



A Modern State Home

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A Modern State Home:
An investigation into the legacy and heritage values of
traditional New Zealand State Homes in a contemporary
environment.

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Note: All unreferenced images were produced by the author

For Mum and Dad



Abstract

New Zealand state houses have been a prominent architectural typology since the 1900s. Due to the longevity and rapid production of these homes, the style features across the country and are as recognisable as New Zealand's villas and bungalows. However, what future do these homes have given society's change in housing needs?

This thesis endeavours to create strategies to maintain the legacy and heritage values of these traditional state homes in a contemporary environment. It will particularly focus on New Zealand's detached suburban family state homes of the 1940s.

Today, protecting these homes is necessary due to their current demolition and unsympathetic renovation.

It is critical to protect them not only because they are an icon of New Zealand residential architecture but because they represent how state housing can be perceived positively by society. Formalising the process in which these state houses are renovated protects them from demolition and home renovators who fail to preserve heritage value.

To formalise this process, this thesis will produce design strategies that users can follow when renovating. These strategies will consider today's housing needs as well as the traditional heritage values of this state home era.

Perhaps, by studying this topic further protecting New Zealand state housing could be encouraged and owning one could once again be desired.

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Fig. 1. State Houses, Mahoe Street, Waterloo, Lower Hutt

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Chapter One

Introduction

Background

Many are unaware or dismissive of the legacy and heritage value of these traditional New Zealand state homes. They do not understand the importance these homes had to nation building for New Zealand and that they were the first steps to modernising our residential architecture.

Many of these homes are being demolished and forgotten without consideration for what they represent (Lynch & Small, 2021). The early state houses cleared slums, provided economic growth, and stopped New Zealand turning into a 'Little Britain' due to overcrowding and unsafe living conditions. They were a nation building exercise, shown through events like the first state home being officially opened alongside the Government (Schrader, 2005). Due to this initial positive perception, these homes were desired by many, and thousands were built over the mid-20th Century.

These homes also deserve to be protected for their structure. It is well known in New Zealand that "one thing all of these early homes do have in common is 'good bones'. They were built to last out of decent materials, solid and dependable" (Klein-Nixon, 2019).

Unsympathetic renovators are also contributing to the loss of these state homes (Stevens and McKay, 2014). When individuals or groups modernise these homes without consideration of their heritage value, this typology that is seen across New Zealand is lost.

Therefore, through the understanding of the heritage value and legacy of these homes as well as key principles of contemporary residential architecture, this thesis endeavours to protect this architectural typology.

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Fig. 2. Building Site of a State House Showing Carpenters at Work, n.d.



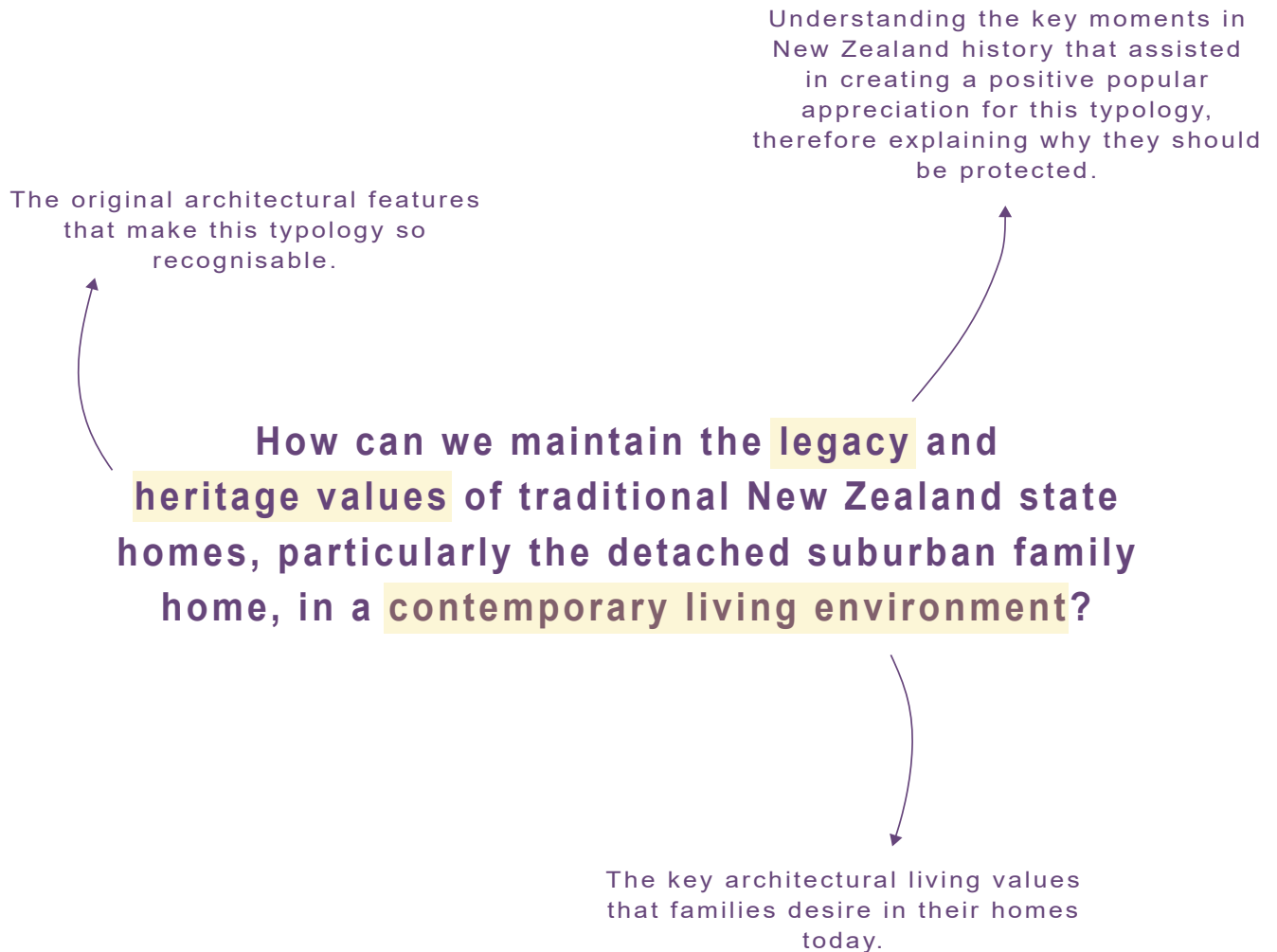


Fig. 3. Research Question Diagram

Aims

- 1** Gain understanding of why the legacy of these state homes should be protected.
- 2** Develop strategies to protect the heritage value of these traditional state homes.
- 3** Create functional spaces that fill today's family housing needs.

Objectives

- 1** Identify and define why these state houses should be put forward for heritage status.

Develop forward strategies to change popular appreciation of state homes.
- 2** Identify and define heritage values of New Zealand state houses.

Generate simple design strategies of basic renovation for users to follow.
- 3** Identify and define housing values for families today.

Identify and define key values of popular home layouts today.

Scope

This thesis is focused on the New Zealand one storey detached family state house of the 1930s/40s period. It does not study any other New Zealand state house typologies, as this would take focus away from the chosen typology.

The client is primarily private state homeowners who can afford renovation, this allows for variation in design strategies due to a more flexible budget. However, other clients like Kāinga Ora , could also use these strategies to suit their budget.

Finally, in terms of design restraints, we will be restrained by today's living desires, state house heritage values and pre-existing structural restraints. We will not be focusing on building costs, timeline, or consent processes as there would be too much variation across multiple design strategies.

Methodology

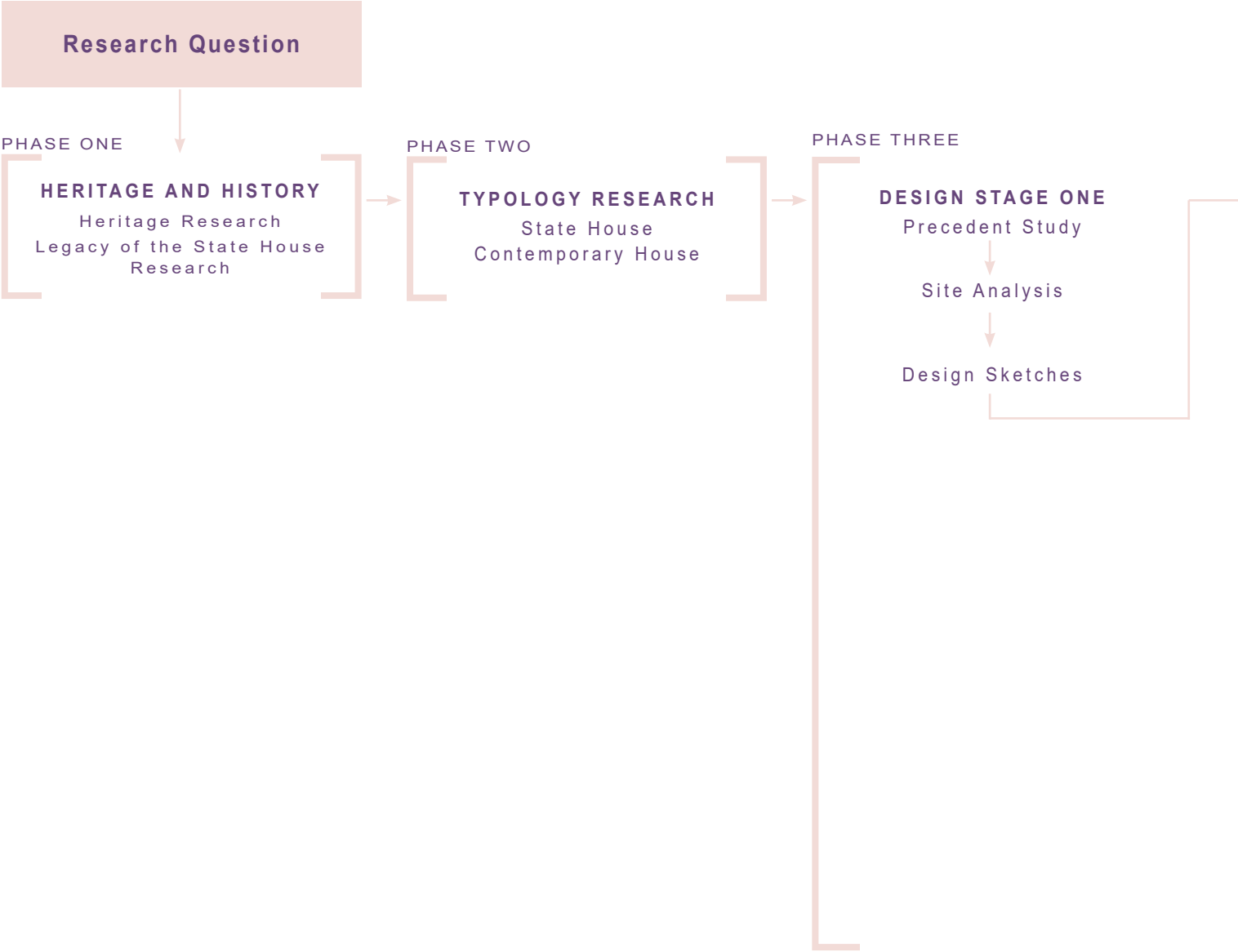
This thesis is structured into three phases: heritage and history research phase, typology research phase, and the design phase. There will also be a concluding chapter on the future steps of this research and overall findings.

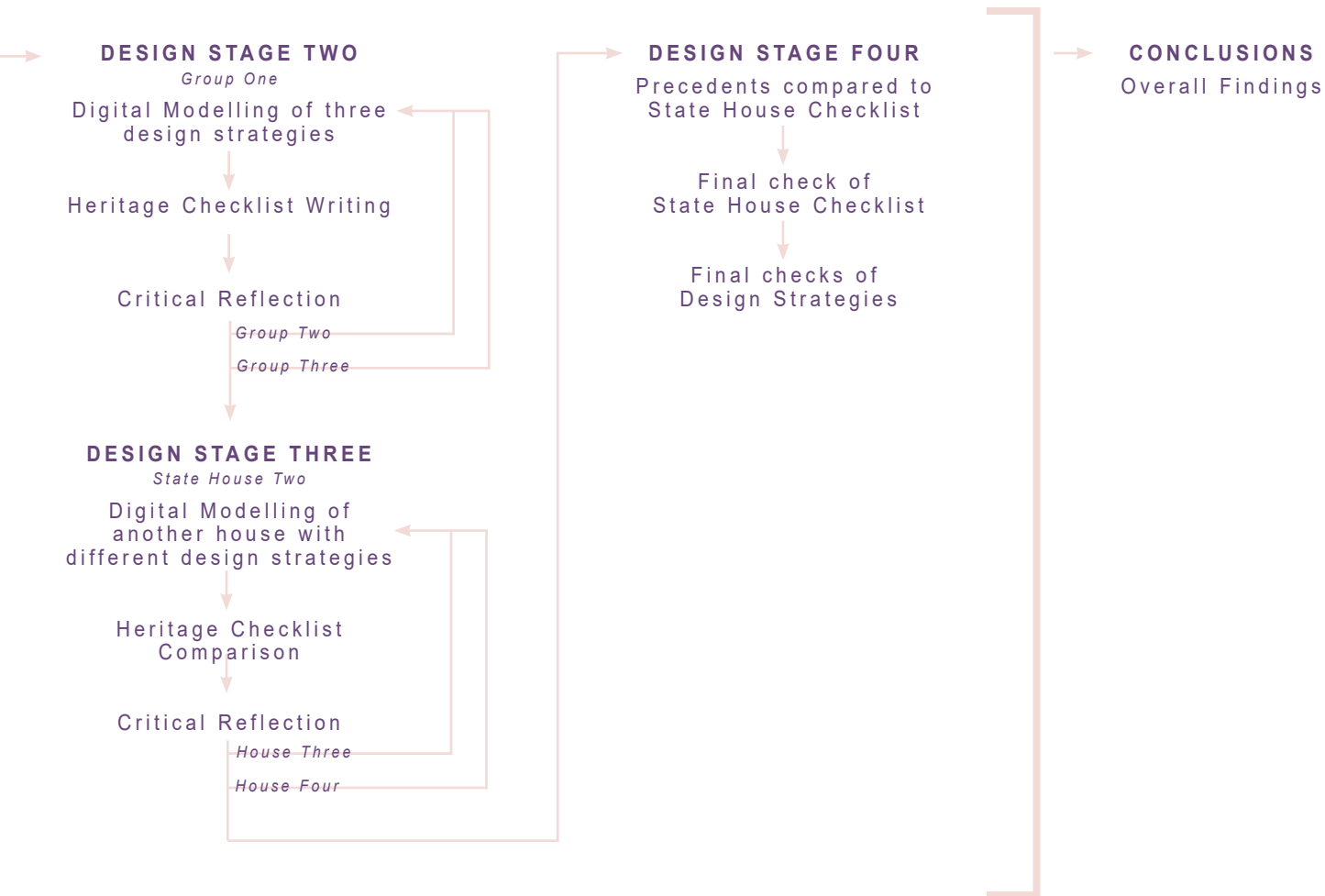
Phase one covers chapters two and three. Chapter two focuses on definitions of the term heritage and what heritage status is. Chapter three focuses on the history and legacy of state housing in New Zealand and why these homes deserve heritage status.

Phase two covers chapters four and five. Chapter four focuses on the architectural heritage values of the studied state house typology. While chapter five focuses on architectural values for the contemporary home.

Phase one and two's outcomes are written conclusions from literature and visual research, providing the foundations of the design phase. All literature has been chosen because of how it would affect the outcomes of this thesis. By having thorough literature and visual based research it will lead to a well-rounded design led research thesis.

Phase three covers chapters six to eight. Chapter six is a precedent study, understanding how state homes have previously been renovated, uncovering their successes and failures. Chapter seven focuses on the primary site, completing a site analysis. Finally, chapter eight is where design strategies are created and tested on the primary and supportive sites. A more thorough explanation of the design methodology can be seen on page 160 as well as an explanation as to why I adopted that method of research.







Chapter Two

Heritage



Introduction

This chapter investigates what heritage architecture is and the process for determining heritage buildings and heritage status.

Research into these topics is critical to this thesis as it forms the framework of determining the value of state homes.

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Fig. 5. State house, Levin

“ heritage has expanded to such an extent that almost anything can be perceived to be heritage ”

Harrison, 2012

“ heritage is constantly in flux and whose substance and meaning are continuously being redefined by society. ”

Janssen et al., 2017

Defining 'Heritage'

Defining the term 'heritage' is the first step in understanding how certain pieces of architecture have heritage value. Therefore, determining which buildings deserve to be protected.

After analysing how 'heritage' is defined by theorists, historians, and architects, it became apparent that heritage "means all things to all people" as it has "always been produced by people according to their contemporary concerns and experiences" (Harvey, 2001; Larkham, 1995).

Therefore, the term heritage is defined differently for each individual due to the flexibility of the individuals' perception of the world – this perception being based on their personal experiences, beliefs, and opinions.

So how does society determine whether a building or practice is heritage if the term is based on the individuals' opinion?

Defining a Heritage Building

Society determines whether a building has heritage value through organisations that provide principles which guide decisions.

Three of these organisations have been studied to see how they determine heritage value.

Heritage New Zealand Pouhere Taonga

Heritage New Zealand Pouhere Taonga will be studied as it is New Zealand's "leading national historic heritage agency" and includes 'Significance Assessment Guidelines' (Heritage NZ, n.d.). These guidelines assist in assessing New Zealand's historic places to determine what should be added to the New Zealand Heritage List – a list that "identifies New Zealand's significant and valued historical and cultural heritage places" (Heritage NZ, n.d.).

The first stage of the Significance Assessment Guideline is a 10-section criterion that assesses historic places or areas. If one section is met, then the historic place or site may be included on the New Zealand Heritage List (O'Brien and Barnes-Wylie, 2019, pg.42).

Heritage New Zealand Pouhere Taonga Assessment Guidelines

<p>Aesthetic Significance</p> <p>Has aesthetic value for a community or the public.</p>	<p>Scientific Significance</p> <p>Includes fabric that is significant to answer research questions through scientific methods.</p>
<p>Archaeological Significance</p> <p>Answers questions or provides information about New Zealand History.</p>	<p>Social Significance</p> <p>Has an associated community that developed because of the place.</p>
<p>Architectural Significance</p> <p>Reflects construction, architectural styles, or movements significant to the New Zealand landscape.</p>	<p>Spiritual Significance</p> <p>Associated with a group who values the place for religious, mystical, or sacred meaning, association, or symbol.</p>
<p>Cultural Significance</p> <p>Valued by a cultural group as a representation of their culture.</p>	<p>Technological Significance</p> <p>Has physical evidence of technological advances or technical accomplishment for New Zealand.</p>
<p>Historical Significance</p> <p>Contributes towards understanding and showing characteristics of New Zealand history.</p>	<p>Traditional Significance</p> <p>Reflects a tradition passed down by a community or culture, usually for generations.</p>

(O'Brien and Barnes-Wylie, 2019, pg.9-11)

Burra Charter

The Burra Charter will be studied as it provides an alternative method to protecting heritage sites in Australia. It was adopted by Australia ICOMOS in 2013, and “provides guidance for the conservation and management of places of cultural significance” (Burra Charter, 2013, pg. 1). ICOMOS is the International Council on Monuments and Sites.

The Burra Charter process outlines the “steps in planning for and managing a place of cultural significance” (Burra Charter, 2013, pg. 10). The second stage of this process is the most relevant to this thesis as it outlines assessing the cultural significance of a place, therefore determining whether it deserves protection

Applying the Burra Charter Process

26.1 Understanding Place

Work on a place should be preceded by studies to understand the place.

26.2 Written Statements

Written statements of cultural significance and policy for the place should be prepared, justified, and accompanied by supporting evidence.

26.3 Public Input

Groups and individuals associated with the place should be provided with opportunities to contribute to identifying and understanding any cultural significance.

26.4 Regular Review

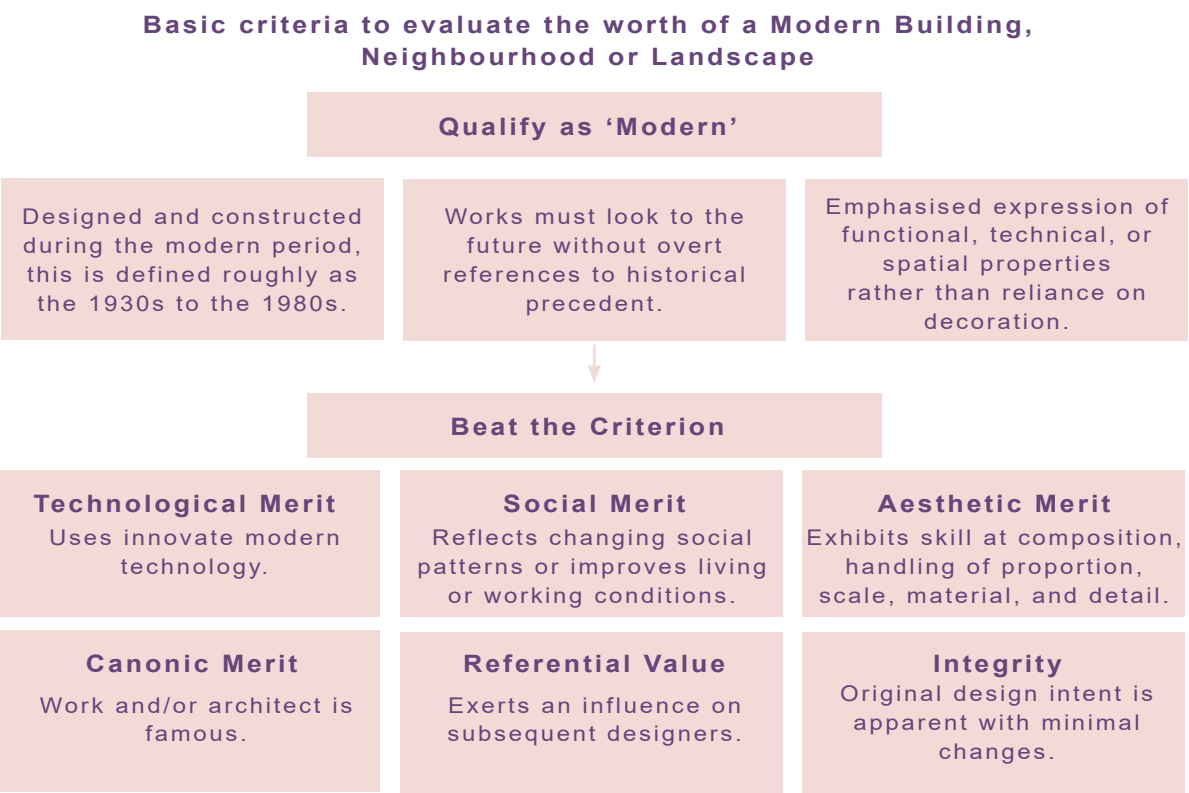
Statements of cultural significance and policy should be periodically reviewed.

(Burra Charter, 2013, pg. 8)

DOCOMOMO

DOCOMOMO will be studied as they are an international organisation that focuses on bringing “the significance of the modern movement to the attention of the public, the authorities, the professionals and the educational community concerned with the built environment” (DOCOMOMO NZ, n.d.).

DOCOMOMO US created a brief criterion based on the official DOCOMOMO criteria for evaluating modern places. This process involves firstly identifying the place as modern and then applying criterion to evaluate its significance. Similarly, to the Heritage New Zealand Guidelines, the categories in the criteria do not all have to apply to the building, but the more that do, typically increase the buildings significance.



(US DOCOMOMO, n.d.).



Chapter Three

The State House



Introduction

This chapter investigates the current New Zealand state housing situation and whether 1940s state houses deserve heritage protection. This will be completed by comparing heritage organisation guidelines to these homes and then analysing the history of state housing in New Zealand.

Research into how New Zealand state housing has changed and whether they deserve heritage protection is critical to this thesis as it will show the public's opinion on whether they deserve protection.

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Fig. 6. Mrs Zeta Tutt standing at the gate of her state house with her dog Benji, Naenae

Do State Homes Deserve Heritage Status?

Determining if these homes deserve heritage status will be done by comparing them against heritage organisations that provide principles to guide determining heritage value. The organisations that will be used are Heritage New Zealand Pouhere Taonga Guidelines, the Burra Charter and the DOCOMOMO guidelines.

Heritage New Zealand Pouhere Taonga

A comparison will be made between the first stage of the Heritage New Zealand Pouhere Taonga Significance Assessment Guidelines and the studied state house.

Comparisons have been made to 4 of the 10 categories and can be found on the following pages. A comparison was unable to be made to the archaeological, cultural, scientific, spiritual, technological, and traditional values.

Burra Charter

The Burra Charter focuses on cultural significance, which is defined as “aesthetic, historic, scientific, social or spiritual value for past, present or future generations” and “is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects” (Burra Charter, 2013, pg.2-3). The analysis of these homes’ aesthetic, historic, scientific, and social value can be seen alongside.

It is important to note that under the Burra Charter any groups or individuals should be given the opportunity to discuss the cultural significance of these state houses. Kainga Ora and/or original tenants/ communities of the state houses could step forward and speak for their cultural value.

DOCOMOMO

DOCOMOMO believes that buildings need to represent the modern period and “must have been designed and constructed during the Modern period, the duration of which we define as roughly the 1930s to the 1980s” (US DOCOMOMO, n.d.). The buildings also need to fulfil at least one of the following categories, technical, social, cultural/aesthetic, canonical, and historical significance to be concluded as a significant site (US DOCOMOMO, n.d.).

There is a potential issue, when comparing state houses to DOCOMOMO guidelines as people may not consider state houses as modern buildings, particularly because they were built against the English cottage style which is not a modern style. Nonetheless, these houses introduced modern principles like facing living spaces towards the sun and they were built during DOCOMOMO's determined modern period. So, there would be a case for or against their protection under DOCOMOMO. Therefore, a comparison can be seen below.

Comparison of Values to the State House

The questions used in the comparisons have been taken from Heritage New Zealand Pouhere Significant Assessment Guidelines and can be applied to DOCOMOMO and the Burra Charter (O'Brien and Barnes-Wylie, 2019, pg.9-11).

Aesthetic Significance or Value

What aesthetic qualities is the place recognised for?

These state houses are present across the country and are easily recognised for their heritage features (Schrader, 2005; Stevens and McKay, 2014). These aesthetic qualities will be further studied in the following chapters.

How has the importance of the aesthetic qualities of the place been acknowledged or acclaimed by the community or group?

The first New Zealand state homes that were built Petone have been given heritage status, therefore have been acknowledged by the New Zealand heritage community (Stevens and McKay, 2014).

Architectural Significance or Value

What method of construction or architectural style or movement does the place reflect?

Prefabrication was rising during the manufacturing of state homes. State homes provided good practice for the construction industry, and they are an example of its initial success (Korero Publication, 1944).

Why is this construction method, style, or movement of importance in New Zealand history?

Prefabrication is still used today throughout the construction industry and New Zealand state homes were a great place to learn about the method.

Historical Significance

What significant aspect of New Zealand history is the place related to?

These homes mark the beginning of the state's intervention in New Zealand housing by changing New Zealand's housing situation from growing inner-city slums to expanding cities that created homes for families (Schrader, 2005).

Social Significance

Is this a place that brings people together?

When these state houses were initially built, they brought communities together, everyone knew their neighbours and homes became social hubs (Schrader, 2005).

Is there an existing community associated with the place?

These societies still survive, however are less apparent. Perhaps by protecting state homes we can create these community hubs once again (McKay and Stevens, 2014; Schrader, 2005).

How has the community demonstrated that they value the place?

During the initial success of these state houses, people cared for their homes, which led to a lot of sales and increase of desire for homeownership, proving the value they had for their homes (Schrader, 2005).

Conclusion

After comparing the 1940s New Zealand detached family state house to these charters and guidelines, these buildings do appear to deserve heritage protection. The issue is that many will still not agree to the protection of these buildings due to their negative popular appreciation. Therefore, we will need to analyse the history and popular appreciation of these buildings, to see where the negative association comes from and if it can be stopped.

The State House Timeline

To understand the popular appreciation of state housing in New Zealand we first need to study their history to see where this initial positive perception changed. The main events of each period will firstly be outlined and then followed by a brief description of the effects that those events had on the appreciation of state housing.

Period One Pre State Housing

Overcrowding and congestion were rising as inner-city land disappearing (Schrader, 2005).

This period provides a negative scenario for why New Zealand needed housing government intervention. At this stage no opinions of state housing have occurred as there are no state houses for them to be based upon.

Period Two 1906: The First Attempt

The first 25 state houses in Petone were advertised for lease, however only 4 applications were received. By 1910, only 126 worker's dwellings had been built compared to an initial estimate of 5000 (Fill, 1984; Schrader, 2005).

