-in approach over Kohi Point ridge encounters terrain of up to 183 metres in altitude which intrudes the 2% maximum obstacle limitation surface. A divergence of up to 15^{o} from the straight line approach is permitted without affecting the more favourable minima which apply to a straight-in approach.

Initially it appeared that a 15^{o} divergence would not be sufficient to clear the terrain obstacles, therefore other options were considered. At the same time more detailed contour information was requested but not received in sufficient detail until recently. That information has now confirmed that a divergence of 14.9^{o} will clear the terrain obstacles from a tangent point 5000 metres from the inner edge of the approach fan. This is a very significant improvement compared to the existing circling approach and improves the operating minima for the approach to runway 27 and for take-offs on runway 09.

The following diagram shows a 15^{o} divergence with a tangent at 1500 metres from the fan origin. This was evaluated at an earlier stage of the investigation in an endeavour to avoid the higher terrain on Kohi Point ridge, but the tangent point was considered to be too close to the fan origin.

Circling Approach

A circling approach with a tangent point 1850 metres from the fan origin was also considered in an to endeavour to reduce the impact of aircraft noise over the Coastlands residential area.

Western approach and take-off paths

Existing flight path

The existing straight-in approach path for runway 09 and the take-off path on runway 27 cross the coastline at Thornton and are sufficiently offshore to avoid the rising terrain to the south of Matata. This heading achieves the most favourable operating minima for aircraft using the airport.

Alternate runway alignment

The approach path shown in the following diagram originates from the western end of the alternate runway alignment and shows the higher terrain encountered at approximately 15 kilometres from the fan origin.

It is not envisaged that the existing site would be expanded to include aircraft engineering and other business and light industrial activities associated with the business park complex proposed for the north-western site.

Part of the subject area is owned by the NZ Airways Corporation and is used as a communications site shown in the photograph (right). It is recommended that discussions be held with Airways Corporation to explore the possibility of relocating the communications aerials and equipment to a site elsewhere on the airport.

The larger part of the subject area is privately owned and is part of a livestock farming operation. The owner also owns the land to the west of the complex which is recommended for the development of a light aircraft hangar park.

Development of the complex would also require the relocation of the weather station owned and operated by the NZ Meteorological Service.

The NZ Met Service has indicated that it is prepared to relocate the station subject to a reasonable cost sharing agreement.

This option requires the building line to be moved 20 metres further from the runway to accommodate the design aircrafts 12.6 metre tail height without intruding the transitional side slope obstacle limitation surface.

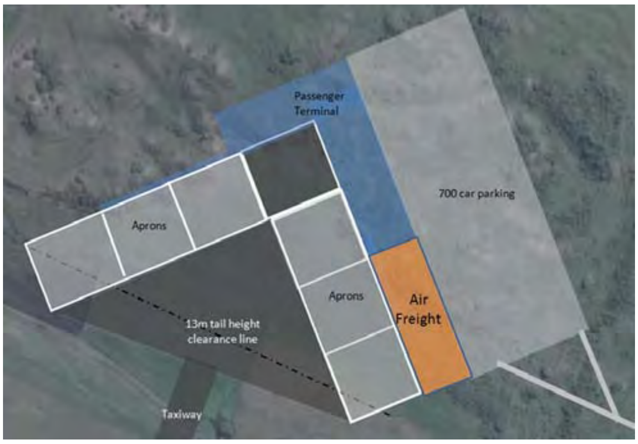
The building line would not be moved until the new aprons are constructed to accommodate heavier jet aircraft. At that time the existing terminal building would need to be removed and replaced by the first stage of a new terminal building.

It is therefore proposed that any extensions to the existing terminal building be in the form of temporary relocatable modules which can later be moved and utilised for another purpose when it is time for the existing terminal to be moved or demolished. Further modules can be added in response to demand for increased terminal space.

North-Central Site

The north-central site is directly opposite the existing terminal complex and could provide an attractive alternative to the current site.

It comprises a triangular area of easy undulating contour of sufficient size to accommodate six 50 x 50 metre aprons in an inverted v-shaped configuration. A ‘cut and fill’ assessment established that the operational area would require $15{,}700^3$ cut and $46{,}300\ m^3$ fill to level the area at a mean height 6 metres above sea level, which is the height of the airfield.



The operational area is bordered by a sand dune escarpment which would be graded to a height of approximately four metres above the operational area to provide a level platform for the passenger terminal and car parking area. An assessment of the cut and fill required for the upper level has not been undertaken at this stage.

It is envisaged that the passenger terminal would be constructed on two levels with the departure gates and baggage handling at apron level with all other facilities at first-floor level. Access to and from the aprons would be via stairs, lifts and/or escalators. Air-bridges (if required) would operate directly from the first floor departure lounges.

A sealed access road of approximately 1200 metres would follow the ridge overlooking the airfield then along the eastern boundary between the airport and golf course to an intersection with Aerodrome Road.

The existing gravel road used by lessees to access grazing blocks on the northern side of the airport would need to be diverted to the north of the new terminal complex with the addition of an 850 metre section of unsealed road connecting with the existing track to the west of the terminal.

The site would require the installation of water supply, sewage treatment, 3 phase electricity supply, street lighting and storm-water disposal systems.

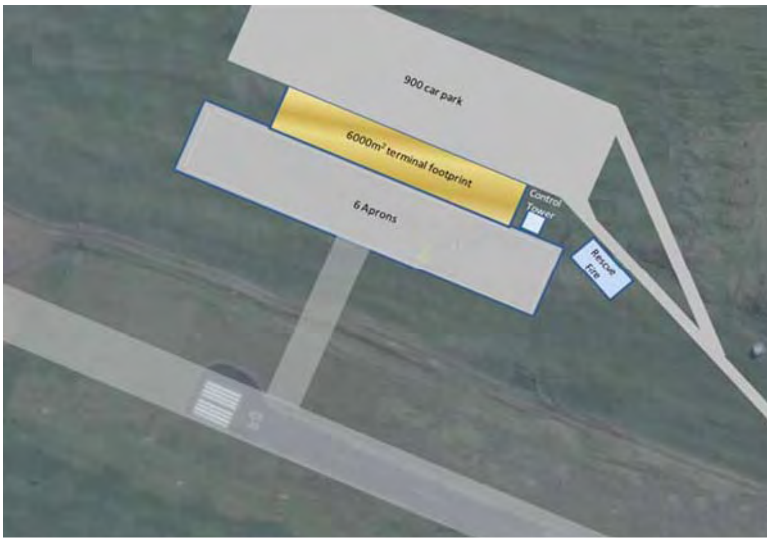
North-West Site

The north-western site extends approximately 400 metres from the airfield boundary to the coastline and 700 metres eastwards from the western boundary to a sand dune escarpment where the contour rises abruptly. The site encompasses an estimated maximum area of 28 hectares which should be available for future airside expansion and airport-related commercial and light industrial development.

Access to the site requires approximately two kilometres of sealed road commencing at the intersection with Aerodrome Road and following the golf club boundary and the existing gravel track running parallel to the northern airfield perimeter.

Utilities such as water supply, sewage treatment, three phase electricity supply, street lighting and storm-water disposal would be required to service the complex.

Leveling the initial six hectare area required for aprons, taxiways, passenger terminal, control tower, rescue fire station, car parking and internal roading has been calculated by Opus International Consultants to require 49,000m^3 cut and 57,000m^3 fill, leaving a net fill requirement of 8,000m^3. Subject to obtaining the necessary resource consents, the net fill requirement can be obtained from sand dunes bordering the site.



The following plan shows the cut and fill requirements for this site.

The volume of earthworks required to establish a six hectare platform at a relative level of 5.8 metres above sea level is not excessive and is unlikely to give rise to the environmental concerns referred to in the alternate runway proposal.

The north-west site combined with the 1950 metre runway has the most potential for growth and development. It would work best with the 1950 metre runway (Option 2.2) as the position of the terminal complex would be in the same relative position as the existing terminal complex proportional to the centre-point of the runway.

The airport business park could provide the catalyst and financial backing required to achieve the airports potential. It is the least constrained of the options presented in this report in terms of its capacity to meet any future demand for airport and airport-related development, such as freight warehousing, storage, aircraft engineering, aviation related commercial and light industrial activities, visitor accommodation, conference facilities and tourism activities. The diagram overleaf is indicative of the potential the site could have for such development.

It is believed that this site would also create significant opportunities for the development of recreational, sporting and cultural events utilising the airport infrastructure and services.

A decision to move to the North-West complex when the ‘trigger’ point is reached would allow the phased implementation of a plan to develop the existing terminal site as a commercial light-aircraft facility catering for commercial tourism, charter, pilot training and recreational flying activities.

North-West Terminal and Business Park Complex
Concept Drawing

3.5 SITES FOR LIGHT AIRCRAFT HANGARS

3.5.1 GENERAL AVIATION

Existing Site (South-Central)

The airport has only six leasehold sites available for aircraft hangars as shown in the following aerial photograph.

Lots 4 and 5 have subsequently been re-subivided laterally. A near new hangar (photo 1) housing three aircraft is situated on the rear site and the front site (photo 2) is leased to an aerial topdressing company for open-air parking of topdressing aircraft plus a storage shed and above-ground fuel storage tank.

A large hangar (photo 3) is situated on Lot 3 with an office extension overlapping onto Lot 2.

A small office building is situated on Lot 1 (photo 4)

Utilisation of the leased areas is relatively inefficient given that there is a known demand for at least five hangar sites for the construction of new aircraft hangars.

If a decision is made to eventually re-site the main terminal complex, it is suggested that these leases be re-negotiated to achieve improved utilisation of this prime location.

It is also suggested that future applicants for leases be issued with a Licence to Occupy the site for say 12 months to allow adequate time for the construction of a hangar and that leases only be issued on receipt of building completion certificates.

Alternatively, a developer could be issued with a Licence to Occupy for the construction and sale of several hangars, with a lease issued to each purchaser on their respective settlement dates.

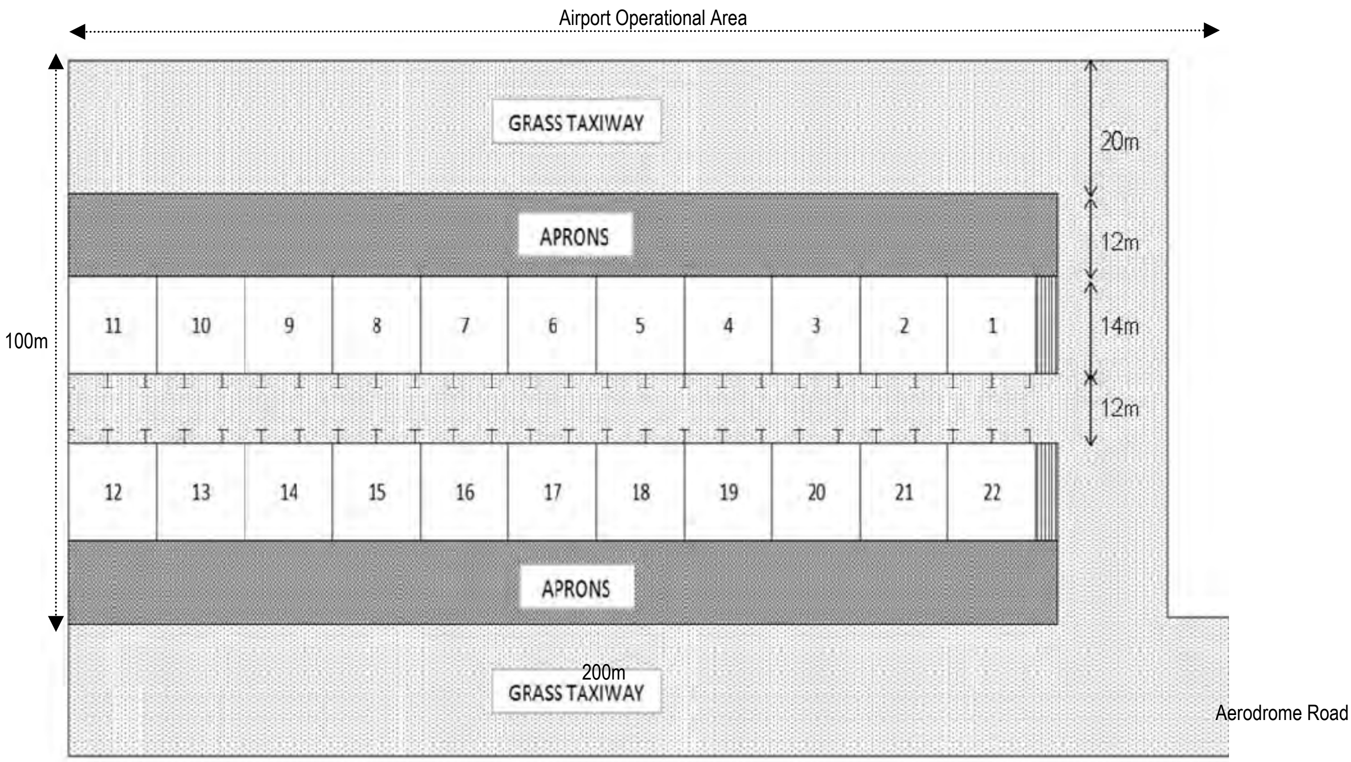
South-Central Extension

The shortage of hangar sites has led to a developer (who is also a commercial helicopter operator) initiating a proposal to construct up to 44 light aircraft hangars on a four hectare area immediately adjoining the existing terminal site. The diagram below shows the location of the proposed development.

The developer has been in discussion with the landowner who is apparently not interested in selling the land but is interested in the development proposal. It is understood that an application for resource consent is about to be lodged with the Whakatane District Council.

Any proposal will rely on the approval of the Airport Authority in terms of gaining access to the airport operational area. There are significant issues to be addressed by the Authority in considering such an application.

The proposal is to construct up to four rows each of eleven 16 x 14 metre hangars as the demand eventuates. The following artists impression and site diagram illustrate the first stage of the development which will occupy an area of two hectares.



This site is ideally positioned in terms of the existing grass runway and would be a natural continuation of the existing hangar site. Earthworks will be required to level both the site and the area of airport land immediately to the north of the site. The area of cut and fill required has yet to be calculated but is not expected to be excessive.

The proposed site is separated from the airport by a 20 metre-wide unformed legal road. In the event of this proposal being approved, it is recommended that the road be 'stopped' and the land vested in the Airport Authority.

Northern Site

The location of the northern site is shown in the diagram below.

The site is approximately 400 metres in length and would be suitable for a single row of up to 23 hangars 16 x 14 metres in size.

Levelling of the site would be necessary with a cross-fall not exceeding 1% from the main runway strip perimeter (i.e. 75 metres from the runway centreline) that would allow the finished hangar height to be within the 1:7 transitional side slope height limit or the 1:5 transitional side slope limit from the perimeter of the grass runway strip, whichever is the lesser.

A new grass runway would be required to avoid light aircraft crossing the sealed runway to access the existing grass runway. The existing gravel access road would need to be upgraded and diverted behind the hangar complex. Electricity and water supply, sewage treatment and disposal and a telephone line (for security and emergency services) would need to be considered for such a development.

South-Western Site

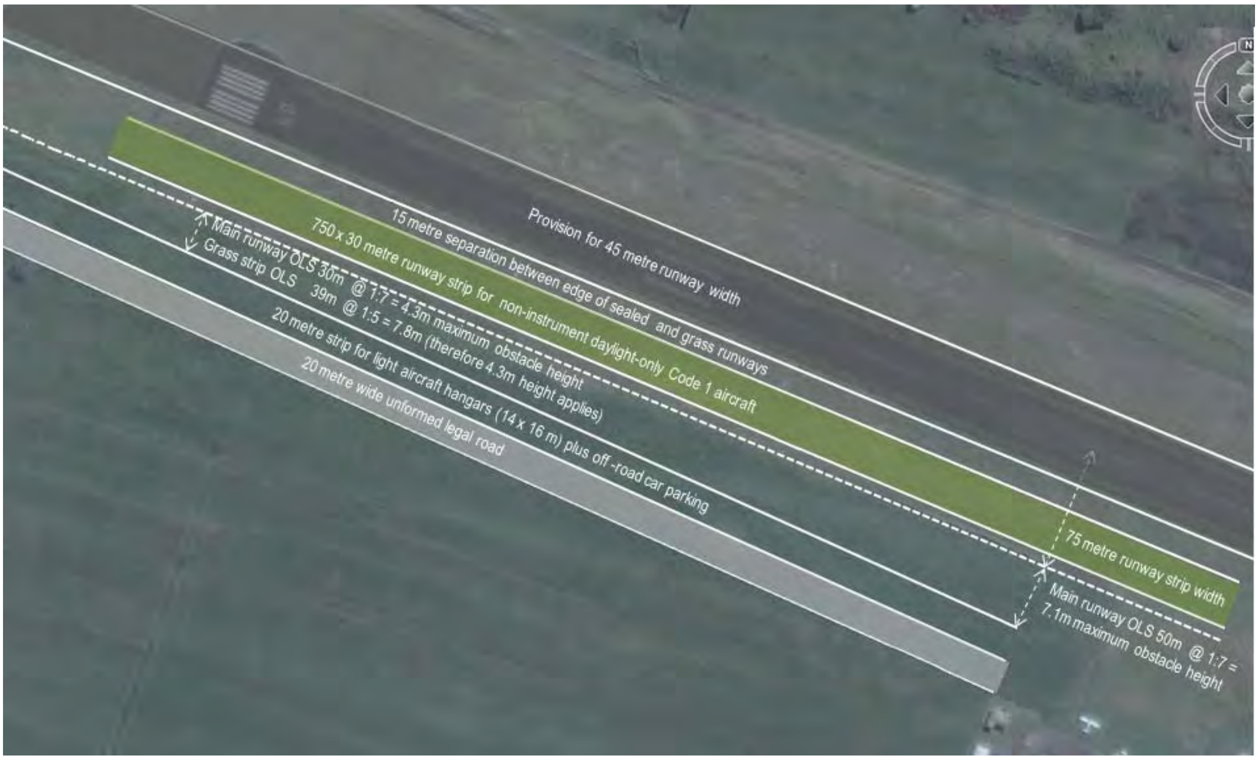
The south-western site is a long strip of land situated to the west of the existing terminal complex between the airports southern boundary and the existing grass runway as shown in the diagram on the following page.

The width of the strip narrows to the west by approximately 20 metres over a distance of 600 metres, which reduces the building height limit from 7 metres to 4 metres over that distance, provided that the site is graded to the same relative level as the airfield operational area (i.e. 6 metres above sea level).

Having regard to the building height limit it is estimated that the site could accommodate up to 17 light aircraft hangars of 16 x 14 metre dimensions. Considerable earthworks would be required to level the site. The quantity of cut and fill required has not been calculated.

Development of this site would require the formation of the unformed legal road alignment which follows the airport boundary line. The 20 metre strip shown on the attached diagram for hangar construction and parking allows for off-street angle parking for up to 6 vehicles on each lease.

Location diagram : South-West General Aviation Hangar Site



Site dimensions : South-West General Aviation Hangar Site

Development of the site would also require the repositioning of the aerodrome location beacon.

The site would require sewage treatment and disposal, electricity and water reticulation and a telephone connection for each hangar for access to security, fire monitoring and emergency services.

It is suggested that this option be the ‘fall back’ position in the event of the South-Central Extension not proceeding. This option would utilise the unformed legal road which runs parallel to the southern boundary.

This recommendation is based on the following –

- the sites proximity and ease of access to the existing grass runway
- ease of access via Aerodrome Road and the existing terminal complex

3.5.2 COMMERCIAL HELICOPTER HANGARS

South-East Site

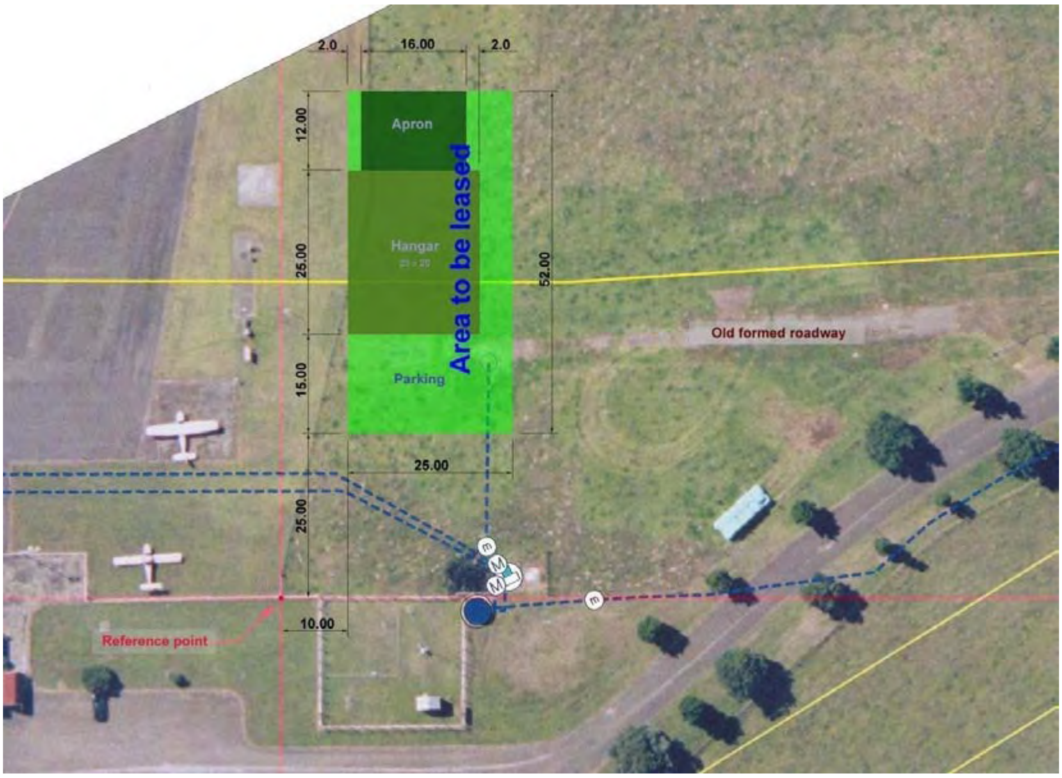
The immediate priority is to provide hangar sites for two commercial helicopter operators. The hangar size required is 25 metres (width) x 20 metres (length) with a stud height of 5 metres and a roof pitch of 11 degrees, with a north/south orientation of the ridgeline. This gives the building an overall height of 7.8 metres above ground level, allowing for the floor surface being 200mm above ground level.

Both operators have a strong preference to locate their hangars beside Aerodrome Road immediately to the east of the existing terminal complex. An application from one of the operators sought approval to locate a hangar immediately to the north of the weather monitoring station operated by the NZ Meteorological Service as shown in the diagram overleaf.

It was acknowledged that the proposal would compromise the accuracy of weather measurement with the likelihood that the weather station would have to be relocated to another site on the airport. The NZ Met Service have indicated that it is prepared if necessary, to relocate the station, but would require the applicant to meet the Met Services reasonable costs of doing so.

However, the area requested is also required for apron development in the event of the existing terminal being selected as the preferred site for the development of a new terminal complex. As the final decision is unlikely to be made on this issue until the prerequisite conditions have been satisfied, it has been necessary to find another site for the commercial helicopter hangars.

An area immediately to the east of that requested has been investigated. A desktop survey using AutoCad with GIS contour mapping has provided the measurements used in the following table.



Description	Deductions (metres)	Distances (metres)	Height Limits (metres)
Distance from runway centreline to road boundary		143.73	
Less distance from runway centreline to runway strip perimeter	75.00		
Distance from runway strip perimeter to road boundary		68.73	
Less building line distance from road boundary	0.00[10]		
Less building length (north/south)	25.00		
Net distance from runway strip perimeter to front of building		43.73	6.25
Net distance from runway strip perimeter to rear of building		68.73	9.82

The table shows that it is <u>not</u> possible to build hangars of the proposed size and height, <u>however</u>, if the hangars are rotated to an east/west alignment the transitional side slope height limits can be complied with as shown in the following table.

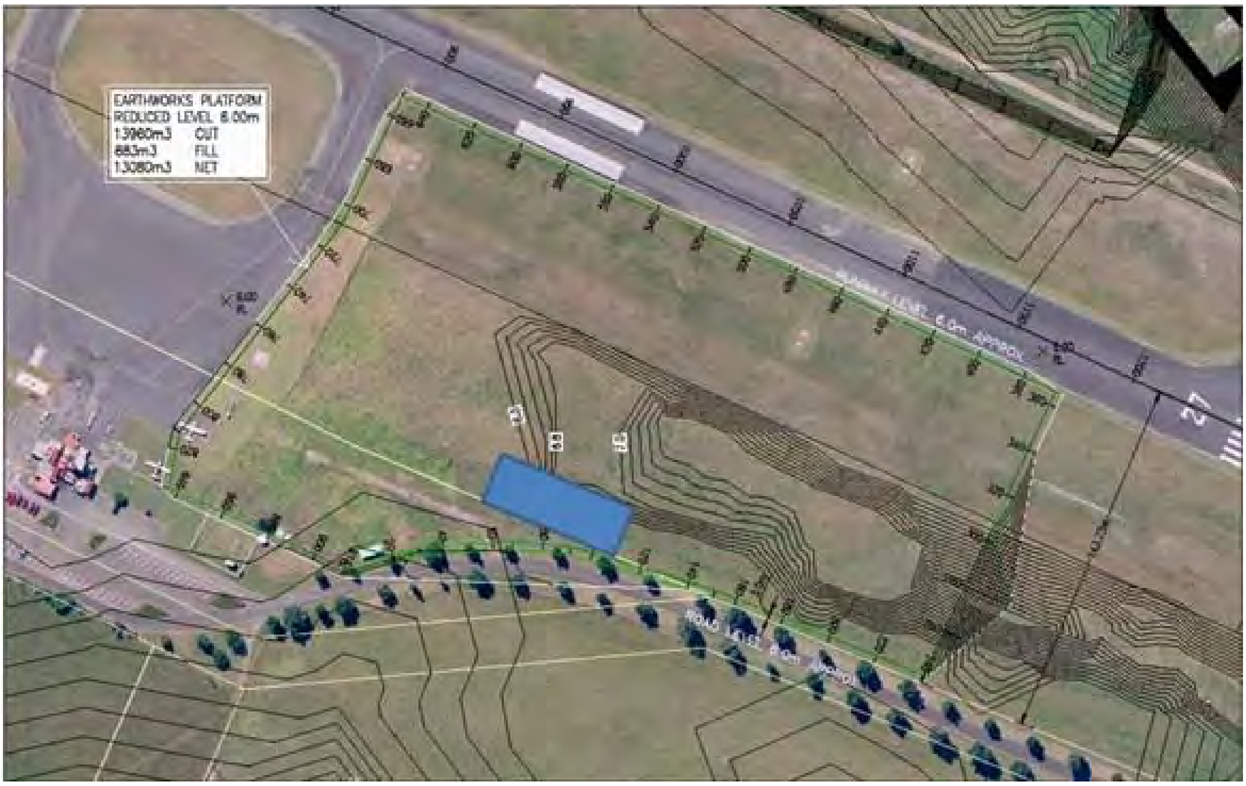
[10] *As the proposed building site is situated more than 9 metres from the legal road boundary the calculation is shown as zero.*

Description	Deductions (metres)	Distances (metres)	Height limits (metres)
Distance from runway centreline to road boundary		143.73	
Less distance from runway centreline to runway strip perimeter	75.00		
Distance from runway strip perimeter to road boundary		68.73	
Less building line distance from road boundary	0.00		
Less building width (north/south)	20.00		
Net distance from runway strip perimeter to front of building		48.73	6.96
Net distance from runway strip perimeter to centre ridgeline of roof		58.73	8.39
Net distance from runway strip perimeter to rear of building		68.73	9.82

Important Note: to achieve the above requrements the building platforms must be at the same or lower RL as the airstrip boundary.