This period proves that New Zealand was not ready for state housing, as nobody could understand the desire of living in the suburbs, especially due to limited public transport (Schrader, 2005). Due to these negative opinions shown through minimal applications the appreciation for state housing was very low.

Period Three 1936: The Beginnings

Financial Minister Walter Nash, proclaimed in the 1936 budget that 5000 state houses would be erected at a cost of 3 million.

The erection of new homes would give the jobless a trade as houses would be built from New Zealand material stimulating local manufacturing, generating economic growth (Schrader, 2005).

This period presents the realisation and plan for the new state housing scheme. At this stage, popular appreciation of state houses was still low as the scheme had not yet begun.

Period Four **1937: The First State House**

The McGregor family moved into the first state house, on Fife Lane, Miramar. The Prime Minister, Michael Joseph Savage, attended and assisted by bringing in a dining table, the first piece of furniture. “The government had choreographed the occasion to maximise media exposure and win support for state housing” (Schrader, 2005; Stevens and McKay, 2014, pg. 15).

This opening of the first state house is an example of nation building for New Zealand as we began to identify as our own country with our own strategies to solve issues rather than mimicking decisions made in Britain. By making the opening of the first state home a public affair, the Government was acknowledging that this is an important moment for New Zealand’s narrative, which boosted support for state housing and the Labour Government. These events resulted in the appreciation of state homes continuing an upwards projection as people were exposed to and saw the excitement of the housing scheme.

Period Five **1939-1945: WWII**

State homes were completed at a rate of 57 per week, but there were 10,000 applicants already on the waiting list. Construction virtually ceased in 1942 due to WWII and began again in 1944.

This increased the gap of supply and demand, which was worsened by the Government's decision to allow half of all new state homes to be reserved for returned servicemen. By 1945 the waiting list had increased to over 30,000 and showed no signs of slowing down (Schrader, 2005; see also Korero Publication, 1945).

This period is evidence of the success of the state housing scheme. The houses were in demand everywhere and therefore became present across the country making these homes an icon of New Zealand architecture. Due to this high demand, state housing was receiving a very positive popular appreciation during this period.

Period Six **1950-1952: The First Sales**

In 1949 National was in Government and tenants were able to purchase their state homes.

By March 1952 more than 3600 houses were sold and changes to sales had been made to entice buyers. These included low purchase prices and small minimum deposits. However, factors inhibiting sales included the existing low rents, and the difficulty of saving the deposit (Niven, 1975; Schrader, 2005; Stevens and McKay, 2014).

This period shows the desire for home ownership in New Zealand that is still present today. Due to many tenants purchasing their state homes and even more tenants being comfortable in their rental agreement, the overall popular appreciation of these homes was still very positive.

Period Seven **1957: Unsuccessful Sales**

By 1957, only 13,000 state homes had sold, about 30% of the saleable stock. At this time, Labour was back in Government and the promotion of sales had ended (Niven, 1975; Schrader, 2005).

This period shows that although many had the desire for homeownership, it was difficult. Perhaps tenants that wanted to or could purchase their homes had already done so and without pressure from the National Government to purchase, many tenants were content in living the way they were. At this stage the popular appreciation of state houses is still very positive, however it is less on an upwards projection as no noticeable changes have been made that would increase it.

Period Eight **1985-1995: Rent Reforms**

In 1985 state house rent was only half the average market rent for similar houses. Therefore, high-income tenants were getting rental subsidies that they did not need, so reform was necessary. A new rent-fixing regime was introduced, this was income-related rents where high earners would pay market amounts.

By July 1991 National introduced full market rents, so they were raised to match those of the private sector. The government would also assist both public and private housing costs through an accommodation supplement.

Due to the increased rents, by 1995 many struggled to buy food or clothing, and many state houses were left vacant (Schrader, 2005).

This period is critical as it presents the beginnings of a housing crisis for New Zealand as many were unable to afford their homes. This meant that the popular appreciation of state housing became very negative.

Period Nine **1996-1999 Rent Reforms/State House Sales**

In 1996 the government increased the accommodation supplement from 65 to 70%, in an acknowledgement that the affordability of housing had declined since 1992.

The Home Buy Scheme was also introduced to help state house tenants buy their home. This lasted three years and nearly 1800 homes were sold, while 10,000 other state houses were sold in other ways. This sale of state houses continued to increase and by 1997, nearly 3700 state houses were sold, the highest number ever in a single year. By 1999, the new Labour Government placed a moratorium on all state house sales and the reintroduction of income-related rents (Schrader, 2005).

This period reinforces the value of home ownership for New Zealanders. By also reverting to old processes from the initial state housing scheme it reinforces how critical the initial success of state housing was to New Zealand's state welfare and housing narrative. This stage increased popular appreciation of state housing as renters could once again afford their homes.

Period Ten

2001-2009 Housing New Zealand

The Housing New Zealand Corporation was established in July 2001, with two main roles: to administer state housing, and to give the government housing policy advice. The Housing New Zealand Corporation introduced a new Social Allocation System which prioritised applicants using several criteria. This included their ability to pay private rents, the crowding of their current living arrangements, the discrimination they face in finding housing, and the sustainability of their current living arrangements. Maintenance also became a priority, with modernisation and energy efficiency programmes upgrading many state houses. The Welcome Home Loan mortgage insurance scheme began in 2005 and assisted around 1,000 households per year, until 2009, into first-time home ownership.

Finally, in 2009, the new National Government announced that the sale of state houses to tenants would be reintroduced, with the profits from sales being reinvested into state housing in areas of high demand (Kāinga Ora – Homes and Communities, n.d.).

This period set a new structure for determining who needs housing and how they can be assisted. It also shows that the National Government had great concern for the housing crisis through reinvestment of money into housing. During this period the Government was making steps to improve housing in New Zealand and therefore the popular appreciation of state homes.

Period Eleven | 2018-2021 KiwiBuild/Kāinga Ora

In 2018 KiwiBuild was introduced “as part of a broad initiative to address the housing challenges currently facing New Zealand”.

By 2019, the “New Zealand Corporation, HLC and KiwiBuild merged to become the Housing and Urban Development Authority, Kāinga Ora – Homes and Communities”. Kāinga Ora focuses on providing public housing, home related financial assistance, initiating or undertaking urban development, and delivering aspects of the Government’s Build Programme. In 2021, the Kāinga Ora Retrofit Programme was introduced. This programme was created by the Labour Government to make current state houses “warmer, drier and healthier to help improve the health and wellbeing of our tenants” (Kāinga Ora – Homes and Communities, 2021, n.d.; KiwiBuild, n.d.).

This period proves that change was necessary for New Zealand housing. The Government realised we could not revert to what was done in the previous century and that it was time to set a new precedent to combat the housing crisis. These steps will hopefully keep the popular appreciation of state houses on a positive projection.

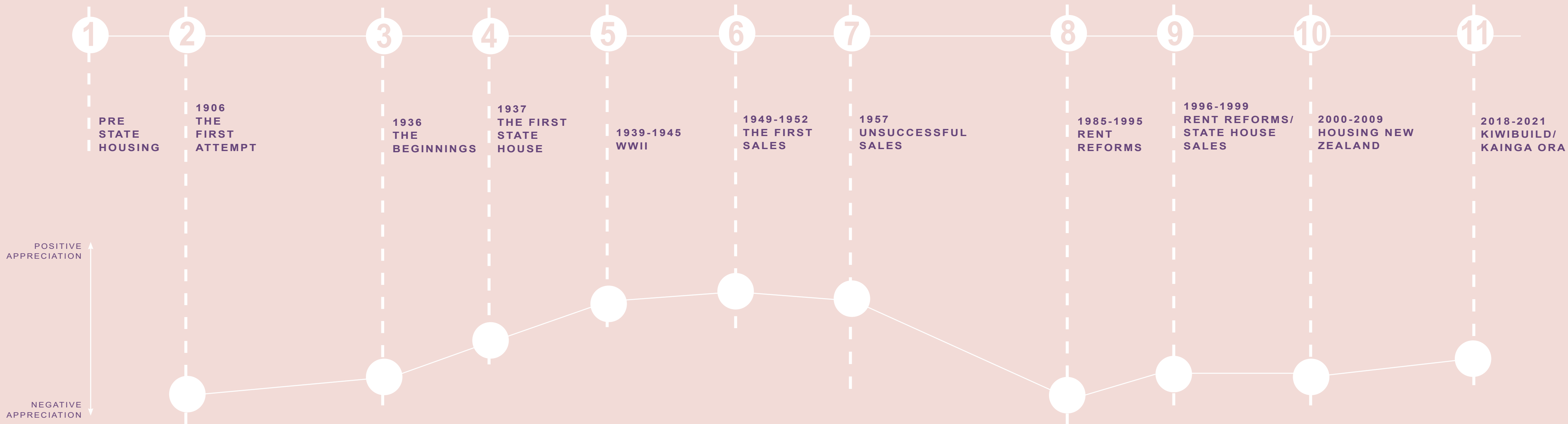


Fig. 7. Diagram showing how popular appreciation of state houses has changed

Popular Appreciation of State Houses

Alongside is a diagram showing a general representation of how the popular appreciation of the studied typology has changed. It focuses on the eleven periods studied in the previous state house timeline.

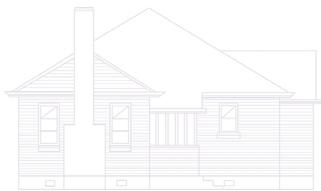
Conclusion

By understanding how the perception of state houses has changed, hopefully strategies could be developed to maintain a positive popular appreciation.

From this diagram, New Zealand is on an upwards projection to ensuring these homes are appreciated and protected due to their increasing popular appreciation. This is currently being accomplished through government projects like Kāinga Ora's Retrofit Programme and private homeowners renovating their homes. However, as previously mentioned many of these renovations are ignoring the heritage value of these homes.

Therefore, assistance from professionals is required so that design strategies can be formed which protect the heritage value of these homes whilst making them useful for contemporary living.

Once this is accomplished, it is hoped that this positive perception can continue an upwards projection and more homes can be protected.



Chapter Four

State House Values



Introduction

This chapter investigates the heritage value of 1940s New Zealand state houses, analysing key components of the typology.

The houses that have been analysed are from the text 'Beyond the State: New Zealand State Homes from Modest to Modern' as it provides original drawings of different state houses from this period.

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Fig. 8. New state houses in Masterton, Southern Wairarapa, 1958



Fig. 9-17. State house floor plans showing circulation

Circulation

Hallway Design and Entrances/Exits

Circulation in these homes ran along a small hallway, starting at a recessed front door that led to the back door.

Both exits were designed with recessed porches that were positioned to prevent the effects of prevailing winds when entering homes (BRANZ, n.d.).

Rooms connect off the small hallway. If rooms were not accessed from the hallway, they were accessed from the large, central living rooms. The only consistent exception is that the laundry was accessed from the back porch. (Schrader, 2005, pg.92-96).

All images based on original state home plans in Bill McKay's text 'Beyond the State: New Zealand State Homes from Modest to Modern'

1. Design no. 646
2. Design no. 1313
3. Design no. 638

4. Design no. 6E/1300
5. Design no. 896
6. Design no. 6/1073

7. Design no. 6/899
8. Design no. 594
9. Design no. 124



1.



2.



3.



4.



5.



6.



7.



8.



9.

Fig. 18-26. State house elevations showing windows

Window Design

Prefabricated Three-Casement Windows

The windows were prefabricated off-site and predominantly three, or lesser known, two casements. These windows were consistent across the country, resulting in them becoming a core heritage value of these buildings.

To ensure standardisation across the state houses, prefabrication was used where “joinery factories would manufacture such things as the window frames”.

By changing the placement and openings of the windows, it gave each home a sense of individuality, so families became prouder of their homes (Schrader, 2005, pg.88-89).

The two types of windows were almost entirely either 1350x600mm three-casement windows or 990x600mm two-casement windows (BRANZ, 2015).

All images based on original state home plans in Bill McKay’s text ‘Beyond the State: New Zealand State Homes from Modest to Modern’

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9. Design no. 124

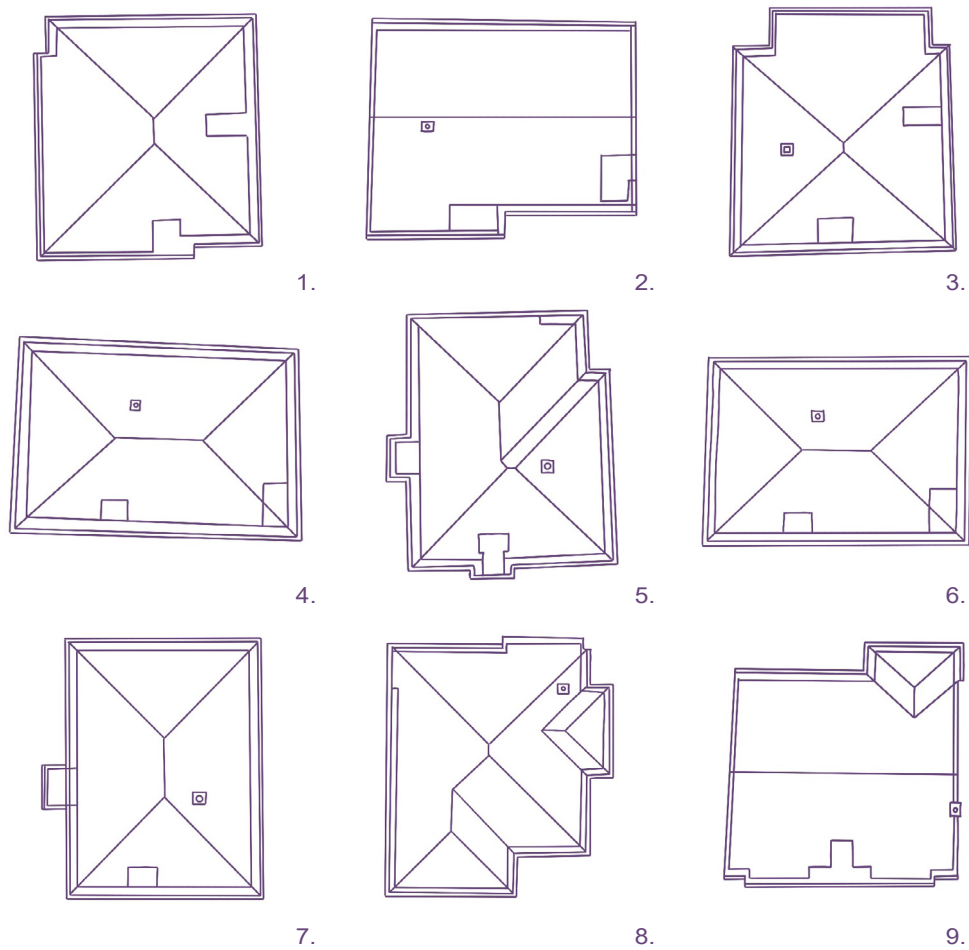


Fig. 27-35. State house roof plans

Roof Design

Eaves, Materiality and Gabled or Hipped

The roof of these state homes contains many key heritage values due to its consistent pitch, material, and varying form. By changing the roof design slightly, each house became identifiable as different from its neighbour.

The roofs were typically made of either concrete or ceramic tiles as they could be made locally unlike materials such as iron roofing (Schrader, 2005, pg. 88-89).

The form was either hipped or gabled, and the pitch was around 32 degrees, although this number occasionally varied between 30-40 degrees. The eaves on these roofs are a well-known factor for identifying a state house as they were consistently short or shallow and boxed (BRANZ, n.d.).

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7. Design no. 6/899
8. Design no. 594
9. Design no. 124



Fig. 36-44. State house sections showing floor height

Floor Height

High Floor Level Above Ground

Another very apparent feature of the 1940s New Zealand state home is the raised floor level with almost all state houses being lifted off the ground with stairs leading to the front door.

This floor is generally “a suspended timber floor usually with a concrete perimeter foundation wall”. The benefits of not having the floor sitting on the ground is that it allowed air flow and ventilation, preventing mould.

This would assist with the longevity of the homes, especially since the floors were made of strong New Zealand native timbers. However, using this flooring made these homes cold as they were not properly insulated (BRANZ, n.d.).

All images based on original state home plans in Bill McKay's text 'Beyond the State: New Zealand State Homes from Modest to Modern'

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2. Design no. 1313
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7. Design no. 6/899
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Fig. 45-53. State house floor plans highlighting the living room

Living Room

Large Living Rooms Orientated to the Sun

The 1940s state home introduced the living rooms as the space for socialising, resulting in their increase of size and orientation towards the sun (Schrader, 2005).

By increasing the size of these spaces, the living rooms became a social area as it was discovered that gathering in the kitchen was unhygienic and impractical.

Orientating the living rooms towards the sun also reinforced the space as a “centre for family relaxation and social life, something sun and warmth encouraged” (Schrader, 2005, pg.92-96). A result of increasing the size of the living room is that many other rooms had to decrease to compensate.

All images based on original state home plans in Bill McKay's text 'Beyond the State: New Zealand State Homes from Modest to Modern'

1. Design no. 646
2. Design no. 1313
3. Design no. 638

4. Design no. 6E/1300
5. Design no. 896
6. Design no. 6/1073

7. Design no. 6/899
8. Design no. 594
9. Design no. 124

Materiality

Timbers, Cladding, Internal Features

A focus for these state homes was to use “New Zealand-produced materials and products, which were quicker to attain and cheaper than imports” (McKay and Stevens, 2014, pg.47).

These homes were “constructed in native timbers: totara, kauri and rimu” and were made with “a concrete foundation, heart timber floors, and copper piping. The houses would also be clad in weatherboard, stucco or brick and roofed in concrete or ceramic tiles.” All internal walls were also “papered, painted or varnished” (Schrader, 2005, pg.83-88).

There were benefits to using New Zealand-made materials. Not only would they be easier to transport across the country, but it would also “give the jobless a trade” as it “would stimulate local manufacturing, generate economic growth, and make the nation more self-sufficient”.

So, by providing state housing to minimise the effects of the housing crisis, the Labour Government were also creating jobs leading to the nation’s economic growth (Schrader, 2005, pg.35).

The roofs were generally made of concrete tiles as at first “tiles couldn’t be manufactured in great quantity, so Fletcher started up a company to supply concrete roof tiles.” (McKay and Stevens, 2014, pg.47).

Today, many of these state homes are still standing. If we consider not only the decades that have passed but also how quickly these buildings were constructed and how heavy the concrete clay roofing is, this is quite an impressive feat.

Many say that it is a “testament to the high quality of the native timber used and the construction of the state houses that, after several decades, the roofs have only wilted slightly under the load.” (McKay and Stevens, 2014, pg.47).

The Site

Front Boundary, Section, Building

The 1940s detached family state homes typically had sections of a ¼ acre. The “houses were located nearer the front boundary” about 7.6-18.3m to allow for a personalised front yard with a larger backyard. The sites also had side yard boundaries of about 1.5m on one side and 2.7m on the other “to allow for car access” (BRANZ, n.d.).

The front boundaries were “often left unfenced in order to create a more unified street effect, and to maintain a sense of a large community garden” (BRANZ, n.d.). It was also believed that adding “fences to the front of the houses would add visual clutter and detract from the desired ambience of the Garden Suburb streetscape” (McKay and Stevens, 2014, pg.79).



Fig. 54-62. State House front elevations

Front Elevation

Noticeable Features of the Front Elevation from Visual Data

By studying visual data of the elevations alongside, key values of the 1940's New Zealand state home are reiterated. Starting at the bottom, with the high floor level. All houses sit on a raised concrete perimeter foundation wall resulting in a small concrete staircase to the entrance. This staircase is then followed by recessed front or back doors.

The standard stud height of these houses is 9ft.

The windows are always two or three-casements.

Hipped or gabled roofs are the most present roof form with a consistent pitch, boxed eaves and a small chimney.

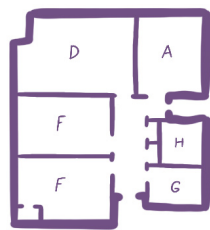
The materials used consist of a concrete foundation, the walls are clad in either weatherboards, brick or stucco and the roofing is concrete or ceramic tiles.

All images based on original state home plans in Bill McKay's text 'Beyond the State: New Zealand State Homes from Modest to Modern'

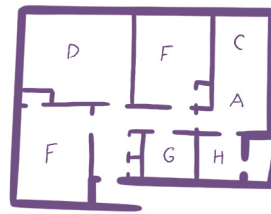
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2. Design no. 1313
3. Design no. 638

4. Design no. 6E/1300
5. Design no. 896
6. Design no. 6/1073

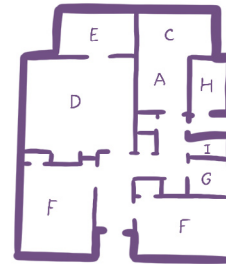
7. Design no. 6/899
8. Design no. 594
9. Design no. 124



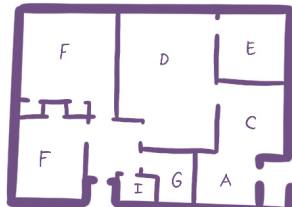
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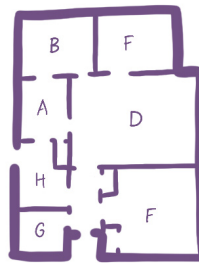
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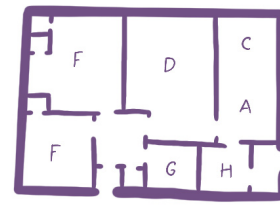
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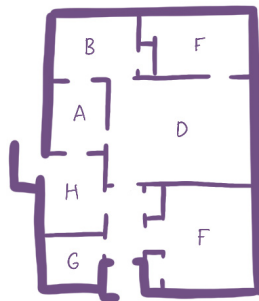
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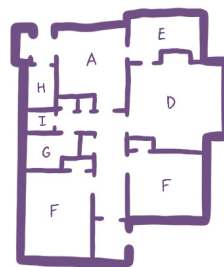
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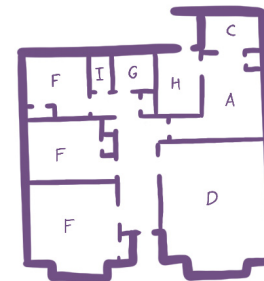
6.



7.



8.



9.

Floor Plan Key

A Kitchen	D Living Room	G Bathroom
B Dining Room	E Sun Room	H Laundry
C Meals Recess	F Bedroom	I Water Closet

Fig. 63-71. State house floor plans

Floor Plan

Noticeable Features of the Floor Plan from Visual Data

By studying visual data of the floor plans alongside, key values of the 1940s New Zealand state homes are reiterated.

Starting at the entrance, both the front and back doors sit on a recessed porch and the front door opens to a hallway. This hallway ranges in size but provides a clear path from the front to the back door for circulation. Most of the rooms then connect off the hallway.

The living room is the largest space in the house taking up about 25% of the floor area.

The living room is a separate space but sometimes acts as an extension of the hallway connecting the hallway to kitchens, dining rooms, sunrooms, or meal recesses.

Finally, the service rooms are placed together presumably for ease of installing services. These are rooms like the bathroom, laundry and kitchen which are placed near the back door.

All images based on original state home plans in Bill McKay's text 'Beyond the State: New Zealand State Homes from Modest to Modern'

1. Design no. 646
2. Design no. 1313
3. Design no. 638

4. Design no. 6E/1300
5. Design no. 896
6. Design no. 6/1073

7. Design no. 6/899
8. Design no. 594
9. Design no. 124

Concluding Patterns

An analysis has been made on consistencies of all data collected.

High floor levels are present across all data gathered. However, in literature, it is only briefly mentioned in an online BRANZ resource, therefore this may not be a value as vital to the state home design as initially thought (“BRANZ renovate”, 2011).

The design and manufacturing of windows and roof design is frequently recognised across all data gathered.

In terms of materiality from drawings alone, the foundations are always concrete, and the houses are generally clad in weatherboards, or a colour washed brick or stucco. The roofs are then clad in either concrete or ceramic tiles and from section we can see the consistent use of timber structures. The main discrepancy between the visual and literature analysis is that in literature brick is mentioned repeatedly as a main cladding type.

However, in the visual data it appears less frequent, this may mean that it is not as popular as weatherboard and stucco, or perhaps the sample of studied houses is skewed.

Finding site plans for these original state homes proved difficult, so visual data of the sites is from photos. The photos demonstrate consistencies with the literature.

Moving to the interior of the house, visual data of the recessed front and back porches, internal circulation, living room values and plumbing services being grouped together is consistent with literature.

Hierarchy of Values

Analysis of the data helped determine a hierarchy of state house architectural values. This will be critical for the design phase of this thesis as it shows the values needing to be preserved to ensure the state home is protected.

Floor Plan

1. Large living room
2. Living room orientated towards sun
3. Recessed front porch
4. Service rooms connected/near to back door
5. Clear path from front to back door
6. Rooms accessed directly off living room

Materiality

1. Native timbers
2. Concrete foundations with high floor level
3. Weatherboard cladding
4. Stucco cladding
5. Concrete tile roofing
6. Internal finishes
7. Ceramic tile roofing
8. Brick cladding
9. Copper piping

Window Design

1. Three-casement window
2. Two-casement window
3. Top opening
4. Full sided opening

Roof Design

1. Hipped roof
2. Small eaves overhang
3. Consistent 30–40-degree pitch
4. Materiality
5. Gabled roof

Site Plan

1. Plain front sections for tenants to personalise
2. House placed near front boundary
3. No front fences
4. Large sections
5. One side boundary bigger than the other



Chapter Five

Contemporary Values



Introduction

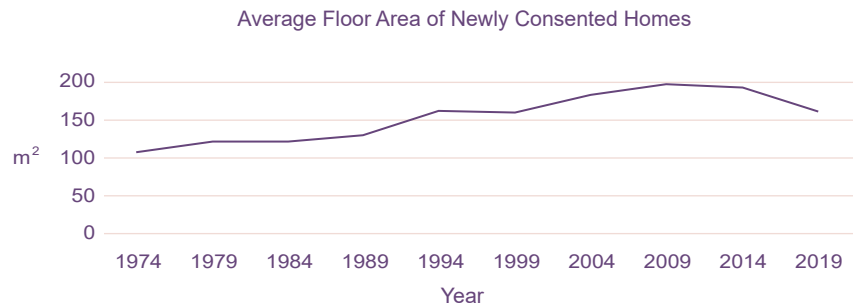
This chapter investigates current New Zealand housing statistics and analyses key housing values of contemporary homes.

Both architecturally designed, and spec homes have been analysed to ensure that all key contemporary living values are made apparent.

[See Previous Page](#)

Fig. 72. State housing, Naenae, Lower Hutt

House Size

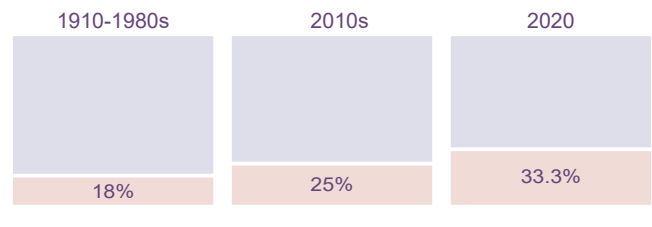


1
3

of houses now have 4 or more bedrooms

1
5

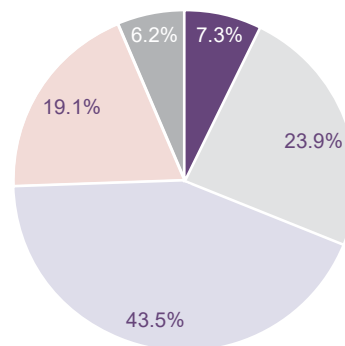
of houses in 1991 had 4 or more bedrooms



Proportion of Section Taken up by House



Average People per Household



Number of Bedrooms in Occupied Private Dwellings in 2018

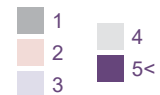
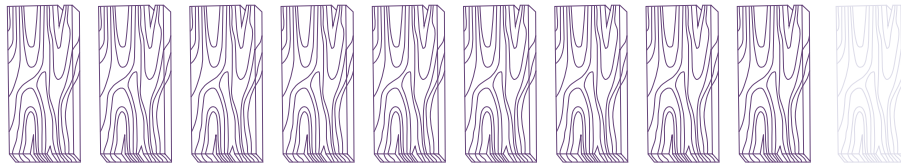
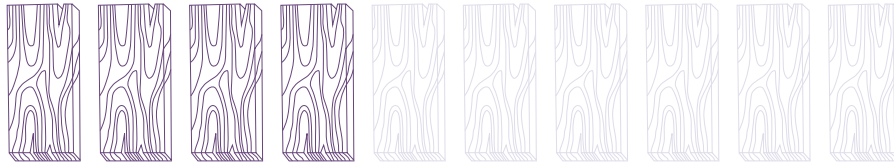


Fig. 73-77. House Size Statistics
(Statistics New Zealand, 2020a, 2020b, n.d.)

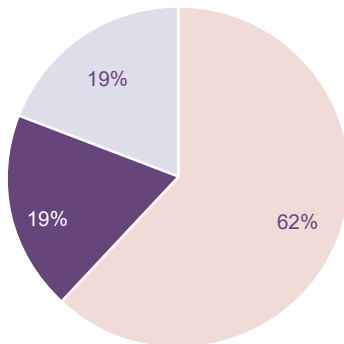
Materiality of Houses Today



9 of 10 houses were clad in timber weatherboards during the
19th - early 20th century

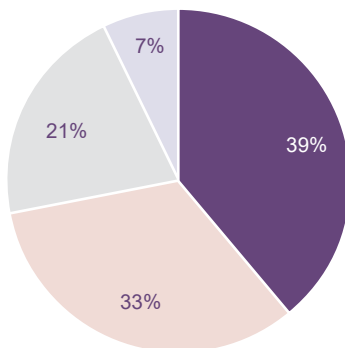


By 2018, just under 40% of homes were clad in wood



Roofing Materials
Used in 2018

- Concrete tiles
- Steel
- Other



Cladding Materials
Used in 2018

- Timber Weatherboard
- Brick
- Fibre Cement Weatherboard
- Other

2008

double glazing became compulsory
in new builds.

10%

in 2015 10% houses contained
double glazed windows

16%

in 2018 16% houses contained
double glazed windows

Fig. 78-82. Materiality of Houses Today Statistics
(Statistics New Zealand, 2020b)

Chosen Spec Houses

A sample of ten popular spec houses from companies, GJ Gardener and Signature Homes have been chosen. These house designs have been chosen as the companies deem them their most popular.

Fig. 83.
Amrita Alternate



Fig. 84.
Apollo 142



Fig. 85.
Byron - Platinum



Fig. 86.
Discovery 160



Fig. 87.
Austral - 170



Fig. 88.
Greville



Fig. 89.
Kingfisher - 130



Fig. 90.
Nautilus - 150



Fig. 91.
Tasman



Fig. 92.
Weka - 176





Fig. 93-102. Spec house floor plans highlighting living spaces

Open Plan Living

An open plan living, kitchen, dining appears to be important to contemporary spec houses as it is mentioned in almost all advertisements studied.

The word “spacious” is used repeatedly before “open plan kitchen/living/dining area” (Signature Homes n.d.-a, n.d.-c, n.d.-e)

All images are based on publicly accessible drawings by GJ Gardener and Signature Homes (GJ Gardeners, n.d.; Signature Homes, n.d.).

1. Byron - Platinum
2. Discovery 160
3. Amrita Alternate

4. Apollo 142
5. Greville
6. Weka - 176
7. Nautilus - 150

8. Tasman
9. Austral - 170
10. Kingfisher - 130



Fig. 103-112. Spec house floor plans highlighting indoor outdoor flow

Indoor-Outdoor Flow

Having easy access to the exterior is a very important value to these contemporary spec houses. This value can be seen in almost all the studied houses and is repeatedly mentioned in literature.

Signature Homes' Tasman house mentions the importance of a connection to the exterior with the statement "while a corner less kitchen wall opens up to possibly the best Kwilla patio and portico in Richmond. A pizza oven enhances the indoor-outdoor living space, where you can entertain or relax bathed in late evening sun."

As well as "open the bi-fold doors and sit among native flora full of pungas and ferns while you take a bath. Simply stunning" (Signature Homes, n.d.-e)

Signature Homes' Austral and Nautilus home advertisements include the statement "featuring spacious open plan living areas and great indoor-outdoor flow, designed to maximise the sun and natural light our Pacific Collection will provide a quality living environment for years to come" (Signature Homes, n.d.-a, n.d.-d).

All images are based on publicly accessible drawings by GJ Gardener and Signature Homes (GJ Gardeners, n.d.; Signature Homes, n.d.).

1. Byron - Platinum
2. Discovery 160
3. Amrita Alternate

4. Apollo 142
5. Greville
6. Weka - 176
7. Nautilus - 150

8. Tasman
9. Austral - 170
10. Kingfisher - 130

Roof Design

The roof designs are not mentioned in studied contemporary spec houses unless they are commenting on the use of skylights.

Signature Homes' Tasman design shows this with the statement "expansive glass and skylights bring in the surrounding landscape" (Signature Homes, n.d.-e). In this statement it is not the design of the roof that is the key component, it is instead the use of glass.

This again shows the importance of a connection to the exterior and bringing light into a home making skylights an important part of contemporary design.

Materiality

The use of timber and supporting local businesses when purchasing material is valued in the design of contemporary spec houses. Signature Homes' Tasman and Kingfisher designs have advertisements which mention that "the 100% cedar cladding and trim is beautiful" and the homes are "built using only quality materials from leading NZ suppliers, it's also designed with simplicity and cost-efficiency in mind" (Signature Homes, n.d.-c, n.d.-e)

The value these companies place on supporting local is clear through nationwide video advertisements, stating that "we are locally owned and operated. We employ local tradies and we use local suppliers, and we focus on supporting the local community" (G.J. Gardner, 2019).

Window Design

Windows in the studied contemporary spec houses contain an expansive use of glass. This is most likely due to sunlight and the importance of a connection to the exterior.

Signature Homes' Tasman house shows this importance with the statements "glass panel front door" and "the splashback is a window that looks out to native bush on the 800m2 site" (Signature Homes, n.d.-e).

These advertisements also comment on the thermal layer these windows provide, proving that using lots of windows does not have to hinder the comfort of the home. The Tasman design advertisement says, "the huge windows and stackers are all thermally broken with E glass to give added warmth and natural light to the bathrooms, lounge and living areas" (Signature Homes, n.d.-e). This proves that it is not just the aesthetic of these homes that is important but also the functionality.

Elevation Analysis

Noticeable Features of the Elevation from Visual Data

By studying visual data of the elevations, clear values of these contemporary spec homes are identified.

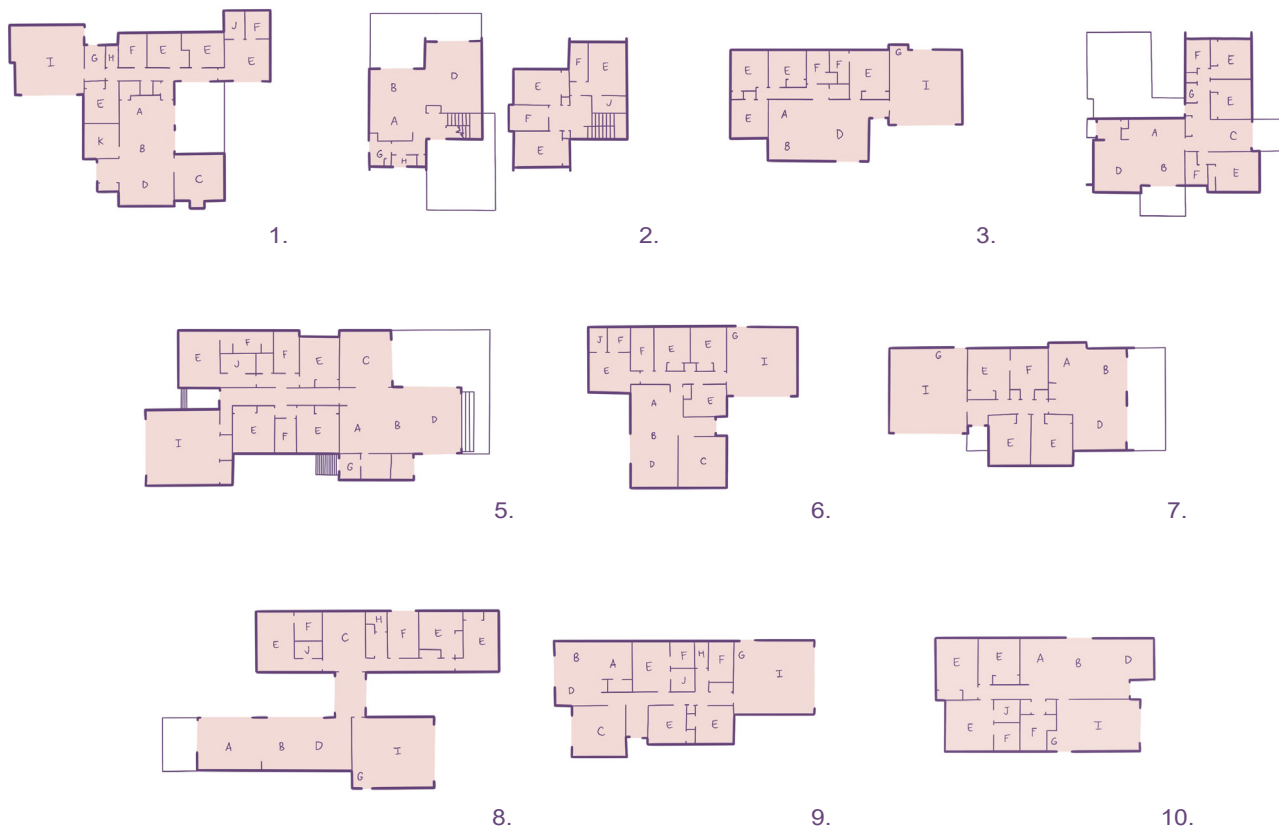
The foundations of almost all houses are not raised and have seamless entry into the homes. Only two of the studied houses have raised foundations and this is generally to cater for a large deck wrapping around the house, as seen in Signature Homes' Greville and Tasman home designs.

They also typically have plenty of windows and sliding doors, with the back elevation frequently being a wall of glass, as seen in Signature Homes' Nautilus, Austral, Greville, Tasman designs and GJ Gardeners' Discovery and Byron plans.

Similarly, to traditional housing in New Zealand, contemporary spec houses will use either hipped or gabled roofs. There was a very even spread between these two different forms from the houses studied.

The external materials used were generally either brick or weatherboard cladding. Weatherboard cladding was more common and present in Signature Homes' Kingfisher, Nautilus, Austral, Greville and Tasman plans as well as GJ Gardeners Apollo, Amrita and Discovery designs. In terms of roofing, metal sheets and clay tiles were the most common material and were evenly spread between the studied designs.

The internal materials used always involved neutral, white, or off-white finishes making the house appear lighter and brighter, therefore seeming more spacious. This again can be seen in most of the studied homes particularly Signature Homes' Weka, Greville and Tasman Designs.



Floor Plan Key

A	Kitchen	E	Bedroom	J	Walk in Closet
B	Dining Room	F	Bathroom	K	Study
C	TV Room	G	Laundry	L	External Courtyard
D	Living Room	H	Water Closet	M	Pool
I	Garage				

Fig. 113-122. Spec house floor plans

Floor Plan Analysis

Noticeable Features of the Floor Plan from Visual Data

By studying visual data of the floor plans alongside, clear values of these contemporary spec homes can be identified.

The entrance into the houses typically open onto an open plan living, kitchen and dining space, as seen in GJ Gardener's Byron, Amrita and Apollo plans as well as Signature Homes' Weka, Tasman, and Kingfisher plans. In the other floor plans studied the front entrance opens onto a small hallway leading to the open plan living, kitchen and dining.

This open plan living space is generally the hub of the home where all socialising occurs. Because this space is so public, it is placed at one end of the house and all private spaces are placed on the other end creating separation.

Back doors are common in these homes and are generally placed where the laundry is, typically in the garage. This is seen in almost all studied spec house floor plans.

Stairs are less common in these designs assumedly because they can be quite expensive. Stairs can be seen in one studied home, GJ Gardener's Discovery.

The overall floor plan is generally very rectangular in shape due to the hallway that goes the length of the building. The squarer houses typically occur when there are internal stairs separating the private spaces.

All images are based on publicly accessible drawings by GJ Gardener and Signature Homes (GJ Gardeners, n.d.) (Signature Homes, n.d.).

1. Byron - Platinum
2. Discovery 160
3. Amrita Alternate

4. Apollo 142
5. Greville
6. Weka - 176
7. Nautilus - 150

8. Tasman
9. Austral - 170
10. Kingfisher - 130

Chosen Architectural Homes

The studied architecturally designed houses have been chosen from New Zealand's Home Magazine 'Home of the Year' award. The winners of this award from 2012-2021 have been selected and analysed, providing a broad understanding of what architectural qualities are valued today.

2012
Under Pohutakawa,
Coromandel Peninsula
Herbst Architects



Fig. 123. Under Pohutakawa external



Fig. 124. Under Pohutakawa internal

2013
Headland House,
Waiheke Island
Stevens Lawson Architects



Fig. 125. Headland House external



Fig. 126. Headland House internal

2014
Eyrie,
Kaipara Harbour
Cheshire Architects

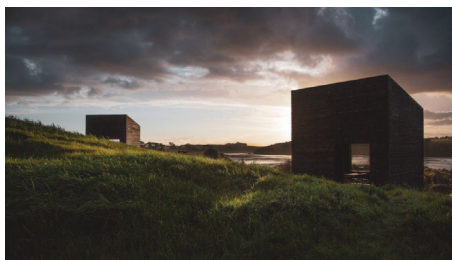


Fig. 127. Eyrie external

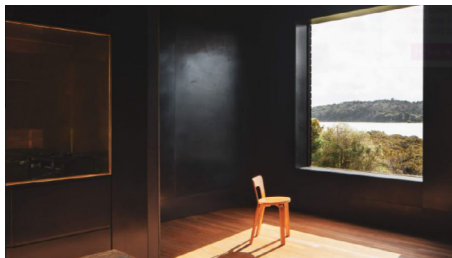


Fig. 128. Eyrie internal

2015
E-type House,
Auckland
RTA Studio



Fig. 129. E-type House external

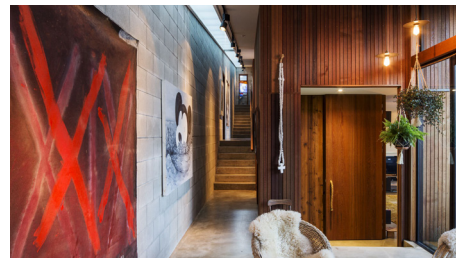


Fig. 130. E-type House internal

2016
K Valley House,
Kauaeranga River
Herbst Architects



Fig. 131. K Valley House external

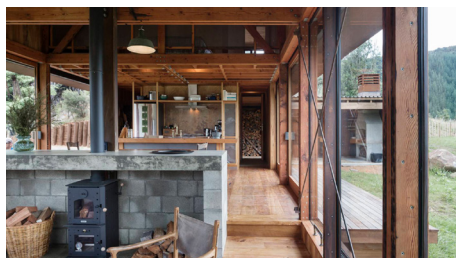


Fig. 132. K Valley House internal

2017
Town House,
Cambridge
Christopher Beer Architects



Fig. 133. Town House external



Fig. 134. Town House internal

2018
Kawakawa House,
Piha
Herbst Architects

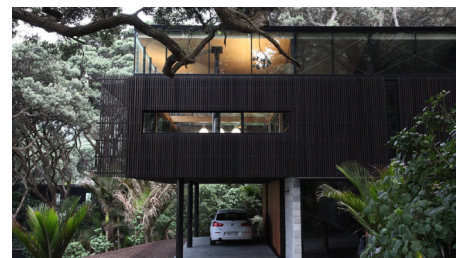


Fig. 135. Kawakawa House external

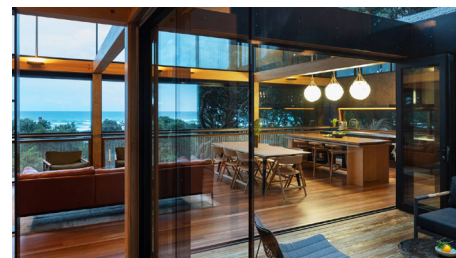


Fig. 136. Kawakawa House internal

2019

Diagrid House,
Grey Lynn
Jack McKinney Architects



Fig. 137. Diagrid House external



Fig. 138. Diagrid House internal

2020

Light Mine,
Coromandel Peninsula
Crosson Architects



Fig. 139. Light Mine external

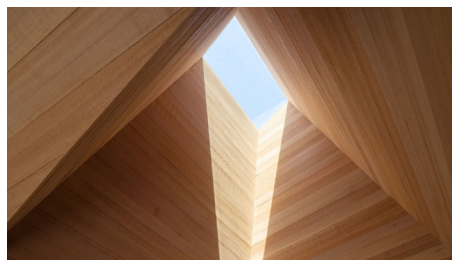


Fig. 140. Light Mine internal

2021

Black Quail House,
Central Otago
Bergendy Cook Architects

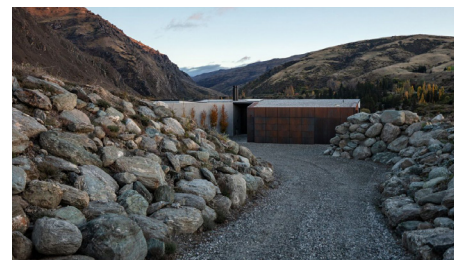
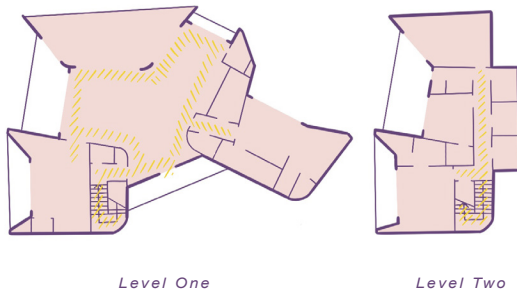


Fig. 141. Black Quail House external

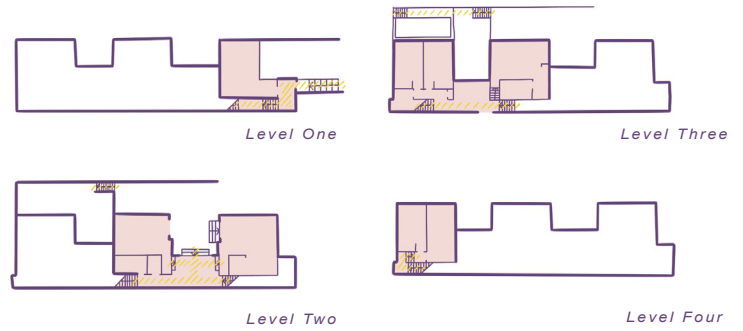


Fig. 142. Black Quail House internal

2013



2015



2016

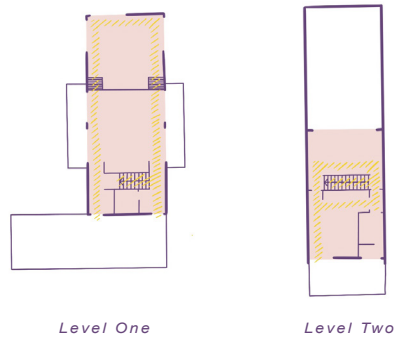


Fig. 143-145. Architectural floor plans highlighting the circulation

Circulation

Circulation in architecturally designed houses varies greatly due to different sites informing the house layouts. The consistencies in the studied houses include multiple entry points into spaces and central hubs that the circulation flows around, proving that architecturally designed homes have clients that can typically afford variety.

Having multiple entry points into spaces is seen in the 2015 design where the house is “connected by the single 33-metre-long corridor” that has courtyards which “loosen up the home’s circulation: crossing them to get from one room makes them feel fully integrated into the life of the home” (Hansen, 2015, pg. 103-106).

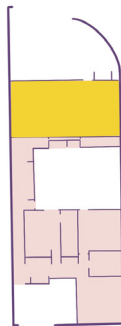
Circulation being centred around a hub can be seen in most of the studied designs, particularly the 2013 design, where the hub is the living/kitchen/dining rooms. This building was designed as “three timber-clad pods loosely arranged on the site... The pod forms — one of which contains the main bedroom, another a west-facing living area with a fireplace, and the third a sheltered, north facing verandah. The space between the pods is enclosed to form a kitchen, dining and living area” (Hansen & Steel, 2013, pg. 62).

All images are based and adapted off publicly accessible drawings from Home Magazine

2015



2017



2018



Level Two



Level One

2020

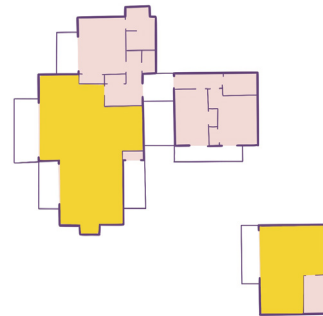


Fig. 146-149. Architectural floor plans highlighting the living rooms

Open Living

In contemporary architectural designs open plan living has become very common, with kitchen, dining and living spaces being connected in one open space. The 2017 design gives a definition of what open-plan living today is, where “homes are treated as a single open-plan space, loosely separated according to the level of privacy that’s required” (Cronin, 2017, pg. 71). This idea is supported in almost all the studied Home of the Year designs with only one possible exception, 2015.

This open plan living can be seen in the 2020 design, where Crosson, the architect “conceived an open-plan living-dining-kitchen area, with a main bedroom and bathroom tucked beside” (Farrel-Green, 2020, pg. 79).

The 2015 Home of the Year design is different and might not be considered as an open-plan living, kitchen and dining because “the living room is visible across the courtyard from the dining room and kitchen, for example, so if the kids are watching TV in one space while the adults are drinking wine around the dining table in the other, everyone can see each other” (Hansen, 2015, pg. 104). Although the living room is technically separate from the kitchen and dining, by connecting it with a small outdoor courtyard and glass doors it still feels connected.

All images are based and adapted off publicly accessible drawings from Home Magazine

2012

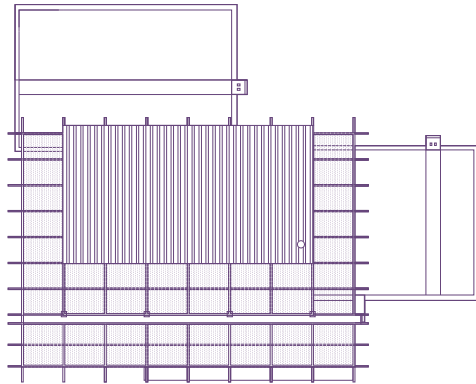


Fig. 150. Under Pohutakawa roof plan

2016

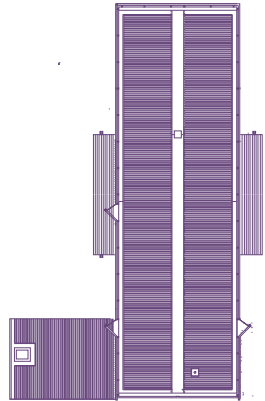


Fig. 151. K-Valley House roof plan

2019



Fig. 152. Diagrid House floor plan

Roof Design

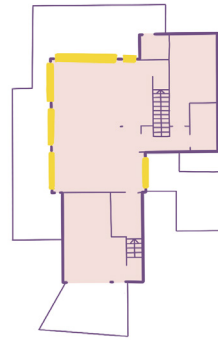
Being able to afford an architect allows variety in roof design as seen in many of the studied architectural drawings. Each roof is vastly different and typically tells the story of the house site.

The roof is used as a method of connecting the building to the site, so that it does not feel out of place but built around the present site components. This is seen in the 2012 design, which states that there “is a lofty living, kitchen and dining area where the part-glass roof is dramatically held up by the ethereal, painstakingly realised geometric branches of steel and timber” (Home New Zealand, 2012, pg. 73). These steel and timber “branches” are presented as the trunks of trees while the glass roof allows leaves of other trees to reach over, making the roof look as if it was a canopy of trees.

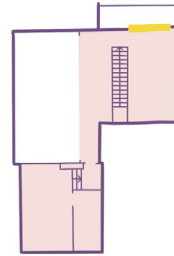
Architecturally designed homes make a point of not having a common gabled or hipped roof, and instead try to push the boundaries of what a roof can be.

Another reoccurring feature of these architecturally design roofs is the use of glass. Many of these homes use glass to connect the building to the site and to bring in more sunlight. As previously mentioned, the 2012 design has a glass roof but so does the 2020 design. In 2020 they were “designing tall, almost pyramidal towers topped with skylights that drag down the sun” as the roof.

2012

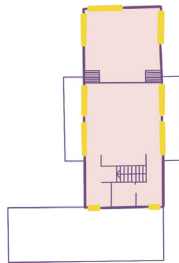


Level One



Level Two

2016



Level One



Level Two

2017

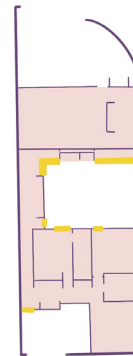


Fig. 153-155. Architectural floor plans highlighting the indoor-outdoor flow

Indoor-Outdoor Flow

Having a connection to the exterior has become a huge part of contemporary design, so much so that it has been termed ‘indoor outdoor flow’ and can be seen in almost all the studied architectural designs, except for 2014. This might be because “New Zealanders like decks. We like to stand on them with a glass of wine in hand, to contemplate the view. We like to cook on them, gather on them with friends in summer, and we like to sit on them until late at night” (Farrel-Green & White, 2018, pg. 68). So, having strong connections to this exterior space is vital to the lifestyle of a New Zealander.

This connection is seen predominantly off the open-plan living area as it makes it appear more spacious.

The 2017 design provides a clear statement as to the importance of these external connections through a courtyard. “The courtyards are essential. The interior spaces open onto them through strategically placed glazed doors — many of which disappear into walls when opened — allowing the courtyards to be used easily and extensively, which greatly enhances the perception of openness. Basically, they double the apparent floor area, creating the feeling of a much larger home” (Cronin, 2017, pg. 82).

This value is reiterated in almost all literature studied, examples include the 2016 design having “doors on both sides of the kitchen and dining area open to small decks” and on the 2012 design; “the back corner of the living area opens and steps down to a sheltered deck that catches the morning sun and looks onto more nikau palms at the rear of the home” (Hansen, 2012, g. 77, 2016, pg. 80).

All images are based and adapted off publicly accessible drawings from Home Magazine

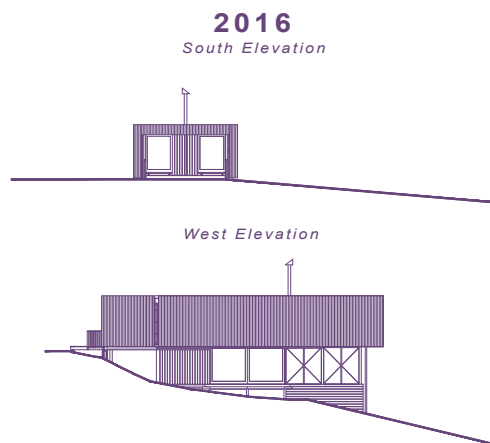


Fig. 156. K-Valley House
elevations

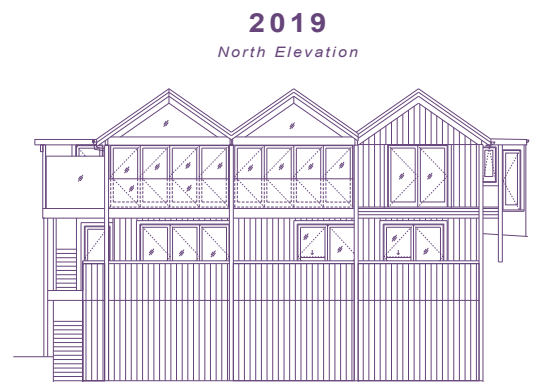


Fig. 157. Diagrid House
elevations

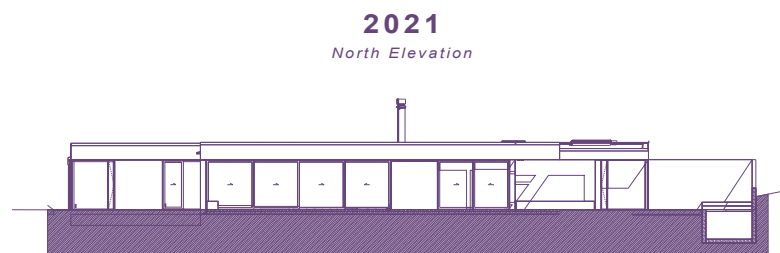


Fig. 158. Black Quail House
elevations

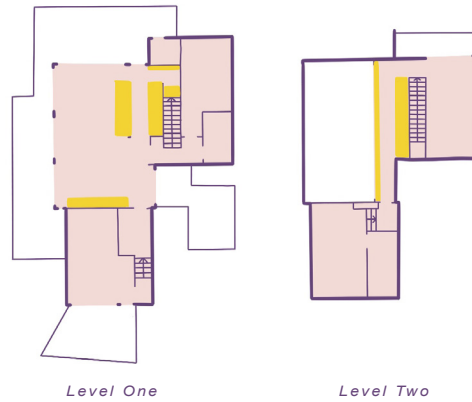
Window Design

Given, having a connection to the exterior is critical to contemporary designs, it makes sense that many architecturally designed houses would have expansive windows. Or at least the windows used are strategically placed to maximise the external view.