This information will be made available to the operators to allow them to reconsider their requirements and decide whether their buildings can be realigned to suit the limitations of the site.

The following diagram shows the proposed hangar location (in blue), the measurements used in the above calculations and the cut and fill requirements to level the site to that of the airfield.



South-Central Extension

A fall-back position for the commercial helicopter opertators is to purchase standard 16(W) x 14(L) hangars in the proposed south-central extension.

It has been suggested that this may be a workable option subject to the 12 metre aprons in front of the commercial hangars being extended a further 20 metres to the north to provide adequate operational area. This would require Airport Authority approval to lease a section of the unformed legal road immediately to the north of the hangars.

Existing Terminal (South-Central)

In the unlikely event of the existing terminal site not being selected as the preferred location for a new terminal complex, a reconfiguration of Lots 1 and 2 would provide sufficient area for two 25(W) x 20(L) metre hangars or three 20(W) x 25(L) metre attached hangars suitable for commercial helicopter operations – as illustrated in the diagram below.

The diagram (right) shows the proposed location of the commercial helicopter hangars which could proceed if the existing site is no longer required for the development of a new terminal complex.

The diagram also shows the area required for a car park extension.

In order to optimise future site utilisation it is recommended:

- that in future, 'Licenses to Occupy' be issued until buildings are completed, with leases only being granted following receipt of a completion certificate for the approved building
- leases be issued for the building 'footprint' only in order to avoid problems associated with untidy and poorly maintained surrounds
- that a developer be engaged to develop rows of attached hangars of consistent quality and design in accordance with standards set by the Airport Authority, thereby enhancing the visual and commercial appeal of the development. This approach has worked successfully at other airports and has increased the demand for hangars.

3.5.3 COMMERCIAL FIXED-WING HANGARS

It is proposed that commercial fixed-wing aircraft operators purchase or lease standard hangars located within the light aircraft hangar park to be developed to the west of the existing terminal complex.

3.6 OPTION PREFERENCE RANKING

Primary Runway				
Preference Ranking	Description	Subject to -	Advantages	Disadvantages
1	1950 metre runway plus starter extensions	Designation and acquisition of private land Stopping of unformed legal road (western boundary) and provision of access via replacement unformed legal road along northern side of runway strip	Unrestricted 737 800 operations up to 2800kms Virtually no change in OLS over golf club Moves air noise boundary 200m further away from houses on Aerodrome Road Future-proofs airport capacity	Need to acquire land Need to relocate unformed legal road
2	1876 metre runway plus starter extensions	No conditions	No additional land required	4.8m reduction in height limit over golf course Design aircraft will have 10% load restriction on departures to Melbourne 30 metres short of landing distance required for design aircraft
3	Alternate orientation	Obstacle height survey (ridge south of Matata)	Flight path avoids Kohi Point ridge Eliminates adverse effects of aircraft noise Eliminates obstacle height issues east of airport Straight-in approach on runway 25 Straight-out take-off path on runway 07	Possible need for circling approach runway 07 Likely high cost of airfield construction Volume of fill required for airfield construction Uncertainty of impact of environmental issues Risk of leaving airport capacity unprotected

Main Terminal Complex				
Preference Ranking	Description	Subject to -	Advantages	Disadvantages
1	Existing Site (South-Central)	Designation and acquisition of 3.5 hectares private and Crown land to be used for internal roads, car parking, fuel storage compound and related requirements	Ability to strengthen existing taxiways and aprons as an intermediate lower-cost option Timing of upgrades more easily managed Reduces risk of over-capitalising existing site Site directly accessible Access road and utility services already exist Ability to make low-cost infrastructure adjustments to accommodate growth in passenger numbers	Expansion constrained by availability of land
2	North-West Site	Resource consent for earthworks	Potential for future expansion	Cost of accessing and preparing
3	North-Central Site	Resource consent for earthworks		Cost of accessing and preparing

General Aviation Hangars				
Preference Ranking	Description	Subject to -	Advantages	Disadvantages
1	South-Central Extension	Designation and acquisition of 4 hectares private land Stopping and replacement of unformed legal road (southern boundary)	Close to existing grassed runway Adequate room for expansion (44 hangars) Fits well with existing terminal complex	The need to acquire 4 hectares land Cost of acquisition of land Requirement to 'stop' and replace unformed legal road
2	South-West Site	No conditions	Land owned by the Airport Authority	Almost too close to grassed runway Prevents widening of grassed runway
3	Northern Site	No conditions	Land owned by the Airport Authority	Requires formation of new grass runway on the northern side of the main runway Cost of runway formation Cost of upgrading access road Cost of utilities (electricity; telephone, water, sewage)

Commercial Helicopter Hangars				
Preference Ranking	Description	Subject to -	Advantages	Disadvantages
1	South-East Site	Applicants to survey proposed sites to confirm dimensions. Leveling of area between runway strip and Aerodrome Road	Separate from fixed-wing operations	Cost of leveling site Proliferation of hangar sites (aesthetics)
2	Existing South-Central Site	Re-development of existing terminal complex NOT proceeding Reorganisation of Lots 1 -3	Utilisation of existing terminal for tourism services Improved utilisation of existing leasehold titles	Decisions unlikely to be made in time to satisfy immediate demand for two hangars
3	South-Central Extension (GA Hangar site)	Designation and acquisition of private land Stopping of unformed legal road (southern boundary)	As a backup to the preferred option	Doesn’t separate high use commercial helicopter operations from fixed wing activities

3.7 COST COMPARISON OF RECOMMENDED OPTIONS

Cost description	Costs common to both proposals	Costs exclusive to		Estimate of cost[11]
		North-West proposal	Existing Terminal proposal	
Designation and acquisition costs for 4 ha private land required for GA hangars	✓	-	-	
Designation and acquisition costs for 7.5 ha private land required for runway extension	✓	-	-	
Road stopping on southern boundary (fronting GA hangars) and provision of replacement access	✓	-	-	
Road stopping on western boundary (runway extension) and provision of replacement access	✓	-	-	
Designation and acquisition costs of 3.5 ha private land required for car parking, terminal, fuel farm	-	-	✓	
Legal road realignment (for construction of terminal building)	-	-	✓	
Runway extension and upgrade	✓	-	-	
New or replacement taxiway from primary runway to aprons	✓	-	-	
Construct six new aprons for design aircraft	✓	-	-	
Emergency water storage	✓	-	-	
Scrubbers for contaminated water from aprons	✓	-	-	
Full landscape plan	-	✓	-	
Partial landscape plan	-	-	✓	
Install 3 phase power supply line	-	✓	-	
Install perimeter security fence	✓	-	-	
Relocatable departure gate lounge (existing terminal)	✓	-	-	
New terminal building	✓	-	-	
New rescue fire station and emergency control centre	✓	-	-	
1000 vehicle car park c/w automatic parking control system	✓	-	-	
Temporary car park extension (70 vehicles) for existing terminal	✓	-	-	
Temporary rescue fire station servicing existing terminal complex	✓	-	-	
Sealed main access road (2000 metres)	-	✓	-	
Site earthworks	-	✓	-	
Water supply line	-	✓	-	
Sewage treatment and disposal	-	✓	-	
Jet blast deflector shield				
Relocate Meteorological Service weather station	-	-	✓	
Compensation for termination of existing leases	-	-	✓	
Demolition of existing terminal building	-	-	✓	

[11] *NOTE: Costs NOT to be used for budgeting purposes. Estimates are based on authors previous experience and knowledge and are only provided as a broad view of airport development costs and should not be used for any other purpose.*

3.8 OPTION SELECTION PROCESS

The recommended 'preferred' option mix is: –

1. the 1950 metre runway
2. re-development of the existing terminal complex
3. development of a four hectare light aircraft hangar park adjoining the existing terminal complex

As each of these options is dependent on the acquisition of private land - and two are also dependent on 'stopping' and vesting sections of unformed legal road, the following process is recommended for arriving at the most preferred 'achievable' mix of options.

This is a 'step down' process which considers the next available preference-mix where the previous mix cannot be achieved. All of the 'ticked' requirements must be achievable for that preference to proceed, with the exception of the 2nd and 3rd options for the light aircraft hangar park, provided that the requirements for the 1st option have been met.

Preference Mix	Pre-requisite requirement checklist		
	Road stopping confirmed	Land acquisition confirmed	Additional site development costs acceptable
1st Preference Option-Mix			
· **1950m** runway extension including additional land acquisition	✓	✓	
· Re-development of the **existing** terminal complex		✓	
· Light aircraft hangar park –			
1. **adjoining the existing terminal** complex; or	✓	✓	
2. south-west site			
Note: Requires termination of existing leases (Lots 1-5) prior to re-development of existing terminal complex (likely to be several decades from now)			
2nd Preference Option-Mix			
· **1950m** runway extension including additional land acquisition	✓	✓	
· Development of **north-west** terminal complex			✓
· Light aircraft hangar park –			
1. **adjoining the existing terminal** complex; or	✓	✓	
2. south-west site			
· Bonus light aircraft facility utilising existing terminal complex			
· Bonus retention of existing leases (lots 1-5)			
3rd Preference Option-Mix			
· **1950m** runway extension including additional land acquisition	✓	✓	
· Development of **north-central** terminal complex			✓
· Light aircraft hangar park –			
1. **adjoining the existing terminal** complex; or	✓	✓	
2. south-west site			
· Bonus light aircraft facility utilising existing terminal complex			
· Bonus retention of existing leases (lots 1-5)			

4th Preference Option-Mix			
· **1876m** runway extension achievable within existing boundary			
· Re-development of the **existing** terminal complex		✓	
· Light aircraft hangar park –			
1. **adjoining the existing terminal** complex; or	✓	✓	
2. south-west site			
Note: Requires termination of existing leases (Lots 1-5) prior to re-development of existing terminal complex (likely to be several decades from now)			
5th Preference Option-Mix			
· **1876m** runway extension achievable within existing boundary			
· Development of **north-west** terminal complex			✓
· Light aircraft hangar park –			
1. **adjoining the existing terminal** complex; or	✓	✓	
2. south-west site			
· Bonus light aircraft facility utilising existing terminal complex			
· Bonus retention of existing leases (lots 1-5)			
6th Preference Option-Mix			
· **1876m** runway extension achievable within existing boundary			
· Development of **north-central** terminal complex			✓
· Light aircraft hangar park –			
1. **adjoining the existing terminal** complex; or	✓	✓	
2. south-west site			
· Bonus light aircraft facility utilising existing terminal complex			
· Bonus retention of existing leases (lots 1-5)			
7th Preference Option-Mix			
Reduced runway extension to maintain obstacle height at eastern boundary			
· Re-development of **existing** terminal complex		✓	
Light aircraft hangar park –			
1. **adjoining the existing terminal** complex; or	✓	✓	
2. south-west site			
Note: Requires termination of existing leases (Lots 1-5) prior to re-development of existing terminal complex (likely to be several decades from now			
8th preference option-mix			
· **Reduced** runway extension to maintain obstacle height at eastern boundary			
· Development of **north-central** terminal complex			✓
Light aircraft hangar park –			
1. **adjoining the existing terminal** complex; or	✓	✓	
2. south-west site			

9th preference option-mix	No prerequisite requirements		
· **Reduced** runway extension to maintain obstacle height at eastern boundary			
· Development of **existing complex without purchase of additional land**			
Light aircraft hangar park –			
1**. south-west** site			
Note: Requires termination of existing leases (Lots 1-5) prior to re-development of existing terminal complex (likely to be several decades from now)			

4 IMPLEMENTATION PLAN

Whakatane Airport would benefit from the capability to extend its runway to an optimum length of 1950 metres plus starter extensions in order to provide a take-off distance of at least 2200 metres and a landing distance of 1950 metres in both directions.

This would allow unrestricted non-stop operation of the design aircraft over distances of up to 2800 kilometres, which is the approximate straight-line distance between Whakatane and Melbourne.

An additional 8.0 hectares of land (320m in length x 250m in width) is required at the western end of the runway in order to achieve the optimum length. This area includes a section of unformed legal road which will need to be ‘stopped’ and the land vested in the Airport Authority for this option to proceed. It is recommended that the 8 hectares be designated for airport purposes.

The existing terminal complex requires an additional 3.5 hectares of adjoining land in order to accommodate the essential infrastructure required for the airport to achieve its ultimate potential. This does not include the 2 hectares of adjoining land required for Stage 1 of the proposed light aircraft hangar park.

The planning process investigated two other possible sites for the location of a new terminal complex. While both of those sites have more than adequate land for any future expansion requirements, the logistics of managing the change and the requirement to commit a large amount of capital in one ‘lump’ sum to facilitate that change has weighed the recommendation in favour of the existing site, provided that sufficient land adjoining the existing sitecan be acquired to meet the minimum requirements for the new terminal complex.

It is therefore proposed that the terminal complex remain at its present location subject to the acquisition of at least 3.5 hectares of adjoining land (excluding that required for a light aircraft hangar park). The priority must be to designate the 3.5 hectare area to ensure that the Airport Authority can acquire that land as and when required – which is likely to be several decades away.

In the event of the 3.5 hectares of land not being acquired, it is proposed that the terminal continue at its present location until the ‘trigger point’ is reached and it is necessary to develop a new terminal complex on the north-western site. The existing terminal complex should then be utilised as a commercial light aircraft facility for aircraft of less than 5,700 kilograms.

The existing terminal will need to cater for growth in passenger numbers until the ‘trigger point’ is reached for the development of a new terminal complex. It is proposed terminal capacity be expanded by the addition of relocatable modules which can subsequently be moved and utilised for another purpose.

The following diagram illustrates the transitional management of the existing terminal complex.

Area 1	the dotted blue line shows the perimeter of the six aprons to be constructed during the redevelopment programme. All existing and any new structures within this area will need to be demolished or relocated when development commences.
Area 2	is the existing terminal building
Area 3	is the site reserved for any extension/s to the existing terminal building
Area 4	is the area reserved for an extended public car park
Area 5	is the site reserved for the rescue fire station
Area 6	is the site reserved for two commercial helicopter hangars
Area 7	is the area from which 3.5 hectares of land is required for the development of the new terminal complex
Area 8	is the site for Stage 1 of the proposed light aircraft hangar complex
Area 9	is the site for Stage 2 of the proposed light aircraft hangar complex

4.1 AIRPORT LAND TENURE

Whakatane Airport consists of two Certificates of Title. The larger CT 60A/447 has an area of approximately 226 hectares and the smaller CT59B/897 has an area of approximately 2.9 hectares.

In May 1958 a Gazette Notice set apart the land as a reserve for aerodrome purposes pursuant to the Land Act 1948 and vested the reserve in the Whakatane District Council in trust for that purpose pursuant to the Reserves and Domains Act 1953. In October the same year (1958) an Order-in-Council consented to the establishment and maintenance of an aerodrome on that land by the Whakatane District Council.

In October 1972 a Gazette Notice vested the land in the Airport Authority in its trust for aerodrome purposes pursuant to the Reserves and Domains Act 1953.

In November 1999 the land was leased to the Whakatane District Council for a term of 99 years terminating on 2nd November 2098.

The Council's limited leasehold tenure of the land may affect the Airport Authorities ability to offer leases with sufficient length of tenure within the proposed airport business park complex. Lessees investing in expensive permanent improvements may require a greater length of tenure than the Council is able to offer. This aspect needs to be clarified and if necessary remedied.

4.2 STATE OF READINESS

The probability is that it will be several decades before the runway needs to be extended, strengthened and perhaps widened to meet the take-off and landing requirements of larger aircraft. However, the demand for an upgrade could arise at any time and the need to move quickly may be imperative. An airport which knows its capabilities and is ready to capitalise on opportunities is more likely to succeed that an airport which is not in a position to respond.

An airport which has achieved a "state of readiness" is also more likely to be pro-active in seeking out opportunities for expansion and growth – and is more likely to have a marketing strategy to achieve those objectives.

Having the investigation, research, planning and design phases completed before an opportunity arises is a tremendous advantage in terms of credibility and response time.

While air transport services are highly mobile and airlines can and do withdraw services with very little notice, airports are by their nature slow to act and owners have to think carefully before investing large sums of capital in improvements which are reliant on the continued patronage of a very small number of substantial customers.

A good example of this was Air New Zealand's announcement late last year of its decision to close down its budget airline subsidiary Freedom Air within six months. At that time Freedom Air was the only international carrier servicing Hamilton, Palmerston North and Dunedin Airports, all of which had invested heavily in infrastructure development for international services.

Airports must weigh their risks carefully before investing capital, but should have their homework done and be ready to respond quickly where an opportunity arises. Being ready to act is a very good position to be in.

Investigation and research

Geotechnic testing of runway sub-grade materials is necessary to determine the quantity of excavation required and the type of fill necessary to achieve the required strength and surface deflection characteristics.

The location of fill sources and testing and securing those sources is of vital importance, particularly where resource consents are required to obtain that fill.

Planning and design

Design of the runway strip, runway, taxiways, aprons, stormwater system, electricity reticulation and scrubber systems for the removal and disposal of water contaminants is work that should be completed at the earliest opportunity in order to avoid any unnecessary delay in the event of an opportunity arising. This work is also useful as a basis for cost estimates and marketing purposes.

Cost estimates

A series of cost estimates reflecting the level of knowledge and certainty as to costs are necessary to enable the shareholder owners to make provision for the capital required to undertake the development.

Contract documentation

The preparation of draft contract documentation and tender specifications allows work to proceed quickly following agreement being reached on a new opportunity.

Consultation with affected parties

Consultation with affected parties can be a time consuming requirement. Initiating that consultation well in advance of the project allows greater opportunity to address any issues which may arise and hopefully develops a relationship of understanding and trust which benefits the proposal.

4.3 PROTECTION OF AIRPORT CAPACITY

The key requirements for protecting airport capacity are the designation of flight paths and obstacle limitation surfaces; and district planning policies and rules which ensure compatible land use activities in close proximity to airports and the exclusion of noise sensitive activities from areas which would otherwise curtail airport operations and expansion.

Air Noise Boundaries

Noise is the most significant adverse effect of aircraft movements on properties located close to an airport or beneath the airports approach and take-off paths. The most common objection to airport expansion and capacity utilisation is a proposed increase in aircraft noise.

New Zealand Standard 6805 is used by territorial authorities and regional government for the control of airport noise. It establishes maximum acceptable levels of aircraft noise exposure around airports for the protection of community health and amenity values whilst recognising the airports need to operate efficiently. It provides a guide for territorial authorities wishing to include appropriate land use controls in their district plans, as provided for in the Resource Management Act 1991.

The Standard uses an air noise boundary mechanism for local authorities to establish compatible land use planning and set limits for the management of aircraft noise at airports where noise control measures are needed to protect community health and amenity values.

The approach advocates the implementation of practical land use planning controls and airport management techniques to protect the health of people living and working near airports, without unduly restricting airport operations.

The Standard establishes maximum levels of aircraft noise exposure at air noise boundaries. This is expressed as a 24 hour daily sound exposure averaged over an agreed period, which is normally three months. It also establishes a second and outer control boundary for the protection of amenity values, and prescribes the maximum sound exposure from aircraft noise at the outer control boundary, within which there should be no new incompatible land uses. It requires that consideration be given to individual maximum noise levels from aircraft during any proposed night-time operations.

The Standard suggests that noise control measures are necessary where the exposure of residential communities exceed 100 pasques (or an Ldn of 65) and may be necessary where exposure exceeds 10 pasques (or an Ldn of 55). Tables 18 and 19 below prescribe compatible land uses at different levels of sound exposure for those areas in the immediate vicinity of an airport.

Recommended Noise Control Criteria For Land Use Planning Inside The Air Noise Boundary		
Sound exposure $Pa^2s^{(1)}$	Recommended control measures	Day/night level
>100	New residential, schools, hospitals or other noise sensitive uses are prohibited. Steps shall be taken to provide existing residential properties with appropriate acoustic insulation to ensure a satisfactory internal noise environment. Alterations or additions to existing residences or other noise sensitive uses shall be permitted only if fitted with appropriate acoustic insulation.	>65
>350	Consideration should be given to purchasing existing homes, or relocating residents, and rezoning the area to non-residential use only.	>70
>1000	There is a high possibility of adverse health effects. Land shall not be used for residential or other noise sensitive uses.	>75

Note –
(1) Night-weighted sound exposure in pascal-squared-seconds or "pasques".
(2) Daylight level (Ldn) values given are approximate for comparison purposes only and do not form the base for the table.

Recommended noise control criteria for land use planning inside the outer control boundary but outside the air noise boundary		
Sound exposure $Pa^2s^{(1)}$	Recommended control measures	Day/night level
>10	New residential, schools, hospitals or other noise sensitive uses should be prohibited unless a District Plan permits such uses, subject to a requirement to incorporate appropriate acoustic insulation to ensure a satisfactory internal noise environment. Alterations or additions to existing residences or other noise sensitive uses should be fitted with appropriate acoustic insulation and encouragement should be given to ensure a satisfactory internal environment throughout the rest of the building.	>65

Note –
(1) Night-weighted sound exposure in pascal-squared-seconds or "pasques".
(2) Daylight level (Ldn) values given are approximate for comparison purposes only and do not form the base for the table.

Locating air noise and outer control boundaries

The Standard recommends –

a) that projections of future aircraft operations be made to determine the 10, 35,100, 350 and 1000 Pa^2s (or 55, 60, 65, 70 and 75 Ldn) sound exposure contours;

b) that a minimum 10 year period be used as the basis of the projected contours;

c) that the boundary locations be estimated for planning purposes using the FAA Integrated Noise Model (INM) or other appropriate model;

d) that future airport operations be projected in terms of:

   a. aircraft types (current and future);

   b. flight frequencies by aircraft type, time of day, runway use and approach/departure tracks, landing and take-off profiles, and strip lengths;

   c. variations in airport operations within a year (e.g. due to seasonal effects);

   d. current and future runaway capacity and any proposed airport development.

e) that account also be taken of:

   a. navigation system accuracy and limitations;

   b. aircraft operational noise abatement procedures;

   c. any available noise monitoring data;

f) that the preliminary assessment of location of the sound exposure contours and the proposed air noise boundary be carried out in consultation with the airport operator, local authority and other interested parties;

g) that only noise resulting from aircraft operations be considered when determining sound exposure contours and the air noise boundary;

h) that in the planning stages, the sound exposure predictions be based on an average day calculated from all operations during the busiest three months of the year;

i) that night-time operations be considered in establishing the air noise boundary;

j) that the local authority consider whether those contours would be a reasonable basis for future land use planning taking into account:

   a. the time frame of the projection;

   b. the extent of non-compliance of existing land uses with Table 19;

   c. the impacts, including economic, social, health and safety of airport development on surrounding land use;

   d. national, regional and local development, and national and international transportation requirements;

   e. the effects of aircraft noise on the welfare, amenity values and health of any affected community;

   f. the effect of the contours on existing aircraft operators' flexibility to meet the community's demand for services in a commercially and economically viable way;

   g. New Zealand's obligations to international standards relating to aircraft noise emissions, and programmes to phase out noisier aircraft types;

   h. the costs and benefits of land use controls, based on the air noise boundary, compared to other options which would achieve the same objective of managing the adverse effects of airport noise,

k) that after considering the matters specified above, the local authority incorporate a map into its District Plan showing the projected sound exposure contours, including the air noise boundary and outer control boundary.

In order to calculate noise contours which reflect the future capacity of the airport it is necessary to forecast the maximum number of aircraft movements which are likely to occur at some time in the future.

Marshall Day Acoustics have prepared the noise contours shown in the diagram below which is based on Whakatane Airport's 'optimum' capacity within existing boundaries and a runway length of 1950 metres and 270 metre starter extensions at each end of the runway.

The 'optimum' capacity is based on a comparative analysis of New Zealand airports which currently have runways of between 1800 and 2200 metres which have a mix of domestic turboprop and jet trans-Tasman services or are close to achieving that level of activity. The hypothetical schedule of aircraft movements derived from that analysis and on which the noise boundaries are calculated is shown in the following table.

The most relevant physical capacity which can be defined for an airport is the maximum number of aircraft movements per hour which can be achieved given the constraints of the runway configuration and the air traffic control system. Except in the case of the very busiest major international airport hubs is it likely that the physical capacity based on maximum movements per hour over a 24 hour period would ever come even close to being realised, therefore it would be totally unrealistic to define and protect such a capacity.

The mix of aircraft used in the calculation of the noise contours is based on what is currently in use at other New Zealand airports. As the noise cause by each successive model reduces over time through improved engine and airframe design, the number of movements required to generate the same total 'quantity' of noise will increase.

The only variable in the equation that is 'fixed' by the air noise boundaries is the <u>total quantity of noise</u> which an airport may allow in a given period in the conduct of its business. The number or type of aircraft movements required to generate that noise is not restricted.

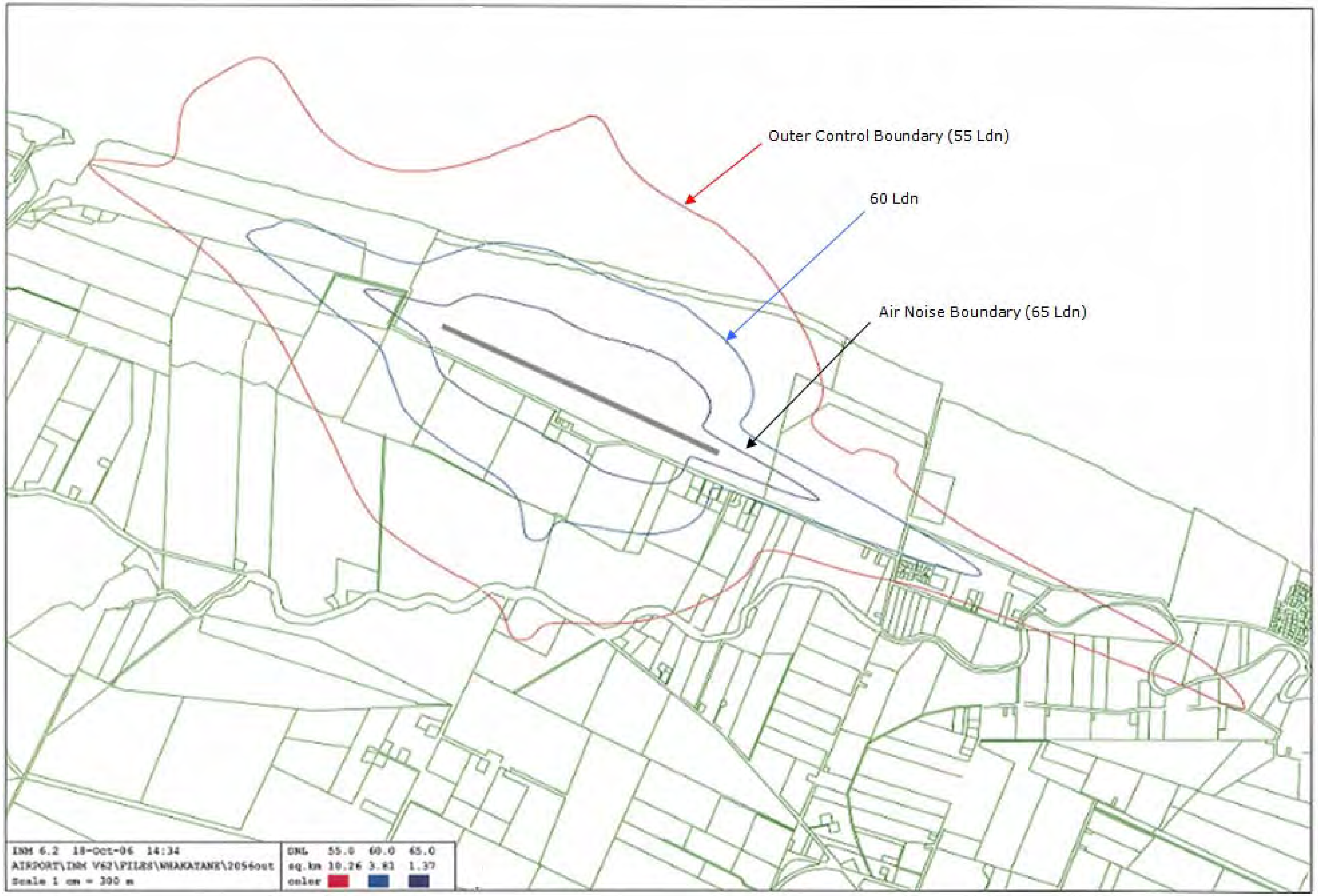
Aircraft Type	Average Arrivals Per Day	Average Movements Per Day	Capacity-based forecast	
			1950m runway	
			Total Movements Per Year	% Night Movements
Boeing 737 800	10	20	7,300	33%
Boeing 737 300	2	4	1,460	10%
Aerospatiale ATR72	7	14	5,110	10%
Bombardier Dash 8 Q300	2	4	1,460	10%
Fokker Friendship F27	1	2	730	100%
GA Twin-engine fixed-wing	8	16	6,000	15%
GA Single-engine fixed-wing	27	55	20,000	15%
Helicopter	11	22	8,000	15%
Totals	69	137	50,060	

New Zealand Standard 6805 on Airport Noise Management and Land Use Planning recommends that new residential development or other noise sensitive activities be prohibited within the Air Noise Boundary.