The 2020 design states that “on the corners of the house, the heads of the window sit above the ceiling, creating a box effect on the outside and a sense of expansiveness inside” (Farrel-Green, 2020, pg. 85). By designing the windows this way, they have brought the exterior inside of the home reinforcing the value of a connection to the exterior.

The 2018 design uses smaller windows to accomplish a similar effect where framing the view is the priority. The “interior plywood walls have been stained a similar dark brown to the tree boughs, while the inward sloping ceiling of light birch pulls your gaze up to a continuous clerestory window that wraps the perimeter of the house and captures the tree canopy” (Farrel-Green & White, 2018, pg. 75).

2012



2015



2016

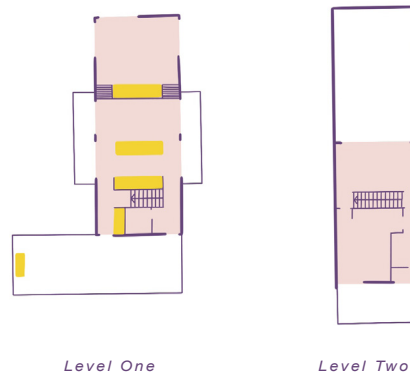


Fig. 159-161. Architectural floor plans highlighting the built in components

Fixed Living

Fixed living has become a more important value in architecturally designed homes. This is particularly common for owners who plan to stay on in a property.

The kitchen cabinetry, including island, and storage throughout the homes are visible in almost all the studied architecturally designed houses. However, only a couple of comments were made in the Home of the Year magazines about these fixed items. This includes “the kitchen and dining space are simple linear arrangement of bench, island and table, with cabinetry” (Hansen, 2016, pg. 80).

The 2016 design includes another built in, this “large concrete fireplace anchors the sitting space and rises to form a backrest for the bench beside the dining table” (Hansen, 2016, pg. 81). Although the fireplace is not an obvious example of fixed living it does show how one fixed item can be used to dictate an entire space.

The 2012 design uses fixed living more frequently with two other examples. The first moment is “the mezzanine bridge that connects the dark-clad timber volumes features a built-in day bed sheltered by the sloping cedar ceiling” (Hansen, 2012, pg. 77). The second is the living room which is “anchored not only by the double-height wall of dark timber behind the fireplace, but by a solid rear axis of built-in elements, including the couch, the kitchen island and the outdoor barbeque area” (Hansen, 2012, pg. 78).

All images are based and adapted off publicly accessible drawings from Home Magazine

Materiality

Here in New Zealand, timber is the main material for residential buildings due to the natural resources we have. This is shown in the Home of the Year designs studied where almost all homes use timber as their main structural and cladding material.

The timber materials used are an important value of these homes as most articles studied commented on which New Zealand native timbers were used in their designs, as seen in the 2020, 2016 and 2015 designs. The 2020 design states “while various cladding options were proposed - including stainless steel – the whole structure ended up being clad in reclaimed totara boards, 35mm thick and 225mm high, with 20mm gaps between each, so even from far away you can read the horizontal lines rather than just a big silver box” (Farrel-Green, 2020, pg. 85).

Using white, or off-white painted gypsum board for internal finishes is also critical to these designs, as it creates a strong contrast with any timbers used as well as making a space appear brighter, lighter, and airier. This contrast between internal finishes can be seen in almost all studied architectural homes, particularly the 2013 and 2017 designs.

Site Details

Architecturally designed homes are typically sited on extraordinary sites, like beach fronts, pohutukawa groves or large open farmland. The architects will then use these features to inform their design.

There are many examples of using site to inform design decisions in the studied architectural homes, including the 2012 and 2013 winners. “The Home of the Year 2012 locates itself at the heart of a grove of Pohutukawa and predicates its entire design on its relationship to them” (Hansen, 2012, pg. 70). While the 2013 design mentions that the house is “totally rationally laid out, but the rationale is relative to how it fits with the landscape and its wider environment. It’s very much an idea of how to build an organic house” (Hansen, 2013, pg. 58).

The big issue with these sites is ensuring that the building has a minimal impact on the site. This can be very difficult as seen in the 2012 design where the challenge was to not cut down too many trees “as the site was so completely covered in Pohutukawa that four of the trees had to be cut down to allow the home to be constructed” (Hansen, 2012, pg. 73).

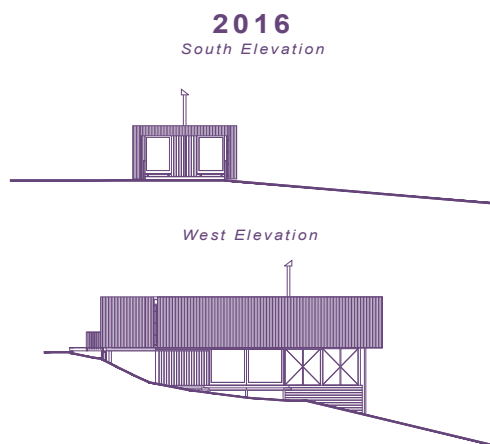


Fig. 162. K-Valley House elevations

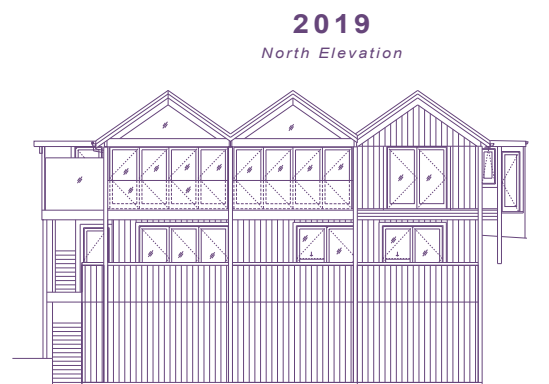


Fig. 163. Diagrid House elevation

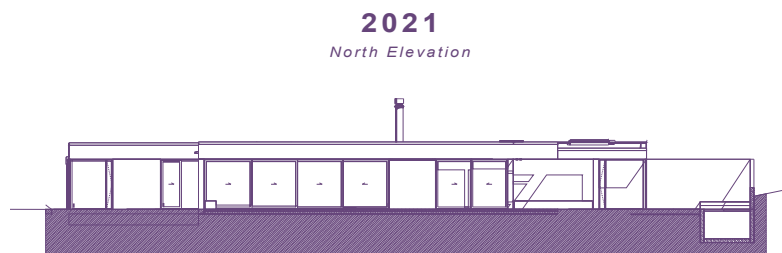


Fig. 164. Black Quail House elevation



Fig. 165. Headland House elevations

Elevation Analysis

Noticeable Features of the Elevation from Visual Data

By studying visual data of the elevations alongside, clear values of these contemporary architecturally designed homes can be identified.

There tends to be a seamless entry into the house, as seen in the 2016, 2017, and 2021 designs. If needed due to a sloping site, stairs to the front door can be used and surrounded by planting like in the 2019 and 2015 designs.

Large, expansive windows and sliding doors appear critical to these homes. To avoid a large, glass box appearance many designs will include one or two elevations with minimal to no glass to contrast the fully glass facades, as seen in the 2014, 2015 and 2019 designs.

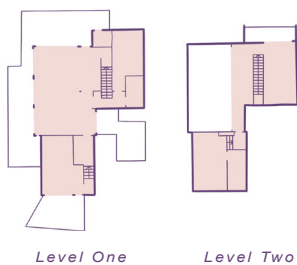
Most of the roofs studied appear almost flat with a couple having large pitches.

The 2015, 2017, 2019 and 2021 designs also appear to have minimal to no eaves while the 2016 design makes a feature of large eaves. It is almost like the roof is designed to blend into the walls of the house, creating one seamless object and not two separate components.

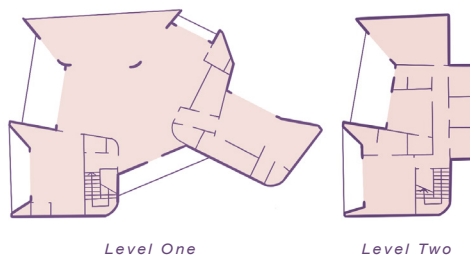
Timber appears to be the most used material for external cladding in these homes as seen in the 2014 and 2015 designs. Other homes appear to use timber alongside other materials. For example, the 2016 design uses corrugated iron and timber, which suits the farm site, making the house appear like a large shed. While the 2017 design uses a combination of timber, brick, and corrugated metal so that it seamlessly fits into a more commercial landscape.

For roofing materials metal sheets were the most common with only one of the studied homes opting for something different. This was the 2019 winner who made a feature of their roof by having a large concrete diagrid.

2012



2013



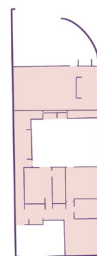
2014



2015



2017



2019

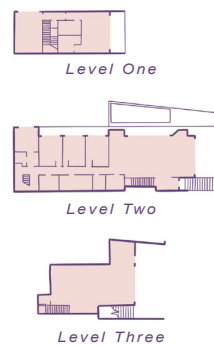


Fig. 166-171. Architectural floor plans

Floor Plan Analysis

Noticeable Features of the Floor Plan from Visual Data

By studying visual data of the floor plans alongside, clear values of these contemporary architecturally designed homes can be identified.

The front door almost always opens to either an open plan living, dining, kitchen space or onto a hallway that leads directly to the open plan living. The 2012, 2013 and 2014 designs show the entrance opening directly onto the open plan living while all other designs studied show the entrance opening to the hallway. This hallway varies in size but is long and narrow and provides a direct pathway through the house.

These homes do not typically have a 'back door' instead glass- sliding doors are used throughout the property, as seen in all the studied Home of the Year floor plans.

Stairs are common in these houses, with multiple storeys being very apparent. This allows for private spaces to be together on one end of the house or if available an entirely separate floor to isolate sound.

Finally, the full floor plans are generally more rectangular in shape with a long, clear path through the house. The private rooms are placed off this long path while the open plan living will be at one end of the house as seen in the 2015, 2017 and 2019 designs.

All images are based and adapted off publicly accessible drawings from Home Magazine

Concluding Patterns

Architectural Houses

After studying both literature and visual data, clear values of contemporary architecturally designed homes have been uncovered.

Two main patterns have been identified, the first is that clients can afford variety in architecturally designed homes. They can afford to include multiple entry points into spaces improving the circulation of the home, as well as stairs or external spaces to separate private from social areas. It also gives clients the flexibility to push their roof design beyond the typical hipped or gabled roof and allows the extreme use of glass in the home.

The second pattern identified is how the site influences the design. With the site influencing the overall form of the building. Living spaces also appear bigger due to the expansive use of glass as well as the previously mentioned decks. In terms of materiality, native timbers are preferred, once again bringing the surrounding site inside.

Spec Houses

After studying literature and visual data, clear values of contemporary spec homes have been identified.

As a result of spec houses being pre-designed and sometimes pre-built it can be difficult for companies to fulfil all client needs. Therefore, these homes are a bit more generic and cost-effective practices are in place to ensure a functional contemporary home is built. For that reason, these homes are more traditionally designed with roofs that are either hipped or gabled and windows being used effectively. Open plan living, kitchen and dining areas are still critical in these homes as well as the use of expansive glass to form connections to the exterior of these homes.

Comparison of Architectural Houses to Spec Houses

Further analysis has been made on whether the collected data is consistent between contemporary architecturally designed homes and contemporary spec homes.

Circulation through the homes appears relatively consistent across both studied samples and across all methods of data.

The circulation is focused on a hub, which is the open plan living, kitchen and dining space that is found at one end of the house. This space is either off the main entrance or at the end of a hallway separating private spaces from public. By using fixed living like kitchen islands, shelving, and bench seats this flow of circulation is further reinforced. The main difference in circulation between the studied samples is that architecturally designed homes can typically afford variety through multiple entry points or storeys, creating more degrees of separation of public and private spaces.

The roof design is where the most variation occurs between the studied samples. In architecturally designed homes they can afford to cater closely to what the client desires and what the site inspires. Therefore, they will typically use the roof to tell narratives, generally focused on the site. Spec homes will follow more traditional practices with either hipped or gabled roofs, noticeable eaves and consistent pitches. The only noticeable similarity between the two roof design methods is the incorporation of glass through skylights.

A connection to the exterior is again relatively consistent between the two studied samples and across all methods of data. This is done by using large decks and low foundations creating a seamless entry into the homes. It is also done through expansive glass on the open plan living space, creating external spaces that appear internal and vice-versa.

Finally, it appears critical to both samples studied that locally manufactured materials are preferred. This is evident through the large use of native New Zealand timbers and resources. In terms of internal materiality, the use of neutral or white toned finishes is critical, appearing in almost all houses studied. This is because it contrasts with other materials and colours, and helps the house appear brighter and airier, therefore seeming more spacious.

Hierarchy of Values

After analysing this data, a hierarchy of values can be made showing what the important components are to a contemporary home. This data is critical for the design phase of this thesis as it will show what values need to be introduced to ensure the contemporary living desires are met.

Floor Plan

1. Open plan living/kitchen/dining
2. Private spaces are separated from social spaces with a hallway
3. Social spaces on one whole end of the house
4. Living spaces are large and spacious
5. Circulation is centred around a hub
6. Direct sunlight onto the living spaces
7. Large expansive decks
8. Entrance opens onto open plan living
9. Entrance opens onto hallway
10. Fixed living supports the preferred circulation around open plan living spaces
11. Courtyards
12. Separate formal closed off living space
13. Multiple entry points into spaces
14. Overall, rectangular shaped floor plan

Roof – Architecturally Designed Houses

1. Metal sheet roofing
2. Glass skylights
3. Minimal to no eaves
4. Roof design to tell narrative
5. Lower pitched roofs
6. Concrete roofing

Roof – Spec Houses

1. Hipped roof
2. Gabled roof
3. Metal sheet roofing
4. Tile roofing
5. Glass/skylights
6. Shallow boxed eaves

Windows

1. Large windows off open plan living space for direct sunlight
2. Glass-sliding doors
3. Windows where required in more private spaces
4. Windows to frame certain external views
5. Thermally broken with low emissivity glass

Materiality

1. Native timbers
2. Off-white, white gypsum board
internal finishes
3. Combining different external
materials
4. Brick cladding

Site

1. Seamless entry into home from
external site
2. Attempts to minimise impact on
site
3. Site is used to inform the design
4. Extraordinary sites



Chapter Six

Precedents



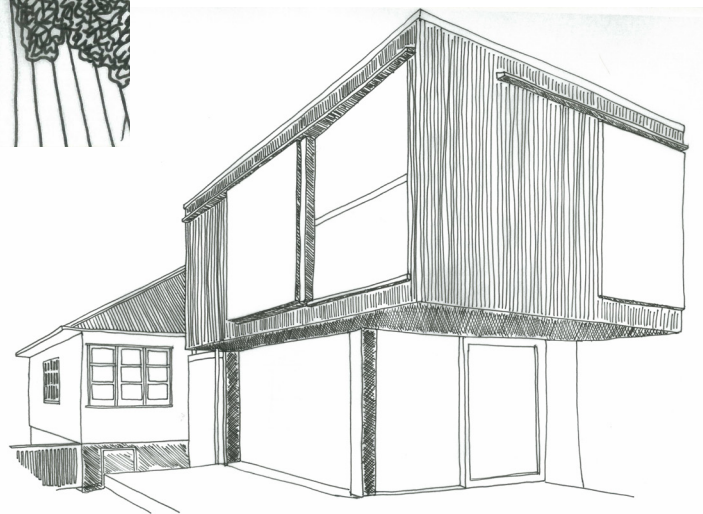
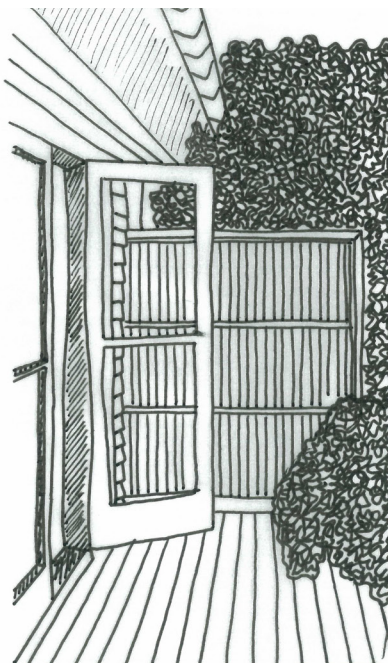
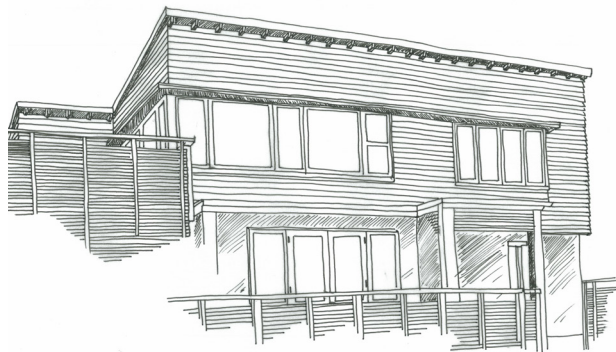
Introduction

Analysing how private homeowners have renovated their state houses to suit a contemporary living environment will be critical to this research. It will hopefully reinforce what my contemporary research has shown, proving what contemporary living values are critical to housing today. It will also show different design assisting in the design process of this thesis.

The houses analysed are from the text 'Beyond the State: New Zealand State Homes from Modest to Modern'. The homes in this text were used as they provide a wide range of methods of incorporating contemporary living values.

[See Previous Page](#)

Fig. 172. State Housing, Penrose, Auckland



Chosen Precedents

Three houses have been chosen as they represent three approaches to renovation. These three approaches are minimal changes, small additions, and large additions.

Design No. 646 has been chosen as it has had no changes other than to meet contemporary living requirements, including double glazing the windows and insulation.

Design No. 594 has been chosen as it has had a small addition that has pushed the house beyond its original house boundaries. Houses with these types of renovations typically have changed the internal floor plan by demolishing and reintroducing walls, they have also been changed to meet contemporary living requirements through double glazed windows, insulation, new fittings and updated internal materiality.

Design No. 1313 has been chosen as it has had a large addition that has pushed the house beyond the original boundaries. These changes normally result in the original state house being kept in almost original condition with only minimal changes like insulation and double glazing. This method results in the house effectively doubling in size from the original floor area.

These three state houses have then been further analysed to understand how they compare to both the state house heritage values and the contemporary values previously analysed.

See Previous Page

Fig. 173-179. Personal drawings based on images from the text 'Beyond the State: New Zealand State Homes from Modest to Modern'

Design No. 646

Initial Observations

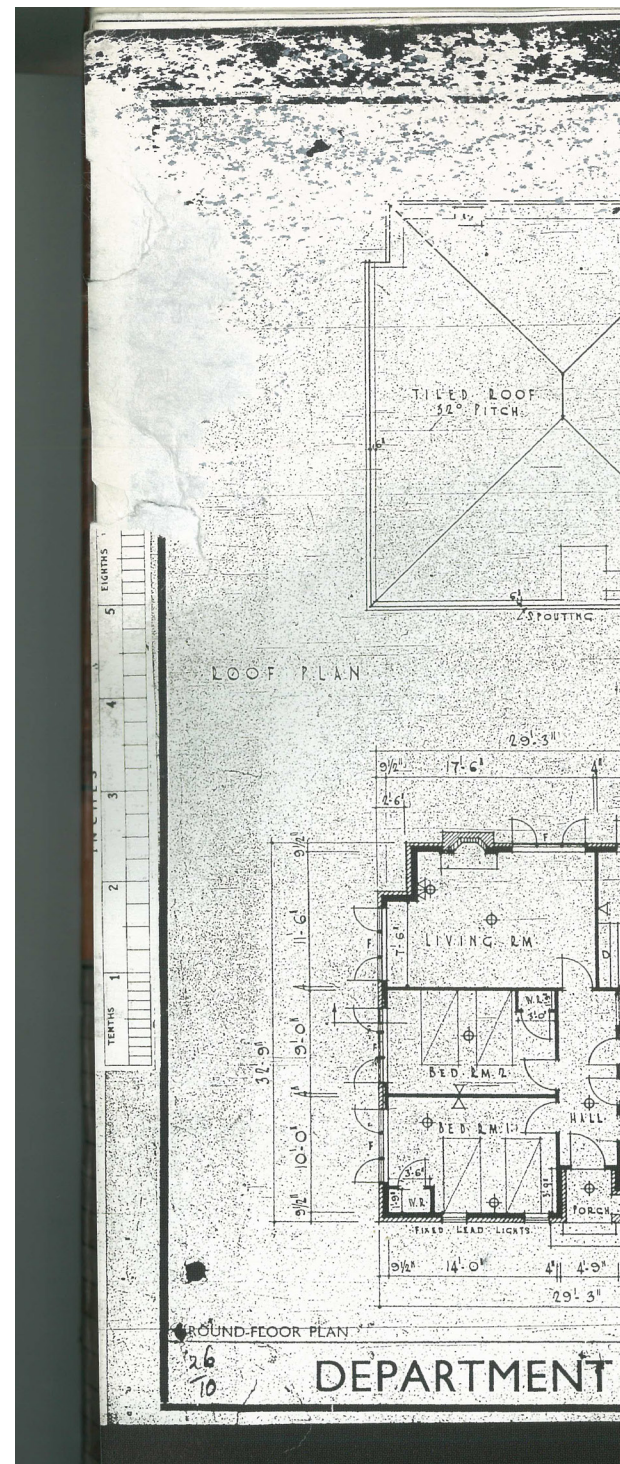
- No major renovations

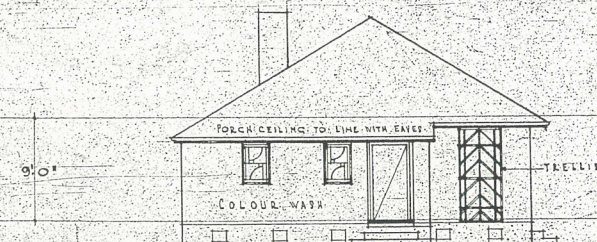
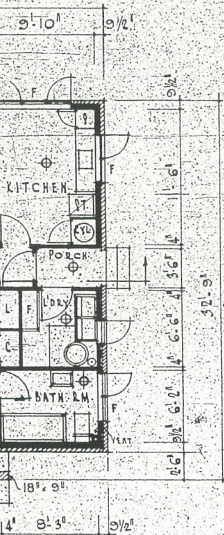
Heritage Value Comparison

- From imagery, some windows appear to have been refitted but to a similar state house style
- Most materials match the original state house
- Original external form and materiality has been maintained
- Floor plan is as originally designed

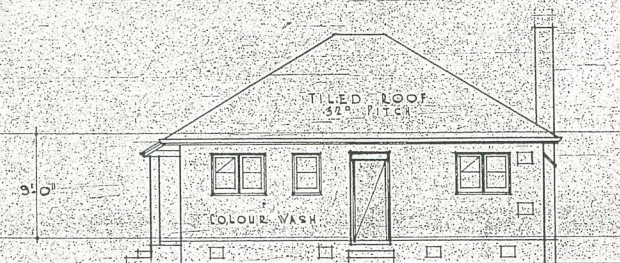
Contemporary Value Comparison

- Internal materiality has been updated with new linings and flooring

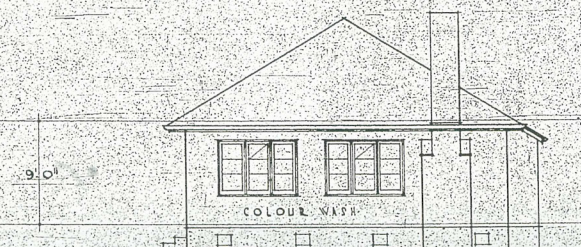




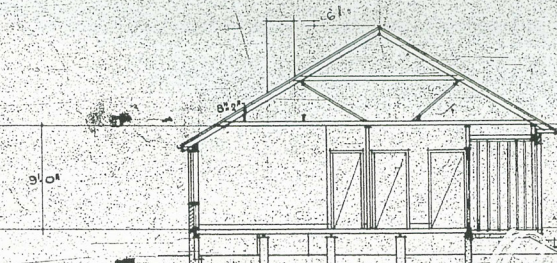
FRONT ELEVATION



SIDE ELEVATION



REAR ELEVATION



SECTION

ARCHITECT

SCALE 1/4 IN. = 1 FT.

CONTRACTOR - MUST VERIFY ALL DIMENSIONS ON THE SITE BEFORE COMMENCING ANY WORK

AREA 927 SQ. FT.

CHIMNEY C

FIREPLACE 5

GABLES

FRONT DOOR 1

INTERIOR DOORS 3

SHUTTERS

FRONT PORCH

NOTES

DRAWING No.

H.D. 6/ 646 /S1

DRAWN TRACED DATE 7/ 19

REVISED			
No.	Date	Alterd. or Retracer	By
1	6-20-31		A.M.G.
2	7-4-40		P.S.E.
3	12-1-40		A.J.S.

CONTRACT SECTION

11/6/11

HOUSE No.

646

ORDER OF SHEET IN CONTRACT

G.W. ALBERTSON

DIRECTOR OF HOUSING CONSTRUCTION

OF HOUSING CONSTRUCTION, N. Z.



Fig. 181. External photograph of Design no. 646



Fig. 182. Internal Photograph of Design No. 646

Design No. 594

Initial Observations

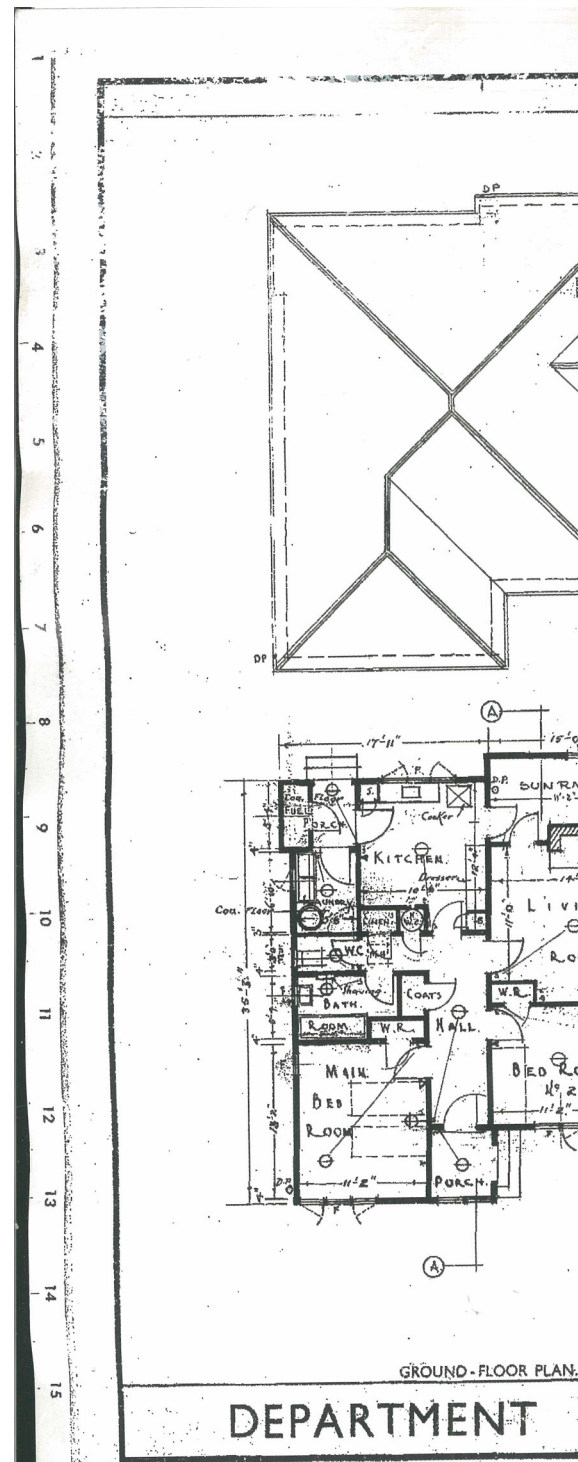
- Small extension
- Old porch and added extension converted into new kitchen and living
- Original living converted into third bedroom
- Sunroom converted into dining space

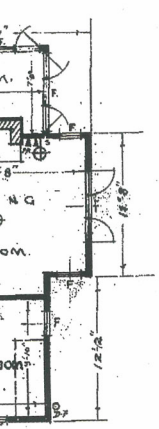
Heritage Value Comparison

- Original external form and materiality has been maintained
- Some windows appear to have been refitted but to a similar state house style
- Large living room with direct sunlight
- Direct path from the front to the back of the house

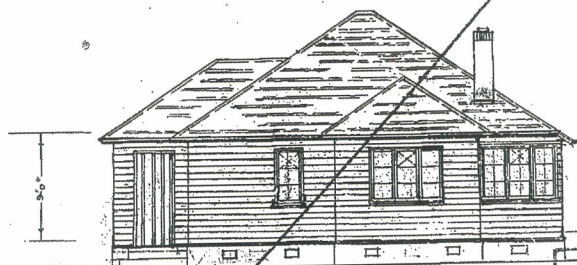
Contemporary Value Comparison

- New linings and floorings installed
- Large glass sliding and bifold doors at the back of the property connecting to a large deck
- New kitchen fittings
- Separate closed off lounge/third bedroom
- Private spaces kept separate from communal spaces

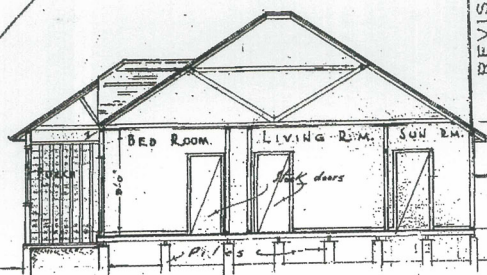




FRONT ELEVATION.



SIDE ELEVATION.



SECTION AA.

REVISIONS				
No.	Date	By	Alt.	Reason
A1	13-6-37	ALT	RECD	
A2	14-9-37	JWS	RECD	
A3	6-5-38	TAW	RECD	
A4				

ARCHITECT P.H. GRAHAM, F.R.I.B.A.

SCALE 1/4 IN. = 1 FT.

CONTRACTOR MUST VERIFY
ALL DIMENSIONS ON THE SITE
BEFORE COMMENCING ANY WORK

DATE 25 Mar 1937

BASE

WINDOWS

EAVES

ROOF

CHIMNEY E

FRONT PORCH

FRONT DOOR 3

INTERIOR DOORS 2

FIRE-PLACE 2

STOVE

HOT WATER

KITCHEN DRESSER

COLOUR, EXTERIOR

COLOUR, FRONT DOOR

COLOUR, SASHES

COLOUR, KITCHEN

COLOUR, BATHROOM

FINISH INTERIOR TRIM

ELECTRIC-LIGHT FITTINGS

WALL PAPER

SHUTTERS

COLOUR, SHUTTERS

COLOUR, SPOUTING

H.D. 6-594/1

CONTRACT SECTION

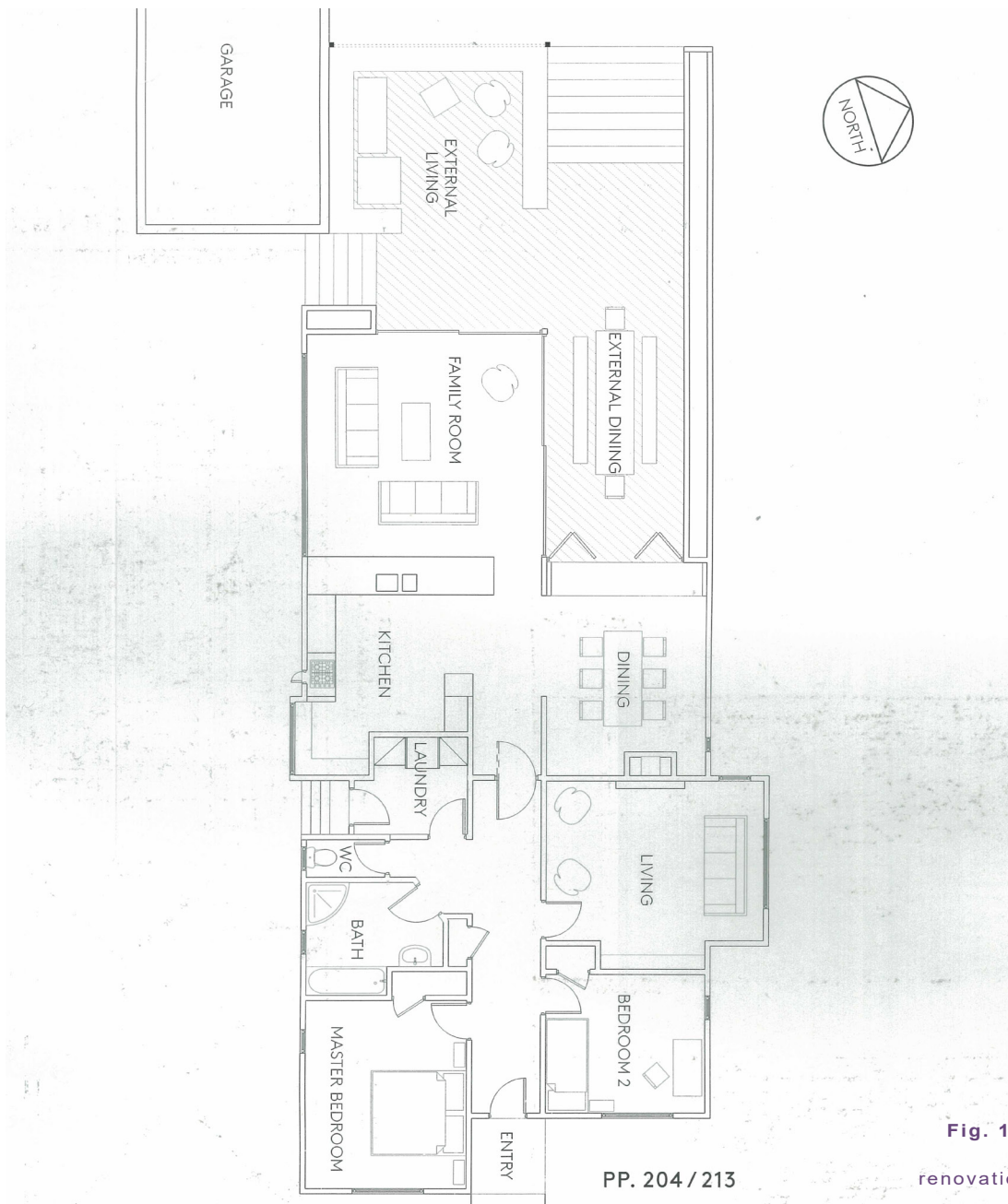
HOUSE NO. ORDER OF SHEET
IN CONTRACT

594

A. TYNDALL,

DIRECTOR OF HOUSING CONSTRUCTION.

OF HOUSING CONSTRUCTION, N.Z.

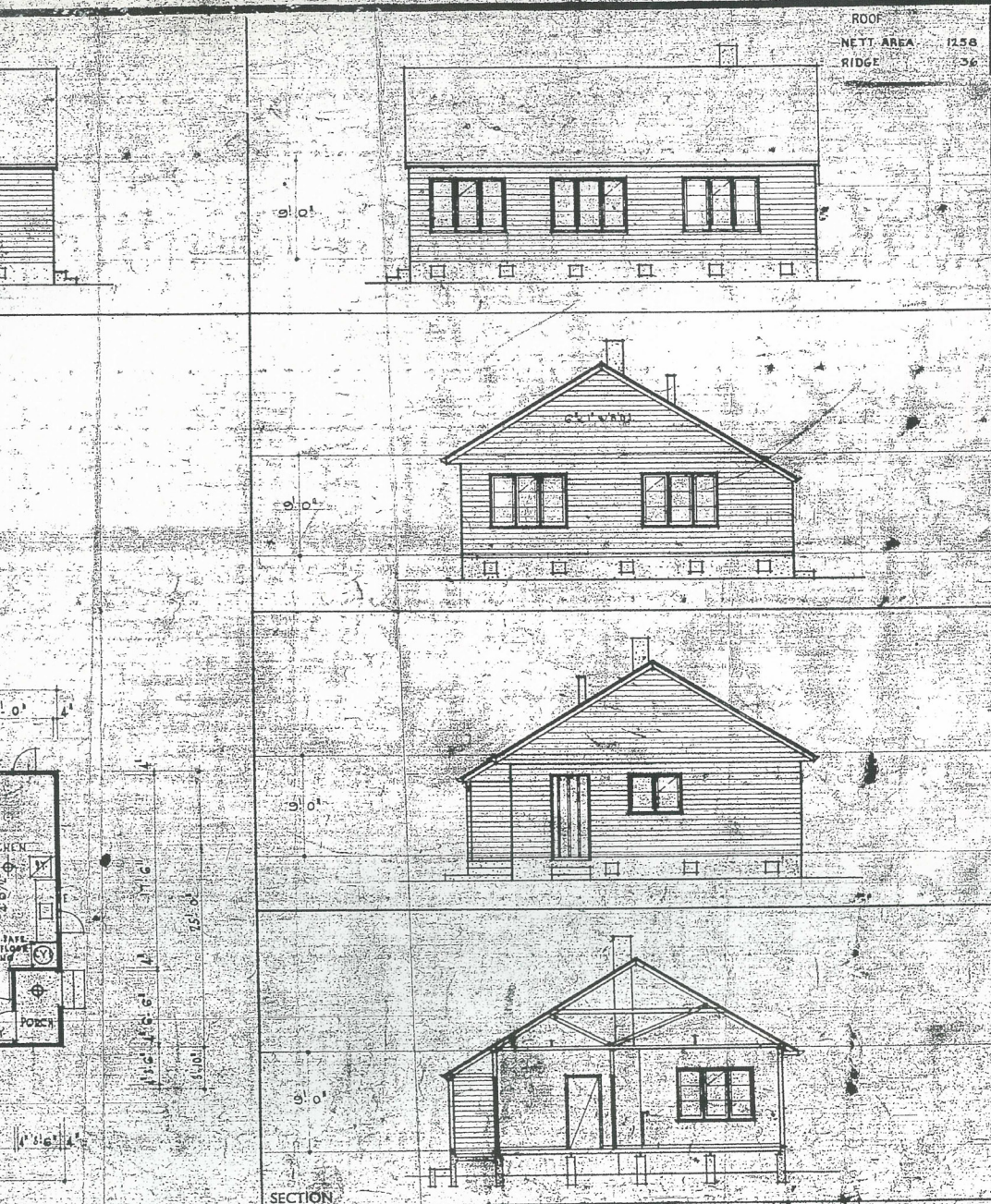


PP. 204 / 213

Fig. 184. Current floor plan showing renovations completed at Design no. 594



Fig. 185-188. Photographs of Design no. 594



ROOF
NETT AREA 1258
RIDGE 36

ARCHITECT
SCALE 1/4 IN. = 1 FT.

CONTRACTOR MUST VERIFY ALL
DIMENSIONS ON THE SITE
BEFORE COMMENCING ANY WORK

AREA 952 SQ. FT.

CHIMNEY A

FIREPLACE 7

GABLES A

FRONT DOOR 1

INTERIOR DOORS 2

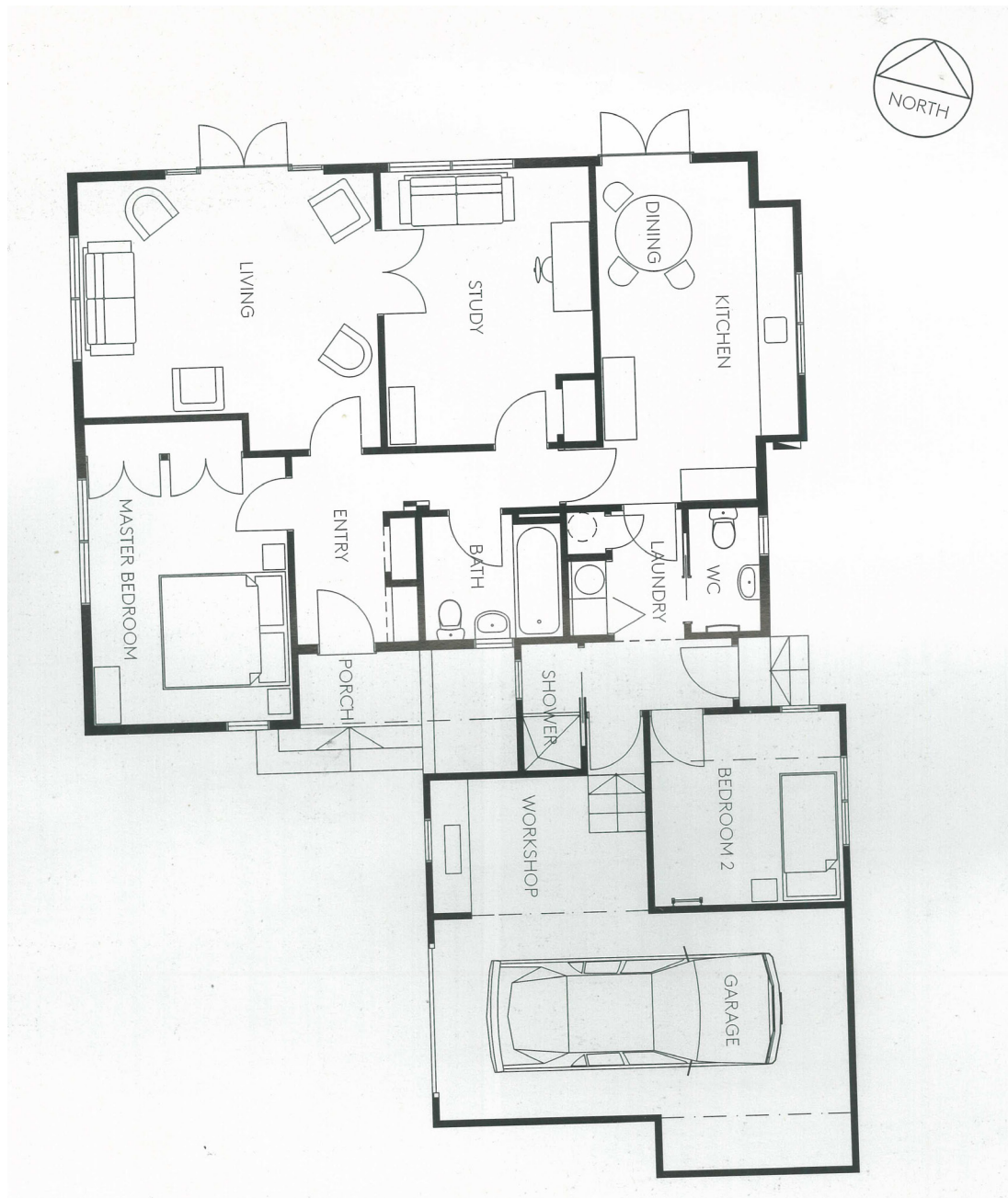
SHUTTERS

FRONT PORCH

NOTES

OF HOUSING CONSTRUCTION, N.Z.

W. A. L. J. T. S. O.
DIRECTOR OF HOUSING CONSTRUCTION
H.C.







Chapter Seven

Site



Introduction

In this chapter, the chosen site will be analysed to understand its current condition and the original design. This site will then form the basis of the design portion of this thesis.

See Previous Page

Fig. 196. Exterior of 18 Hart Avenue, Boulcott

The Site

18 Hart Avenue, Boulcott, Lower Hutt, 5011

18 Hart Avenue was chosen as it is an original New Zealand state house with minimal renovations to make it suitable for contemporary living.

This house can be dated back to 1937 when the original design was submitted by the Department of Housing Construction New Zealand (Department of Housing Construction New Zealand, 1937). New drainage plans were then submitted around 1951 and it is understood that a separate garage was installed in the following few decades (Copy of Drainage Plan G 167 Lot 86, 1951). Building consent was then granted for the demolition of this garage and a new separate garage to be built in early 1997 (Pillay, 1997). Finally, around 2018 further building consent was given for an alteration and addition to the house. These changes included extending the original sunroom creating one large open living space, refitting the kitchen to include a pantry and all new kitchen fittings. The original back porch and fuel room walls were also demolished to make a large laundry. During this process, many windows, doors, and materiality were updated most likely due to age (Moore Design and Draughting, 2017).

Many of the state house heritage values previously analysed have been observed in this property. The raised concrete foundation is present reaching a height of 0.55m. Many of the original two or three casement state house windows are also featured around the property with only a few having been replaced with newer, larger pieces. The original two and three casement windows mainly feature on the front façade. The roof is consistent with the original construction as it is a hipped roof with a consistent pitch, clay tiles and small boxed eaves. The placement of the house on the site also corresponds with the heritage values analysed. The house is nearer to the front boundary to make space for a larger back yard. The front yard measures at just over 8m which was a standard distance which allowed the backyard to be over 18m long. Many of the original materials are still present with the ceramic roof tiles, timber weatherboards and concrete foundations. According to the current structural drawings timber framing is also still apparent.

The recessed front porch is present and opens onto a hallway with a direct route through the house. This hallway ends on the kitchen, laundry, and back door, allowing the original state house value of a clear route from the front entrance to the back entrance to be present. The service rooms are clumped together on one corner of the house and the living room follows the original state house values of being a large space that is orientated towards the sun.

Many of the contemporary values previously analysed are also evident in this property due to the alterations and additions completed in 2018. In terms of circulation, the original state house suited contemporary ideals, with the front door opening onto a hallway with easy access to the living. The house also provides variation for circulation as there are multiple routes through the house creating multiple entries into spaces.

A spacious open plan living room was created by extending the sunroom and demolishing the wall between the sunroom and living.

The wall that separated the living room from the kitchen was also demolished and replaced with a kitchen bench connecting the kitchen to the dining and living spaces. Through the addition of glass back doors, windows and a deck, this open plan living space is given a strong connection to the exterior.

The hipped roof design suits spec-house roof values, and by using native timbers for the structure and weatherboard cladding, it reinforces the value of timber in contemporary New Zealand living. The internal materials have been replaced with new wall linings of painted gypsum board and in places vinyl flooring.

Overall, this case study has done well at preserving and maintaining many of the original state house values, whilst incorporating some contemporary needs. From here, design strategies will be tested to see if we can further improve this houses' property value.



Fig. 197-208. External photos of 18 Hart Avenue, Boulcott

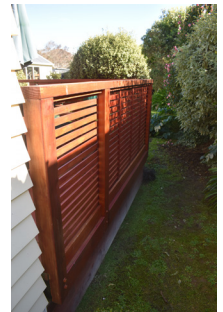


Fig. 209-220. External photos of 18 Hart Avenue, Boulcott

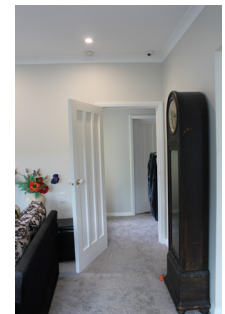


Fig. 221-232. Internal photos of 18 Hart Avenue, Boulcott

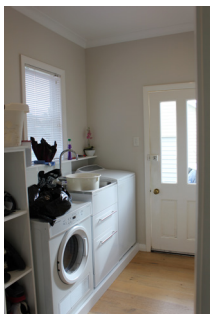
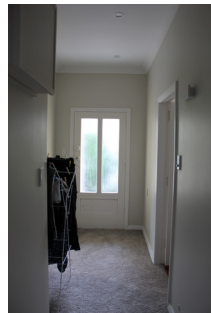
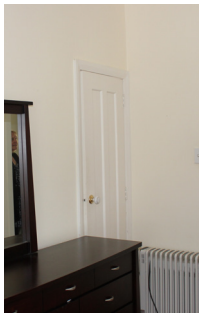
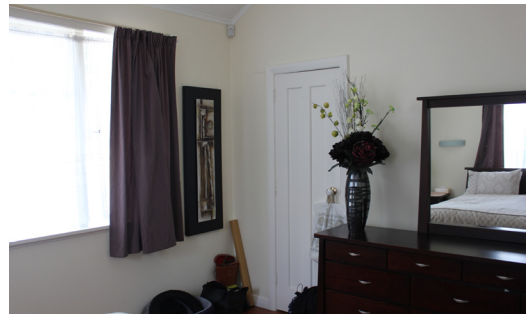
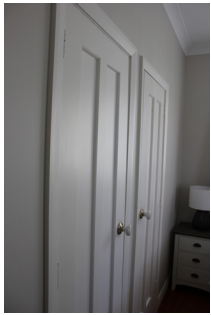
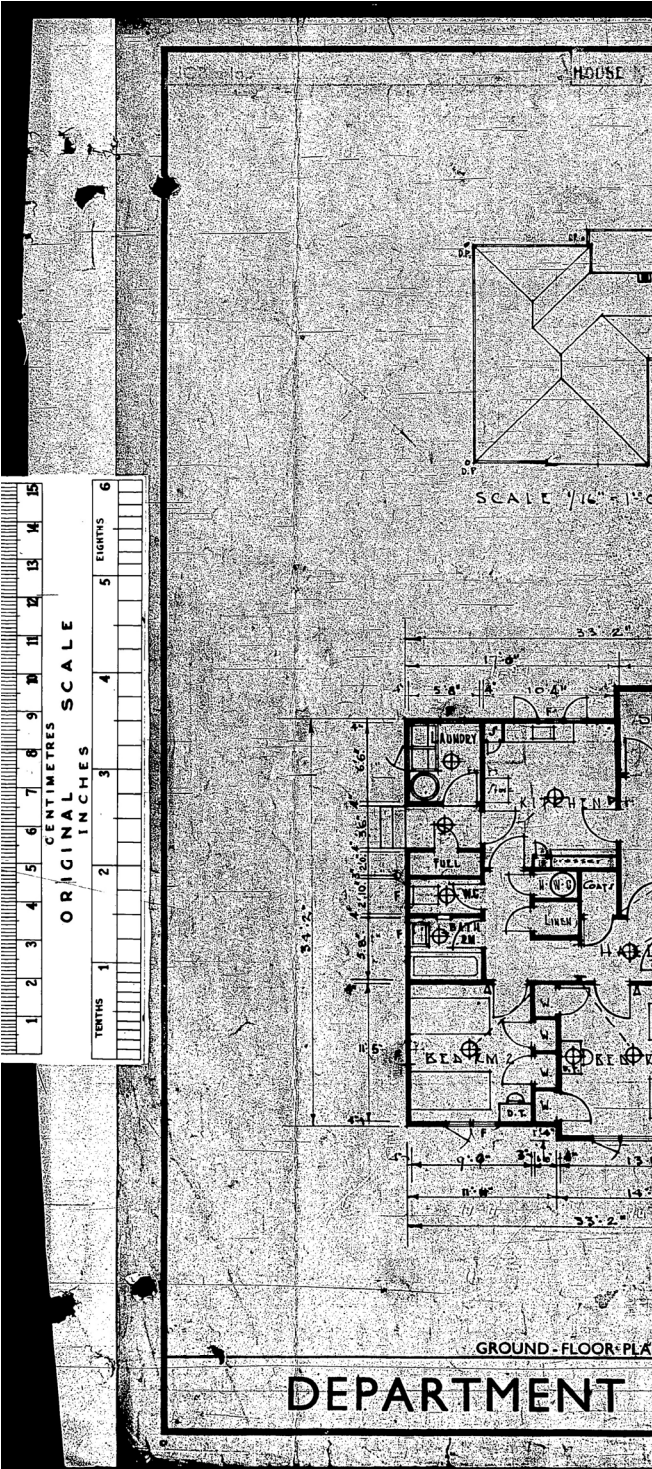


Fig. 233-247. Internal photos of 18 Hart Avenue, Boulcott

Original House Drawings

Fig. 248.
Original drawings of the chosen site,
design no. 477



477

W.T.C.
T.A.W.
ALT. 17 9 37
ALT. 23 9 37
ALT. 28 10 57
ALT. 28 10 57

CONTRACT NO. 11/243

DATE 11/243

ARCHITECT ALBERT H. GOLDWATER

SCALE 1/4" = 1'-0"

CONTRACT MUST VERIFY

ALL DIMENSIONS ON THE SITE

BEFORE BEGINNING ANY WORK

DATE 24 11 1937

BASE

WINDOWS

A

EAVES

ROOF

CHIMNEY

B

FRONT PORCH

FRONT DOOR

4

INTERIOR DOORS

2

FIRE PLACE

5

GABLES

C

HOT WATER

KITCHEN DRESSER

COLOUR, EXTERIOR

COLOUR, FRONT DOOR

COLOUR, SASHES

COLOUR, KITCHEN

COLOUR, BATHROOM

FINISH INTERIOR TRIM

ELECT. C-LIGHT FITTINGS

WALL PAPER

SHUTTERS

COLOUR, SHUTTERS

COLOUR, SPOUTING

NO. 6/477 IS 1

CONTRACT

11/243

HOUSE NO.

DATE 11/243

SECTION

6

ORDER OF SHEET
IN CONTRACT

6

A. TYNDALL,

DIRECTOR OF HOUSING CONSTRUCTION.

FRONT ELEVATION.

SIDE ELEVATION.

SECTION

7206

OF HOUSING CONSTRUCTION, N.Z.

Notes:

- Timber joinery (profile to match existing)
- roof framing & Ardex butynol roof above
- New Rinnai INFINITY VT24 External
- Bookshelves
- 4.27 m²
- Dining FFL +10,000
- Lounge FFL +10,000
- Shaded area indicates new addition
- Lounge:
 - Make good to wall & ceiling linings.
 - Make good to existing floor coverings.
- Confirm if the removed walls are load bearing if not then no isolated footing is required for the opening in the kitchen
- Plumbing & fixtures into existing location
- GIB standard ceiling lining
- GIB standard wall lining as required
- Timber joinery (profile to match existing)
- selected Vinyl floor finish.
- Make good to wall ceiling linings.
- 10 x 600mm Wooden Standard
- 2800mm Attic Stair into ceiling

Dimensions:

- Overall width: 3,730
- Overall depth: 4,420
- Bed 1 width: 2,060
- Bed 2 width: 2,060
- Bed 1 length: 2,060
- Bed 2 length: 2,060
- Bed 1 area: 4,230
- Bed 2 area: 4,230
- Bed 1 perimeter: 8,120
- Bed 2 perimeter: 8,120
- Bed 1 volume: 16,920
- Bed 2 volume: 16,920
- Bed 1 floor area: 4,230
- Bed 2 floor area: 4,230
- Bed 1 ceiling area: 4,230
- Bed 2 ceiling area: 4,230
- Bed 1 wall area: 8,460
- Bed 2 wall area: 8,460
- Bed 1 window area: 8,460
- Bed 2 window area: 8,460
- Bed 1 door area: 8,460
- Bed 2 door area: 8,460
- Bed 1 floor covering: 4,230
- Bed 2 floor covering: 4,230
- Bed 1 ceiling covering: 4,230
- Bed 2 ceiling covering: 4,230
- Bed 1 wall covering: 8,460
- Bed 2 wall covering: 8,460
- Bed 1 window covering: 8,460
- Bed 2 window covering: 8,460
- Bed 1 door covering: 8,460
- Bed 2 door covering: 8,460
- Bed 1 floor finish: 4,230
- Bed 2 floor finish: 4,230
- Bed 1 ceiling finish: 4,230
- Bed 2 ceiling finish: 4,230
- Bed 1 wall finish: 8,460
- Bed 2 wall finish: 8,460
- Bed 1 window finish: 8,460
- Bed 2 window finish: 8,460
- Bed 1 door finish: 8,460
- Bed 2 door finish: 8,460
- Bed 1 floor material: 4,230
- Bed 2 floor material: 4,230
- Bed 1 ceiling material: 4,230
- Bed 2 ceiling material: 4,230
- Bed 1 wall material: 8,460
- Bed 2 wall material: 8,460
- Bed 1 window material: 8,460
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- Bed 1 window type: 8,460
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- Bed 1 floor color: 4,230
- Bed 2 floor color: 4,230
- Bed 1 ceiling color: 4,230
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- Bed 1 wall color: 8,460
- Bed 2 wall color: 8,460
- Bed 1 window color: 8,460
- Bed 2 window color: 8,460
- Bed 1 door color: 8,460
- Bed 2 door color: 8,460
- Bed 1 floor texture: 4,230
- Bed 2 floor texture: 4,230
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- Bed 1 wall texture: 8,460
- Bed 2 wall texture: 8,460
- Bed 1 window texture: 8,460
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- Bed 1 door texture: 8,460
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- Bed 1 floor pattern: 4,230
- Bed 2 floor pattern: 4,230
- Bed 1 ceiling pattern: 4,230
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- Bed 2 wall finish type: 8,460
- Bed 1 window finish type: 8,460
- Bed 2 window finish type: 8,460
- Bed 1 door finish type: 8,460
- Bed 2 door finish type: 8,460
- Bed 1 floor material type: 4,230
- Bed 2 floor material type: 4,230
- Bed 1 ceiling material type: 4,230
- Bed 2 ceiling material type: 4,230
- Bed 1 wall material type: 8,460</

144

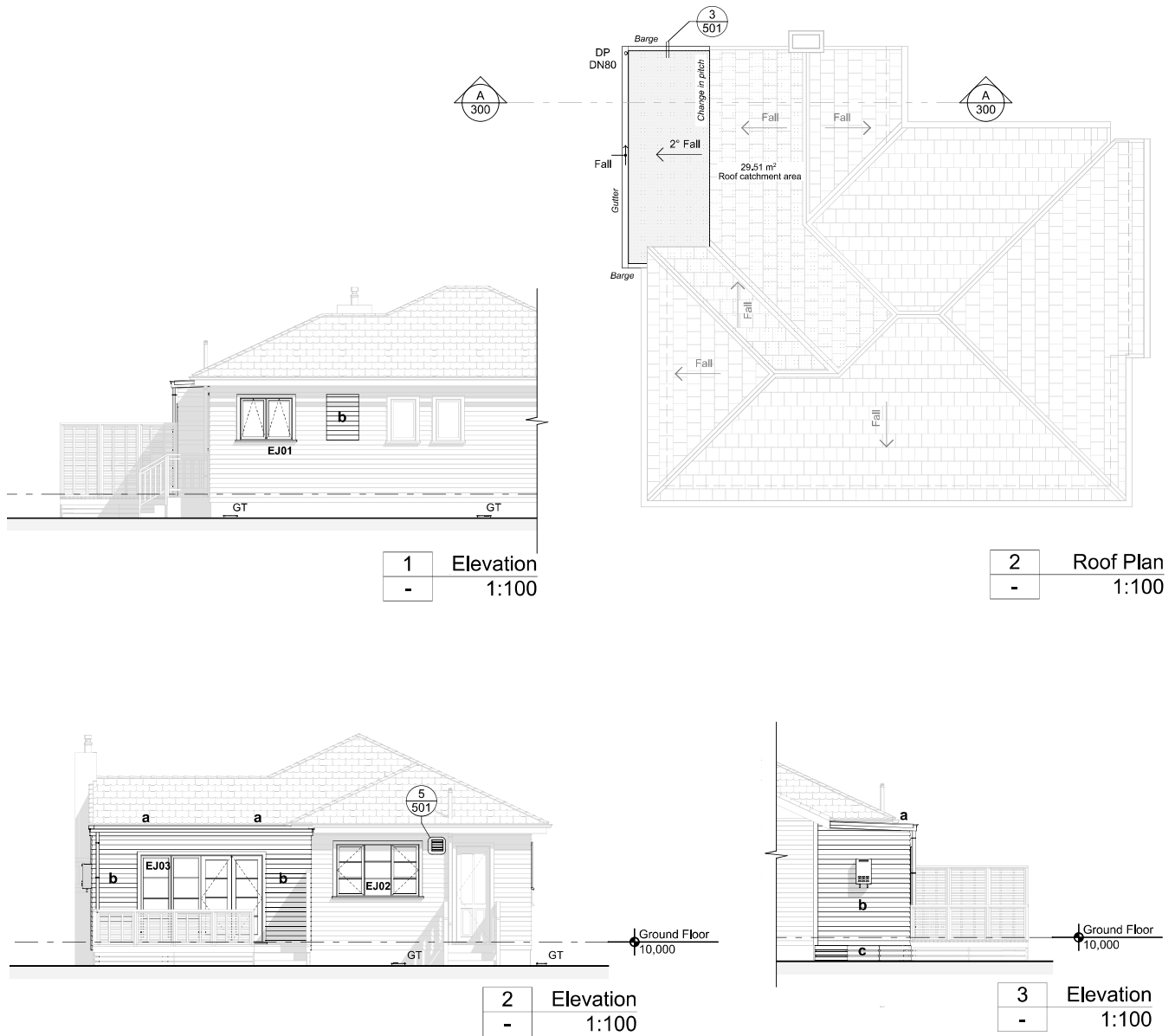


Fig. 250-253: Current elevations and roof plan of chosen site

Site Analysis

This brief site analysis has been provided for context, as any design decisions made are based on the overall studied state house typology not this specific chosen site.