Following confirmation that the section of unformed legal road and the private land required for the runway extension is available for acquisition at the appropriate time, it is recommended that Marshall Day Acoustics be engaged to re-calculate the noise boundaries based on the preferred runway configuration.

This represents a total of 50,000 movements per annum including 16,000 scheduled airline services and 34,000 general aviation movements. This compares with Palmerston North Airport which currently has 22,000 scheduled and 30,000 general aviation movements per annum.

The following diagram shows noise contours based on the above aircraft movements from runway Option 2.1 located within the existing boundaries of the airport.


Outer Control Boundary (55 Ldn)
60 Ldn
Air Noise Boundary (65 Ldn)
INM 6.2 18-Oct-06 14:34
AIRPORT\INM V62\FILES\WHAKATANE\2056out
Scale 1 cm = 300 m
DNL 55.0 60.0 65.0
sq.km 10.26 3.81 1.37
color

Flight Paths and Obstacle Limitation Surfaces

The protection of airspace required for aircraft to approach the airport runway and to take-off and climb to the required cruising altitude is essential to the operation of the airport.

Flight path protection for the proposed extended runway is provided by defining obstacle limitation surfaces (OLS) in accordance with –

a) CAA Advisory Circular AC139-06A

b) ICAO Annex 14 – Aerodromes and ICAO Procedures for Air Navigation Services (PANS OPS). Table 3 shows the proposed specifications of the OLS.

Obstacle limitation surfaces are designed to provide obstacle-free paths for any multi-engined aircraft which lose the power of an engine during take-off.

c) Western flight paths

These are quite straight forward as there are no significant obstacles to the north. A straight in approach on runway 09 and a straight-out departure on runway 27 are provided for.

d) Eastern flight paths

The eastern flight paths are affected by the terrain of the Kohi Point bluff to the east of Whakatane township. The bluff, which lies on the extended runway centreline approximately 8km from the eastern threshold, requires a geometric gradient from the proposed eastern OLS origin of approximately 1.8% to clear the 150m AMSL spot height on the northern end of the point. If the 183m AMSL spot height to the south of the extended centreline is included the geometric gradient increases to 2.16%.

For this reason the eastern flight paths diverge to the north from a point 5000m from the eastern surface origin. The angle of divergence is 14.9 degrees enabling the approach to be classified as a "straight in" instrument approach. This has advantages with regard to operating minima.

To achieve optimum minima this approach would either have to be serviced by an ILS located on the divergence line (see attached figure I-4-5-1 from PANS OPS Vol 2), or a RNP/GNSS approach would have to be defined[12].

Airways Corporation would have to determine the minima available with this approach but Astral is confident (subject to a survey check of the terrain) that minima considerably lower than the current "Cat C" NDB/DME circling minima of 870ft AGL and 3700m forward visibility could be obtained.[13]
Both paths originate from a point measuring 60 metres beyond the physical end of the runway, and have an upslope of 2% - or one metre rise for every 20 metres in distance. The upslope is known as the obstacle limitation surface.

[12] RNP/GNSS (required navigation performance) approaches utilise a combination of GPS, on board inertial and ground based navigation to provide the position of the aircraft on approach to a very high level of confidence. RNP approaches are generally confined to modern jet aircraft such as the B737-800 and A320, although very modern turbo-prop aircraft such as the Bombardier Q400 may have the capability. RNP approaches are currently in use by Qantas and Air New Zealand at Queenstown airport.

[13] The current approach aid is a non-directional beacon (NDB) supplemented by distance measuring equipment (DME). This provides a non-precision circling approach to runway 09.

It is the airports responsibility to ensure that obstacles do not intrude this surface. While the CAA recommended slope is 1.6% (an upslope of 1 metre in every 62.5 metres) it is proposed that the maximum 2% be used in order to achieve the straight-in approach described above and to reduce the adverse effects the proposed runway extension will have on the golf club.

The following table shows the specifications for the obstacle limitation surface from each end of the extended runway.

Takeoff and approach OLS specifications

runway end	OLS	upslope	inner edge width m	splay	turn point from origin m	turn angle	surface length m	final width m
western	takeoff	1.60%	180	12.50%	-		15000	1200
western	approach	2.00%	150	15.00%	-		15000	4650
eastern	takeoff	2.00%	180	12.50%	5000	north 15 deg	15000	1200
eastern	approach	2.00%	150	15.00%	5000	north 15 deg	15000	4650

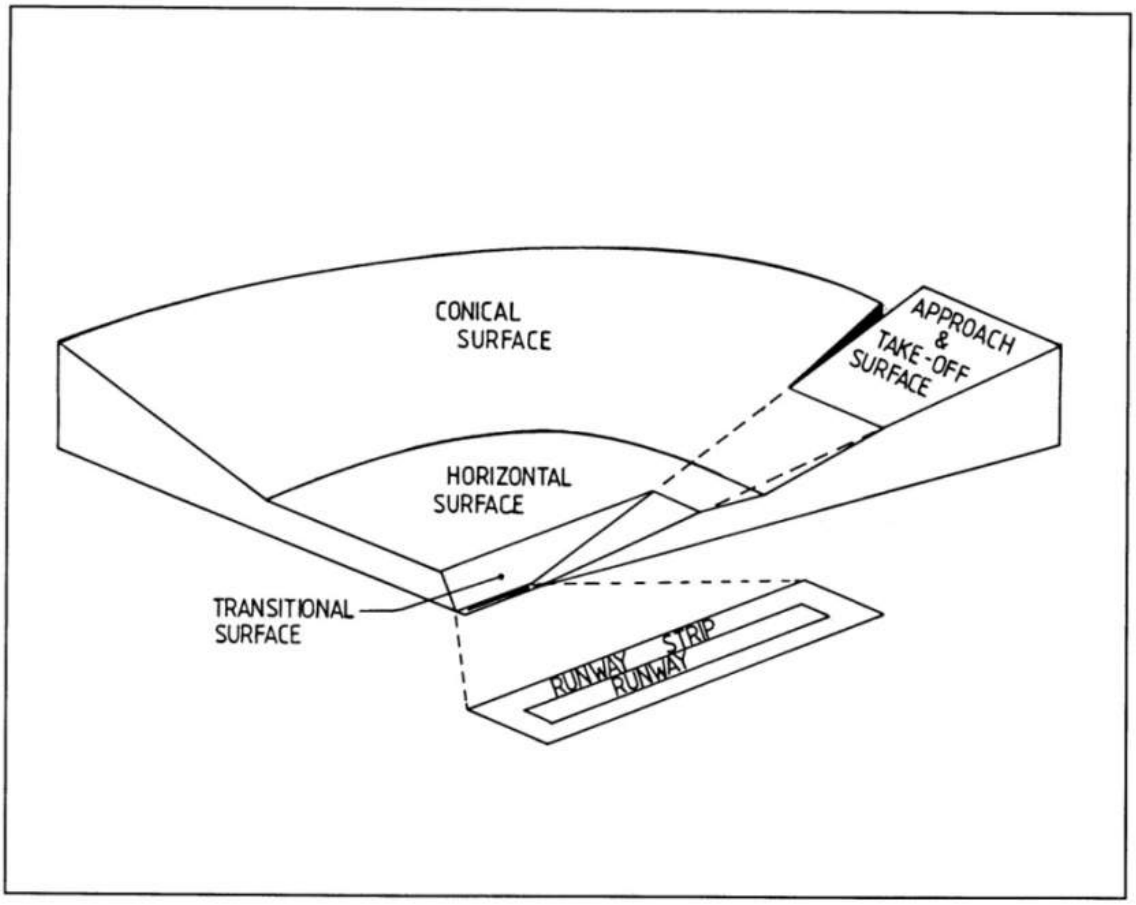
e) Transitional side surface, inner horizontal surface and conical surface

These surfaces are prescribed in AC139-06A for code 3 and 4 aircraft, which includes the A320 and B737-800. The surfaces are intended to protect aircraft circling in the vicinity of the airport.

The OLS for the transitional side surface slopes up and outwards from the edges of the strip at an angle of 1V:7H until a height of 45m above the aerodrome is reached.

The OLS for the inner horizontal surface extends at a height of 45m outwards a distance of 4000m from the strip edges.

The conical surface OLS extends from the outer edge of the horizontal surface upwards and outwards to a distance of 2500m from the outer edge of the inner horizontal surface.



Public Safety Areas

The Civil Aviation Authority is responsible for setting, monitoring and enforcing safety standards to minimise the risk of death or injury to persons travelling on any New Zealand registered aircraft or any aircraft operating within New Zealand.

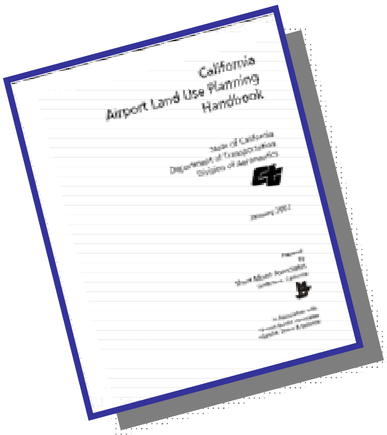
It is the responsibility of Local Authorities to minimise the risk of death or injury to persons on the ground resulting from aircraft operations.

Assessment of risk is both complex and difficult. One of the most comprehensive documents on the subject is a handbook published by the Californian Department of Transport Aeronautics Division. The 400 page document is entitled "Airport Land Use Planning Handbook" and deals with airport land use compatibility planning.

Two global databases record all air transport accidents throughout the world. The following table summarises the number of fatal accidents which have occurred on or near airports over several decades. One of the databases has been operating for 60 years.

Summary of Analyses of Accidents & Fatalities On or Near Airports			
	Database 1	Database 2	Variance
Accidents	63%	68%	5%
Fatalities	56%	40%	16%

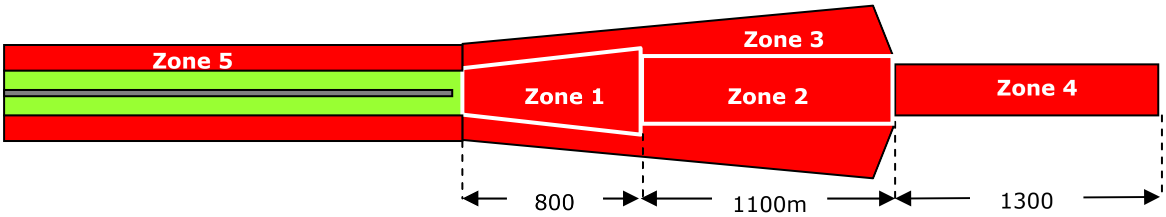
The analyses show that two thirds of all aircraft accidents occur on or near an airport during landing or take-off. This emphasises the importance of competent land use compatibility planning near airports in order to minimise the risk of injury and/or death in the event of an accident.



The Handbook contains valuable guidance for local authorities involved in protecting the public against the adverse effects of airport operations.

Its wide-ranging analysis of aircraft accidents establishes that specific areas adjacent to airports are at greater risk of death, injury or property damage as a result of an aircraft accident.

The manual defines a number of zones where that risk is sufficient to warrant restrictions being placed on the use of that land and more specifically, the maximum population density which is appropriate within each zone. The following diagram shows the location of each zone in relationship to an airport runway. The table following the diagram describes the assessed level of risk for each zone and the guideline for population density.

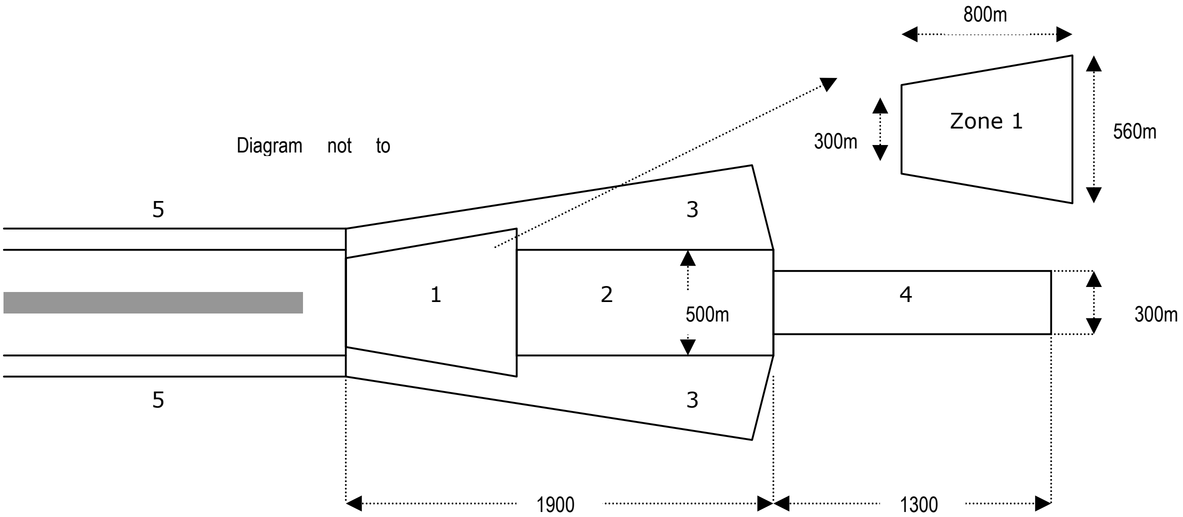


The most vulnerable area is the first 800 metres from the runway-end. This includes the 300 metre runway end safety area (RESA) recommended by the International Civil Aviation Organisation. While RESA's are clearly important in reducing the risk to passengers and crew in the event of an aircraft accident, its primary purpose is to reduce the risk of damage to an aeroplane in the event of a runway undershoot or overrun. In other words, the length of the RESA was not based on the risk of death and injury to passengers and crew, nor is it based on the risk to public safety.

Safety Compatibility Zone details

Safety Compatibility Zones		Accident Risk	Accident Rate	Distance from runway (metres)	Land Use Density Guidelines
1	Runway Protection Zone	Very High	30-50% of all aircraft accidents	0 - 800	No dwellings
2	Inner Approach/Departure Zone	Substantial		800 - 1900	1 dwelling per 4-8 ha
3	Inner Turning Zone (Light Aircraft)		Primarily applicable to general aviation airports	0 - 1900	1 dwelling per 1-2 ha
4	Outer Approach/Departure Zone		Zone can be reduced or eliminated where activity is low	1900 - 3200	1 dwelling per 1-2 ha
5	Sideline Zone			-	1 dwelling per ½-1 ha

The following diagram describes the dimensions of the various zones for a large air carrier runway.



Zone 1 has a total area of 32 hectares. The recommended maximum housing density is 1 dwelling unit per 6 hectares or a total of 5.3 dwelling units over the total area. At an average 2.5 persons per dwelling unit this equates to a total population of 13 persons resident within the zone. This density is not dissimilar to that of the Kiwi 10 acre rural lifestyle block.

Given that the height of an obstacle limitation surface at a 1.6% upslope is only 11.8 metres above the height of the runway at a distance of 800 metres from the runway end, and that the actual approach height of an aircraft at the same point is 57 metres above the runway level, residential dwellings located within this zone would be subject to significant adverse effects caused by low flying aircraft. This possibly why most airports established in the 1960's were equipped with a kilometre of land beyond each end of the runway formation.

It is therefore recommended that a public safety zone be established in the District Plan measuring 300 metres in width and immediately adjoining the runway end safety areas at each end of the runway and following the extended centreline of the runway for a distance of 500 metres. When combined with the length of the RESA, this provides an actual safety zone of 800 metres in length. It is recommended that the housing density within the zone be restricted to one dwelling unit per 6 hectares.

Protection mechanisms

<u>Designation</u>

The primary advantage of designation is that it protects the use of that land for the specified purpose and gives that use priority over any other public work for which designation may subsequently be sought.

- *Designation of Airport-owned land*

  The land which comprises Whakatane Airport is already designated for airport purposes and has an underlying zoning of Rural 3.

  It is understood that the designation does not specify the permitted land uses and is therefore open to interpretation as to whether a particular use is permitted in terms of the designation, or whether it continues to be subject to the District Plan Rules for the Rural 3 zone.

- *Designation of privately-owned land*

  A possible disadvantage of a designation is that land owners adversely affected by the designation may in certain circumstances take action under sectio 185 Resource Management Act 1991 to compel the Requiring Authority to purchase that land. In some instances such a requirement may be an advantage.

- *Designation of airspace*

  It is understood that the designation of an area of land or sea includes the column of airspace above that land. Therefore a designation for a road allows the Requiring Authority to erect structures into the airspace above that road.

  This is an area with potential for conflict between public utilities competing for the same airspace. Examples of such conflict include a designation for a motorway overpass which will intrude the approach surface of a planned runway extension, highway lights which intrude approach paths and the flare from an offshore oil-rig which intrudes the approach path to an existing airport. In each case a prior designation would have protected the airport from such intrusions.

  Without designation, the proposed approach path over Kohi Point ridge could be vulnerable to a designation for say the construction of a communications tower.

District Plan

The inclusion of obstacle height limits in a District Plan provide adequate and effective protection of obstacle limitation surfaces provided that the Local Authority is diligent in the application and enforcement of those height controls, particularly when issuing consents. There are numerous examples of problems which have arisen at other airports which have only been resolved by compromising the airports position.

The problem with the District Plan provisions is that the applicant for consent is not automatically required to consult with the Airport Authority before being issued with that consent. In the case of a designation, the onus of responsibility clearly rests with the applicant to comply with the requirements of that designation.

Recommendation

It is recommended –

a. that the existing designation of the airport land be reviewed and amended to include the unformed legal road and private land required for future airport expansion
b. that the airport flight paths and obstacle limitation surfaces be designated in a separate airspace designation
c. that air noise boundaries and airport noise controls be include in the forthcoming 10 year review of the Whakatane District Plan

4.4 STATUTORY REQUIREMENTS

Aerodrome certification

Section 139.5 of the Civil Aviation Act requires that an airport be certified under the Act when it services any aeroplane having a certified seating capacity of more than 30 passengers that is engaged in regular air transport operations. Regular air transport operations are defined as 700 or more movements by such an aeroplane within a consecutive 3 month period - which is equivalent to a regular service of 4 return flights per day.

In order to obtain certification the Airport Authority must produce –

1) An Exposition

   The Exposition is a comprehensive, detailed statement on how the Airport Authority proposes to comply with the requirements of Part 139 Civil Aviation Act. It is essentially the operating manual for the airport. It includes the internal quality assurance procedures required for monitoring the airport inspection programme and verifying that all safety and security procedures are being complied with

2) An Emergency Plan

   The emergency plan is also a comprehensive, detailed description of the procedures to be followed in the event of an emergency and provides for regular training exercises involving all emergency services

3) A Rescue Fire Plan

   The Rescue Fire document is another detailed description covering all aspects of response capability, response testing, duties and responsibilities, staffing levels, staff training, fitness testing, clothing requirements, vehicle and equipment requirements, consumable supplies, medical supplies etc.

4) An Air Traffic Control Agreement

   A copy of the letter of agreement with an Air Traffic Control Service provider

Security designation

Currently all airports (including domestic) which service scheduled passenger aircraft of 90 seats or more, are required to be security designated.

This requires the perimeter of the airport operational area to be security fenced to a height of 2.4 metres with a high grade chain mesh netting fence. It also requires that all passengers traveling on aircraft of 90 seats or more be security screened and kept isolated from non-screened passengers.

A security designated aerodrome is also required to have a Security Plan prepared by the Aviation Security Service and a Security Committee chaired by the Director of the Aviation Security Service or his delegate.

Non security-designated aerodromes must have an adequate facility available on the aerodrome (for use if directed by the Minister or Director of Civil Aviation) for security screening passengers and crew and keeping them separate from non-screened persons.

Rescue fire services

There are no specific requirements for non-certificated aerodromes to provide a Rescue Fire Service.

Where an aerodrome serves any aeroplane engaged in regular air transport operations, which has a certified seating capacity of more than 30 passengers, and where such aeroplanes account for 700 or more movements in the busiest consecutive three months of the year, the Airport Authority is required to provide a Rescue Fire Service which complies with the appropriate capacity for the largest aeroplane type regularly using the aerodrome as specified in the following table.

Aerodrome Category	Aeroplane overall length	Maximum fuselage width
1	0 metres up to but not including 9 metres	2 metres
2	9 metres up to but not including 12 metres	2 metres
3	12 metres up to but not including 18 metres	3 metres
4	18 metres up to but not including 24 metres	4 metres
5	24 metres up to but not including 28 metres	4 metres
6	28 metres up to but not including 39 metres	5 metres
7	39 metres up to but not including 49 metres	5 metres
8	49 metres up to but not including 61 metres	7 metres
9	61 metres up to but not including 76 metres	7 metres

Domestic Aerodromes

For domestic aerodromes the Rescue Fire category may be reduced as follows:

Non-turbojet Aircraft — Where an aerodrome serves only non-turbojet aircraft and is required to provide rescue fire services for aircraft of 30 seats or more it shall be Category 3

Turbojet Aircraft — Where an aerodrome serves any turbojet aeroplane with a certified seating capacity of more than 30 seats engaged in regular air transport operations, it shall be that category according to as provided in the above table reduced by two categories - but in any case shall not be less than category 4.

International Aerodrome

Each applicant for the grant of an aerodrome operating certificate for an international aerodrome must determine the rescue and fire fighting category of the aerodrome which, subject to paragraph (b), must be according to the largest aeroplane type regularly using the aerodrome as provided in the above table.

What this means

Currently Whakatane Airport is not required to provide a Rescue Fire Service as it does not service any aircraft of 30 seats or more engaged in regular air transport operations.

When such an aircraft commences operations the airport is not immediately required to provide a rescue fire service until the number of movements reaches 700 during the busiest consecutive three month period. This is equivalent to 4 return services daily.

When this level is reached a Category 3 service is required if the aircraft is a turboprop, or Category 4 if the aircraft is a jet.

Categories 1 to 5 inclusive require a minimum of one fire appliance only. The only difference being the amount of water and foaming agent to be carried and the rate of discharge required.

For example, a category 3 service requires a fire engine capable of carrying a minimum of 1200 litres water, 135 kilograms of foaming agent and having a discharge rate of not less than 900 litres per minute.

It is envisaged that the existing terminal complex will remain in use until it exceeds two simultaneous arrivals and departures of aircraft each carrying 50 passengers. The existing complex must therefore make provision for a Category 3 rescue fire station. A site has been identified for the construction of a rescue fire station with capacity for one fire appliance, a utility vehicle, medical trailer, watch-house, office, staffroom, shower/toilet/scrub-room and workshop.

Air traffic information service

In 1997 the Civil Aviation Authority (CAA) published a policy setting out the criteria for the provision of air traffic control at aerodromes. The document provides thresholds above which CAA will require various levels of air traffic services at certificated aerodromes.

The CAA is about to release new rules setting thresholds for the provision of air traffic control services at aerodromes, which will be based on the levels and types of aircraft movements.

CAA policy indicates that under the new rules the aerodrome operator will be responsible for ensuring the provision of air traffic control services in accordance with the established thresholds and that the approval specifications for the aerodrome will specify the arrangements for the provision of the required level of air traffic control services and its ongoing monitoring.

It states that aircraft operators will be prohibited from using aerodromes where air traffic services are required and are not being provided.

Where an aerodrome is not already certificated, it will be required to become certificated if movements reach the threshold level for the provision of an air traffic control service. All aerodromes with movements above a defined threshold will be required to maintain and supply aircraft movement data to the Director.

The current CAA policy requires that a certificated aerodrome shall provide an "aerodrome flight information service" where there is currently no aerodrome control service and there have been 40,000 or more aircraft movements per annum for three consecutive years; or there have been 7,500 or more IFR movements (i.e. instrument flight rules) per annum for three consecutive years.

Instrument Flight Rules (IFR)

Instrument flight rules (IFR) are a set of regulations and procedures for flying whereby navigation and obstacle clearance is maintained with reference to aircraft instruments only and separation from other aircraft is provided by Air Traffic Control. The primary benefit of these regulations allow an aircraft to safely fly through clouds, which is not permitted under VFR.

Visual Flight Rules (VFR)

Visual Flight Rules are where the pilot is ultimately responsible for navigation, obstacle clearance and traffic separation using the *see-and-avoid* concept.

The following table shows the total movements at Whakatane Airport for the year ended 31st December 2006, as provided by John Eades, who records landing information for the Whakatane District Council.

Aircraft Movements (2006)*

	Air Traffic Control Service	IFR	VFR	Total
Whakatane	No	2,800	12,200	15,000
Invercargill	Yes	6,100	17,500	23,600
New Plymouth	Yes	11,000	21,200	32,200
Dunedin	Yes	11,500	19,500	31,000
Gisborne	No	11,800	12,100	23,900
Rotorua	Yes	12,100	10,200	22,300
Napier	Yes	15,400	7,900	23,300
Palmerston North	Yes	21,300	36,900	58,200

		Per Annum	Per Month	Per Week	Per Day
Beechcraft 190D	Beechcraft 190D	2,808	234	54	8
Twin-engined fixed wing	Metroliner; Chieftain	1,200	100	23	3
Single engined fixed wing	Various	7,500	625	144	21
Helicopter	Various	3,560	297	68	10
Total		15,068	1,256	290	41

Air Traffic control service

If an aerodrome is certificated, the Director of Civil Aviation may require that an air traffic control service be provided.

Currently there is no provision in the rules for the Director to require an air traffic control service to be provided at other than certificated aerodromes.

The plan has sought to determine at what stage air traffic control services will be required and to make provision for the required site location, infrastructure and utility services.

The current CAA policy requires that an "aerodrome control service" be provided where–

a) there are 100,000 or more aircraft movements per annum for three consecutive years; or

b) 60,000 or more aircraft movements for three consecutive years of which 9,000 or more are IFR movements; or

c) there are 15,000 or more IFR movements per annum for three consecutive years; or

d) there are scheduled IFR international passenger services.

A comparison with airports which have air traffic control services gives a clearer picture as to the level at which an ATC service is likely to be required, with the notable anomaly being Gisborne, which has more than the required threshold of 9,000 IFR movements and is comparable with Rotorua and Invercargill, both of which have an ATC Service.

It is most unlikely that Whakatane Airport will be required to provide an ATC service within the foreseeable future. Even five return services daily between Whakatane and Wellington would only increase the IFR count to 6400 movements per annum, with the threshold being 9,000 – and even then a service may not be required (e.g. Gisborne).

4.5 MANAGEMENT OF EXISTING INFRASTRUCTURE

This section covers an indefinite period during which the Airport will continue to maintain and where necessary add to or alter existing infrastructure until the 'trigger' is reached for the commencement of a major redevelopment programme which will over time, replace all of the existing infrastructure.

During this period it is important that the Airport Authority undertake as much of the investigation, research, planning and design work necessary to enable it to respond promptly to any proposal for which the business case justifies the immediate implementation of the proposed re-development programme.

Changes in the aviation industry can and do happen very quickly. A large number of variables can influence demand within very short periods of time. An airline decision to change its flight schedules, destinations, aircraft size etc. can happen within relatively short timeframes and create opportunities for airports which are 'ready' to respond.

From a marketing perspective it is essential that the Airport Authority know what can and can't be achieved and what its resources are when promoting the airport and the Eastern Bay of Plenty to prospective airport clients.

'Trigger' for commencement of re-development programme

The 'trigger' for commencement of the re-development programme is any proposal which involves significant capital expenditure on existing infrastructure.

Any expenditure on the runway, taxiways, aprons, terminal or car parks which is anything more than routine annual maintenance should require a business case –

a. to establish whether or not it is an appropriate time to initiate the planned re-development programme; and
b. to address whether such expenditure would compromise or prevent the immediate commencement of the planned re-development programme in response to a viable business opportunity or requirement as yet unknown;

A review of the financial case for commencement of the re-development programme should be undertaken at the time of each 5 yearly review of this Plan.

Land Acquisition

Land required for light aircraft hangars

It is believed that four hectares of land is a realistic area to meet the ongoing demand for light aircraft hangar development at the airport.

An initial two hectare area is required urgently to meet the immediate and expected demand for hangar sites.

A developer (who is also a commercial helicopter operator) has initiated a proposal to acquire the most suitable area for this purpose.

It is the land immediately to the west of the existing terminal complex as shown in the diagram on the right. It is believed that the landowner is reluctant to sell the land but has expressed an interest in the area being developed for such a purpose. It is understood that an application for resource consent is about to be lodged with the Whakatane District Council.

Receipt of the application will open the door for the Council to enter into discussions with the land owner with regard to designation of the four hectares for airport purposes and the purchase or long term lease of the land by the Airport Joint Venture owners.

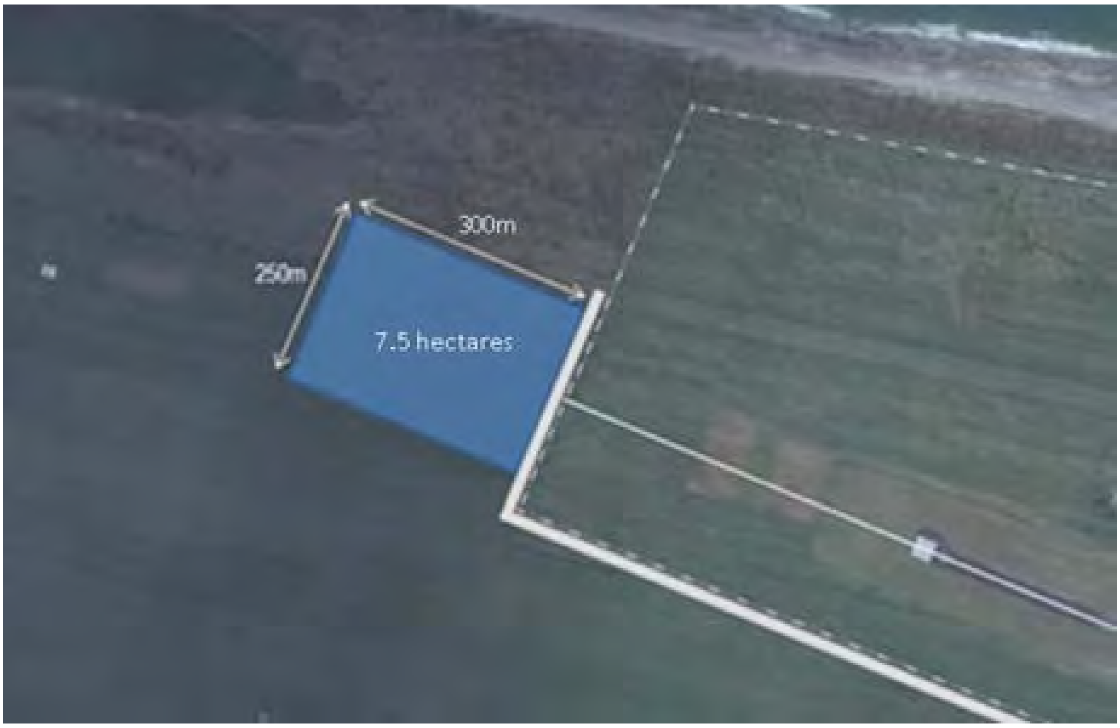
Land required for runway extension

It is recommended that a 300 x 250 metre area of land aligned with the extended centerline of the runway and situated immediately to the west of the unformed legal road boundary be designated for airport purposes. The diagram below shows the location of the area.

This designation of this area will significantly enhance the runway configuration and reduce the adverse effects that a runway extension located entirely within the airport boundary would cause.

It is important that discussions with the landowner take place prior to any discussion in public on this matter. It is preferable that agreement be reached with regard to the proposal and that designation not be a contentious issue.

It is envisaged that such an agreement would provide for the land to remain in private ownership until such time as the Airport Authority makes a formal decision to proceed with construction of the proposed runway extension, or until such time as the owner requires that the Airport Authority purchase the land, whichever is the sooner.



Terminal complex expansion

An additional area of not less than 3.5 hectares is required for the development of a new terminal complex on the existing site.

The area required is bordered by a white line (right) and includes both Crown-owned and private land.

The land would not be required until the ‘trigger’ is reached for commencing development.

It is recommended that the Council enter into discussions with the respective landowners for the purpose of reaching agreement that the areas be designated and identified in the District Plan for future airport purposes - but remain in current ownership until the land is required for airport development or the land owner requests that it be purchased by the Requiring Authority, whichever is the sooner. Again it is recommended that the discussions take place before any public discussion on the matter.

‘Stopping’ unformed legal road

A pre-requisite of extending the runway to the west of the airport boundary is ‘stopping’ a section of unformed legal road adjoining the western boundary and vesting the land in the Airport Authority for airport purposes.

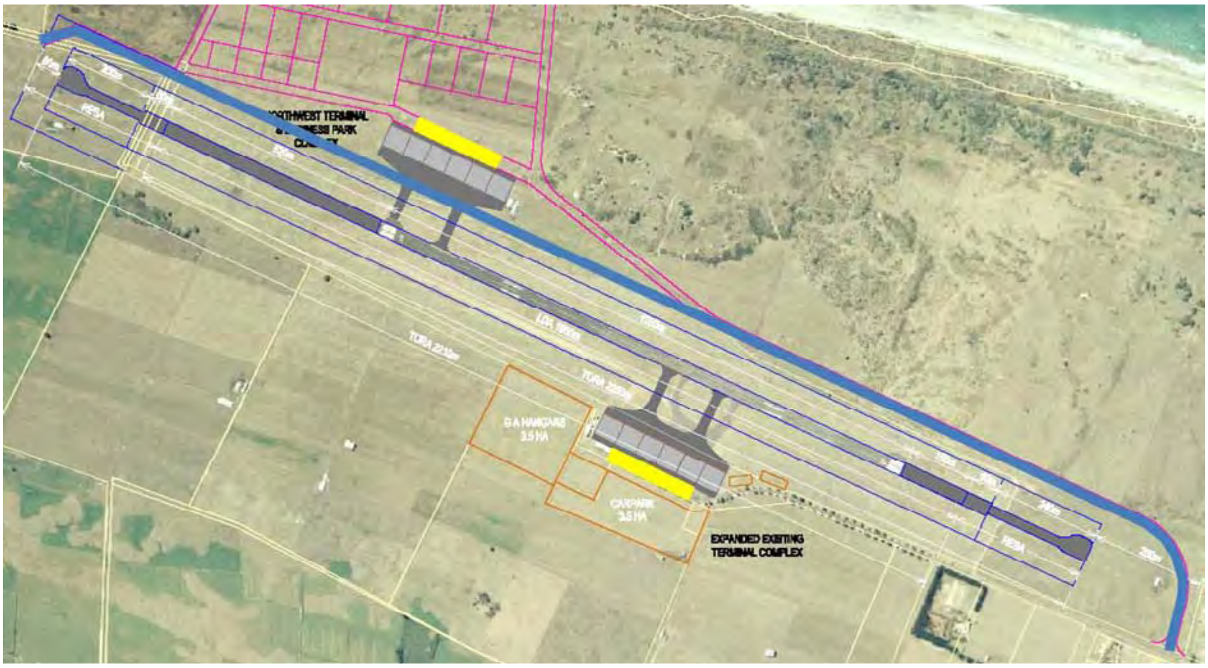
The road currently provides legal access to the following parcels of land –

a) Lot 1 DPS 9615 (SA5D/654) Rangitaiki Parish being a 19.6 hectare allotment owned by F.J.Foubister, M.Foubister, J.G.Foubister and M.T.K.Gray

b) Lot 2 DPS 9615 (SA5D/655) Rangitaiki Parish being a 17.3 hectare allotment owned by Grant Land Limited

c) Lot 1 DPS 9501 (SA5D/653) being a 10.8 hectare allotment owned by D.G.Martin, P.D.H.Martin, C.Martin and BBTLaw Trustees Limited

d) Part Allotment 274, Rangitaiki Parish being a 48.8 hectare Government Purposes Reserve



It will be necessary to provide access to these properties by establishing an unformed legal road from Aerodrome Road along the eastern boundary of the airport; then along the northern side of the runway strip and intersecting with the existing legal accessways to the above properties (marked blue on the above diagram).

A realignment of the road reserve will be required in the event of the north-west terminal and business park complex being developed.

The section of road reserve to be 'stopped' measures 250 metres in length by approximately 20 metres in width (i.e. an area of 0.5 hectares).

A second section of unformed legal road would also require to be stopped. This section measures approximately 200 metres in length by 20 metres in width and adjoins the area to be designated for light aircraft hangars.

It is envisaged that from a practical perspective the entire length of the unformed legal road would need to be ‘stopped’ from the point where it enters the airport property at the entrance to the existing terminal complex to a point on the western boundary where it no longer borders airport land.

Preferred site for development of new terminal complex

The site of the existing terminal is the preferred location for the development of the new terminal complex, subject to the 3.5 hectares of additional land required for roading, parking and an above-ground fuel storage compound being acquired.

It is the preferred location in that it is more efficient to re-develop the existing site than move to a new location which has the added cost of site preparation, roading and utility services.

Change to north-west site

The north-west terminal and business park complex would become the preferred site –

- in the event of the 3.5 hectares of additional land not being available for the redevelopment of the existing terminal complex, or
- when there is a known viable demand for the proposed business park development

The real advantage of the north-west site is the large area of land available for development of an airport-based business park. This is most likely to be the catalyst for the growth and development of the airport.

However, it is not yet known whether such a demand exists for a business park at Whakatane Airport – and until that is known the logical decision is to provide for the re-development of the main existing terminal site.

As any significant airport development is likely to be several decades away, the opportunity exists for the concept of an airport business park to be promoted and marketed to businesses and industries which may ultimately provide that demand.

In the event of a known demand the Joint Venture Partners would need to consider changing the location of the terminal complex to the north-western site as part of a business park development. Such a change can be made at any time up to the letting of a contract for the construction of a new passenger terminal, taxiway or apron on the existing terminal site.

Change to north-central site

The North-Central site is situated on the northern side of the airfield directly opposite the existing terminal complex.

This site is more constrained than the north-western complex and would require considerable earthworks to create a level platform for the terminal and car park development. The aprons and terminal building being at different levels would make construction more expensive.

This is the third preference after the existing terminal complex and the north-west terminal and business park complex and would only be selected where there were insurmountable problems with both of the previous preferences.

Utilisation of existing site if not required for re-development

In the event of the existing site not being used as the location for the new terminal complex it is proposed that the existing terminal complex (including aprons, taxiways, car park and related infrastructure) become a dedicated “Light Aircraft Facility” for aircraft with a maximum take-off weight of 5,700 kilograms or less.

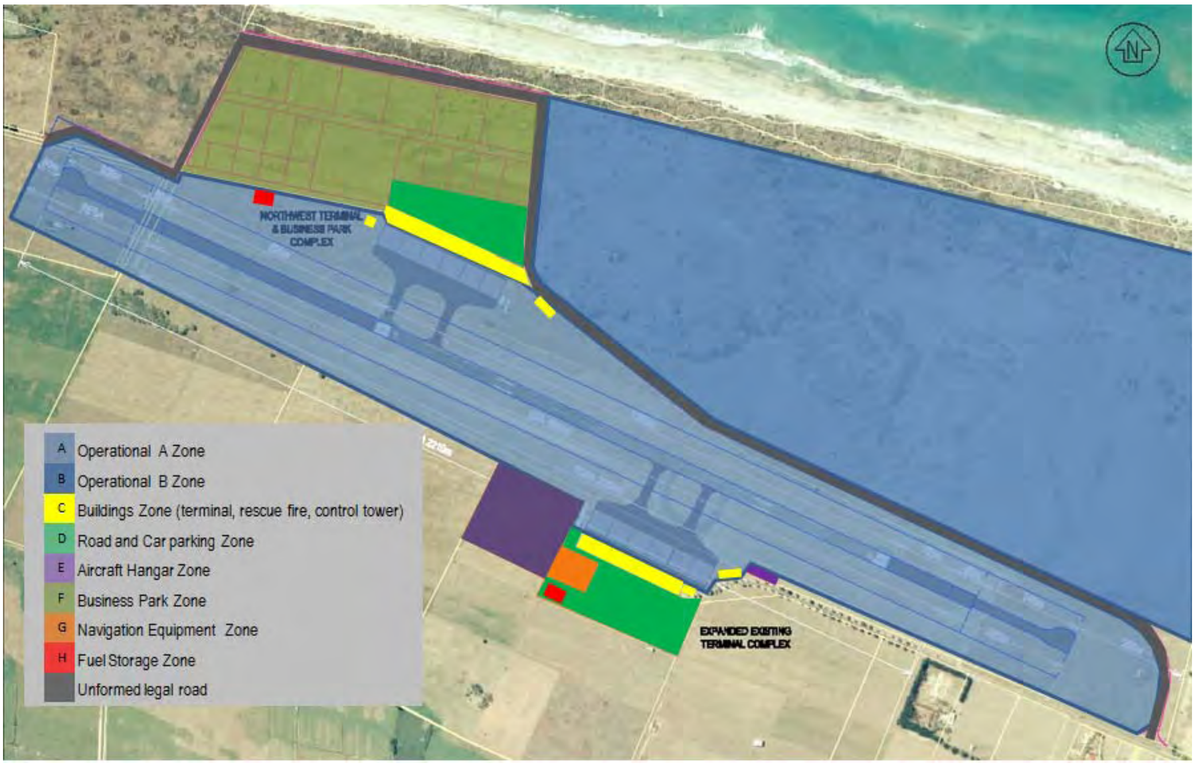
The Plan’s medium to long term objective is to utilise the existing terminal building, aprons and taxiways for commercial light aircraft operations, and to reserve Lots 1-5 for commercial aircraft hangars.

Internal zoning

It is recommended that a system of internal zoning be implemented to facilitate the planned and orderly utilisation and development of the airport in accordance with the objectives and strategies set down by the Joint Venture Partners.

Rules should establish the permitted activities within each zone. The zoning should be regularly reviewed to ensure that it remains relevant to the needs of the airport and its users, while ensuring that any changes are consistent with the objectives and strategies approved by the Airport Joint Venture Partners[14]

The following diagram and table indicates the type of zoning envisaged.



[14] i.e. W5hakatane District Council and Ministry of Transport5

Zones		Permitted Uses
A	Operational A Zone (i.e. security designated area)	Runways, taxiways, aprons (including lighting equipment)
		Navigation equipment (Zone G refers)
		Control tower, rescue fire station, backup electricity generation)
		Aircraft parking
		Haymaking
B	Operational B Zone	Cattle grazing
		Helicopter low flying
		Weather stations
		Navigation equipment
C	Buildings Zone	Passenger terminal
		Rescue Fire Station
		Control Tower
		Electricity backup generator
D	Road and Car Parking Zone	Public car park
		Internal roads
		Taxi stands
		Rental car parks
		Coach parks
		Service vehicle parks
E	Aircraft Hangar Zone	Commercial fixed-wing and helicopter hangars
		General aviation fixed-wing and helicopter hangars
		Temporary accommodation (within hangars)
		Offices and waiting rooms for aviation-related businesses (within hangars)
		Pilot training facilities (e.g. lecture rooms)
		Car parking (non commercial)
F	Business Park Zone	Visitor accommodation (hotels, motels)
		Conference and meeting facilities
		Events centre
		Restaurants
		Visitor retail goods and services
		Office accommodation
		Airport services (e.g. catering)
		Air freight distribution
		Aircraft maintenance facilities (Airside Road)
		Light industrial uses (low environmental impacts)
G	Navigation & Aviation Information Equipment Zone	VOR Radar (VHF Omnidirectional Range)
		Distant measuring equipment (DME)
		Airport beacon
		Approach lights
		Visual approach slope indicators (VASI, PAPI)
		T-bar approach lights
		Meteorological weather monitoring equipment
		Communications equipment
H	Fuel Storage Zone	Main above-ground fuel storage compound
		Subsidiary above ground storage compound/s
		Underground tanks with above ground dispensing system

Development of light aircraft hangar complex

Several airports have established a quality standard for light aircraft hangar development which have been successful in growing the light commercial and general aviation activity at those airports. Indications are that a similar development at Whakatane Airport would encourage operators to consider the attractions of relocating their business and/or aircraft to Whakatane.

As stated previously, an application for resource consent is about to be submitted to the Council seeking approval to construct up to 22 light aircraft hangars on a 2 hectare area immediately adjoining the existing hangar complex. The design is modelled on the existing development at Tauranga Airport and comprises two rows each consisting of 11 attached hangars. The configuration optimises the utilisation of the area and establishes a quality design standard which should create an aesthetically attractive and professional appearance.

The key issue is to resolve the issue of ownership and control of the land where the development is to be situated.

If the land is to remain in private ownership the landowner must obtain the approval of the Airport Authority in order to gain access to the aerodrome operational area. Such an agreement is likely to include, but not be limited to the following provisions –

1) vesting of the land in the Airport Authority for control and management purposes pursuant to the Airport Authorities Act 1966;
2) that the joint venture develop the land at its own cost in all respects in accordance with a development plan, specifications, timeline, terms and conditions approved by the Airport Authority;
3) that the Airport Authority and/or the Whakatane District Council have the right to protect the land for airport purposes by plan change and/or designation pursuant to the Resource Management Act 1991;
4) that the landowner not be permitted to subdivide the land into separate freehold titles pursuant to the Land Transfer Act 1952, but may subdivide the land into unregistered leasehold sections;
5) that the landowner have the right to lease or sell improvements situated on leasehold sections subject to the provisions of the Airport Authorities Act 1966;
6) that in the event of the land being designated for Airport purposes, the landowner waives it’s right to require the Airport Authority to purchase the land pursuant to section 185 Resource Management Act 1991
7) that the landowner shall remain responsible for the payment of local authority rates, utility charges and maintenance of improvements on non-leased areas
8) that the Airport Authority shall process and determine all applications to lease land within the area under it’s control subject to prior consultation with the landowner and subject to the prior financial approval of the Lessor where such approval shall not be unreasonably withheld;
9) that the landowner shall have sole discretion as to whether any physical improvements on the said land are offered for sale to the lessee;
10) that the Airport Authority shall have authority pursuant to section 5 Airport Authorities Act 1966 to acquire part or all of the land or improvements;
11) that leasehold rentals shall be set by the Lessor in accordance with the rental policy set from time to time by the Airport Authority;

12) that the landowner and tenants shall pay airport landing charges as set from time to time by the Airport Authority on all land under the management and control of the Airport Authority and, the land owner shall not allow aircraft to land on property outside the airport operational area;

13) that on expiry or earlier termination of leases on the said land the ownership of improvements shall vest in the landowner at no cost to the landowner;

14) that the landowner be responsible for invoicing and collecting all payments related to land leases and the sale of improvements;

15) that the landowner shall pay to the Airport Authority an annual administration fee (to be determined) based on a percentage of the annual leasehold rental charged on the said land, payable in advance;

16) that the landowner shall meet the full cost of any security requirements determined from time to time by the Civil Aviation Authority and/or Aviation Security Service;

17) that the landowner meet the proportionate direct cost of Airport insurances as determined from time to time by the Airport Authority and it's insurance providers;

18) that the landowner and it's tenants comply at all times with all statutory requirements of operating within an airport environment including but not limited to Airport Authorities Act 1966, Civil Aviation Act 1990, Resource Management Act 1991, Health and Safety In Employment Act 1992 and the Local Government Act 2002.

It is suggested that the Airport Authority consult with the land owner and the prospective developer in an endeavour to reach agreement as to the best option to progress the proposal.

Options such as purchasing or a long-term lease of the land from the current landowner would obviously be discussed, with the latter being consistent with both the owners apparent wishes and the underlying tenure by which the Whakatane District Council holds the aerodrome land.

It is envisaged that the Airport Authority would then issue the developer with a Licence to Occupy part of that land for a sufficient period to permit the construction and sale of hangars. The Authority would then issue a long-term lease to the purchaser of each hangar.

It is suggested that each lease be restricted to the footprint of the structure so that the Authority has control over all other areas in terms of maintenance and tidiness.

Terminal extensions

The existing terminal building has an existing ground floor area of 249m^2. There is provision for only one airline check-in facility which is leased to Eagle Airways Limited, a wholly-owned Air New Zealand subsidiary. The lease expires on 31st July 2012.

The check-in facility includes two check-in counters with baggage conveyor to the baggage make-up area and loading bay plus two offices. Arriving passengers collect their baggage at the kerb-side outside the terminal.

The ability to service more than one airline could be achieved by arrangement with Air New Zealand and this should be addressed at the time the lease is due for renewal, or sooner. While it is not uncommon for airlines to provide check-in services to other airlines, they may refuse to do so.

An alternative could be for a contractor to lease the check-in facilities and provide services to more than one airline from the same facility. As the current site is limited to the simultaneous operation of two aircraft, the current check-in facilities should be adequate on a shared-use basis.

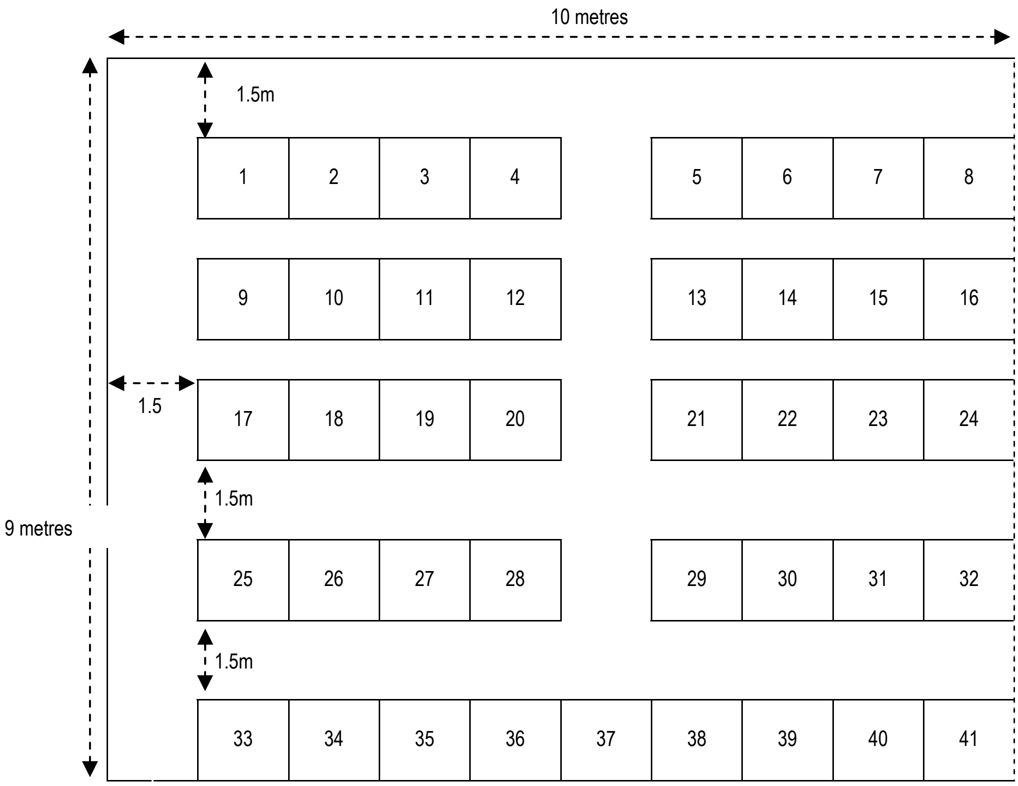
Scheduled turboprop services will continue to operate through the existing terminal for the foreseeable future. With only two aprons available the airport is limited to two same-time scheduled arrivals and departures.

Expansion of the current terminal building to cater for larger aircraft is limited by its low ceiling height and rather complex and cluttered design features. Given that at some time in the future it will be replaced by a new terminal complex, the question is what can be done to cost-effectively increase the capacity of the existing terminal to meet the demand until that time arrives.

The addition of a relocatable 20m x 20m building would increase the ground-floor area of the terminal to 650m^2, an increase of 260%.

The addition would provide sufficient area to cater for the simultaneous arrival and departure of two 50 seat aircraft, provided that the baggage claim remains at the kerb-side outside the terminal building. The following diagram illustrates the proposed extension.

The following diagram illustrates the space requirements for a departure gate lounge. It shows that a module of 10 x 9 metres will seat 41 adults, which is equivalent to an average load factor of 81% for a 50 seat aircraft. An average load factor is more likely to be about 75%.



Provision for Security Screening

Certificated aerodromes which are NOT security designated are required to have a contingency plan in place to provide areas for the screening of domestic and/or international passengers and crew and their baggage when required to do so by the Minister or Director of Civil Aviation.

The proposed addition will provide adequate area to fulfill this requirement in the event of the threshold for domestic screening being reduced to include aircraft with a seating capacity of less than 90 persons.

Runway, taxiways and aprons

The current 1280 metre runway, taxiways and aprons are adequate to meet the unrestricted take-off and landing requirements of Air New Zealand's current fleet of turboprop aircraft, which includes 19-seat Beechcraft 190D, 50-seat de Havilland Dash 8 300Q and 68-seat Aerospatiale ATR 72-500 aircraft.