Not many site aspects need to be analysed as the chosen site is in a quiet residential area.

Sun

The sun on the site rises on a corner of the front facade and sets on a corner of the back facade, providing afternoon sun on the private backyard

Wind

Due to the site being surrounded by residential properties and planting, it is very well protected from any large winds.

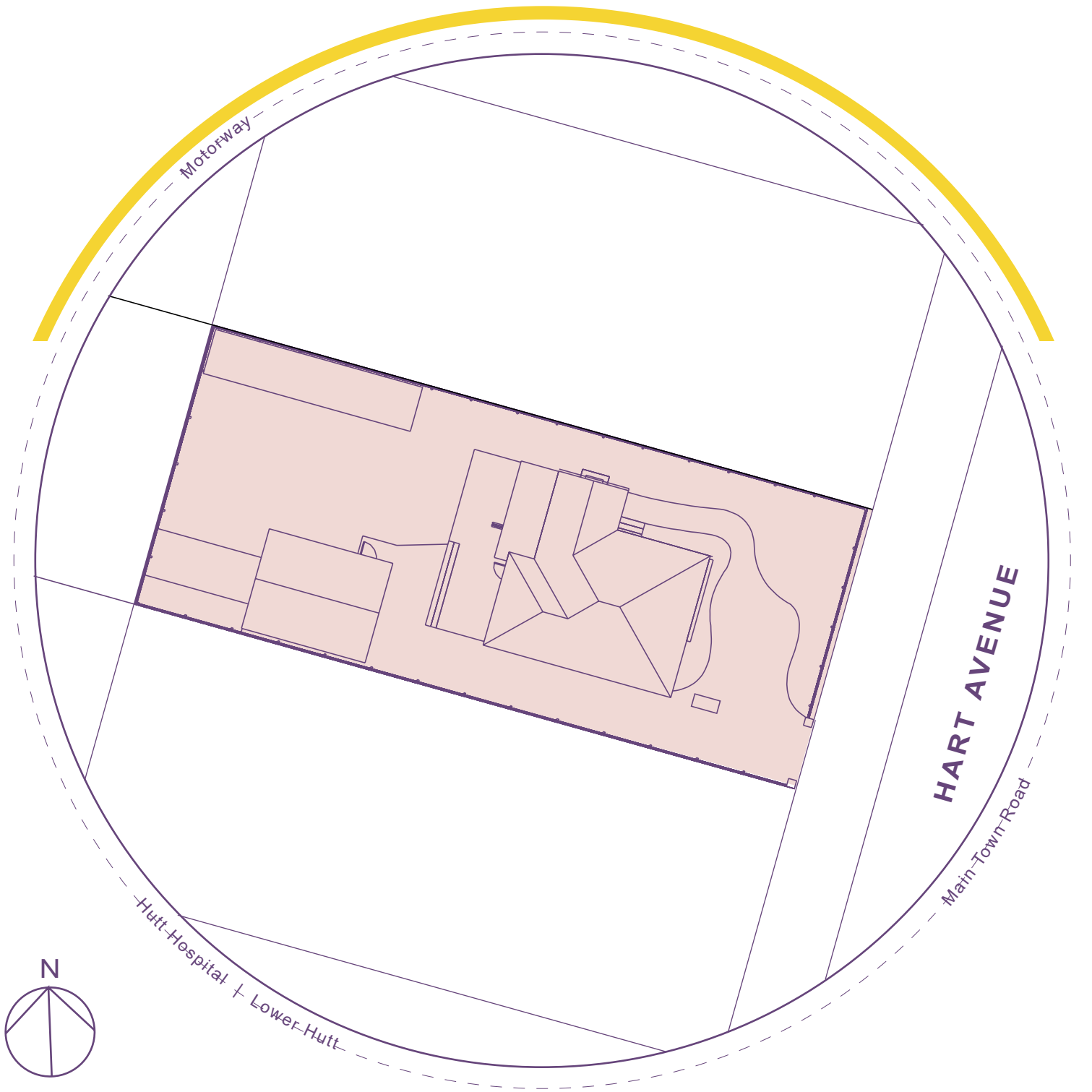
Noise

Noise pollution is not an issue as Hart Avenue is a very quiet street with residents being typically the only user on the road.

Local Landmarks

This site is in a suburban area that is local to all necessities as desired in the original 1940s state housing suburb plans. There are local schools, a hospital, and shops around the corner, and easy access to the motorway and public transport to get to the city.

Fig. 254. Diagram showing the site aspects of the chosen site





Chapter Eight

Design



Introduction

The design portion of this thesis involves testing various design strategies on the chosen site. With the aim of achieving an outcome that improves property value and amenity by incorporating desirable contemporary living values harmoniously with the heritage values of the New Zealand state house.

See Previous Page

Fig. 255. The Holmes family outside their home in Naenae

Design Approach

Two design approaches will be used.

The first will be a minimally invasive approach to see how little can be done to ensure the heritage value of the building is maintained whilst making it functional for contemporary living. This approach is very common in heritage conservation and has been well discussed in charters like the Burra Charter. “The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained” (The Burra Charter, 2013).

The New Zealand Historic Places Trust Pouhere Taonga, also discusses a more minimal approach as the appropriate way to protect a places heritage value.

However, they understand the importance of change to ensure the functionality of a place is optimised. They endorse “adapting historic places for maintaining continuity of use or new uses where it is necessary to ensure the place retains liveability and utility” (New Zealand Historic Places Trust Pouhere Taonga, 2007).

The second approach will be more extensive and invasive with the focus of incorporating many contemporary desires.

This design process will initially be split into four sections – floor plan, roof design, design of openings, and materiality. Each of these sections will require varying amounts of design exploration that will allow for minimal and/or extensive design approaches. The way we approach the design of each of these sections will be justified by how critical the heritage values of that section are to the overall state house typology.

Openings

Previous research shows that the openings are critical to this state house typology. Because they are an important value, a minimal approach to design will be used ensuring their protection.

Roof Design

The overall roof design is another historically valued component of these state houses. Changing one feature has a drastic result, therefore, a more minimal approach will again be taken to ensure that the heritage values are protected.

Floor Plan

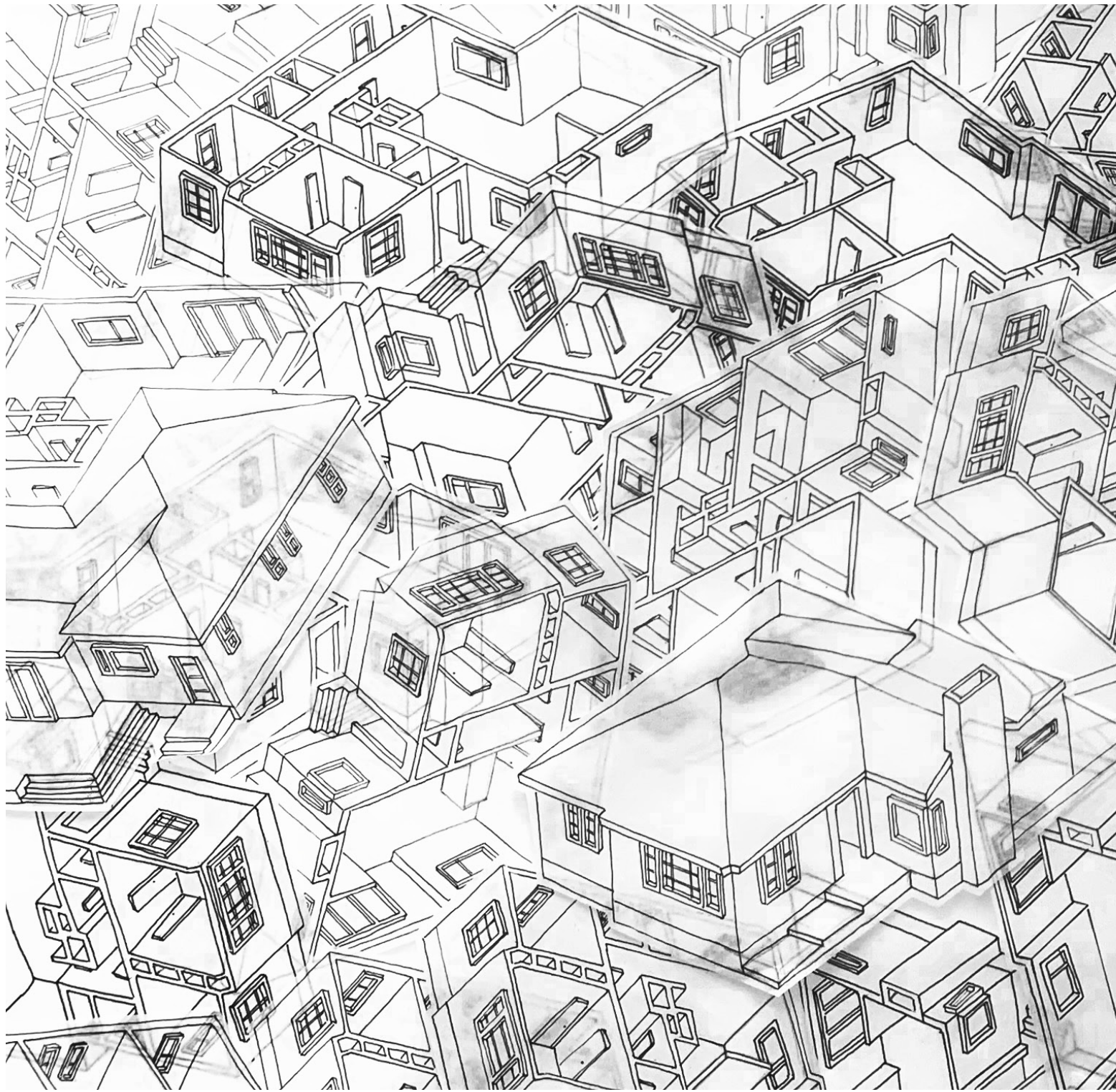
There are many different values with varying levels of importance within the floor plan design. Therefore, both minimal and extensive approaches to design will be used. By approaching the floor plan design this way, it will hopefully create a varied range of design strategies providing options for potential clients.

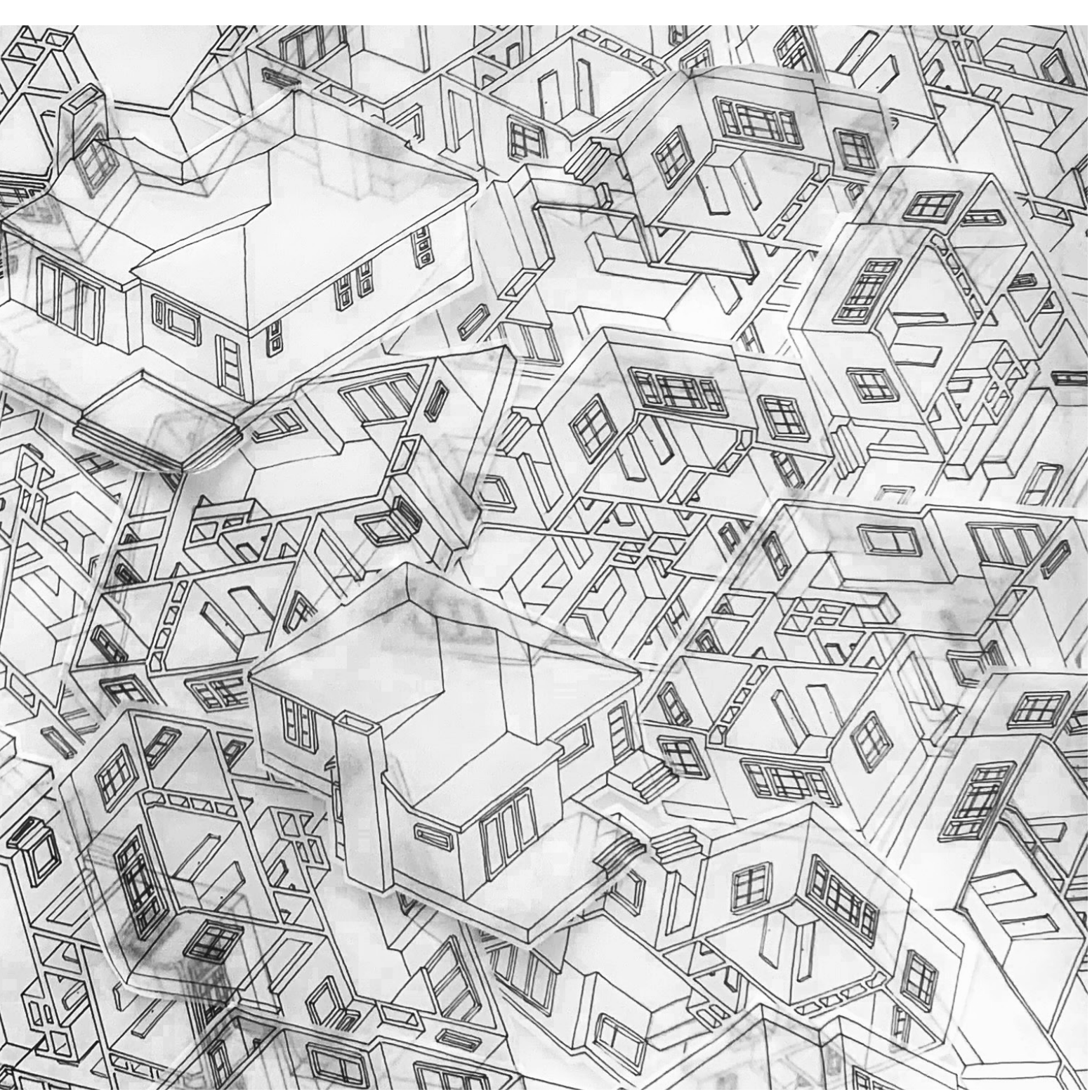
Materiality

The materiality of this state house typology is consistent across the country and therefore critical to the state house typology. A more minimal approach again will be used to ensure that these heritage values are preserved.

See Following Page

Fig. 256. Photograph of some of the sketches completed in the initial design stage





Design Methodology

The design methodology consisted of quick sketching, testing, digital modelling, deliberate and educated design decisions and finally strong reflection throughout. It involved three stages outlined below to ensure a comprehensive result was achieved.

Stage One

Stage one was the quick sketching stage where all ideas were encouraged and tested to see where the most success was occurring.

1. Quick Sketch

Fast sketches of how to incorporate contemporary floor plan values

- Bigger living
- Three beds/private living
- Kitchen - Fixed Living
- Bigger decks
- Storage – fixed living
- Tucked away laundry

2. Quick Iterations - Floor Plan

Combining the previous sketches to form quick iterations. These would be either a more invasive or minimally invasive approach.

3. Quick Sketch – External

Fast sketches of external features based on decisions made internally.

- Window placement
- Window design
- Door placement
- Door design
- Roof layout
- Materiality

Stage Two

Stage two was a more deliberate, resolved digital modelling stage, which occurred alongside the writing and editing of a state house heritage checklist. By doing these stages alongside each other, educated design decisions were made and it was easy to see where successes or failures were occurring.

4. Digital Modelling

Digitally model two design strategies from a combination of the most successful sketches on the previous stage.

5. Study Checklists

Study two of New Zealand Historic Places Trust Pouhere Taonga Checklists; 'Repairs and Maintenance' and 'Alterations and Additions' (New Zealand Historic Places Trust Pouhere Taonga, 2007a, 2007b).

6. First Draft of the State House Checklist

Rewrite New Zealand Historic Places Trusts Checklists for the protection of the 1940s New Zealand detached family state house. This needed to take into consideration:

- What heritage values needed to be preserved.
- How contemporary modifications can be allowed.

The goal is to not hinder homeowners from incorporating their desired contemporary needs, so the checklist needs to be easy to follow and ensure heritage value is protected.

7. Design and Checklist Analysis

Analyse the two digitally modelled design strategies against the state house heritage checklist to uncover any issues in the design strategies or checklist.

8. Second Draft of State House Checklist

Edit heritage checklist taking into consideration any previous issues.

9. Precedent Checklist Analysis

Applying checklist against three previously studied precedents, to see success of checklist across a variety of homes.

10. Final Draft of State House Checklist

Edit heritage checklist taking into consideration any previous issues.

11. Digital Modelling

Digitally model a further six design strategies based on the initial hand sketches.

12. Design and Checklist Analysis

Analyse the six digitally modelled design strategies against the heritage checklist to uncover any issues.

At this stage there were no major issues with the checklist.

Stage Three

After creating a successful checklist and multiple design strategies based on one state house it was time to test these strategies against other state houses. This would ensure that the strategies and checklist work against multiple houses, providing a glimpse into how they would work across a larger variety.

13. Digitally Modelling a Second House

14. Application of Design Strategies
five design strategies on second digitally modelled state house. The five strategies are:

- Large addition
- Small addition
- Staying within house boundaries to incorporate a third bedroom
- Staying within house boundaries to provide a larger living
- Staying within house boundaries to incorporate a second floor

15. Design and Checklist Analysis

Analyse design strategies to see design and checklist success.

This stage will then be repeated two more times on two more state houses to provide an overall idea of the success of the checklist.

The Heritage Checklist

As mentioned in the design methodology, a checklist has been created (shown on the following pages) that state homeowners could use when renovating their home. This checklist has been adapted from the New Zealand Historic Places Trust Pouhere Taonga's "Sustainable Management of Historic Heritage Guidance Information Sheet 12: Alterations and Additions to Historic Buildings" checklist.

However, it does take considerations from their other checklist titled 'Repairs and Maintenance' (New Zealand Historic Places Trust Pouhere Taonga, 2007a, 2007b).

This checklist outlines what should and should not be done ensuring that we are not hindering client's design decisions but helping them make decisions that protect the heritage value of their state home.

Alterations and Additions to the 1940s Detached Family State House Checklist

Principles

We “endorse adapting historic places for maintaining continuity of use or new uses where it is necessary to ensure the place retains liveability and utility. Adaptation means modifying a place to suit it to a compatible use, involving the least possible loss of cultural heritage value” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

“Adaptation proposals may involve alterations and additions. It is important that any alterations and additions are carefully designed to:

- Retain surviving internal and external heritage fabric as far as possible and disturb, distort, or obscure it as little as possible.
- Respect the design, form, scale, materials, workmanship, colours, contents, location, setting, including alterations that have heritage value.
- Avoid work that will compromise or obscure fabric of heritage value.
- Ensure any new work is of a scale and location that it does not dominate the heritage place and respects its setting.
- New work should be appropriately recorded” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

“Alterations and additions may include restoration and reconstruction work as defined by the ICOMOS NZ Charter. It is good practice that a conservation plan, prepared by a heritage professional, should inform and guide alterations of historic buildings” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

Checklist for assessing appropriate internal alterations to buildings

2.01. “The work does not alter, obscure, or remove significant heritage fabric and fixtures” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

Significant heritage fabric includes:

- 2.01.1. Large living room
- 2.01.2. Living room being orientated towards the sun
- 2.01.3. Recessed front porch

2.02. Overall ceiling design and any significant ceiling decoration is retained and conserved.

2.03. The stud height should be at minimum 2400mm, however in communal spaces the original, taller stud height of the property must be maintained – this was generally 9ft.

2.04. “The work retains and conserves the aesthetic of significant interior finishes such as original or early wallpaper, paint, wood graining, panelling, plastering and tile surfaces”(New Zealand Historic Places Trust Pouhere Taonga, 2007b). This means maintaining the material where possible, otherwise replacing with alternatives that closely match the ideals of the original.

2.05. “Historic patterns of access and movement (i.e., entrances, hallways, stairways, and passageways) are retained” as much as possible (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.06. “Modern services, such as smoke detectors and sprinkler heads are installed using concealed methods”(New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.07. “Engineering work is discreetly installed. For example, seismic bracing should not be visible through prominent windows” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

Checklist for assessing appropriate external alterations to buildings

2.08. “The original form of the roof” (gabled or hipped), “significant roofing materials” (concrete or ceramic tile, or corrugated sheet roofing), “significant chimneys”, small roof eaves, consistent roof pitch “and other features such as original gutters and downpipes are retained”(New Zealand Historic Places Trust Pouhere Taonga, 2007b). However, repair of technically higher standard than the original workmanship or materials may be justified where the life expectancy of the site or material is increased, the new material is compatible with the old and any heritage value is not diminished.

2.09. “Important views of the building are retained, especially when new elements to the roof such as skylights, solar collectors, wind turbines or satellite dishes are introduced” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.10. “Adverse visual effects resulting from the installation of dormer or attic windows in the roof are avoided. The size, design, and position of additions should ensure that they respect the architectural style and scale of the building and do not dominate the roof” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.11. “Any alterations to historic walls are undertaken in a material to match that of the original, with consideration given to colour, texture, composition, dimensions, and detailing”(New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.12. “New cladding material should closely match the original” brick, weatherboard, or stucco. “For example, artificial cladding such as vinyl or aluminium”, would not be appropriate (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.13. “Secondary elements of the exterior (such as windows and doors) should be repaired” where possible (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.14. “The installation of new openings (such as windows and doors) to principle facades and elevations should be generally avoided. Any new window or door opening should be sympathetically designed” as primarily two or three casement windows by an approved company (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.15. “Significant doors, original or early hardware (doorknobs, locks etc), and door surrounds (fanlights, pilasters, sidelights etc)”, including the large, recessed front porch should be retained and repaired appropriately (New Zealand Historic Places Trust Pouhere Taonga, 2007b). Any new hardware/door surrounds should be sympathetically designed by an approved company .

2.16. “New security measures (e.g. doors and screens) should not detract from the heritage features of the home. Any new security door should be simple and unobtrusive”(New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.17. “Seismic strengthening work should be concealed or incorporated into the existing fabric”(New Zealand Historic Places Trust Pouhere Taonga, 2007b).

NOTE
There is a list of approved new opening technicians/companies. These companies will have specific state house designed pieces that take into consideration original materiality and design whilst still making them functional for contemporary living. This is an appropriate solution as there are thousands of these homes falling to disrepair across the country, so there will be thousands of pieces that will need to be respectfully replaced.

It is up to the owner of the property to determine if any contemporary windows and doors that have been installed in prior ownership are to be maintained. This is because, environmentally, if these windows are in good working condition they should not be wasted. However, these new windows might not suit the heritage character of the home that the new owner is aiming to preserve.

Checklist for assessing appropriate additions to buildings and structures

2.18. “New additions should be to the rear of the building or set back from significant elevations, including the roof elevation” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.19. “Any addition to significant elevation(s) of the original building, including the roof, should be avoided” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.20. “New additions should be compatible (able to co-exist) in terms of materials, scale, size, proportions, mass, height, setback, texture, colour, plan configuration, surface configuration and other details to adjoining and/or surrounding significant buildings” (New Zealand Historic Places Trust Pouhere Taonga, 2007b). For example, the raised concrete foundation needs to be maintained.

2.21. “New large additions should be distinguishable from the original, however, should be harmonious and sympathetic with the significant features of the place. The contrast should not be obvious or visually obtrusive” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.22. “Where the new work is proposed to be of a greater height than the original building consideration should be given to the effect of the work on views to the building. Sightlines should be provided with the application” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.23. “New additions should be compatible to the original design and detailing. Successful examples should usually involve new structures being smaller in scale with larger setback, built of similar materials but in a modern design” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.24. “New additions should maintain the rhythm and orientation of the original, especially where these contribute to the significance of the place” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.25. “A large addition should be constructed in a way that clearly separates it from the original building. The two may be joined by means of a visually unobtrusive link” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.26. “New addition should use existing openings to allow access between the old and the new. This will minimise adverse effects on significant fabric” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.27. “The roof of any new additions should be compatible to the existing form or follow traditional forms” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.28. “New additions should preserve existing significant views to and from the home and its setting” (New Zealand Historic Places Trust Pouhere Taonga, 2007b).

2.29. New additions, where possible, should maintain all original structural methods and materials (native timber structure).

2.30. New large additions should avoid permanent damage to significant elevation i.e., be reversible.

NOTE
Significant elevations are those that are clearly visible from the front entrance of the property.

Precedent Reviews

Three of the previously studied precedents have been analysed against the heritage checklist to see how successful the checklist is with homes that have not considered heritage protection.

Design no. 646

This precedent includes no major construction changes and few finishing touches to what was already there like internal finishes, insulation, and double glazing.

Heritage Values

- Large living room
- Living room orientated to sun
- Recessed porch front door
- Service rooms grouped together
- Direct passage from front to back
- Hipped roof
- Small eaves
- Consistent pitch
- Concrete or ceramic tile roofing
- 2-3 casement windows
- Top opening windows
- Native timbers
- Concrete raised foundation
- Brick cladding

Contemporary Values

- Living orientated towards sun
- Large living room
- Timbers
- White, neutral internal finishes

This precedent passing the heritage checklist is not very significant to this research as this design strategy is not very invasive. If this design strategy had of failed the checklist it would have shown problems with the checklist, as it would not be allowing for necessary modern living needs like new finishings, insulation and double glazing.

Passed the state house
checklist



These photos have been previously used in figures 181 and 182 to show the internal and external qualities of design no. 646

Design No. 84/8

This precedent is an example of incorporating contemporary values, whilst staying within the houses' original boundaries. The focus of this design was to add a third bedroom and a north facing open plan living/ kitchen/dining space.