Air New Zealand occasionally use Air National to provide backup services using 19 seat BAe Jetstream aircraft, which require a takeoff distance for unrestricted operation of 1400 metres and is weight-limited on Whakatane's 1280 metre runway.

Air New Zealand provides scheduled services to 14 regional centres which have runways ranging in length from 1097 to 1425 metres, an average length of 1308 metres. Therefore it is unlikely that it will purchase aircraft which require these regional airports to extend their runways, as this would justify increases in landing charges which Air New Zealand strives to keep under control.

Grass runway

The Reference Code 1A grass runway is expected to be adequate to meet the current and future needs of both resident and visiting light fixed wing aircraft. Most of these aircraft are also capable of using the sealed runway.

The limitation of the grass runway is that it does not have the required separation from the main runway to permit simultaneous operation of both runways.

Public car park

The following assumptions have been used to estimate the total number of parks required at the existing terminal until it is replaced by a new terminal complex on the same site.

Capacity of existing terminal complex	
Number of outbound services per day	10
Number of seats per service	50
Total number of outbound seats per day	500
Average load factor	75%
Total outbound passengers per day	375
% passengers who are children	25%
Total children per day	94
Number of adult passengers per day	281
% adult passengers who park vehicle at airport	60%
Total vehicles per day	169
Vehicle average length of stay in car park (days)	1.5
Total number of car parks required	253
Average m^2 area required per park (including access roads)	25
Total area required (m^2)	6,328

Area available for parking	Dimensions (metres)		m2
Area 'A'	225	25	5625
Area 'B'	50	25	1250
Area 'C'	50	25	1250
Total area available			8125
Total parking spaces available			325
Total parking spaces required			253
Buffer spaces available			72
% buffer			28.4%

250 car parking spaces compare with 200 at Tauranga Airport and 350 at Napier, Dunedin and Invercargill and are considered to be more than adequate to meet the likely demand.

Commercial helicopter hangars

The provision of both scheduled and charter air transport operations using light fixed-wing and rotary-wing aircraft is an important facet of the services currently available at Whakatane Airport. Operators have emphasised the need to keep commercial passenger services separate from general aviation and to separate fixed- and rotary-wing aircraft operations.

Consultation with airport users suggest that commercial passenger transport operations should be separated from general aviation activity. This has proved difficult to achieve as there is extremely limited area available for the location of commercial aircraft hangars on the southern side of the airport, with most of the suitable land being subject to existing leases.

The area immediately to the east of that requested by the commercial helicopter operators has been investigated. A desktop survey using AutoCad has provided the measurements required for the calculations in the following table:-

Description	Deductions (metres)	Distances (metres)	Height Limits (metres)
Distance from runway centreline to road boundary		143.73	
Less distance from runway centreline to airstrip perimeter	75.00		
Distance from runway strip boundary to road boundary		68.73	
Less building line distance from road boundary	0.00		
Less building length (north/south)	25.00		
Net distance from runway strip boundary to front of building		43.73	6.25
Net distance from runway strip boundary to rear of building		68.73	9.82

As the proposed building site is situated more than 9 metres from the legal road boundary the calculation is shown as zero.

The table shows that it is <u>not</u> possible to build hangars of the proposed size and height. However, if the hangars are rotated to an east/west orientation, the transitional side slope height limits can be achieved as shown in the following table.

Description	Deductions (metres)	Distances (metres)	Height limits (metres)
Distance from runway centreline to road boundary		143.73	
Less distance from runway centreline to airstrip perimeter	75.00		
Distance from runway strip boundary to road boundary		68.73	
Less building line distance from road boundary	0.00		
Less building width (north/south)	20.00		
Net distance from runway strip boundary to front of building		48.73	6.96
Net distance from runway strip boundary to centre ridgeline of roof		58.73	8.39
Net distance from runway strip boundary to rear of building		68.73	9.82

Important Note: to achieve the above requrements the building platforms must be at the same or lower RL as the airstrip boundary.

This information has been made available to the operators to allow them to reconsider their requirements and decide whether their buildings are able to be realigned in order to meet the limitations of the site.

The following diagram shows the proposed hangar location (in blue), the measurements used in the above calculations and the cut and fill requirements to level the site to that of the airfield.

Rescue Fire station

The airport will require a rescue fire service within three months of having a regular air transport service provided by an aircraft with 30 seats or more, where the number of movements by that aircraft will exceed 700 in a consecutive three month period. This is equivalent to an average of four return services per day over a 90 day period. (Note: a landing plus departure equals two movements)

The service would require –

a. a fire engine with a minimum water carrying capacity of 1200 litres, 135 kilograms of foaming agent and capable of a foam discharge rate of not less than 900 litres per minute
b. a medical trailer complete with medical supplies
c. a light utility vehicle
d. trained staff sufficient for one to be present immediately prior to, during and after the landing and departure of any regular air passenger transport aircraft of 30 seats or more
e. the minimum required supply of foaming agent

A fire station of approximately 16 x 14 metres in size would be required to house the motor vehicles, medical trailer and supplies, plus a control office, staff room, toilet, shower and scrub room, workshop and dry powder storage. A hose drying gantry would also be required. A site for the station has been identified and zoned for the purpose.

Emergency water storage

Within 3 minutes of an alarm the airport fire appliance must reach the aircraft at any point within the airport movement area and be discharging foam at a rate not less than 50% of the required discharge rate, which is 900 litres per minute for a category 3 service.

This means that the appliance is likely to empty its tanks within 2 minutes of reaching the aircraft, and may need to refill its water tank and return to the fire at least once before back-up appliances arrive from Whakatane.

It is recommended that a pressure test of the airport water supply be undertaken to ensure that the replenishment rate meets the minimum requirements and where the pressure and/or supply is insufficient to meet those requirements an emergency water storage and pressurised filling system be installed.

Aviation fuel storage

The current fuel storage facilities appear to be adequate for the existing requirements. It is recommended that the Airport Authority require the oil companies (Shell and BP) to provide it with copies of all monitoring reports on the condition of its underground storage tanks including any evidence of leaks or seepage into the surrounding soil and ground water systems which have occurred or are still occurring.

Helicopter circuit training and low flying area

Helicopter low flying and circuit training is one of the more intrusive sources of noise nuisance for persons living, working or spending their recreation or leisure-time close to an airport. The existing circuit which provides for all aircraft is immediately to the south of the airport.

The opportunity exists for an approximate 60 hectare area of the airport immediately to the north-east of the runway strip to be allocated for this purpose. It is therefore recommended that a report be obtained from Astral Aviation Consultants on the issues relating to allocating this area for this purpose.

Any change would need to be subject to consultation with the lessees of the grazing blocks which occupy that area. Limitations would need to be placed on low-flying over paddocks where livestock are grazing.

Pilot training facilities

There is currently a world-wide shortage of commercial pilots. Smaller airlines are complaining that they are training pilots only to lose them within a short space of time to first officer positions with large international airlines as soon as they reach the required number of flying hours.

This creates a significant opportunity for the airport to attract pilot training organisations to establish or move an existing school to Whakatane. The development of the proposed new light aircraft hangar complex will provide the momentum for such facilities.

4.6 MAJOR DEVELOPMENT PROGRAMME

The development programme described in this section is based on the assumption that the preferred option will be confirmed.

That option includes a 1950 metre runway, the re-development of the existing terminal complex and the development of a light aircraft hangar park alongside the existing terminal complex.

A scheme plan to develop the north-western site as a combined terminal and business park complex should be used as a marketing tool to determine whether there is sufficient interest in the business park proposal to justify the relocation of the new terminal complex to the north-western site.

Airport business park

The north-western site would appear to have very good potential for the development of an airport business park.

In the event of a significant demand for such a park being known prior to the re-development of the existing terminal complex, a business case assessment of the viability of developing the new terminal complex on the north-western site should be undertaken.

This would determine whether the potential investment returns are sufficient to justify the added cost of developing the new terminal complex on that site.

As a marketing strategy, the availability of a concept plan and artists impression of the combined terminal and business park complex on the north-western site[15], is likely to generate considerable interest which may in turn attract the necessary cornerstone industries to underwrite the investment. Such interest may come from an airline seeking a base for its operations, a major resort hotel and conference complex, a warehousing operation which relies on air transport or an export industry which requires direct air access to the Australian market. It is vital to keep these issues under regular review.

Relocation of weather station

The NZ Meteorological Services weather station, which is located immediately to the east of the existing terminal building, will need to be relocated to a suitable site elsewhere on the airport prior to the commencement of the re-development programme. The reasonable cost of relocation would need to be met by the Airport Authority.

Security fencing

Security designated aerodromes are required to have the entire perimeter of the operational area security fenced with a chain link mesh netting fence with an outrigger at the top facing outwards into the non-designated area. All security fencing must comply with the specifications set down from time to time by the Director of Aviation Security. All gates are required to be of the same specification as the security fence and must have good quality locking and access control devices.

Access through buildings such as passenger terminals, aircraft hangars and fire stations and the like must have locked security-controlled doors which can only be accessed by persons holding an appropriate level Aviation Security Card, or by persons under the care and supervision of a person holding the appropriate security clearance and training.

Electronic surveillance and monitoring of security cards of all authorised persons accessing security designated areas is now becoming the norm.

[15] Subject to the 1950 metre runway preference having been confirmed – otherwise the concept plan should be for the north-central site.

Landscape planning and development

A landscape plan and artists impression to enhance the environment of the new terminal complex should be prepared well in advance of the project commencing, so that shrubs and low growing trees can be secured and grown to the required size ready for planting on completion of each stage of the programme.

New terminal development

The location of the new terminal building is immediately behind the existing terminal at a distance of not less than 226 metres from the runway centreline.

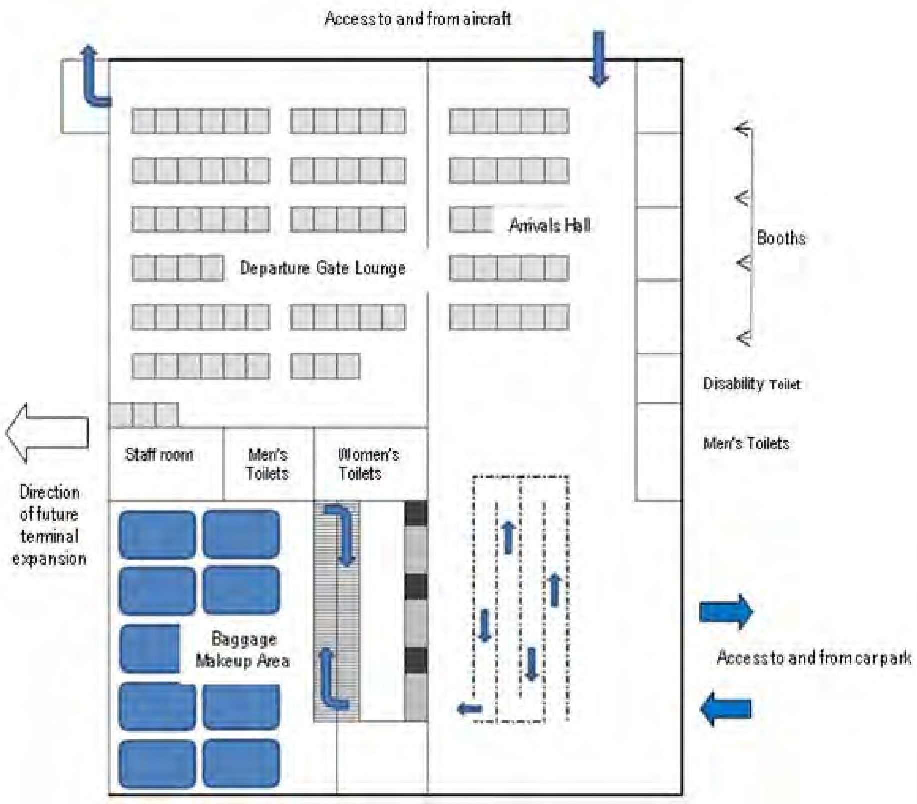
The minimum practical size for the first stage of the new terminal would be 750m^2 (i.e. 25 x 30 metres) – being the area required for two simultaneous 50 seat aircraft arrivals and departures.

750m^2 would not be sufficient for an indoor baggage claim area which would continue to be at the kerb side. The minimum terminal size inclusive of an indoor baggage claim area with a single baggage carousel would be 1200m^2 (i.e. 40 x 30 metres).

A single span design is recommended in order to maximise flexibility to change the layout of internal space as the terminal is progressively extended to cater for the growth in passenger numbers. The eventual size of the building footprint is expected to be 6,000m^2 (i.e. 200 x 30 metres) with provision for a first floor area of an equivalent size.

A tilt-slab concrete exterior construction is recommended for it's superior fire resistance and thermal qualities. A minimum parapet height of 6 metres would allow a non-reflective roof to be hidden from view and would allow verandas to be located above the maximum height for coaches and heavy vehicles. The use of verandas and decorative finishes can be used to enhance the appearance of the building.

The following diagram of a possible layout for the first stage terminal development is indicative only.



Runway upgrade and extension

The runway upgrade includes strengthening and re-surfacing the existing 1280 metre runway to cater for larger aircraft which require a runway strength of up to PCN50.

Extensions to the east and west of the existing runway will provide the added length necessary to meet the operational performance requirements of the 737 800 design aircraft.

1950 metre runway

The recommended option is a 1950 metre runway with a 256 metre starter extension at the western end of runway 09 and a 300 metre starter extension at the eastern end of runway 27, providing a take-off run of 2206 metres on runway 09 and 2250 metres on runway 27. A landing distance of 1950 metres is available in both directions.

These distances meet the unrestricted operating requirements of the 737 800 design aircraft for non-stop distances of up to 2800 kilometres. The positioning of the runway also achieves a 10 metre obstacle height limit at the golf club boundary, only 0.6 metres less than the existing height.

The construction of the runway requires strengthening and resurfacing the 1280 metre existing runway runway to meet the PCN50 runway strength required by the design aircraft.

The following table summarises the declared operating lengths for this runway option.

Declared operational lengths for proposed extended runway (1950 metres)		
	Runway 09	**Runway 27**
Takeoff run available (TORA)	2210m	2250m
Accelerate-stop distance available (ASDA)	2210m	2250m
Takeoff distance available (ASDA)	2270m	2310m
Landing distance available (LDA)	1950m	1950m

Extension to these declared lengths would provide a runway of similar length to that proposed at Rotorua, and currently existing at Palmerston North and Wellington. It would be approximately 200m longer than the runway at Queenstown airport.

This runway option can only proceed if the following land can be acquired –

1. the closure and acquisition of a 250 metre long section of unformed legal road adjoining the airports western boundary; and

2. 7.5 hectares of privately-owned land, measuring 300 metres in length and 250 metres in width situated along the extended centreline of the runway immediately to the west of the unformed legal road which adjoins the airports western boundary.

In the event of either one of the above conditions not being able to be met the following option will need to be pursued.

1870 metre runway

This option provides a runway length of 1876 metres supplemented by a starter extension of 260 metres at the eastern end and 240 metres at the western end, providing a take-off run (TORA) of 2126 metres on runway 27 and 2116 on runway 09. The landing distance would be 1876 metres in both directions. This is 30 metres less than the braking distance required by the design aircraft for unrestricted arrivals on a wet runway.

The take-off distances are sufficient to meet the unrestricted take-off requirements of the 737 800 design aircraft for non-stop flights to Sydney, but would impose an estimated 10% load factor reduction for non-stop flights to Melbourne.

The major limitation of this option is the height of the obstacle limitation surface (OLS) at the boundary between the Airport and Whakatane Golf Club properties. The current height is based on the distance between the inner edge of the existing runway strip and the Golf Club boundary, a distance of 660 metres at a gradient of 1.6% - which is 1 metre height gain for every 62.5 metres in distance = 10.26 metres OLS at the Golf Club boundary.

The following table summarises the declared operating lengths for this runway option.

Declared operational lengths for proposed extended runway (1876 metres)		
	Runway 09	**Runway 27**
Takeoff run available (TORA)	2116m	2126m
Accelerate-stop distance available (ASDA)	2116m	2126m
Takeoff distance available (ASDA)	2176m	2186m
Landing distance available (LDA)	1876m	1876m

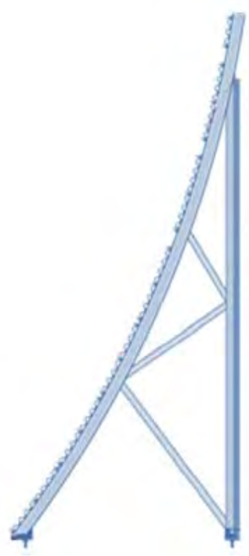
These distances are subject to survey confirmation of the flight paths, but Astral has a high level of confidence that they will be achievable.

Jet-blast protection

The starter extensions on the 1876 metre runway have been increased to virtually the full length of the runway end safety areas (RESA) which requires that jet blast protection be provided in the absence of sufficient distance between the aircraft and the airfield boundary.

Jet blast protection can be achieved by building an earth embankment (as at Queenstown Airport) or a fabricated steel deflector shield or fence as at Wellington Airport.

The diagram on the right and the photograph below are examples of the type of proprietary structures that are available to protect persons and property from the blast created by jet aircraft engines.



This particular design is said to be available in heights ranging from 91cm to 10.6 metres. The surface is constructed of high-section modulus galvanised steel sheets which are bolted to the structural supports to provide a strong, corrosion-resistant surface designed to withstand high temperatures and vibration.

It is available with concave, vertical or combination surfaces depending on the application.

The structure is built of pre-fabricated, heavy duty galvanised steel structural components and is designed to withstand engine thrusts of up to 115,000 lbs and 675 km/hr.

The afterburner deflectors can withstand surface temperatures of up to 399°C.

New taxiways

Two new high strength taxiways will be required to cater for aircraft which are able to operate within a pavement strength limit of PCN50.

New high strength aprons

Provision has been made for a total of six 50 x 50 metre aprons with a static load capacity of 80 tonnes. The aprons would be fitted with recessed power outlets for starting aircraft which do not have auxiliary power units (APUs).

The new aprons will be set back 166 metres from the existing runway centreline to provide for a maximum aircraft tail height of 13 metres for 'nose-in push-out' parking. Construction of the aprons will require the removal of the existing terminal building.

Provision will need to be made for runoff from the aprons to be channelled through collectors and scrubbers where any fuel or chemicals spilled on the aprons can be safely removed and disposed of.

Apron and taxiway design and preliminary costings should be undertaken –

a. When confirmation is received that the additional land required to develop the preferred site is available for acquisition at the appropriate time; and

b. the recommended geo-technical testing of sub-grade materials has been completed

Navigation aids

With recent advances in the accuracy and reliability of aircraft on-board satellite navigation systems the requirements for ground based radar, distance measuring equipment, visual approach systems and the like are also changing and the requirements that will apply several decades into the future are likely to be very different to what they are today. The recent changes in required navigation performance (RNP) has made very significant improvements in the pilot's ability to accurately position the aircraft. This has major advantages in places such as Queenstown which are surrounded by high terrain and clearly has benefits in situations such as the eastern approach path over Kohi Point ridge.

Provision has not been made in this plan for the location of a VOR system as Astral Consultants believe that advances in navigation technology are moving so quickly that such equipment is unlikely to be required by the time the runway is extended.

New roading and parking development

Roads

As traffic volumes increase provision will eventually need to be made for widening and upgrading the access road to and from the airport. All internal roading and parking areas in the vicinity of the existing terminal complex will be replaced as part of the re-development programme.

Public car park

A provisional area of 2.5 hectares has been identified for car park development. This area is based on 25m^2 per vehicle which includes the area required for all circulation roads, footpaths and landscaping throughout the parking area.

Parking is at right-angles to the curb and measure 5.5 x 2.5 metres with a 5 metre-wide road width for ease of access and safety. Dedicated areas within the public car park are allocated to rental car companies.

2.5 hectares will provide sufficient area for 700 vehicle parks. This compares with the following car parking capacities at other regional airports –

Airport	Approximate number of parking spaces
Rotorua	400
Tauranga	200
Napier	370
Palmerston North	650
Dunedin	350
Invercargill	350

Based on the above capacities a realistic range would appear to be provision for 350 to 750 vehicles. It should be noted that the current activity at Palmerston North Airport is similar to the design capacity for Whakatane Airport (i.e. 50,000 aircraft movements per year). It is therefore suggested that a car park capacity of 700 vehicles should be adequate to meet any future demand at Whakatane Airport.

Car Parking System

Airports such as Tauranga, Napier, Hamilton, Palmerston North and Rotorua have installed automatic parking systems in recent years as a means of cost-effectively collecting parking revenue.

It is envisaged that Whakatane Airport will likewise install an automated system during the redevelopment phase, if not sooner. The system can also be used to charge taxis and other hire vehicles a ‘pick-up’ charge.

Fuel storage compound

The volume of aircraft activity required to activate the proposed re-development programme will be sufficient to justify the installation of several 50,000 litre above-ground Jet A1 tanks within a 'bunded' compound, with a mini-tanker being used for aircraft refuelling. This type of storage system is more environmentally friendly than underground tanks, where leakages are difficult to detect and have been known to cause serious soil and ground-water contamination.

4.7 INDICATIVE DEVELOPMENT COSTS

It is recommended that a detailed schedule of development costs be prepared as a basis for future decision-making. The reliability of such a schedule is dependent on the quality and reliability of the design, quantity and pricing information which is available to the person preparing the estimate.

At this early stage of the planning process there is very little information available on which to base any form of estimate. This will only be remedied by undertaking the investigation, research and design which will provide the level of detail required to prepare such a schedule.

4.8 ACTION PLAN

	Year 1 : 2008										
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Decisions (Joint Venture Partners)											
Plan approval (in principle)											
Proposal re construction of commercial helicopter hangars											
Proposal re construction of general aviation hangars											
Plan approval											
Decision re land acquisition											
Consultation											
Joint Venture Partners											
Airport User Group											
Aviation											
Report on separate helicopter circuit											
Obstacle survey (west and east)											
Noise footprint recalculation											
Land Acquisition											
Discussions with landowner & developer of GA hangar proposal											
Discussion with owners of land to be designated / acquired											
Negotiations with land owners											
Action road stopping / new legal road											
Airport Protection											
Prepare NOR's and plan change requirements and documentation											
Lodge NOR and Plan Change											
Period for public submissions											
Analysis of public submissions											
Requiring Authority / Council response to submissions											
Period for further submissions											
Analysis of further submissions											
Public hearing of submissions											
Public notification of outcome of hearings											
Period for lodging appeals											
Earliest date for approval of designations / plan change											
Investigation, Research, Design, Pricing											
Geo technical testing (runway, taxiways, aprons)											
Pavement design and preliminary cost estimate											
Apron design and preliminary cost estimate											
Car park design and preliminary cost estimate											
Earthworks assessment and preliminary cost estimate for preferred sites											
Commercial Helicopter Hangars											
Agreement in principle to lease south-east sites											
Specifications for leveling site											
Obtain quotes for levelling and grassing site											
Valuation of lease sites											
Negotiate terms of lease											

This work should be undertaken within the first 5 years but has been deferred on account of the cost. It is recommended that cost estimates be obtained from providers to establish the actual cost - in which case it may be possible to undertake this work within the first 5 years.

Level and grass sites	
Construct hangars	
Survey lease footprints	
General Aviation Hangars	
Reach agreement re acquisition of 2 ha site	
Agreement with developer	
Assessment of cut and fill (including adjoining airport land)	
Specification for levelling site	
Obtain quotes for levelling and grassing site	
Valuation of lease sites	
Establish terms of leases	
Level and grass sites	
Construct hangars	
Survey lease footprints	

	Year 2 : 2009											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Decisions (Joint Venture Partners)												
Plan approval (in principle)												
Proposal re construction of commercial helicopter hangars												
Proposal re construction of general aviation hangars												
Plan approval												
Decision re land acquisition												
Consultation												
Joint Venture Partners												
Airport User Group												
Aviation												
Report on separate helicopter circuit												
Obstacle survey (west and east)												
Noise footprint recalculation												
Land Acquisition												
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Discussion with owners of land to be designated / acquired												
Negotiations with land owners												
Action road stopping / new legal road												
Airport Protection												
Prepare notifications of requirement for airspace and airport designations and plan change requirements												
Prepare plan change documentation												
Lodge NOR and Plan Change												
Period for public submissions												
Analysis of public submissions												
Requiring Authority / Council response to submissions												
Period for further submissions												
Analysis of further submissions												
Public hearing od submissions												
Public notification of outcome of hearings												
Period for lodging appeals												
Earliest date for approval of designations / plan change												
Investigation, Research, Design, Pricing												
Geo technical testing (runway, taxiways, aprons)												
Pavement design and preliminary cost estimate												
Apron design and preliminary cost estimate												
Design relocatable departure gate lounge												
Car park design and preliminary cost estimate												
Earthworks assessment and plan and preliminary cost estimate for preferred sites												

	Year 3 : 2010											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Decisions (Joint Venture Partners)												
Plan approval (in principle)												
Proposal re construction of commercial helicopter hangars												
Proposal re construction of general aviation hangars												
Plan approval												
Decision re land acquisition												
Consultation												
Joint Venture Partners												
Airport User Group												
Aviation												
Report on separate helicopter circuit												
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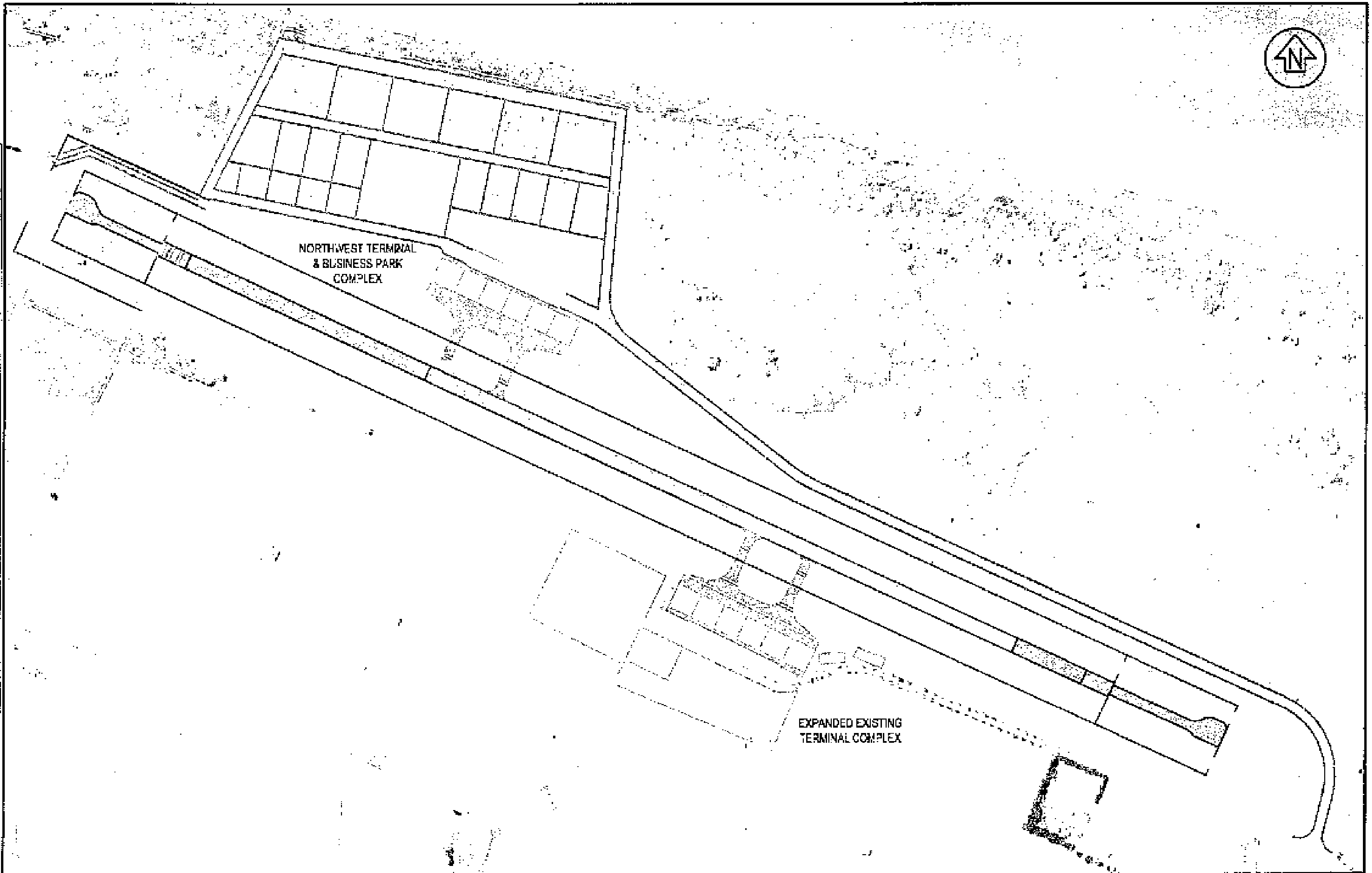
Pavement design and preliminary cost estimate												
Apron design and preliminary cost estimate												
Design relocatable departure gate lounge												
Car park design and preliminary cost estimate												
Earthworks assessment and plan and preliminary cost estimate for preferred sites												

Appendices

Airport Development Plan



LEGEND:
TORA = TAKE OFF RUN AVAILABLE
LDA = LANDING DISTANCE AVAILABLE
RESA = RUNWAY SAFETY AREA

WHAKATANE DISTRICT COUNCIL WHAKATANE AIRPORT	1:10000	288081.06	RC
AIRPORT MASTER PLAN	© Opus International Consultants Limited		

Appendix 12.

BUILDING CONDITION (AS OBSERVED 2016)

Roofs: The roof areas are in good condition. The flat roof areas have been re-laid. Services have also been laid across sections of the flat roof. Roof penetrations?

The internal gutter at the end of the flat roof beside the entry lobby was ponding at the time of our visit. This gutter is almost fully enclosed, as the roof of the handicapped toilet has restricted the outlet area. There are areas of leakage under the southern end of this gutter.

The internal gutter between the roof of the entry lobby and the gabled roof over the handicapped toilet area is minimal. This very tight valley appears to work as there were no indications of leakage inside the building under this section of the building.

Viewing Deck: Leaks occur in the area immediately beneath the junction between the mezzanine and the viewing deck. The deck has a membrane surface. The joinery unit in this wall has been modified. The original frame remains in place. This has a reasonable upstand. The deck is partially open to the outside and has structural elements that penetrate the deck. There is no obvious sign of failure in this area. The water may be tracking up and into the building during driving rain, or it may be penetrating through the sides of the joinery unit.

Glazed Roof over the 'Refreshment Area': The intersection of the glazed roof and the Control Cab leaks in certain conditions. This intersection is 'heroically' detailed. All the structure is exposed. The exposed timbers seen on the inside support the flashings on the outside. This is positive as every part of the structure breathes, also any leak can be clearly seen, water does not track through the building fabric. The flashings as detailed were very small. It is likely that the flashings do not adequately protect the glazing unit when exposed to fierce conditions.

External Cross Braces: The external cross braces, contained at the edges and fully exposed to the elements, show signs of deterioration. The cross brace by the Utility Room, the edges of the joinery units, particularly at the intersection with the base of the wing extension of the baggage room. Here the cross brace meets the matching bottom rail and the corner post with no space to allow for moisture to run off. The timbers appear to have decayed. The area has been patched.

Although dramatic in appearance, and important to the overall look of the building, these elements are unlikely to perform any real structural function.

Many of The ends of the cross brace elements have split or twisted. In part this may be caused by the failure of the fixing bolts as these have deteriorated in the high saline coastal environment.

The capped beam elements, that cantilever out past the corner posts, are in good condition.

Flashings: All the flashings on the building need to be checked. Most flashings appear to have been replaced during regular long-term maintenance. Some of the capping flashings on the block gable ends have been covered with a membrane flashing system. The intersections should be checked as these are the most vulnerable areas.

Control Cab

Cantilevered Deck- Control Cab: The deck was added to the building as one of the last elements, and appears to have been a rethink. Just before it was built the door at the side of the cab, a timber door with a curved rectangular panel, opened to nothing but a timber ladder stair set against the roof. The deck was added by 1975. The stringer plate of the deck fixes through the face of the wall. The stringer plate has failed. It is rotten. The area beneath this area (the mezzanine lounge) leaks and should be thoroughly checked. The entire deck structure is on the edge of total failure as a consequence. The wall surface has been compromised by the deck structure. The deck needs to be fully reconstructed and the fixing method should be readdressed to ensure that the wall surface is weathertight.

Control Cab: Main Windows: The window joinery of the Control Cab requires full repair. The beads holding the glazing are failing. The flashings above and to the sides of the window unit also need replacing. The glass has an applied surface that is delaminated. This room is very exposed. The glass was specified as double glazing.

Control Cab: Pipe Windows: There are two round pipe windows just above floor level in the room. These have a design fault. The windows have fitted circular timber pivot opening windows. The windows are in good condition. The pipes are set level and there is no step of any kind to prevent water travelling in at the base of the pipes. As a consequence, water has tracked in to the building at the base of each of these pipes and the floor mounted cable duct (custom wood) in the immediate area has rotted.

Fixings: All exposed metal fixings at every level of the building need to be checked and possibly replaced. The non-structural brackets fixing the down pipes to the wall have rusted beyond repair. All fixings should be checked and where necessary replaced, with care taken to ensure that this does not compromise the structure or water-tightness of the building.

Large Joinery Units: The remaining large joinery units are generally in reasonable condition. The units that are close to the ground, particularly the joinery in the main lounge, are failing at the bottom corners. The end joinery unit in the refreshment area has been replaced with aluminium joinery.

Ground Clearance: The clearance between the ground floor and the outside ground is far less than the 150mm required for new buildings. This has resulted in problems with the joinery units in particular. To the greatest extent possible this should be addressed, and the outside ground lowered to create a more positive level shift, provided that the area can drain.

Toilets: The toilet areas are in poor condition and are very unattractive. These areas need to be fully upgraded.

Services: Many of the building services are run exposed, particularly in the working areas. In the public areas some building elements have no cavity and as a consequence newer wiring has been run over the surface. The cables detract from the appearance of the building.

<u>Working Areas</u>

Office: All the surfaces require basic repair and maintenance. The room should be refitted to suit current needs.

The Control Cab: The interior of this space requires general repair and maintenance. As previously described, the joinery in this area requires attention, the door, the sloping picture windows, and the pipe window below the desk. Problems with the joinery, and with the deck connection, have caused some damage to the interior, particularly at floor level across the deck face and in the vicinity of the pipe windows. The space is full of redundant services, particularly wiring.

The Baggage Area: The surface finishes in the baggage area are utilitarian. The spaces have been altered since 1974. The porch area has been enclosed by moving the garage door out to the northern face of the area. A wall has been built to separate Utility Room/Lunch Room.

The entire area would benefit from a thorough upgrading.

The Utility Room: This area is also in need of upgrading.

Appendix 13.

PREVENTATIVE CYCLIC MAINTENANCE PLAN

NOTE: All inspections should involve using the following or other developed checklists which must be dated, signed off, documented and retained and established as a log. Tasks should be ticked off as performed.

ANNUAL CYCLE

Daily

- ☐ Observe fire protection and monitor security.

Monthly

- ☐ Check security hardware.
- ☐ Wipe internal surfaces and vacuum clean the floor.
- ☐ Clean out external down pipes, gullies and rainwater outlets.
- ☐ Check hardware for security.

Quarterly

- ☐ Check and clean interior and exterior light fittings.
- ☐ Check doors and locking mechanisms.
- ☐ Check and clean metal surfaces and elements.
- ☐ Check and clean windows and other glass surfaces/elements.
- ☐ Check and clean floors with a cleaning solution.
- ☐ Check and maintain exterior landscape e.g. spray for vegetation growth.

Half-Yearly

- ☐ Perform visual check of walls, floors, roof and other substructure.
- ☐ Inspect and maintain if needed all timber joinery and metal services.
- ☐ Inspect for Borer and respond if necessary.
- ☐ Check and clean all external down pipes for possible clogging after storms.
- ☐ Clean and inspect all fixtures – perform necessary maintenance.
- ☐ Check external landscape e.g. Maintain foliage close to the building.

Annually

- ❑ Obtain a Building Warrant of Fitness (if required).
- ❑ Check and clean all interior, walls, ceilings and joinery as well as chimneys.
- ❑ Check and clean the exterior (low pressure cleaning if needed).
- ❑ Check security and fire protection.
- ❑ Check and maintain locks and hinges.
- ❑ Check and maintain hardware, services and plumbing hardware.
- ❑ Check and paint in places if needed ALL exterior timber work.
- ❑ Roof to be cleaned down by an approved c contractor (full care to be taken)

FIVE-YEAR CYCLE

- ❑ Organise the inspection of the superstructure by specialist consultants
- ❑ Check and repaint all exterior joinery.
- ❑ Check and repair roof.
- ❑ Check the foundations, especially for leaks, ground conditions, subsidence.
- ❑ Perform a borer inspection for the entire building and fittings.
- ❑ Inspect all services, fittings and chimneys.

TEN-YEAR CYCLE

The preventative maintenance actions performed every 10 years should recognise the significance of this lengthy cycle. At this time, a recognised architectural conservation specialist should fully inspect the entire building and, as already mentioned, review this preventative maintenance schedule or other developed systems.

- ❑ Organise a full inspection of building and site by a conservation specialist.
- ❑ Organise a thorough inspection of all structural systems.
- ❑ Organise a thorough inspection of all electrical systems.
- ❑ Organise a thorough inspection of all plumbing systems.
- ❑ Check and repair guttering.
- ❑ Check and repaint interior surfaces.
- ❑ Check and repaint exterior surfaces.

POLICY FOR GOVERNMENT DEPARTMENTS' MANAGEMENT OF HISTORIC HERITAGE (2004)

POLICY FOR GOVERNMENT DEPARTMENTS' MANAGEMENT OF HISTORIC HERITAGE 2004

FOREWORD

New Zealand's historic heritage is unique and irreplaceable. It provides a crucial link with our past, and lies at the heart of our cultural identity.

Government departments are the stewards of a significant number of New Zealand's heritage buildings and sites. This policy on management of this historic heritage, which Cabinet has approved, ensures that these properties are conserved to internationally accepted standards for the benefit of present and future generations.

The policy requires each department to identify places which have historic heritage value and for which it is responsible. It establishes processes for best practice decision-making, including the preparation of conservation and maintenance plans.

Historic buildings are more likely to have a viable future if they are used. Rather than preventing change, the policy requires that any necessary alterations are carried out in a sympathetic manner and involve the least possible loss of heritage fabric and values consistent with use. Each department responsible for managing places of historic value is required to prepare guidelines for the implementation of the policy in the manner which best suits its specific requirements.

The policy will ensure that government departments fulfil their duty to safeguard the historic structures and places which they own or manage consistently. It will also enable government to endeavour to lead by example in taking a responsible approach to its vital role as custodian of unique heritage resources.

Helen Clark

Helen Clark
Minister for Arts, Culture and Heritage

September, 2004

INTRODUCTION

Purpose

New Zealand's historic heritage is rich, varied and unique. It is a legacy of all generations, from the earliest places of Māori use and occupation to inner-city buildings. Places of historic heritage value are integral to our sense of nationhood and are an important visual and historical presence in the landscape. Iwi and hapū identity and cultural well-being are inseparable from whakapapa connections with places of historic heritage significance to Māori.

Government departments are the stewards of a large and significant portfolio of historic heritage, which they manage on behalf of the people of New Zealand. These properties illustrate aspects of past and continuing government activities, and New Zealand's social and economic development, culture and identity.

The government is committed to the promotion and protection of New Zealand's historic heritage and has established legislation and agencies for this purpose. It has ratified the *Convention Concerning the Protection of the World Cultural and Natural Heritage* (1972). This policy is a further demonstration of the government's leadership role in historic heritage management.

The government regards the management of the historic heritage within its care as an important part of its responsibilities and will ensure that historic heritage values are taken into account when decisions are made. It has therefore decided to adopt a best practice approach in order to:

- respect and acknowledge the importance of the historic heritage in its care;
- foster an appreciation of and pride in the nation's heritage;
- ensure that its historic heritage is cared for and, where appropriate, used for the benefit of all New Zealanders;
- ensure consistency of practice between government departments;
- set an example to other owners of historic heritage, including local government, public institutions and the private sector;
- contribute to the conservation of a full range of places of historic heritage value;
- ensure that places of significance to Māori in its care are appropriately managed and conserved in a manner that respects mātauranga Māori and is consistent with the tikanga and kawa of the tangata whenua; and
- contribute to cultural tourism and economic development.

Departments holding properties of historic heritage value will work with the Ministry for Culture and Heritage on the development of guidelines based on these policies.

The potential constraints on the management of government historic heritage

It is recognised that there may be constraints on effective management of government heritage. Examples include:

- The special operational needs of particular departments, for example, the requirements of the New Zealand Defence Force, security of departmental buildings, and facilities for research institutions.
- Societal or cultural practices that may require physical changes to places, for example, changes to institutional practices in prisons and courts, the provision of facilities for immigrant and religious groups, and demographic changes.
- Compliance with legislation, such as the *Building Act* 2004, which may require balancing public health and safety with conservation objectives.
- The competing needs for limited resources.
- Other government policies on the disposal of surplus property.

HERITAGE PRINCIPLES

The following are the key principles designed to inform a best practice approach to heritage management in New Zealand by government departments, and reflect national legislation and international and national charters and guidelines.

Intrinsic values
Historic heritage has lasting value in its own right and provides evidence of the origins and development of New Zealand's distinct peoples and society.

Diversity
The diverse cultures of New Zealand and its diverse social and physical environments are important considerations in historic heritage identification and management.

Sustainability
Places of historic heritage value are finite and comprise non-renewable resources that need to be safeguarded for present and future generations.

Māori heritage
The government has a significant role in the management, with Māori, of places of significance to iwi and hapū throughout New Zealand.

Research and documentation
The conservation of historic heritage requires that the resource be fully identified, researched and documented.

Respect for physical material
Historic heritage practice involves the least possible alteration or loss of material of historic heritage value.

Understanding significance
The values of historic heritage places are clearly understood before decisions are taken that may result in change. Decision making, where change is being contemplated, takes into account all relevant values, cultural knowledge, and disciplines.

Setting and curtilage
The setting and curtilage of historic heritage places often have heritage value in their own right and are regarded as integral to a place.

POLICIES

The policies provide a framework for the management of government departments' historic heritage. As acknowledged in the constraints above, operational requirements of particular departments may need to be taken into account when implementing guidelines to fulfil these policies.

Identification and documentation

Policy 1 – Identification (a)
Government departments will identify places of historic heritage value on the land they manage, based on the following values: aesthetic, archaeological, architectural, cultural, historical, scientific, social, spiritual, technological, or traditional significance or value.

Policy 2 – Identification (b)
Government departments will work with iwi and hapū to identify places of historic heritage value to Māori on the land departments manage.

Policy 3 – Recognition
Government departments should support initiatives to recognise publicly the heritage values of historic heritage they manage, for example, registration under the *Historic Places Act* 1993 and listing on district plans.

Policy 4 – Documentation
Government departments will research, assess, document, and record changes to their historic heritage. Access to such records may need to be restricted in line with iwi or hapū requirements or for functional reasons.

Planning and work

Policy 5 – Planning (a)
Government departments will provide for the long-term conservation (including disaster mitigation) of historic heritage, through the preparation of plans, including management plans for historic reserves, maintenance or conservation plans, and specifications. Hapū and iwi will be consulted where their historic heritage is involved.

Policy 6 – Planning (b)
When planning and carrying out work adjacent to places of historic heritage value, government departments will ensure that heritage values are not adversely affected.

Policy 7 – Monitoring, maintenance and repair
Government departments will care for their places of historic heritage value by monitoring their condition, maintaining them, and, where required, repairing them.

Policy 8 – Alteration
Where alterations are needed for a new or continuing use of a place with historic heritage value, or to secure its long life, government departments will ensure that heritage values are protected.

Policy 9 – Standards
For all planning and work on historic heritage, government departments will ensure that accepted national conservation standards are met. The *ICOMOS New Zealand Charter* 1993 provides useful guidance.

Policy 10 – Skills and expertise
Government departments will ensure that appropriately qualified conservation professionals, conservators and trades people are involved in all aspects of the management of historic heritage. Planning and implementation should involve all relevant disciplines and all work should be supervised. Specialist conservation expertise will be sought where required for special fabric integral to a place, such as stained glass, carving and furnishings.

Policy 11 – New Zealand Historic Places Trust
Government departments will seek the advice of the Historic Places Trust on the management of items entered in the Trust's Register of Historic Places, Historic Areas, Wāhi Tapu and Wāhi Tapu Areas/Rārangi Taonga, on archaeological sites, and on places subject to a heritage order or a requirement for a heritage order notified by the Trust.

Use

Policy 12 – Use
Government departments will ensure that their places of historic heritage value in active use are managed in such a way that:

(i) they retain, where appropriate, an ongoing function in the life of the community compatible with their heritage values;
(ii) the continuation of original or long-term uses is strongly encouraged; and
(iii) they are not disposed of without fully exploring options for their reuse or alternative compatible uses.

Policy 13 – Disposal
Government departments will ensure that in disposing of a place with historic heritage value:

(i) heritage values are protected, for example, through a heritage covenant;
(ii) the public good is taken into account and financial return is not the sole criterion;
(iii) heritage values are maintained and the fabric of the place is not allowed to deteriorate while decisions about future use and disposal are made; and
(iv) the government's 'Sites of Significance' process is followed, where applicable.

Policy 14 – Acquisition and lease
Government departments will not acquire or lease a place with historic heritage value if changes are envisaged or required to enable its functional use that will result in a significant loss of heritage values.

Government responsibilities

Policy 15 – Community participation
Government departments will invite public participation, where appropriate, in the management of historic heritage of special significance through various initiatives, such as:

(i) seeking public comment on conservation plans or disposal of historic heritage;
(ii) establishing partnerships with communities of interest; and
(iii) voluntary notification of resource consent applications.

Policy 16 – Education
Where practical and appropriate, government departments will promote the heritage values of the historic heritage they manage and facilitate public access to properties. Government employees will be made aware of the heritage values of government properties.

Policy 17 – Māori heritage
The relationship of Māori communities with their ancestral lands, water, sites, wāhi tapu and other taonga will be recognised and provided for by government departments in the management of their historic heritage. Participation by iwi and hapū in the management of places identified as having historic heritage value to Māori will be facilitated.

Policy 18 – Monitoring
The performance of government departments will be reviewed to ensure that heritage management policy is being implemented effectively.

Policy 19 – Compliance
Government departments will ensure that they comply with relevant statutory and regulatory requirements, including the *Resource Management Act* 1991 and *Historic Places Act* 1993.

KEY SOURCE DOCUMENTS

ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value, ICOMOS New Zealand, 1993

International policies and guidelines

A Presence for the Past: A report by the Committee of Review – Commonwealth Owned Heritage Properties, Commonwealth of Australia, 1996

Heritage Strategies: A guide for Commonwealth Agencies, Department of the Environment and Heritage, Australian Government, 2004

Management Policies 2001, National Parks Service, United States Government, 2000

National Policy for the Disposal of Public Property, Australian Council of National Trusts, 2002

Protocol for the Care of the Government Historic Estate 2003, Department for Culture, Media and Sport, Government of the United Kingdom, London

The Care of Historic Buildings and Ancient Monuments, Guidelines for Government Departments and Agencies, Government Historic Buildings Advisory Unit, English Heritage, 1998

Treasury Board Heritage Buildings Policy, Treasury Board of Canada Secretariat, 1998

Legislation

Historic Places Act 1993

Resource Management Act 1991

Building Act 2004

Reserves Act 1977

Conservation Act 1987

GLOSSARY

Archaeological site means any place in New Zealand that –

(a) Either -

(i) Was associated with human activity that occurred before 1900; or

(ii) Is the site of the wreck of any vessel where that wreck occurred before 1900; and

(b) Is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand. (*Historic Places Act* 1993)

Best practice means a method that has been judged to be superior to other methods, or a procedure or activity that has produced outstanding results in one situation and could be adapted to improve effectiveness, efficiency and/or innovation in another situation.

Curtilage means the geographical area that provides the immediate physical context for a heritage place. Note that land title boundaries and heritage curtilages do not necessarily coincide.

Government departments includes, for the purposes of this policy, the New Zealand Defence Force, New Zealand Police, and Parliamentary Service. (It is recognised that Parliamentary Service is not an instrument of the executive government and retains the separate rights and responsibilities of the House of Representatives and the Speaker.)

Historic heritage means those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, deriving from any of the following qualities: archaeological, architectural, cultural, historic, scientific, technological; and includes: historic sites, structures, places, and areas; archaeological sites; sites of significance to Māori, including wāhi tapu; surroundings associated with the natural and physical resources. (*Resource Management Act* 1991)

Historic heritage of significance to Māori means all places of Māori origin as well as later places of significance to Māori, as determined by iwi and hapū.

Place encompasses, for the purposes of this policy, all historic heritage as defined above, including areas.

CERTIFICATE OF TITLE

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**SA59B/897**
Land Registration District	**South Auckland**
Date Issued	22 May 1996

Prior References
SA25B/356

Estate	Fee Simple
Area	2.8832 hectares more or less
Legal Description	Lot 1 Deposited Plan South Auckland 75684
Purpose	reserve for aerodrome purposes

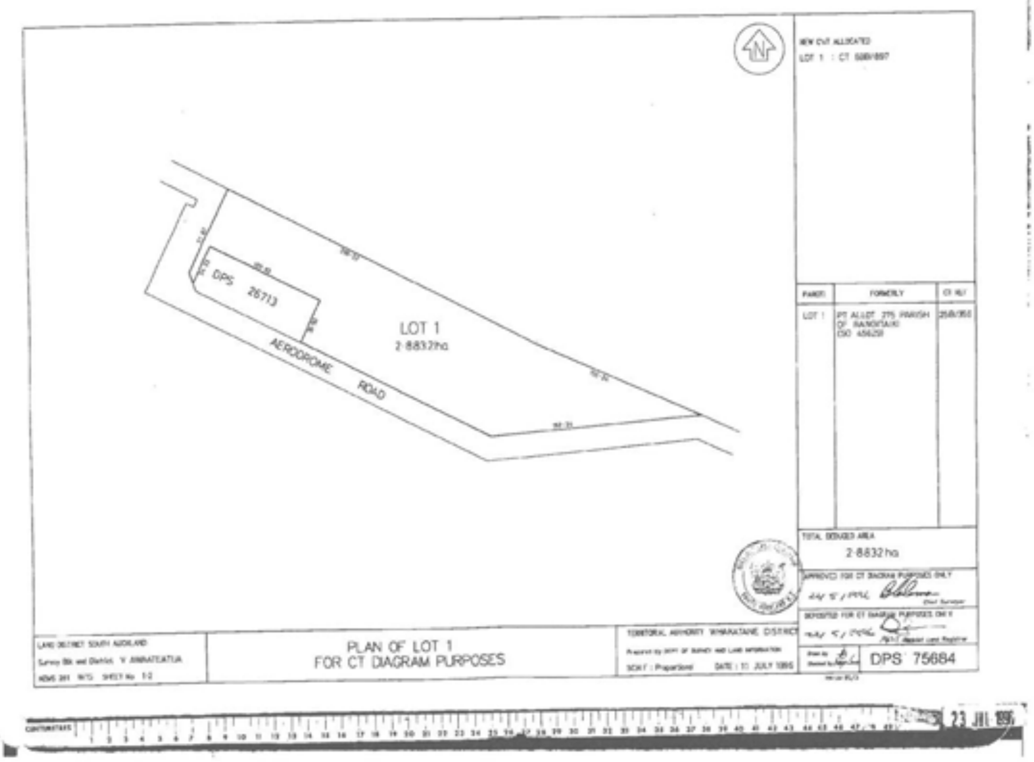
Proprietors
The Whakatane District Council

Interests

This Certificate of Title is issued for leasing purposes only under Airport Authorities Act 1966

B583464.1 Lease to The Whakatane District Council Term: 99 years commencing on 3.11.1999 - 14.12.1999 at 10:11 am

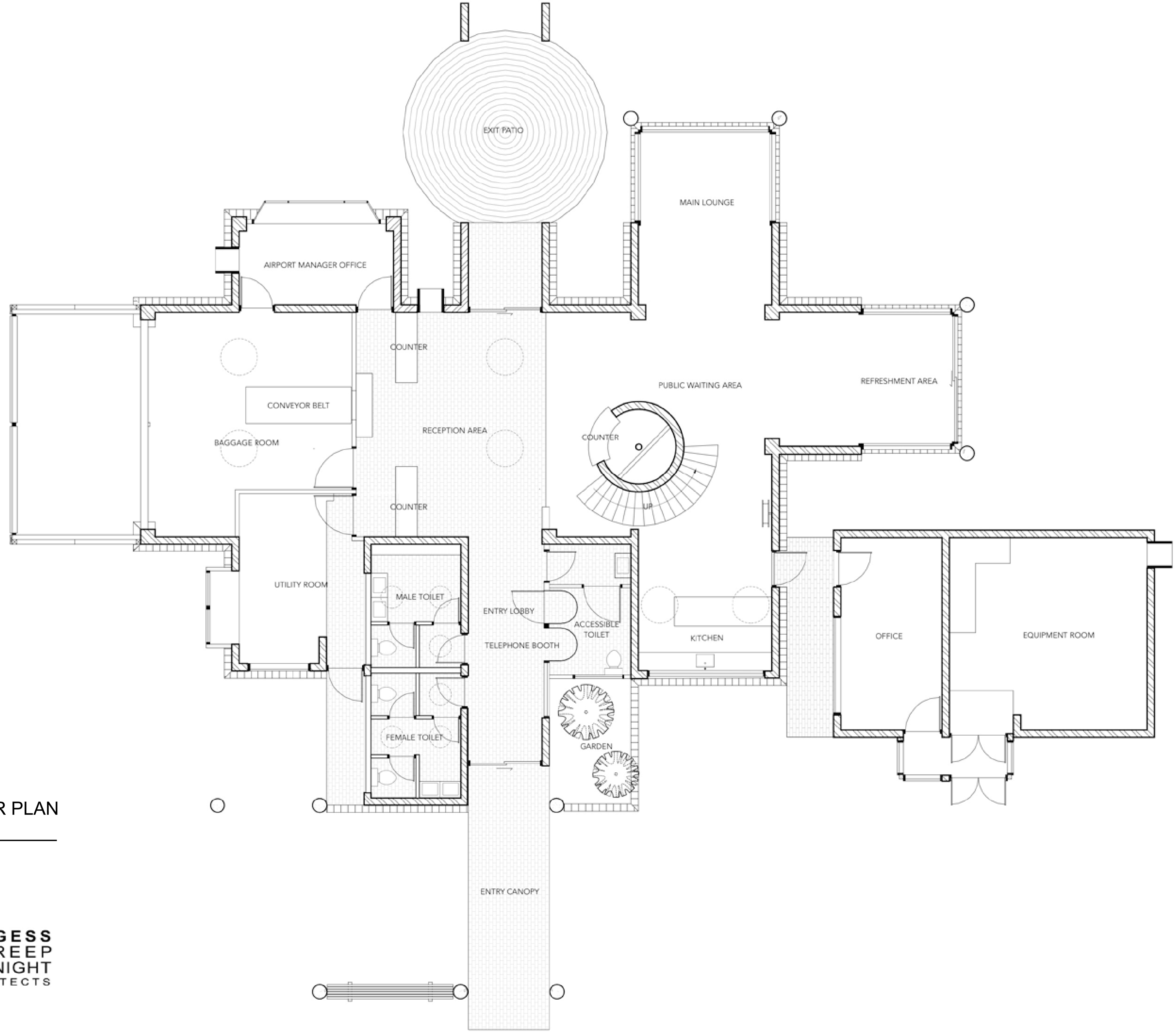
Subject to Part 4 Subpart 9 Ngati Awa Claims Settlement Act 2005



N
LOT 1
2·8832ha
DPS 26713
AERODROME ROAD
TOTAL DEDUCED AREA
2·8832ha
LAND DISTRICT SOUTH AUCKLAND
PLAN OF LOT 1
FOR CT DIAGRAM PURPOSES
TERRITORIAL AUTHORITY WHAKATANE DISTRICT
SCALE : Proportional DATE : 11 JULY 1995
DPS 75684
23 JUL 1996

Appendix 16.