Heritage Values

- Large living room
- Living room orientated to sun
- Recessed porch front door
- Direct passage from front to back
- Gabled roof
- Small eaves
- Consistent pitch
- Corrugated sheet roofing
- 2-3 casement windows
- Top opening windows
- Native timbers
- Concrete raised foundation
- Weatherboard cladding

Contemporary Values

- Open plan living/kitchen/dining
- Living orientated towards sun
- Large living
- Private separate from public
- Three bedrooms
- Metal sheet roofing
- Large glass doors off open living
- Large deck

- Timbers
- White, neutral internal finishes

This precedent passing the heritage checklist is significant to this research as it is proving that the checklist works. This strategy is not too invasive as it stays within the original house boundaries, with only one of the original external facades having been changed to include back doors. This strategy also incorporates a second floor to accommodate a third bedroom. Therefore, this design proves that it is possible to incorporate multiple contemporary values whilst minimising implications on the heritage value of the state house.

Therefore, it is very significant that this design strategy passed the heritage checklist.

Passed the state house
checklist



Fig. 257-258. Internal photos of design no. 84/8

Design No. 7/5

This precedent is an example of incorporating contemporary values through a large addition at the back of the state house. The focus of this design appears to be to keep private and social spaces separate, include three bedrooms, and include a large open plan living/kitchen/dining with an attached private living.

Heritage Values

- Large living room
- Living orientated towards sun
- Recessed front porch
- Direct passage from front to back
- Gabled roof
- Concrete or ceramic tile roofing
- Small eaves on main house
- 2-3 casement windows
- Top opening windows
- Concrete raised foundation
- Brick cladding

Contemporary Values

- Open plan living/kitchen/dining
- Private separate from public
- Open plan living on one end of house
- Large living
- Living orientated towards sun
- Large expansive decks
- Three bedrooms
- Separate closed off living
- Metal sheet roofing
- Skylight

- Large openings off open living
- Glass doors
- Timbers
- White, neutral internal finishes

This precedent failing the heritage checklist is very significant. By having a large extension at the back of the property the original state house did not change too much. This means that the original house has had minimal changes and therefore alone would pass the heritage checklist. However, the large extension at the back does not follow clause 2.20 as it is not sitting on a raised concrete foundation and 2.21 as the openings do not follow style choices of this state house typology. These are very important values to the studied typology so by this strategy failing the checklist it is reiterating the checklists success by protecting the overall look of New Zealand's 1940's detached family state house.

Does not pass the state
house checklist



Fig. 259-260. External photos of design no. 7/5

Design Strategy One

This design strategy had the focus of incorporating an upstairs space to accommodate a third bedroom. It is important to note that on this site, the stairs are placed where one of the main structural walls for this property is. However, the stairs fit best in that location due to the internal circulation of this property. So, this strategy is more of an example of what could be accomplished across state houses but to be aware of what extra work and costs might be involved.

Heritage Values

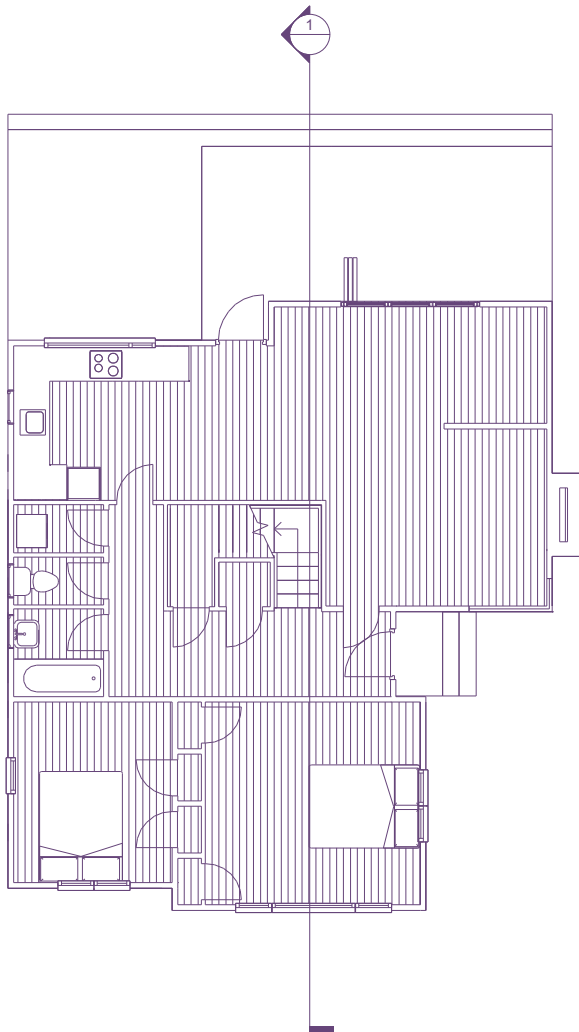
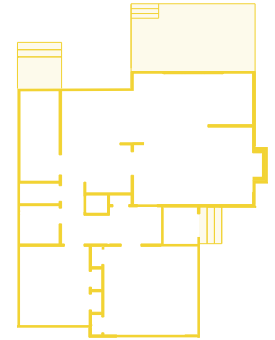
- Large living room
- Living orientated towards sun
- Recessed front porch
- Service rooms grouped together
- Direct passage from front to back
- Hipped roof
- Ceramic tile roofing
- Consistent roof pitch
- Small eaves
- 2-3 casement windows
- Top opening windows
- Concrete raised foundation
- Weatherboard cladding

Contemporary Values

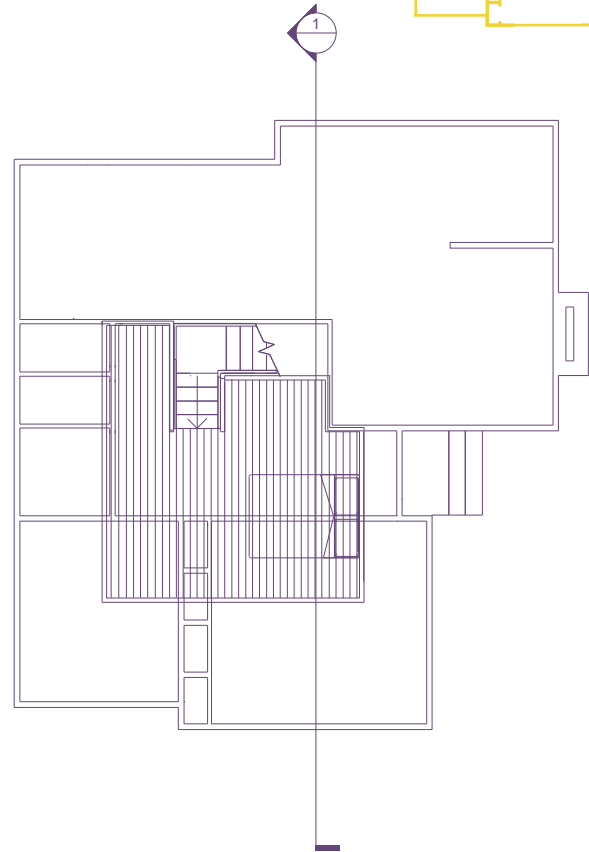
- Open plan living/kitchen/dining
- Private separate from public
- Open plan living on one end of house
- Large living
- Living orientated towards sun
- Large expansive decks
- Three bedrooms
- Skylights
- Large openings off living
- Glass doors
- Timbers
- White, neutral internal finishes

Passed the state house
checklist

Fig. 263. Original house floor plan



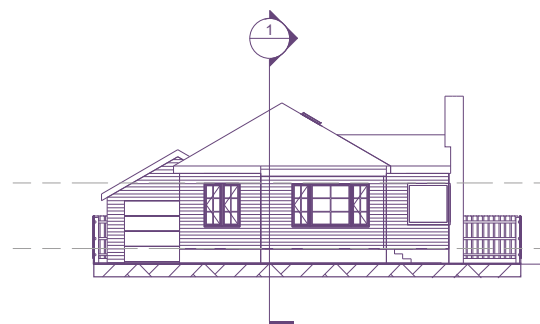
Ground Floor Plan
1:100 on A3



Level One Floor Plan
1:100 on A3



West Elevation
1:200 on A3



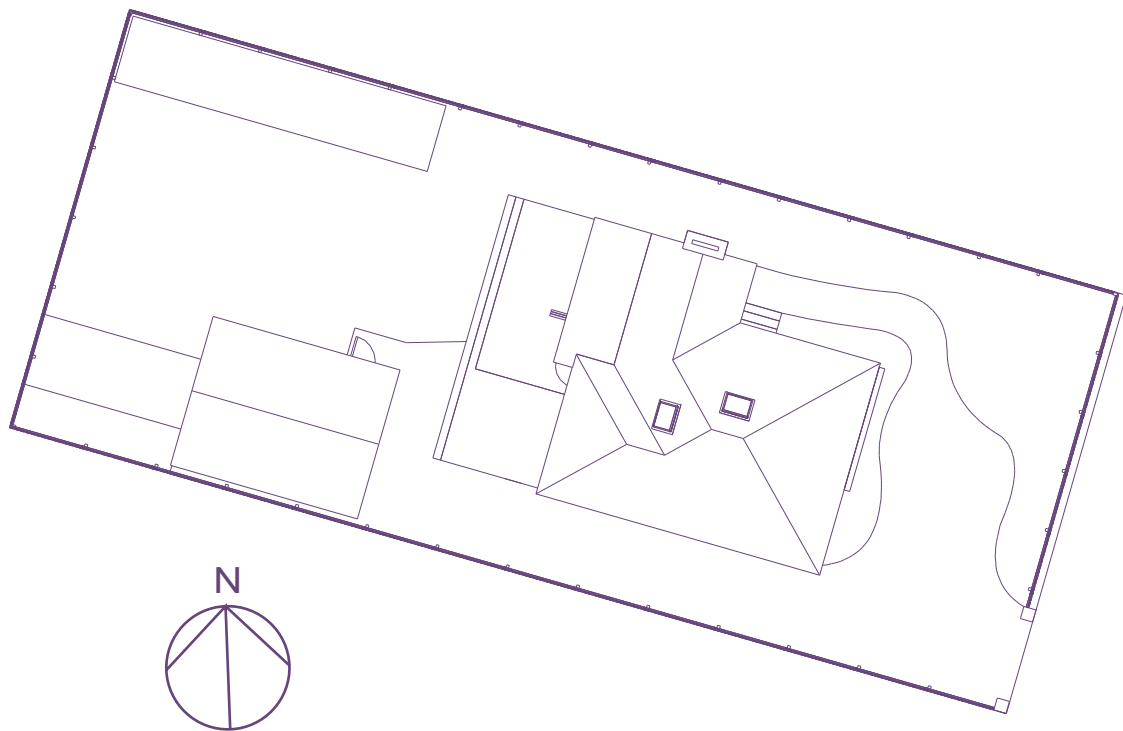
East Elevation
1:200 on A3



North Elevation
1:200 on A3



South Elevation
1:200 on A3

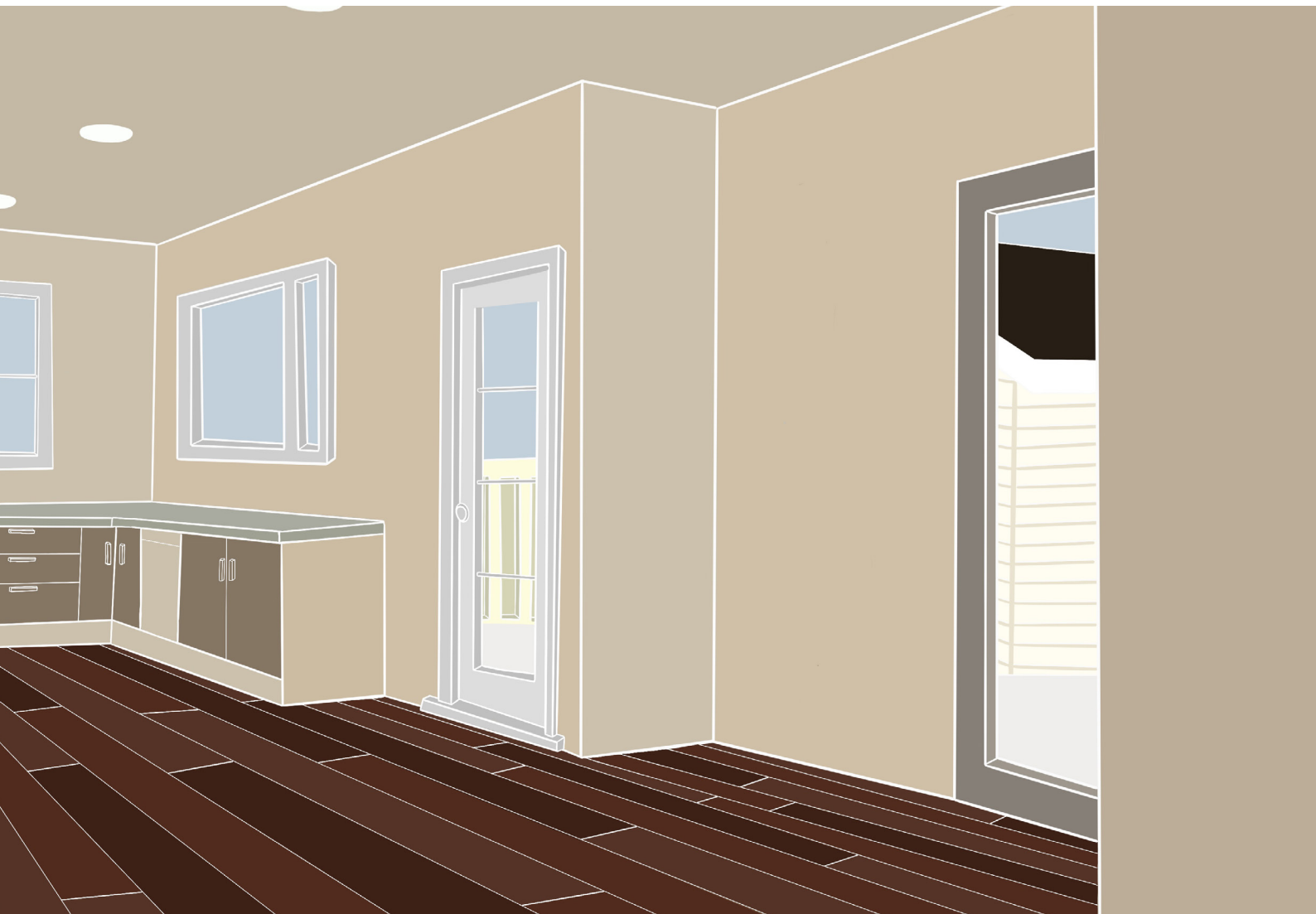


Site Plan
1:200 on A3





Fig. 269. Strategy one section





Design Strategy Two

The focus of this design was to include a large addition out the back that would contain all or almost all the social spaces in the home, separating the private spaces.

Heritage Values

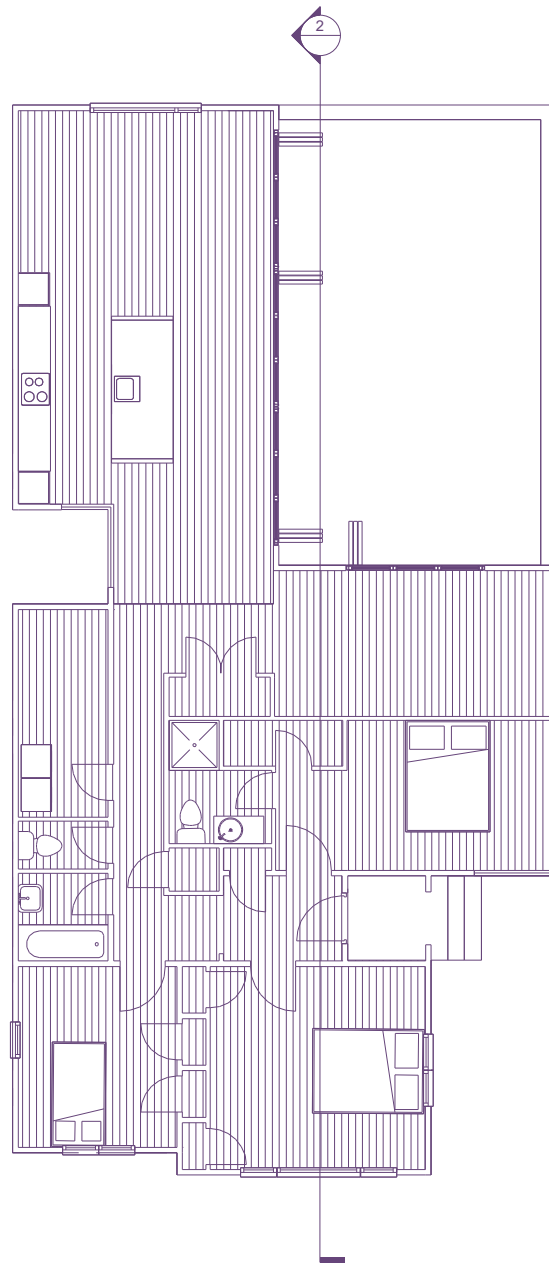
- Large living room
- Living orientated towards sun
- Recessed front porch
- Passage from front to back
- Service rooms grouped together
- Hipped roof
- Ceramic tile roofing
- Consistent roof pitch
- Small eaves
- 2-3 casement windows
- Top opening windows
- Concrete raised foundation
- Weatherboard cladding

Contemporary Values

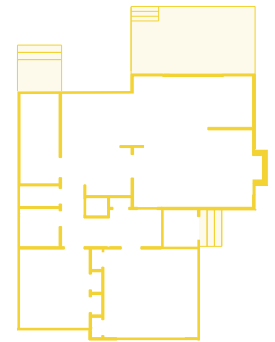
- Open plan living/kitchen/dining
- Open plan living on one end of house

- Living orientated towards sun
- Separate private living room
- Large expansive decks
- Three bedrooms
- Skylights
- Large openings off living
- Glass doors
- Timbers
- White, neutral internal finishes
- Flat roof

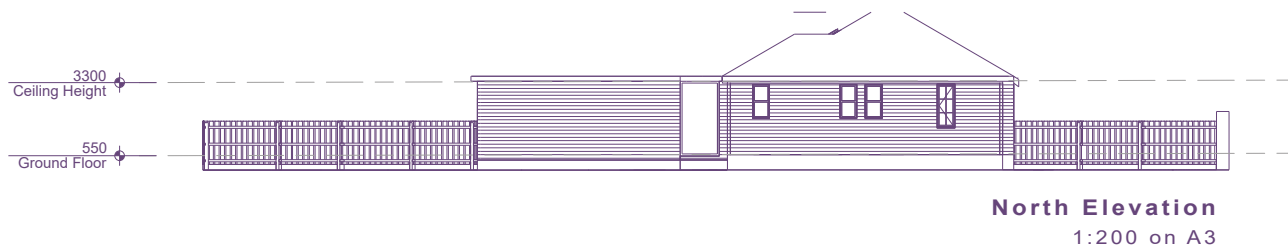
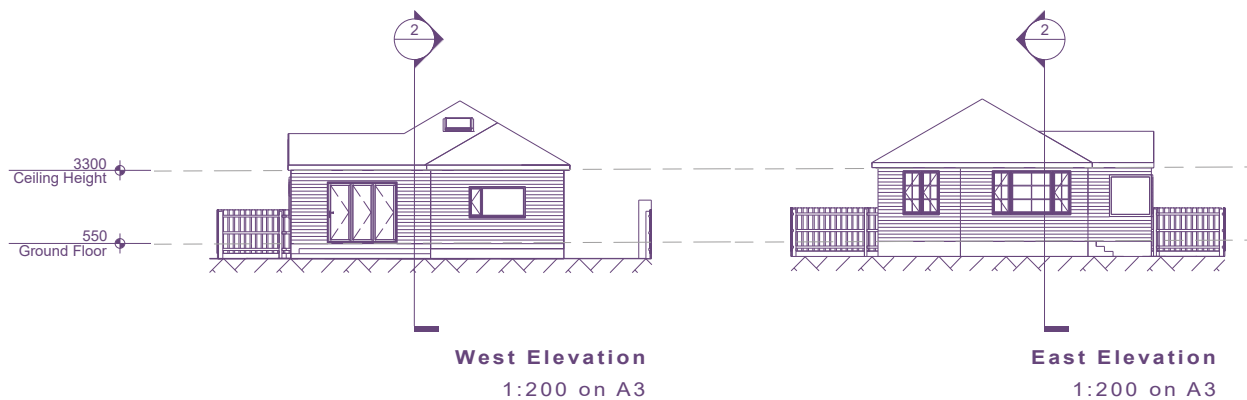
Passes the state house
checklist

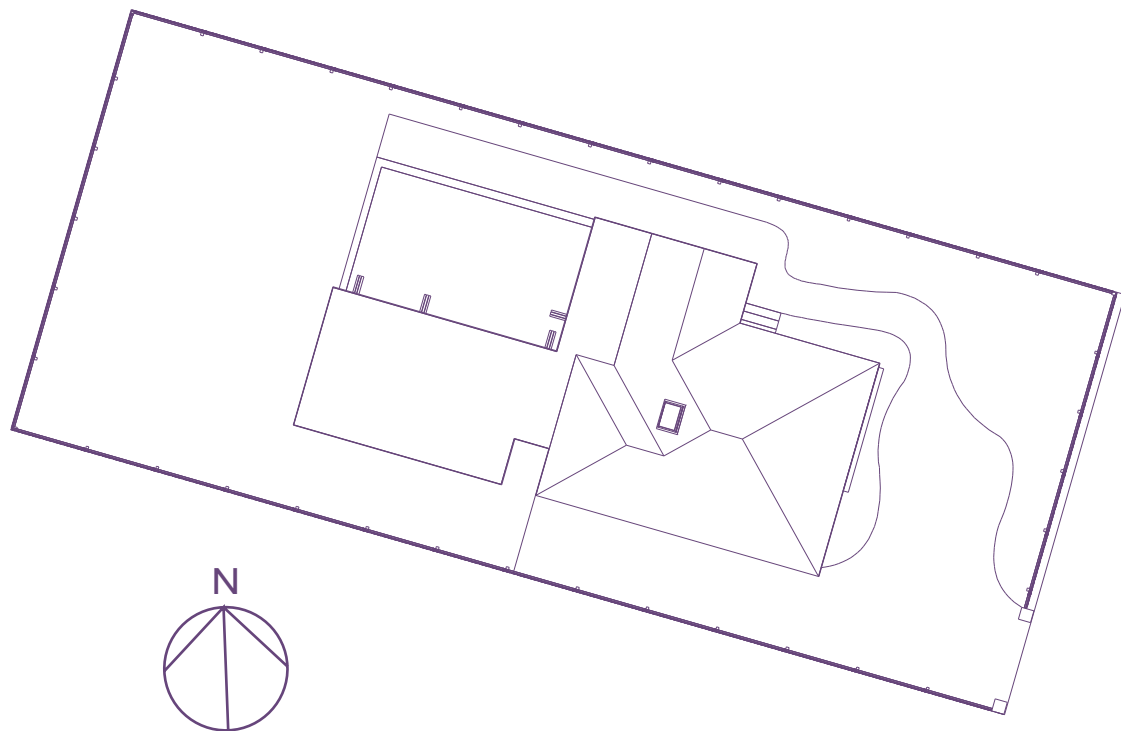


Floor Plan
1:100 on A3



Original House
Floor Plan





Site Plan
1:200 on A3



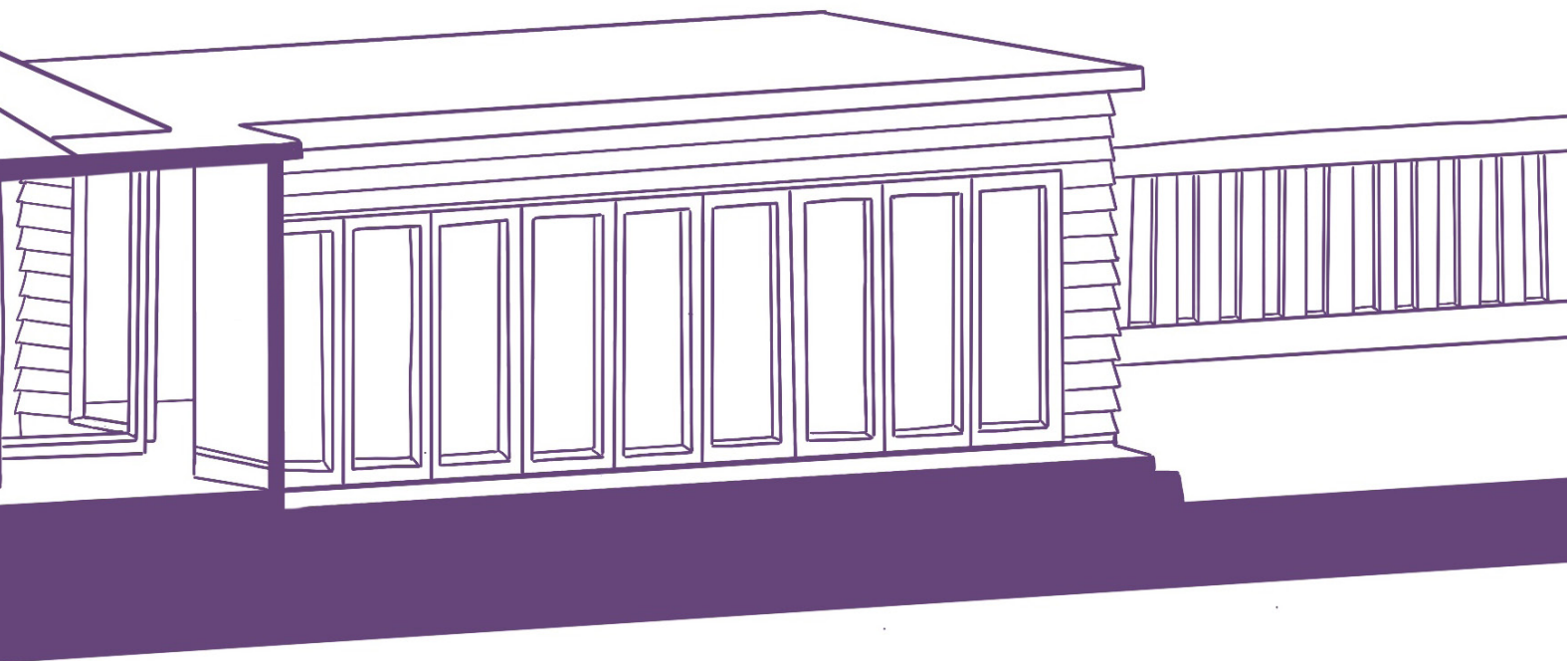
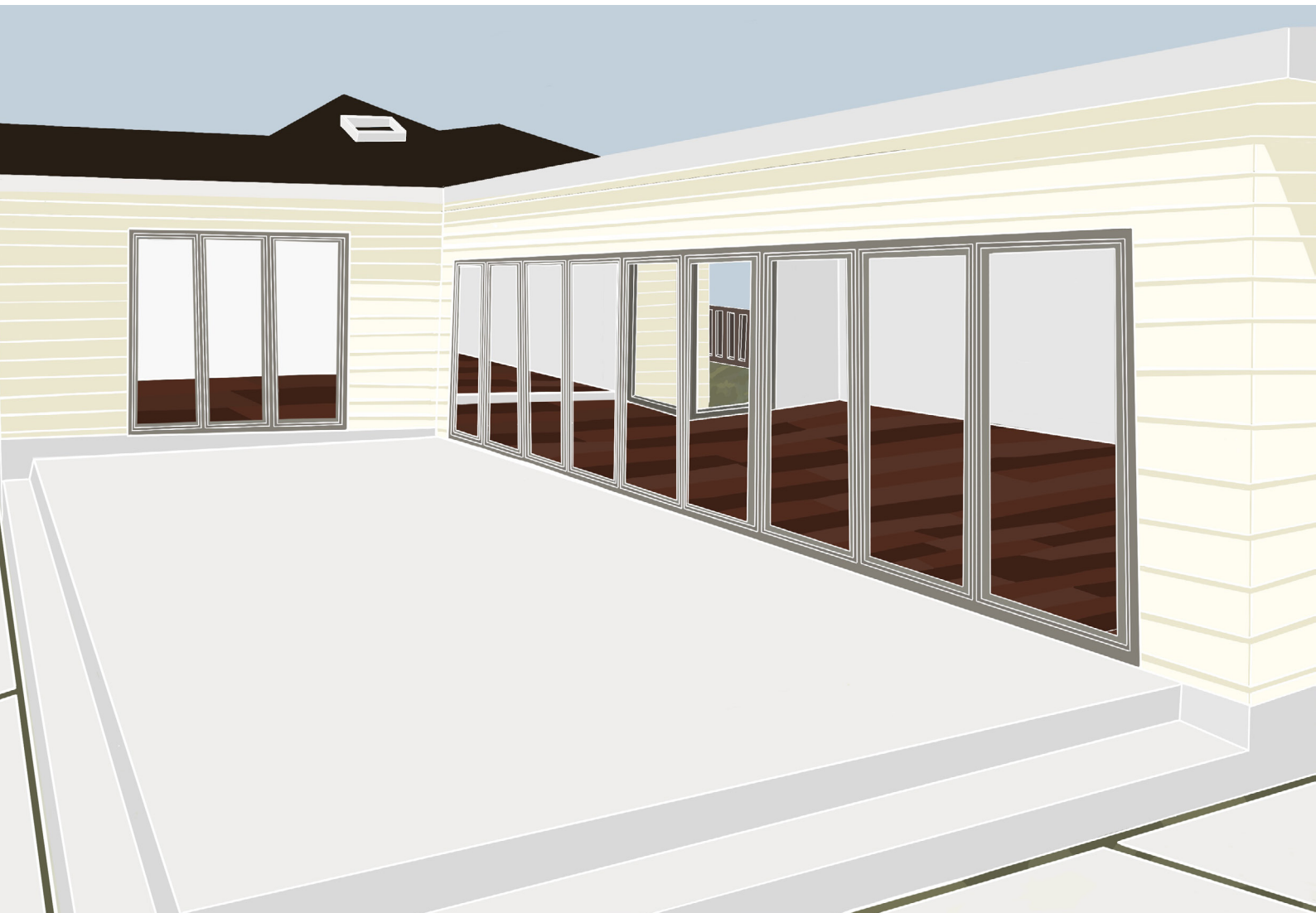


Fig. 275. Design strategy two section





Design Strategy Three

This design strategy was focused on including a third large bedroom, that could be accessed from the main living space.