ARCHITECTURAL DRAWINGS – EXISTING PLANS – BY BURGESS, TREEP & KNIGHT ARCHITECTS



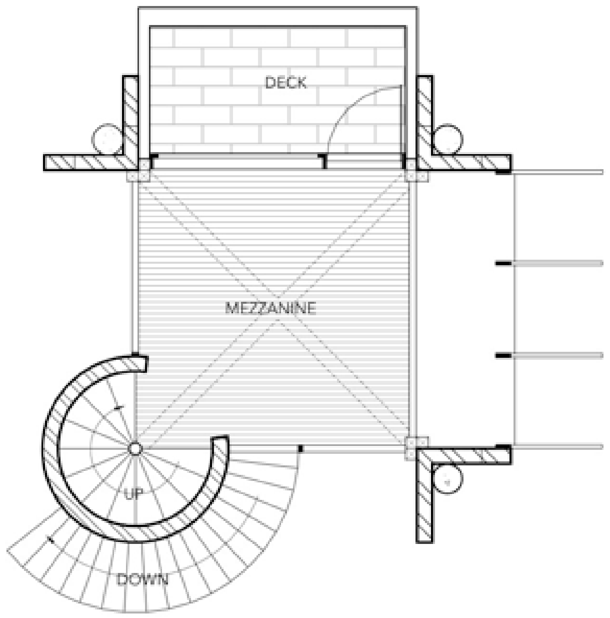
GROUND FLOOR PLAN
AS EXISTING (2016

SCALE 1.100 @ A3

KEY PLAN

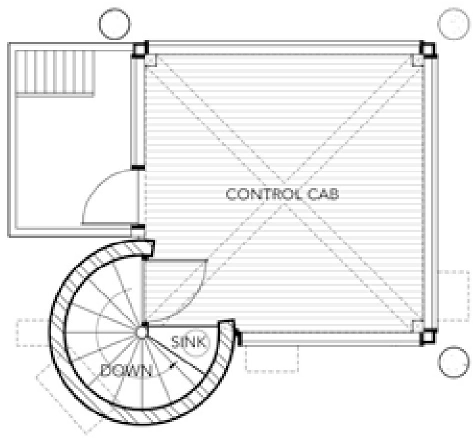
32a ST MARYS RD
SAINT MARYS BAY
P.O BOX 6837
WELLESLEY ST
PH - 09 3030412

BURGESS TREEP & KNIGHT ARCHITECTS



MEZZANINE FLOOR PLAN
AS EXISTING (2016)

SCALE 1.100 @ A3



FIRST FLOOR PLAN
AS EXISTING (2016)

SCALE 1.100 @ A3

KEY PLAN

32a ST MARYS RD
SAINT MARYS BAY
P.O BOX 6837
WELLESLEY ST
PH - 09 3030412

BURGESS TREEP & KNIGHT ARCHITECTS

GEOTECHNICAL REPORT - IRBA GEOLOGICAL ENGINEERING CONSULTANTS

IRBA

GEOLOGICAL
ENGINEERING
CONSULTANTS

WDC Geotechnical Project- Civic Centre, Airport, Water Treatment & Greenwaste Site Investigation

February 2016

Whakatane District Council

Project Number 1161

18 Park Rd • Lower Hutt 5010 • New Zealand • Telephone (+64) 4 565 1777 • www.irba.co.nz

Contents

2 Exploratory Boreholes

2.1 Scope of Work

IRBA subcontracted the borehole drilling to GEOTECH Drilling, specialists in geotechnical and environmental investigations.

2.2 Plant and Equipment.

GEOTECH supplied a tractor mounted SONIC rig for continuous core recovery (Figure 1), with a retractable SPT boom to facilitate SPT recordings at 1.5m intervals.

Figure 1. GEOTECH sonic rig, BH 17 Mayors carpark

Drill hole setup followed the contractor site walkabout with GEOTECH drilling, followed by the WDC site walkabout where adjusted borehole and CPT mark outs were discussed and approved, along with the **Contract Work Programme** submitted 12 December 2015.

Final borehole locations were determined to within 0.5m using GPS and site photographs.

10 drillholes were completed (WKT_BH 11-20) in positions designated by WDC site representatives, accommodating minor geographic shifts to avoid underground services or significant above ground facilities.

Sites are illustrated in Figures 2,3,&4 overlying Whakatane or Goggle photography.

Figure 2 General Site Locations

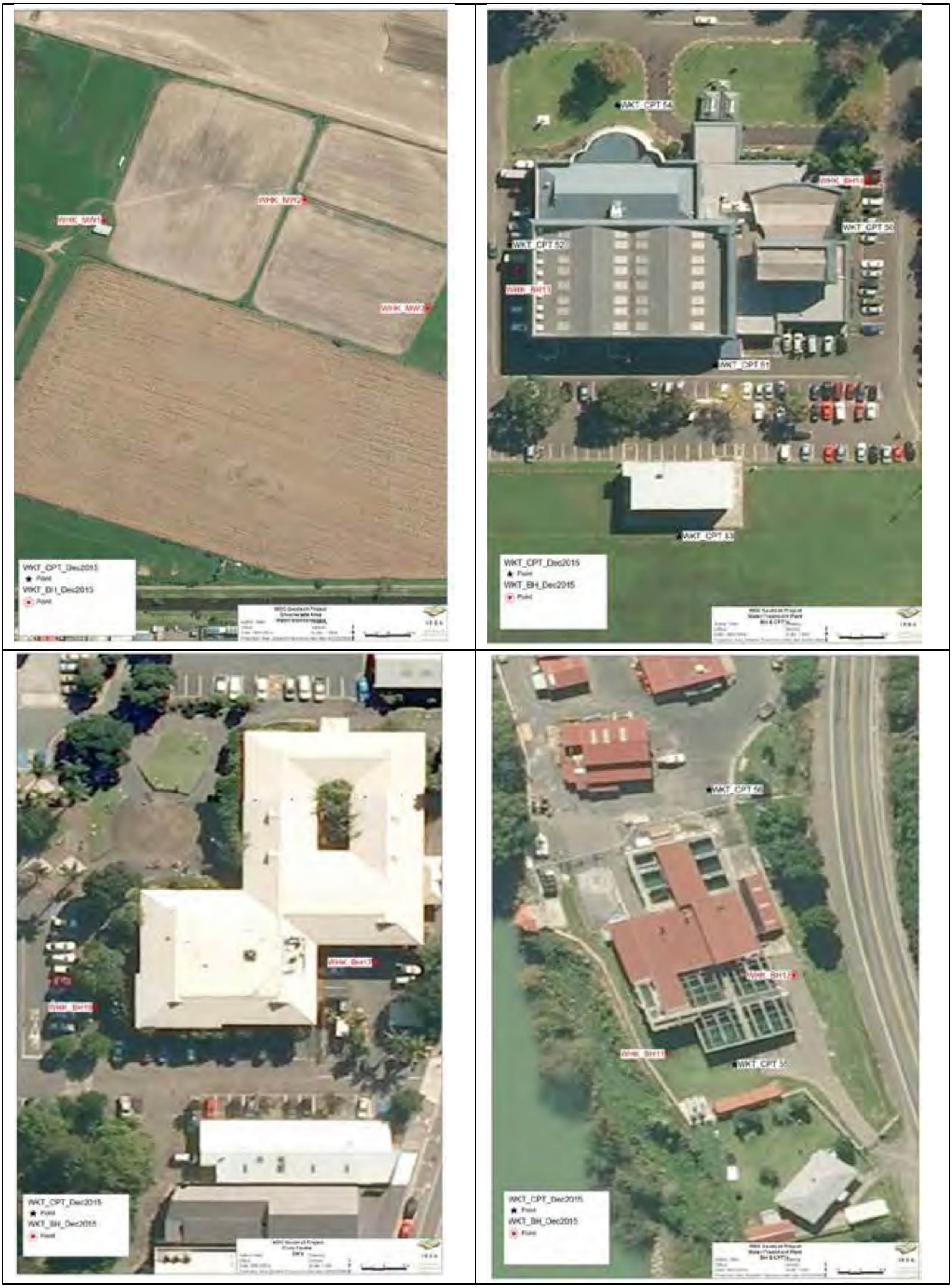


Figure 3. Site bore hole locations

Figure 4 Airport BH and CPT locations

2.3 Measurement and Tolerances

All drilling units, measurements and accuracy tolerances have been adhered to.

2.4 Obstructions

No obstructions were encountered however one vacuum process appeared within the zone requiring an inspector to layout the underground utilities, on inspection the utilities were outside of the required notification zone.

2.5 Method of drilling

Sonic drilling was recommended as the most appropriate method of drilling achieving very high recovery and large diameter samples suitable for stratigraphic mapping.

2.6 Flushing medium

Fresh water was supplied from the Water Treatment Plant, and was the only drilling additive used; daily recording of water usage averaged (~1000l/10m drilling).

2.7 Temporary Casing

All holes were continuously cased, until refusal of penetration. All casing was removed. As free running sands were frequently encountered it was not unusual for ingress of sand at the bottom of the hole despite continuous casing. This was flushed out prior to STP/further coring.

2.8 Ground Water Observations

Boreholes were dipped using an electronic dip sensor, and recorded on Daily report sheets.

These records have been digitised onto the IRBA Geotechnical logs, and are included in the digital data inventory as a CSV file. CPT logs also recorded water levels as shown on the graphic log, as inferred from pore pressure measurements.

2.9 In Situ Tests

SPT test were carried out at 1.5m intervals (as negotiated with WDC Representative P Smith) in accordance with NZS 4402 Test 6.5.1.

Results are recorded on:
Daily drillers Report (covered under reporting).
SPT sample cards (placed in the SPT samples and kept in appropriate interval location in the core boxes, Figure 5).

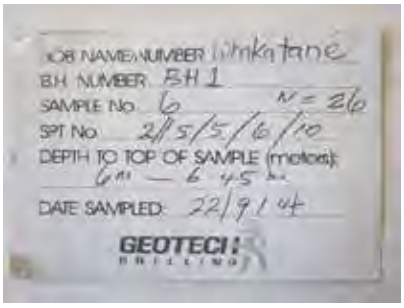

JOB NAME/NUMBER Whakatane
B.H NUMBER BH 1
SAMPLE No 6 N = 26
SPT No 2/5/5/6/10
DEPTH TO TOP OF SAMPLE (metres): 6m — 6.45m
DATE SAMPLED 22/9/14
GEOTECH DRILLING

Figure 5. SPT Card BH1 sample and SPT record

2.10. Sampling

2.10.1 Frequency of sampling

Drillhole diameter was 95mm, whole core was extruded into a plastic split tube, then placed in numbered intervals in plastic corrugated core boxes (Figures 6 & 7). The core boxes are stored at the WDC site Keepa Road, Whakatane.


Figure 6. Sonic split sample extrusion


Figure 7. Sonic split tube sample complete

2.10.2 Split Tube Samples

SPT samples were collected, bagged, and inserted in their appropriate locations at 1.5m intervals in the bore hole core boxes (Figures 8 & 9 SPT in operation). Samples were double bagged, with the above sample card inserted between the two encasing sample bags. As noted photographs of the sample in the SPT split were also collected and filed as per "photography".

Figure 8. SPT hammer in progress

Figure 9. SPT setting up and marking 75mm intervals

2.10.3 Open tube sampling

Sampling by the sonic rig recovers a virtual 100% sample in situ, with some disturbance of the first 450mm where the SPT tube has penetrated. With such a large diameter sample, overall disturbance is minimised, and the whole core is retained in core boxes, metered and numbered consecutively as illustrated in "photography".

Minor disturbance was noted on the external 5-7mm, due to sonic vibration. A slice was made along the core for effective logging.

Photography

Borehole photography is tabled in individual Borehole folders labelled BH 11-20.
Photos are labelled in three categories:

Core box 1-(X)

Full core box photos from commencement to bottom of hole, identified by Box No and interval (Figure 10).

SPT Photos

Individual photographs of each SPT split interval is recorded (Figure 11).

Sonic Rig Core Splits Photos

Several photos are taken to provide closer examination of "in situ" core, these are labelled as split core samples, or close-up photos of particular geological features (Figures 12 & 13).

Photo totals are included in the Bore Hole Logs, but as the photo record is continuous, individual photos are not identified with individual intervals.

Figure 10 Core box WKT BH11 Box 7-9.85m.

Figure 11 SPT record: WKT BH11 SPT 6m.

Figure 12. In situ split tube core: WKT BH11 1.5-3.0m.

Figure 13. Close-up photo: WKT BH11 splits 16m fault gouge?

2.10.4 Sample records

All samples are retained in consecutively numbered core boxes, as noted above, so individual samples have not been numbered, simply the whole core is retained.

Chip trays have been retained for each hole for diagnostic and convenience purposes. These are "teaspoon" sized samples collected at 1.5m intervals representative of the interval drilled, along with individual units of interest for examination. This short-cuts the process of requiring return to the original core boxes to examine individual features. Currently these chip trays reside at IRBA offices in Belmont, Lower Hutt (Figures 14 & 15).

Figure 14. Chip tray BH 15

Figure 15. Chip tray close up BH 15 8-15m

2.11 Decontamination

No contaminated land was encountered

2.12 Backfilling and Reinstatement

All holes were backfilled with material arising from the drilling, and where a shortage was encountered, clean sand supplied by Mitre 10 in bag form was used. Retained grass sods were reinstated, and grass seed sown if required.

Pavement was avoided; minor tarmac disturbance was repaired using an asphalt biscuit.

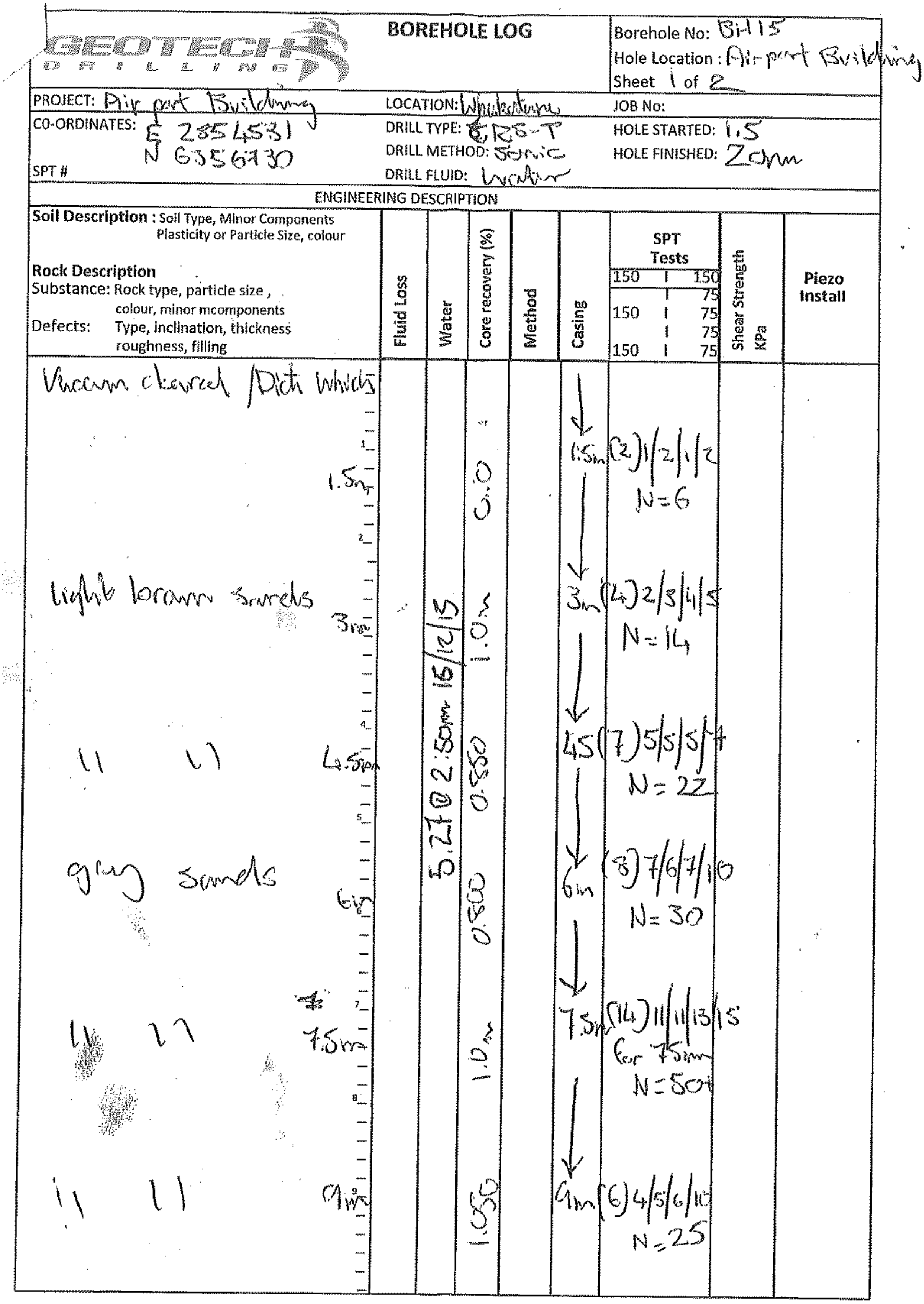
2.13 Suppliers Records

Geotech reports were maintained daily and representative examples were forwarded to the client. These reports comply with "supplier's records" where appropriate noting the following:

All drillholes were cased, with casing following the drill bit continuously, so no individual recording of casing was made. No drilling fluids were used, occasional water was added to aid lubrication; the volume of water is recorded as used (~1000l/10m drilling).

Drill runs were always 1.5m, so individual drill runs are not recorded, core is recovered in 1.5m intervals. All holes were backfilled with sand purchased from Mitre 10, where appropriate. Water levels were measured using a downhole contact sensing meter and are recorded on the Drillers Daily Report.

Daily Drill Reports 11-20 (Figure 16)	GEOTECH daily drilling reports, from site driller, includes water depth readings, SPT's, etc. All bore holes were completed.



GEOTECH DRILLING

BOREHOLE LOG

Borehole No: BH15
Hole Location: Airport Building
Sheet 1 of 2

PROJECT: Airport Building
CO-ORDINATES: E 2854531 N 6356730
SPT #

LOCATION: Whakatane
DRILL TYPE: GRS-T
DRILL METHOD: Sonic
DRILL FLUID: Water

JOB No:
HOLE STARTED: 1.5
HOLE FINISHED: 20m

ENGINEERING DESCRIPTION

Soil Description : Soil Type, Minor Components Plasticity or Particle Size, colour

Rock Description
Substance: Rock type, particle size, colour, minor mcomponents
Defects: Type, inclination, thickness roughness, filling

Description	Depth	Fluid Loss	Water	Core recovery (%)	Method	Casing	SPT Tests (150 I 150 / 75 / 150 I 75 / 75 / 150 I 75)	Shear Strength KPa	Piezo Install
Vacuum cleared /Dich which									
	1.5m			0.0		1.5m	(2) 1/2/1/2 N=6		
light brown sands	3m		5.27 @ 2:50pm 16/12/15	1.0m		3m	(4) 2/3/4/5 N=14		
" "	4.5m			0.550		4.5	(7) 5/5/5/7 N=22		
grey sands	6m			0.550		6m	(8) 7/6/7/10 N=30		
" "	7.5m			1.0m		7.5m	(14) 11/11/13/15 for 75mm N=50+		
" "	9m			1.050		9m	(6) 4/5/6/10 N=25		

Figure 16 GEOTECH daily drillers report example

2.14 Re-drilling

No re-drilling was required.

2.15 Geological Logging

Detailed engineering logging was completed in accordance with NZGS guidelines. Logging includes complete photographic records and detailed down-hole descriptions in the following three forms:

A3 onsite field geotechnical logging, scanned to file (Figure 17).

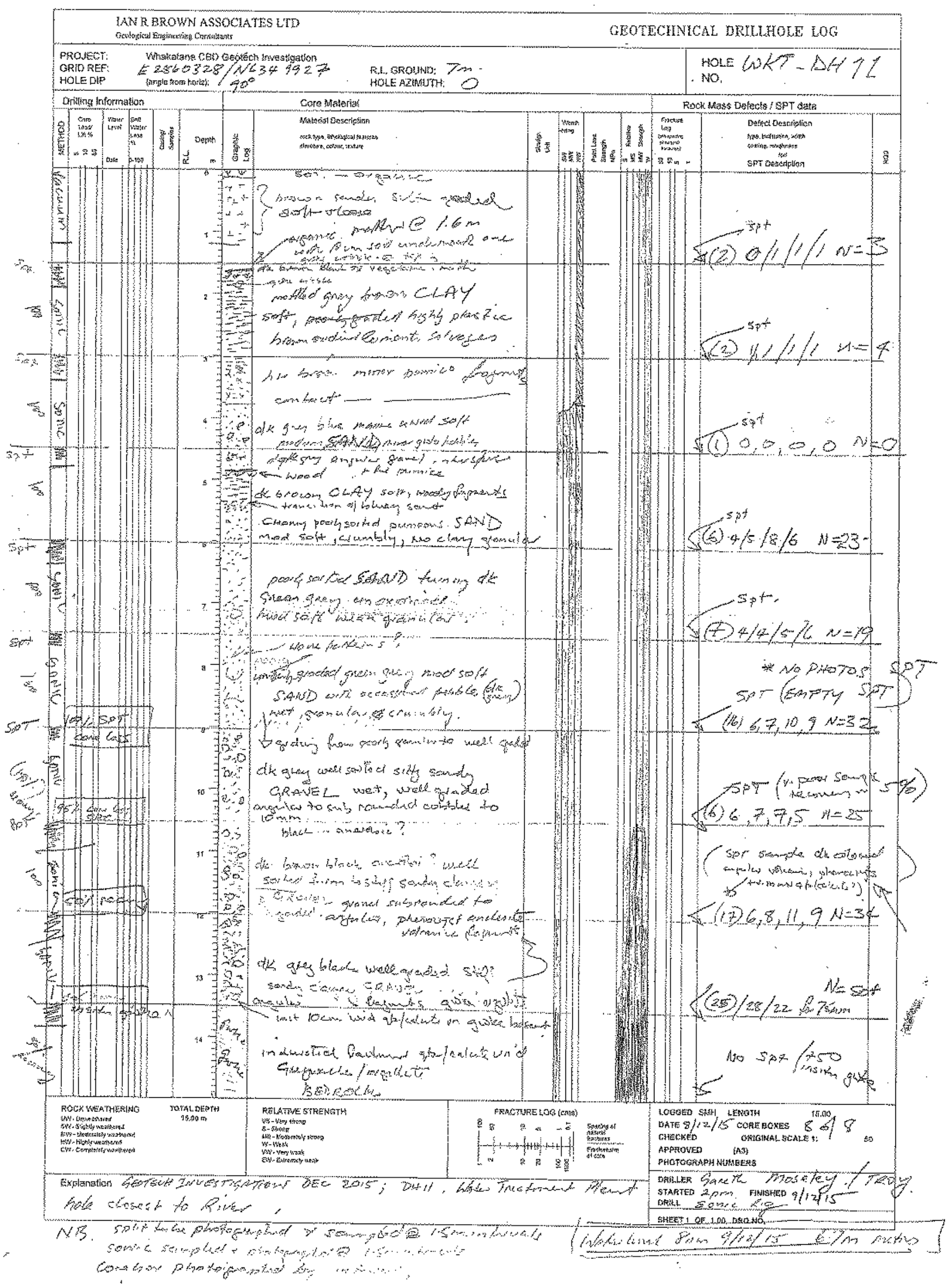
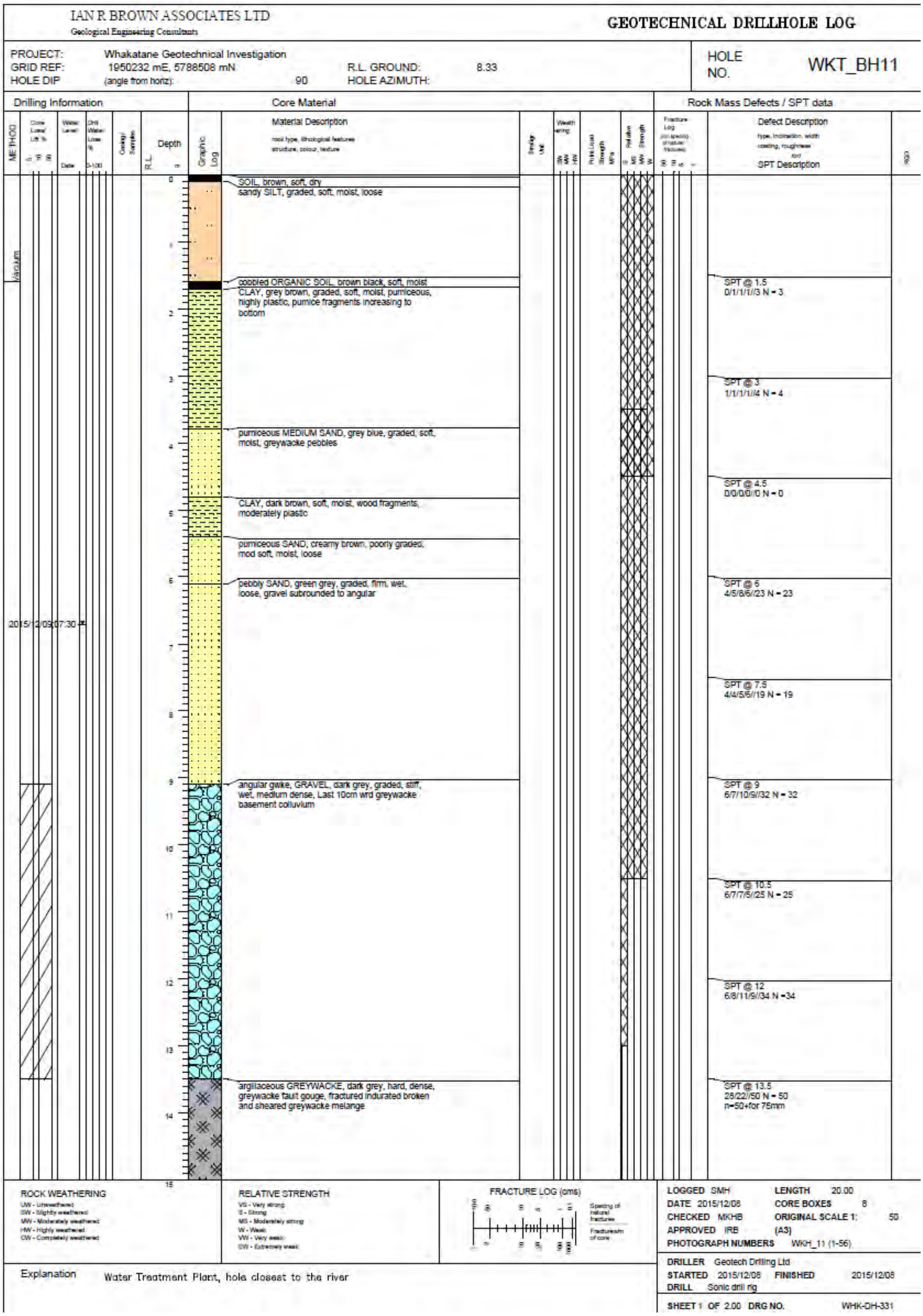


Figure 17. IRBA field geotechnical log (BH11)

IRBA Geotechnical log (Figure 18) A3 Geotechnical Log incorporating generalised geology, SPT's, water depths, locations and RL's etc;



IAN R BROWN ASSOCIATES LTD
Geological Engineering Consultants

GEOTECHNICAL DRILLHOLE LOG

PROJECT:	Whakatane Geotechnical Investigation
GRID REF:	1950232 mE, 5788508 mN
HOLE DIP (angle from horiz):	90
R.L. GROUND:	8.33
HOLE AZIMUTH:	
HOLE NO.	WKT_BH11

Depth (m)	Material Description	SPT Description
0	SOIL, brown, soft, dry; sandy SILT, graded, soft, moist, loose	
1.5	cobbled ORGANIC SOIL, brown black, soft, moist; CLAY, grey brown, graded, soft, moist, pumiceous, highly plastic, pumice fragments increasing to bottom	SPT @ 1.5 0/1/1/1//3 N = 3
3		SPT @ 3 1/1/1/1//4 N = 4
3.8	pumiceous MEDIUM SAND, grey blue, graded, soft, moist, greywacke pebbles	
4.5		SPT @ 4.5 0/0/0/0//0 N = 0
4.8	CLAY, dark brown, soft, moist, wood fragments, moderately plastic	
5.4	pumiceous SAND, creamy brown, poorly graded, mod soft, moist, loose	
6	pebbly SAND, green grey, graded, firm, wet, loose, gravel subrounded to angular	SPT @ 6 4/5/6/6//23 N = 23
7.5		SPT @ 7.5 4/4/5/6//19 N = 19
9	angular gwke, GRAVEL, dark grey, graded, stiff, wet, medium dense, Last 10cm wrd greywacke basement colluvium	SPT @ 9 6/7/10/9//32 N = 32
10.5		SPT @ 10.5 6/7/7/5//25 N = 25
12		SPT @ 12 6/8/11/9//34 N = 34
13.5	argillaceous GREYWACKE, dark grey, hard, dense, greywacke fault gouge, fractured indurated broken and sheared greywacke melange	SPT @ 13.5 28/22//50 N = 50 n=50+for 75mm

Method: Vacuum
Water level: 2015/12/08 07:30

ROCK WEATHERING
UW - Unweathered
SW - Slightly weathered
MW - Moderately weathered
HW - Highly weathered
CW - Completely weathered

RELATIVE STRENGTH
VS - Very strong
S - Strong
MS - Moderately strong
W - Weak
VW - Very weak
EW - Extremely weak

FRACTURE LOG (cms)

LOGGED	SMH	LENGTH	20.00
DATE	2015/12/08	CORE BOXES	8
CHECKED	MKHB	ORIGINAL SCALE 1:	50
APPROVED	IRB	(A3)	
PHOTOGRAPH NUMBERS	WKH_11 (1-56)		
DRILLER	Geotech Drilling Ltd		
STARTED	2015/12/08	FINISHED	2015/12/08
DRILL	Sonic drill rig		
SHEET 1 OF 2.00		DRG NO.	WHK-DH-331

Explanation: Water Treatment Plant, hole closest to the river

Figure 18. IRBA Geotechnical Log (WHK BH11)

WKT Drill logs BH11_20 digital records	**WKT Drill logs BH11_20.csv**
	Sheet 1 CSV files of geotechnical logging
	Sheet2 CSV file of geotechnical logging codes
	Bore hole locations **WKT Drill collars BH11_20.csv**.
	CPT hole locations **WKT_CPT_Dec2015.csv**
Water levels, box nos, photos etc.	Miscellaneous data collated into digital format on **WHK_BH_coreboxes,photo numbers, waterdepth_times.csv**

Collation of all Drill data is supplied in AGS format as Whakatane_2015 data.ags

These records are stored in the attached WDC Data Inventory.

3 Static Cone Penetration Tests (CPT)

A total of 10CPTs were surveyed in this investigation, with 10 CPT's being satisfactorily completed.

The locations of the CPT holes are illustrated in Figure 2, 3 and 4.

3.1 Scope of Work

Testing was all carried out to the requirements of NZS 4402:1986, Test 6.5.3.

3.2 Plant and Equipment

GEOTECH supplied a 2006 Isuzu FVZ1400 4x6 rig with CPT capabilities as shown in (Figures 19-22).

3.2.1 Standard Cone

An electrical friction cone was used; certificated as supplied from the manufacturer at the commencement of this survey.

Figure 19. GEOTECH CPT rig on Strand, note pedestrian management

Figure 20. GEOTECH CPT rig, zero'ing electrics

Figure 21. GEOTECH CPT rig, computer real time recording

Figure 22. CPT Real time record CPT 17

3.3 Checks and Calibration

The following documentation was supplied with the new cone:

GEOTECH

CERTIFICATE FOR CPT PROBE 4221

Probe No	4221
Date of Calibration	20140905
Replacement of	
Calibrated by	Christoffer Hurtig
File name	4221 20140905 111505.doc

Point Resistance		Tip Area 10cm²
Maximum Load	100	MPa
Range	100	MPa
Scaling Factor	**850**	
Resolution	0.8976	kPa
Area factor (a) at 1MPa	0.845	

ERRORS
Max. Temperature effect when not loaded 45.7776 kPa
Temperature range 0 –40 deg. Celsius.

Local Friction		Sleeve Area 150cm²
Maximum Load	0.5	MPa
Range	0.5	MPa
Scaling Factor	**3948**	
Resolution	0.0097	kPa
Area factor (b) at 1MPa	0.001	

ERRORS
Max. Temperature effect when not loaded 0.5917 kPa
Temperature range 0 –40 deg. Celsius.

Pore Pressure		
Maximum Load	2.5	MPa
Range	2	MPa
Scaling Factor	**3652**	
Resolution	0.0209	kPa

ERRORS
Max. Temperature effect when not loaded 3.2813 kPa
Temperature range 0 –40 deg. Celsius.

Tilt Angle.	Scaling Factor 1	
Range	0 - 40	Deg.

Temperature sensor.	Scaling Factor 1	
Range	0 - 40	Deg. Celsius

BACK-UP MEMORY

GEOTECH Specialists in Geotechnical Field Equipment

Calibration during testing:

Regular testing and checking is demonstrated on the CPT daily record sheet (Figure 27), where tip and friction diameter are recorded, and rod bending tilt angle is noted if changed from vertical.

The cone is zero'd before and after each test and shown on the CPT pdf graph log as 0 and X at the start and end of each test (Figure 28). These are also recorded manually on the record sheet (Figure 27).

3.4 Procedures

GEOTECH used a Ditchwitch Vacuum dredge to excavate starter pits to 1.2m on all CPT and drill holes with the exception of the water monitoring holes, using hand and crowbar methods where required (Figures 23-26). The materials were logged, and samples collected at 0.5, and 1.0m to represent the intervals excavated. These samples are labelled and stored in the WDC Keepa Street yard.

Figure 23. GEOTECH Vacuum trailer

Figure 24. Vacuum wand and crowbar in action

Figure 25. Vacuum wand recovering material

Figure 26. Vacuum debris and fill recovered

3.5 Records and Results

GEOTECH maintains several recording processes in accordance with standard practice.

A daily record sheet (Figure 27) manually records 3.5 (a)—(k), as shown on for 9/12/15.


GEOTECH DRILLING

CPT LOG

ASTM Standard 5778-12
Tip 35.3-36mm Preferred 35.7
Friction 0.0mm-0.35mm
Larger than tip

OPERATOR: Mark

JOB NAME: Whakatane Airport
JOB #:
ADDRESS: 116 Aerodrome Rd
CLIENT: TRB
RIG TYPE: Truck

CONE NUMBER: 4221
DATE: 9.12.15
DISTANCE TO NEXT CALIBRATION AT START OF DAY: 1364.0m
TIP DAI: 35.72 UC3.84
FRICTION DAI: 35.98

CPT No	START TIME	QC	U2	FS	FINISH TIME	DEPTH	WATER	GPS POSITION FORMAT	Reason For Refusal
01	11:51	11.06 / -0.05	270.4 / -4.5	118.3 / 0.2	1225	16.9	4 / 5.05	S37.92489 / E176.91768	QC and bending
02	1:50	11.09 / -0.08	270.2 / -3.8	118.4 / 0.0	2:18	13.8	4 / 4.82	S37.92454 / E176.91763	" " "
03	234	11.07 / -0.06	270.0 / -3.0	118.2 / 0.2	310	17.0	4 / 5.17	S37.92458 / E176.91803	" " "

Figure 27. CPT daily record sheet (9/12/15)

These data are then transposed onto clean copy sheets showing CPT records as a graphic log, showing cone resistance qc, sleeve friction fs, friction ratio Rf, and pore water pressure u2 and includes their interpreted soil classification by (Robertson 1990). (Figure 28). Water depth, cone number, tip and sleeve area and cone pressure are unique to each record, along with zero calibration as discussed in 3.4.

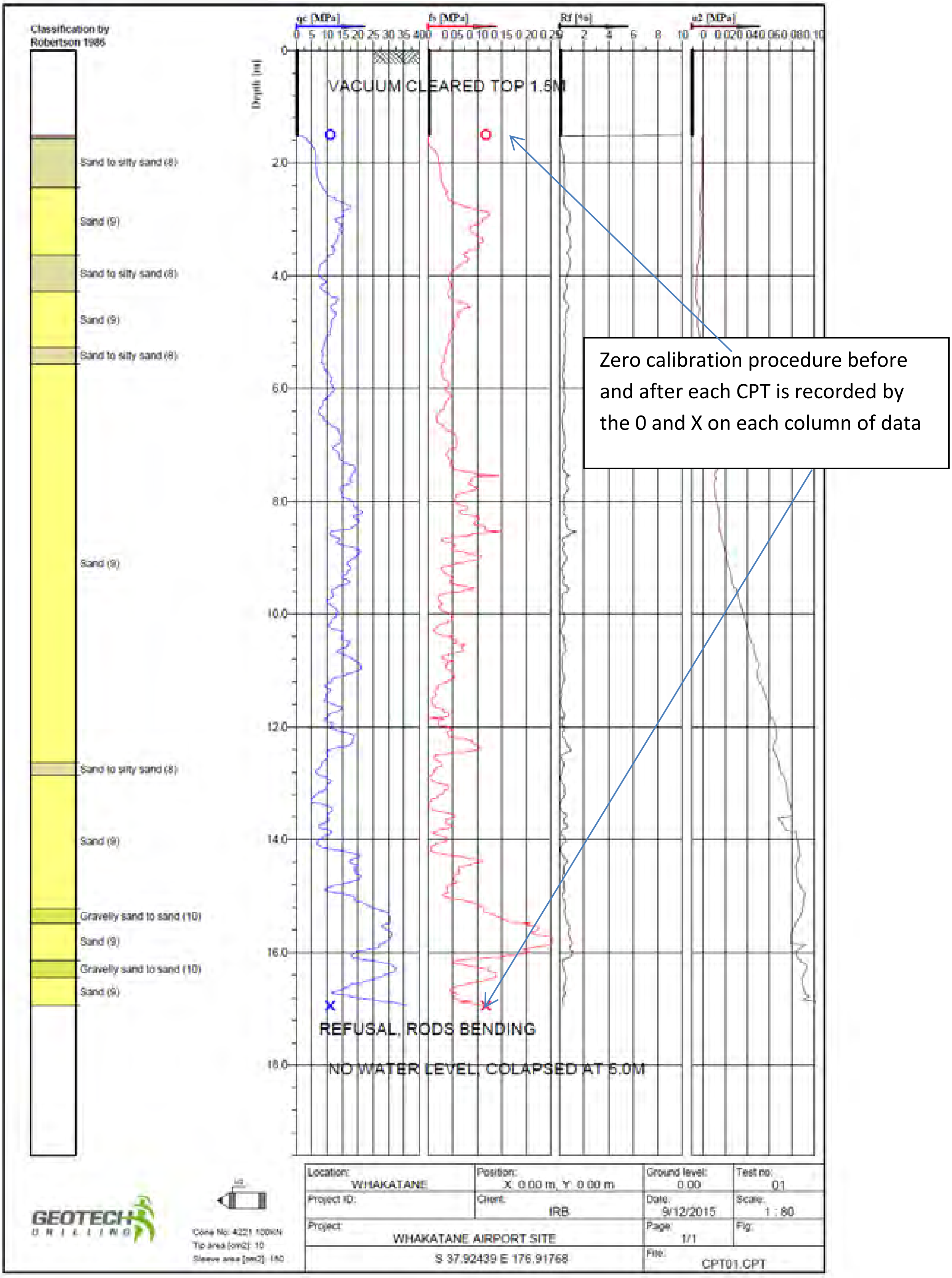


Figure 28. GEOTECH CPT Graph log C02

3.6 Reporting Format

Results of the tests and plots are stored in the attached WDC Data Inventory.

Key Fields:

Column A	H is depth
Column B	qc is point resistance
Column C	fs is friction
Column D	u2 is pore water pressure
Column E	Ta is tilt angle of the cone
Column F	v is speed of penetration
Column G	Rf is friction ratio
Column H	Uo is Dissipation
Column I	qt is Corrected point resistance
Column J	ft is Corrected friction
Column K	sigmaVo is Total overburden stress

3.6.1(d) ***Collar locations of individual CPT are collated in the attached spreadsheet*** **WKT_CPT_Dec2015.csv**

. Coordinates are in NZTM, located by GPS and aerial photography.

3.6.1(e) Collar elevations have been assigned from EBOP Lidar data (held under licence from Environment Pay of Plenty licence no EBOPIS200305).

3.6.1(a-p) Excluding (d,e) this data is included in the graphic log for each individual log.

3.6.2 (a) Tabulated results in CSV for individual ten CPT's WKT_CPT 50-C59 with the above key fields are tabulated in the WDC Data Inventory. Note: on the logs individual hole designations are labelled Site (eg War Memorial) then CPT 01….

4.9 Monitoring Well Specification

Three water monitoring boreholes were installed on the greenwaste site (Keepa Road) following the monitoring Well Specification detailed in 4.9. and BOP Regional Council Resource Consent 68214; illustrated in the following photographs (figures 29-34):

Figure 29 100mm uPC casing

Figure 30 Machine slotted screen

Figure 31 silica sand gravel pack

Figure 32 upstand prior to enclosing in monument

Figure 33 Completed galvanised steel upstand and posts

Figure 34 Modified CPT rig as used 2015

4.10 Borehole Development

All three holes were developed using the vacuum pump, and all showed clear running water within 10-15 minutes.

Sample Records

Boreholes were continuously sampled from surface, and a complete record has been recovered and labelled in core-boxes stored at the Keepa Store. Note logging (WKT MW_1-3) in field and IRBA logging records are supplied, and photography of the core from split tube, and in core-box is retained as per drilling records.

4.11 Decontamination

As the site is not yet used there was no decontamination process. However bits, threads and moving parts were carefully cleaned and non-contaminant grease was used in the drilling process.

5.10 Resource Consent

Prior to undertaking the boring of water monitoring holes:

The resource consent conditions were sited and understood.

Each borehole is logged and photographed and a complete record of material down hole was retained and stored in the WDC Keepa Road site.

The bore construction diagram was adhered to religiously, and locations are attached to the driller's logs.

Accurate coordinates of the boreholes were obtained via GPS and detailed photogrammetry.

A separate report with the Borehole Completion Report and attachments will be forwarded to BOP Regional Council.

The ingredients of this report and the required Completion Reports are attached in the Data Inventory labelled Water Monitoring Boreholes being **water monitor bh mw1-3 completion.pdf**

WDC Geotech Data Inventory

▸ 1133 WDC CBD Seismic Investigation ▸ Drilling ▸ 2015 ▸ 2016 Deliverables ▸

Burn New folder

Name	Date modified	Type	Size
Borehole Data	27/01/2016 5:50 p....	File folder	
CPT Files	27/01/2016 5:33 p....	File folder	
Geotech Daily, H&S, CPT, BH, WM data	27/01/2016 6:16 p....	File folder	
Photographs	1/02/2016 3:47 p.m.	File folder	
Report	1/02/2016 4:58 p.m.	File folder	
Water Monitoring Boreholes	1/02/2016 4:47 p.m.	File folder	

Borehole Data

▸ 1133 WDC CBD Seismic Investigation ▸ Drilling ▸ 2015 ▸ 2016 Deliverables ▸ Borehole Data

Burn New folder

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WKDH11_2.pdf	27/01/2016 4:11 p....	Adobe Acrobat D...	69 KB
WKDH12_1.pdf	27/01/2016 4:16 p....	Adobe Acrobat D...	81 KB
WKDH13_1.pdf	27/01/2016 4:17 p....	Adobe Acrobat D...	81 KB
WKDH13_2.pdf	27/01/2016 4:17 p....	Adobe Acrobat D...	70 KB
WKDH14_1.pdf	27/01/2016 4:17 p....	Adobe Acrobat D...	81 KB
WKDH14_2.pdf	27/01/2016 4:18 p....	Adobe Acrobat D...	67 KB
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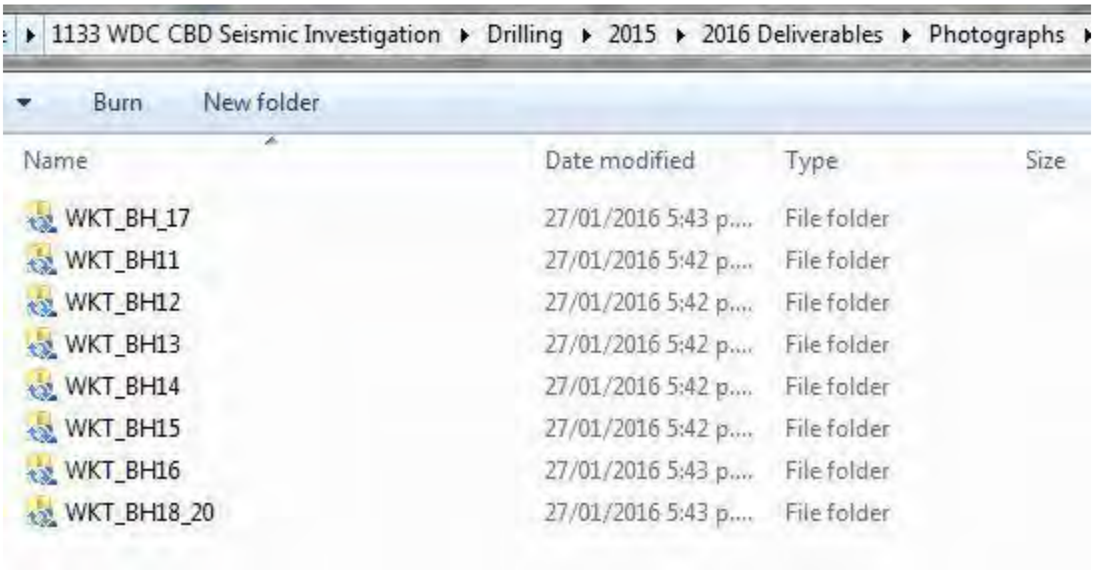
WKDH20_1.pdf	27/01/2016 4:20 p....	Adobe Acrobat D...	69 KB
whakatane_2015data.ags	27/01/2016 5:50 p....	AGS File	64 KB
WKT Drill logs BH11_20.csv	27/01/2016 2:23 p....	Microsoft Excel C...	24 KB
WHK_BH_coreboxes,photo numbers, wat...	27/01/2016 2:18 p....	Microsoft Excel W...	11 KB
WKT Drill collars BH11_20.xlsx	27/01/2016 2:19 p....	Microsoft Excel W...	10 KB

Borehole Photos



1133 WDC CBD Seismic Investigation ▸ Drilling ▸ 2015 ▸ 2016 Deliverables ▸ Photographs ▸

Burn New folder

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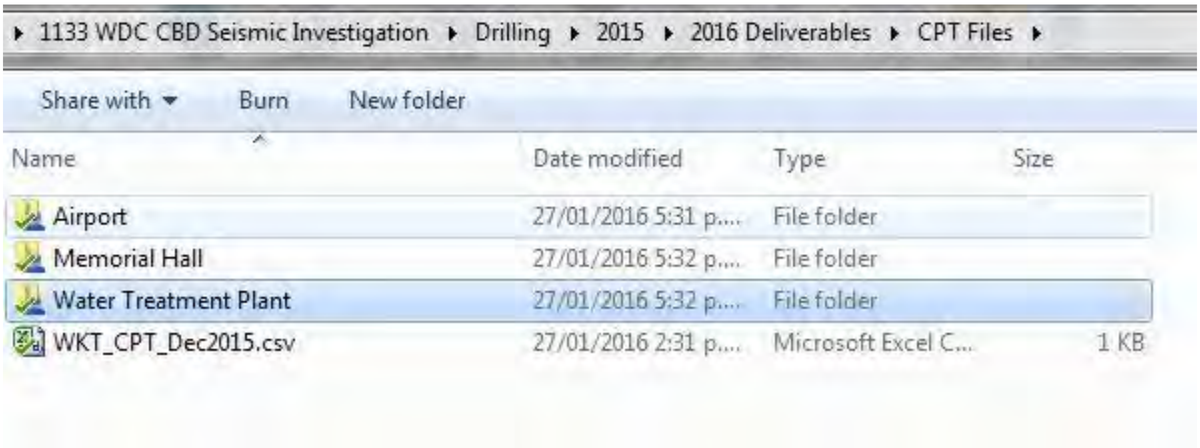
WKT_BH13	27/01/2016 5:42 p....	File folder	
WKT_BH14	27/01/2016 5:42 p....	File folder	
WKT_BH15	27/01/2016 5:42 p....	File folder	
WKT_BH16	27/01/2016 5:43 p....	File folder	
WKT_BH18_20	27/01/2016 5:43 p....	File folder	

CPT Files



1133 WDC CBD Seismic Investigation ▸ Drilling ▸ 2015 ▸ 2016 Deliverables ▸ CPT Files ▸

Share with ▾ Burn New folder

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Memorial Hall	27/01/2016 5:32 p....	File folder	
Water Treatment Plant	27/01/2016 5:32 p....	File folder	
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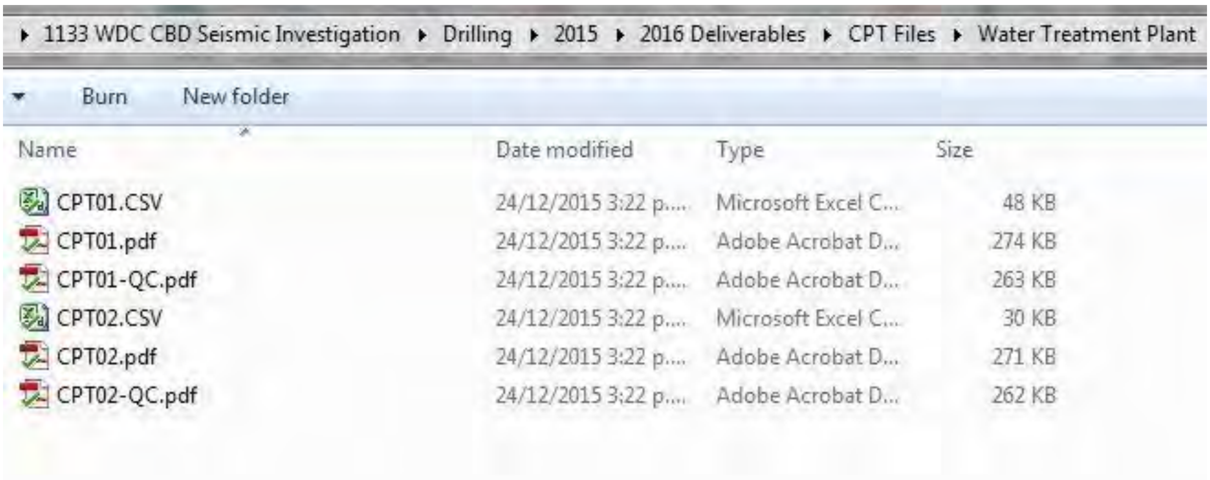

1133 WDC CBD Seismic Investigation ▸ Drilling ▸ 2015 ▸ 2016 Deliverables ▸ CPT Files ▸ Water Treatment Plant

Burn New folder

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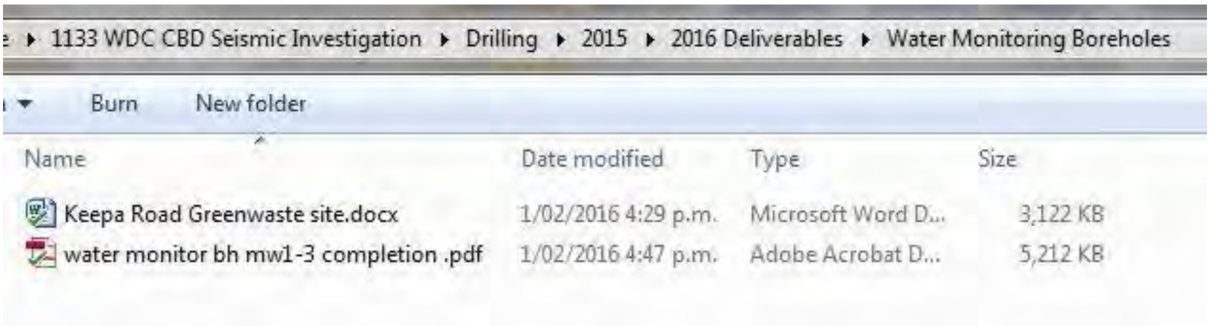
CPT01-QC.pdf	24/12/2015 3:22 p....	Adobe Acrobat D...	263 KB
CPT02.CSV	24/12/2015 3:22 p....	Microsoft Excel C...	30 KB
CPT02.pdf	24/12/2015 3:22 p....	Adobe Acrobat D...	271 KB
CPT02-QC.pdf	24/12/2015 3:22 p....	Adobe Acrobat D...	262 KB



Geotech Daily Reports, CPT, BH logs and H&S

SPT Results are reported on the Graphic Logs, the IRBA Graphic Log, the AGS log (digitally) and on individual SPT sample records stored in the sample bags (see photo figure 4).