Heritage Values

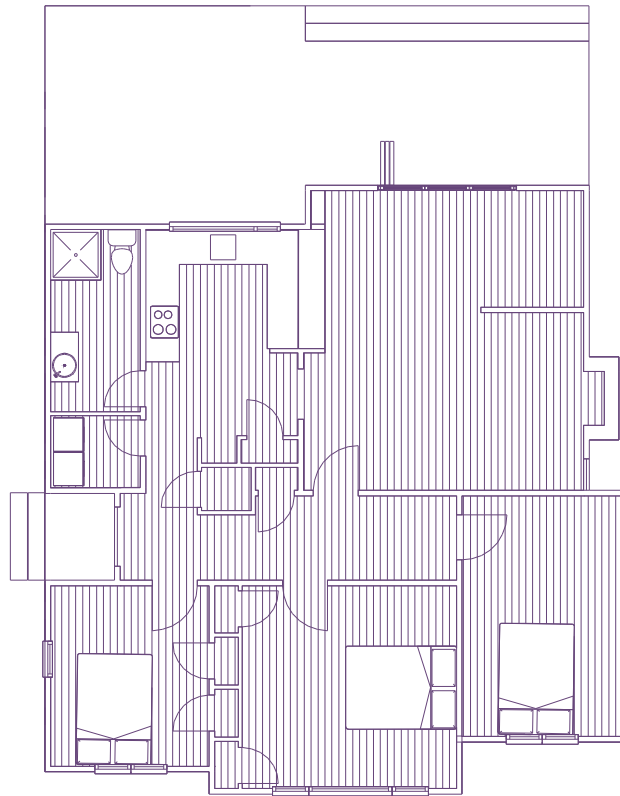
- Large living room
- Living orientated towards sun
- Recessed front porch
- Service rooms grouped together
- Hipped roof
- Ceramic tile roofing
- Consistent roof pitch
- Small eaves
- 2-3 casement windows
- Top opening windows
- Concrete raised foundation
- Weatherboard cladding

Contemporary Values

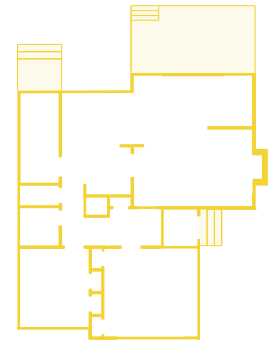
- Open plan living/kitchen/dining
- Open plan living on one end
- Large living
- Living orientated towards sun
- Large expansive decks

- Three bedrooms
- Large openings off living
- Glass doors
- Timbers
- White, neutral internal finishes

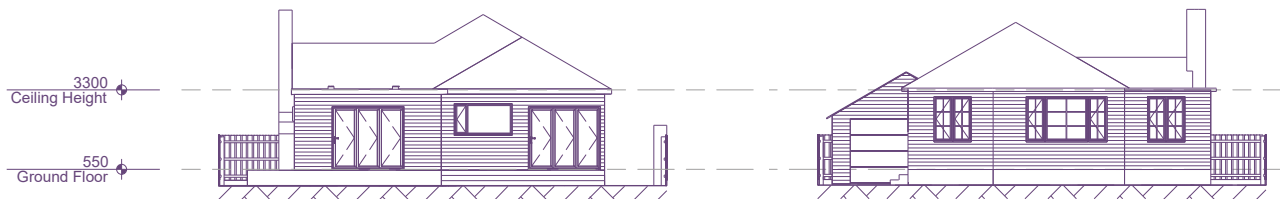
Passes the state house
checklist



Floor Plan
1:100 on A3



Original House
Floor Plan



West Elevation
1:200 on A3

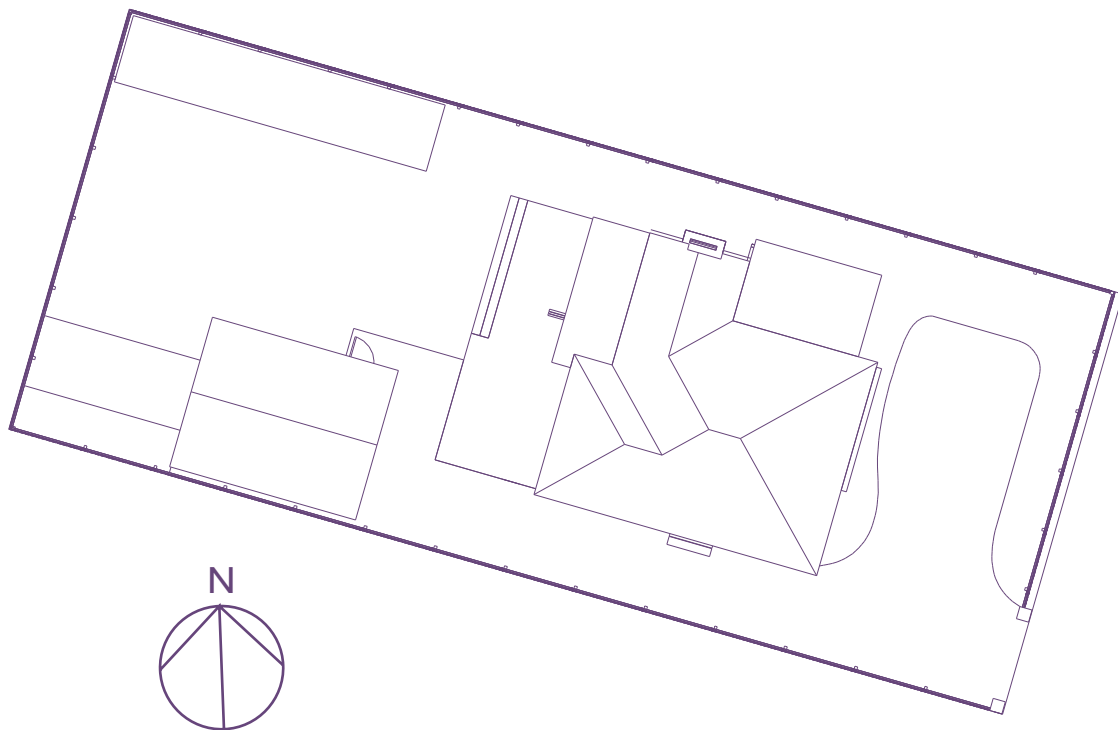
East Elevation
1:200 on A3



North Elevation
1:200 on A3



South Elevation
1:200 on A3



Site Plan
1:200 on A3





On the Left
Fig. 284. Illustration showing the living room of
 design strategy three
Above
Fig. 285. Render showing the living room of
 design strategy three

Design Strategy Four

The focus of this design strategy was to increase the size of the living room whilst staying within the original house boundaries.

Heritage Values

- Large living room
- Living orientated towards sun
- Recessed front porch
- Service rooms grouped together
- Hipped roof
- Ceramic tile roofing
- Consistent roof pitch
- Small eaves
- 2-3 casement windows
- Top opening windows
- Concrete raised foundation
- Weatherboard cladding

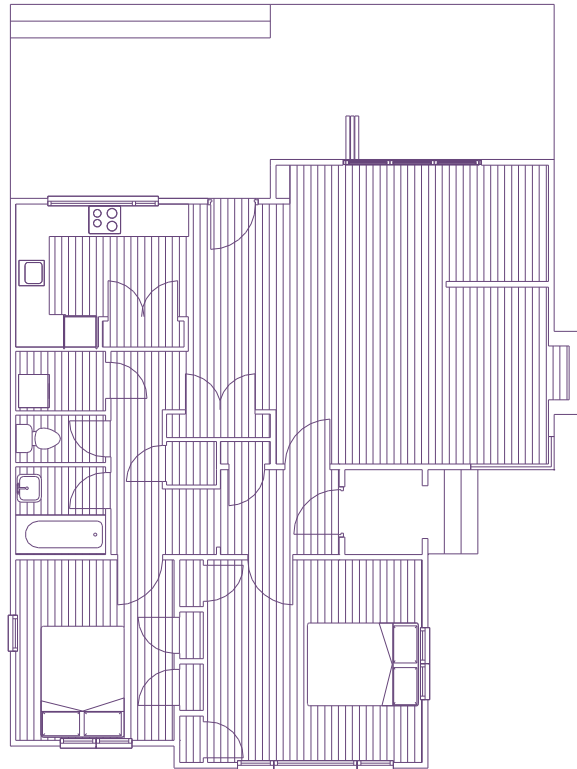
Contemporary Values

- Open plan living/kitchen/dining
- Private separate from public
- Large living room
- Living orientated towards sun
- Large expansive decks

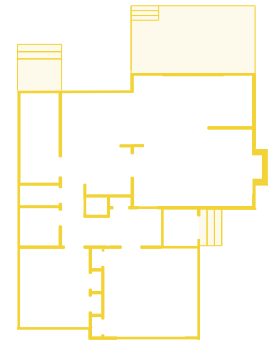
- Large openings off living
- Glass doors
- Timbers
- White, neutral internal finishes

Elevations and Site Plans not been drawn as no external changes have been made from current design.

Passes the state house
checklist

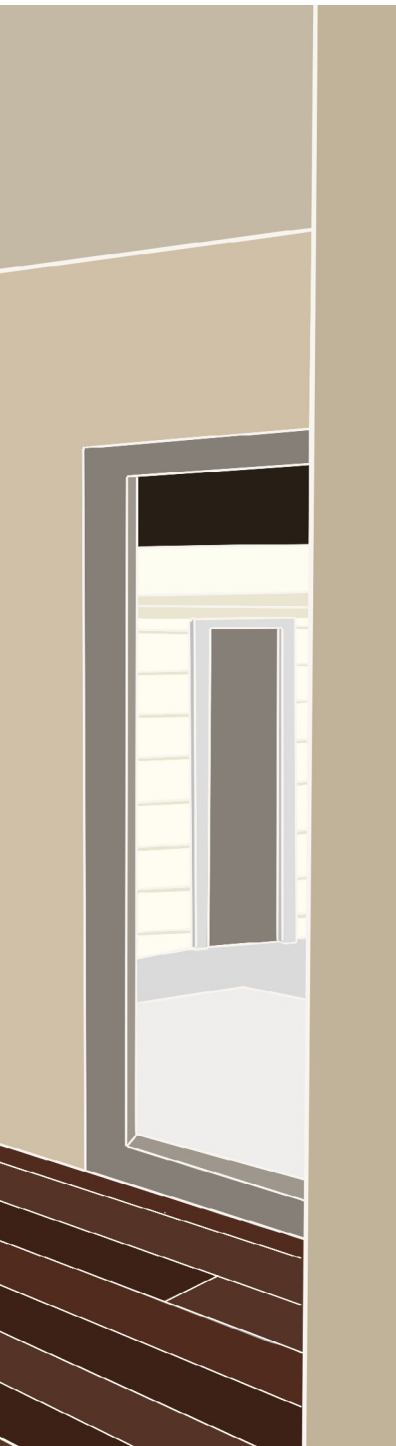


Floor Plan
1:100 on A3



Original House
Floor Plan





On the Left
Fig. 287. Illustration of design strategy four living/kitchen area
Above
Fig. 288. Render of design strategy living/kitchen area

Design Strategy Five

The focus of this design strategy was to increase the size of the living room whilst staying within the original house boundaries.

Heritage Values

- Large living room
- Living orientated towards sun
- Recessed front porch
- Service rooms grouped together
- Hipped roof
- Ceramic tile roofing
- Consistent roof pitch
- Small eaves
- 2-3 casement windows
- Top opening windows
- Concrete raised foundation
- Weatherboard cladding

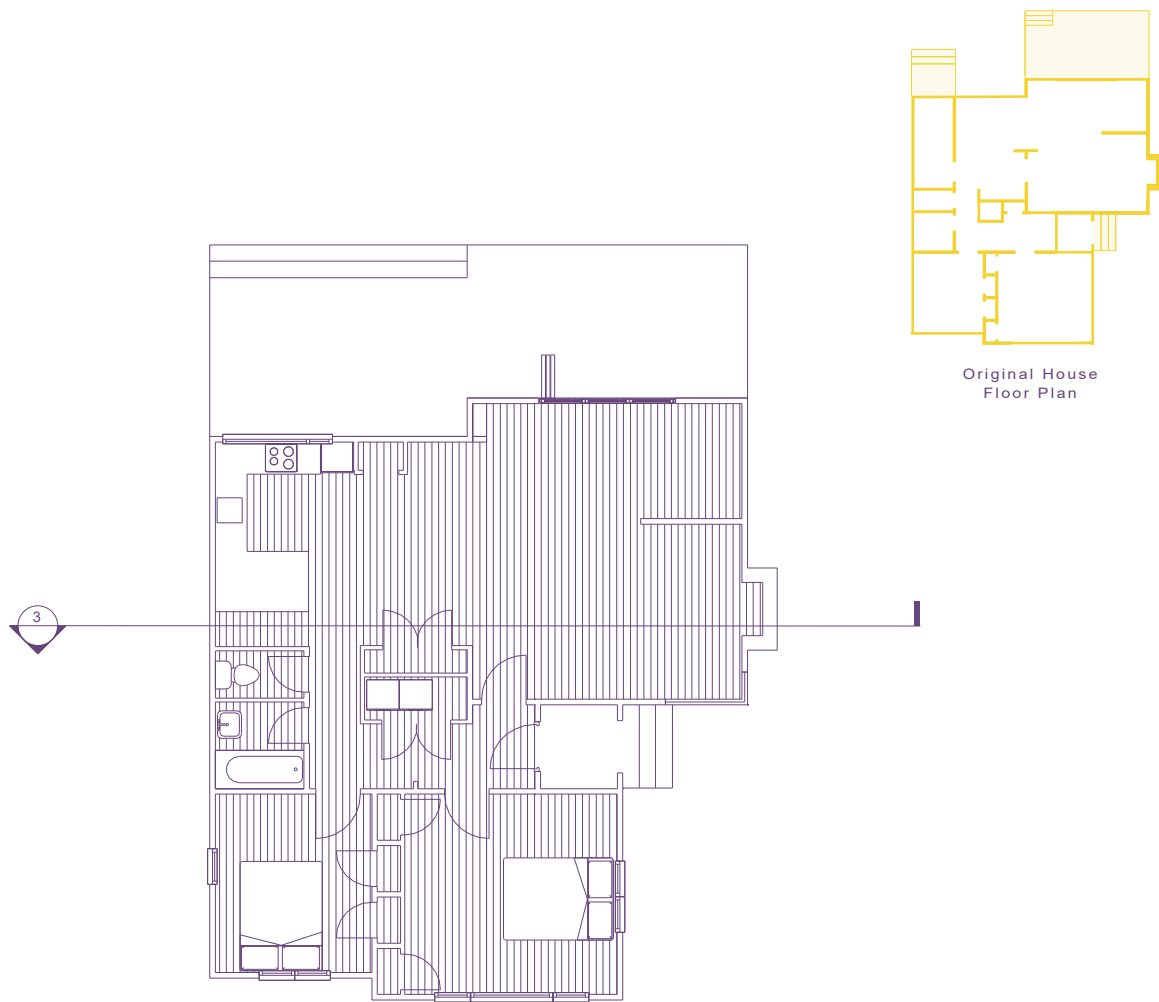
Contemporary Values

- Open plan living/kitchen/dining
- Private separate from public
- Large living room
- Living orientated towards sun
- Large expansive decks

- Large openings off living
- Glass doors
- Timbers
- White, neutral internal finishes

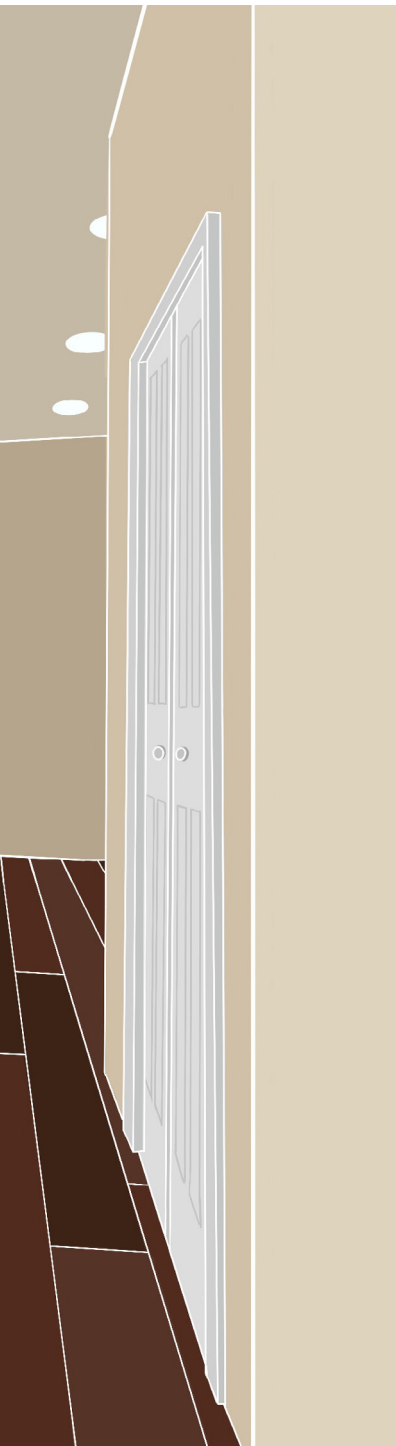
Elevations and Site Plans not been drawn as no external changes have been made from current design.

Passes the state house
checklist

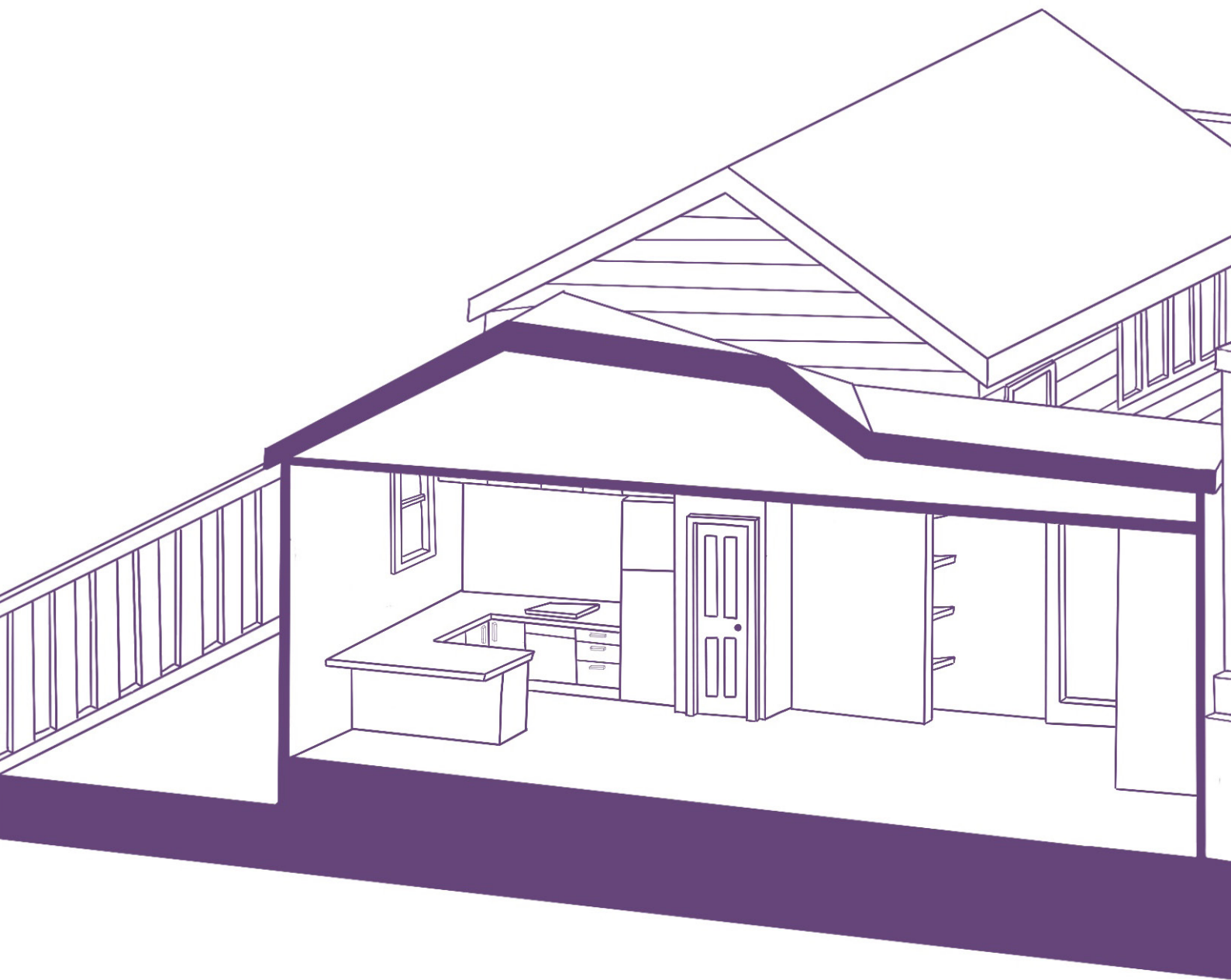


Floor Plan
1:100 on A3





On the Left
Fig. 290. Illustration of design strategy five living area
Above
Fig. 291. Render of design strategy five living area



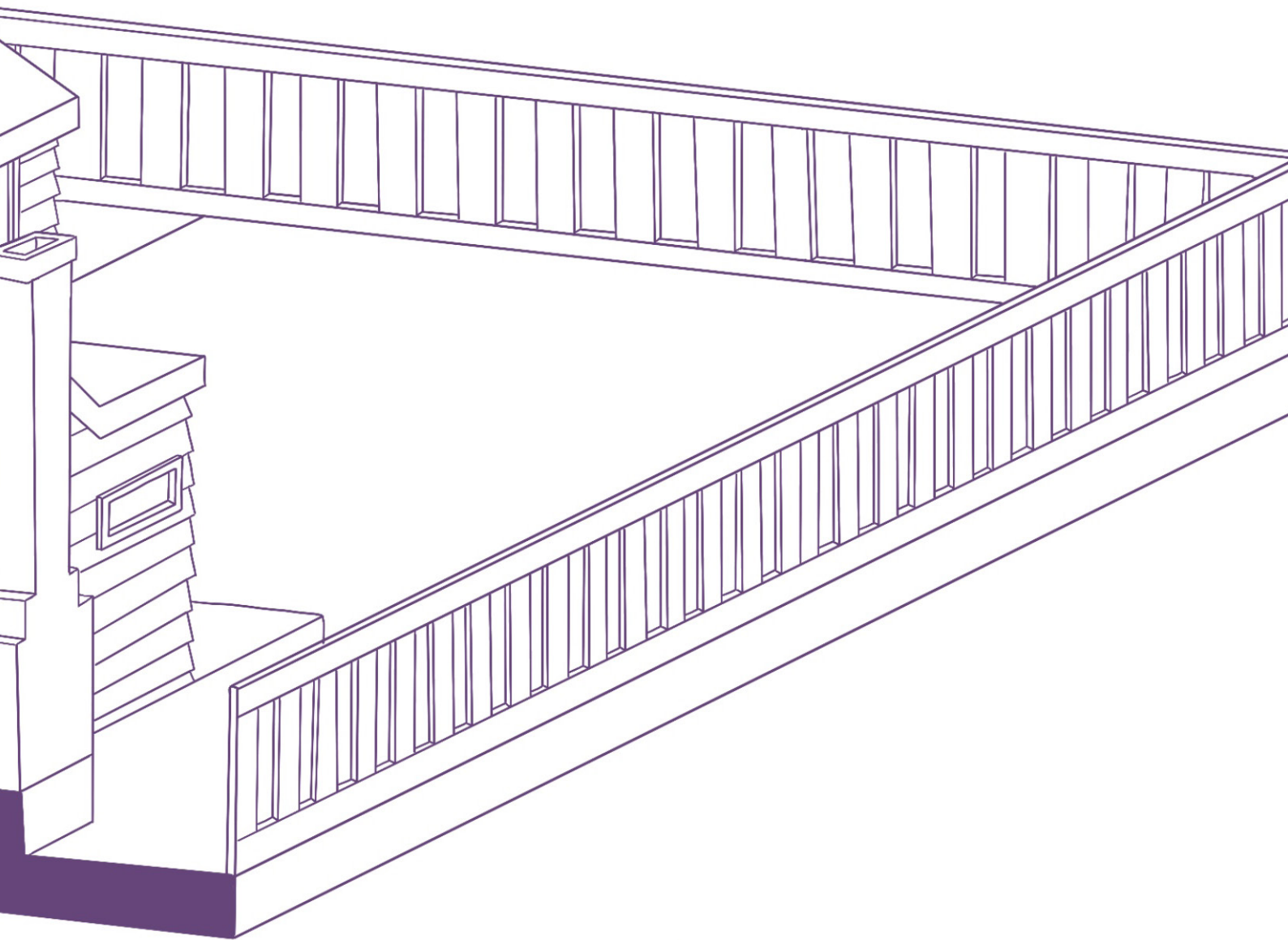


Fig. 292. Design strategy five section

Design Strategy Six

The focus of this design strategy was to include a third bedroom whilst staying within the original house boundaries.

Heritage Values

- Large living Room
- Living orientated towards sun
- Recessed front porch
- Service rooms grouped together
- Hipped roof
- Ceramic tile roofing
- Consistent roof pitch
- Small eaves
- 2-3 casement windows
- Top opening windows
- Concrete raised foundation
- Weatherboard cladding

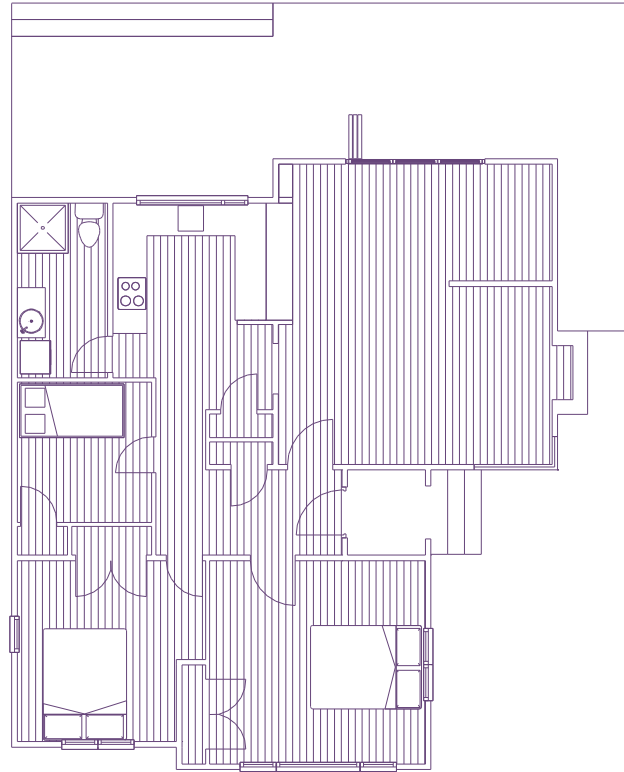
Contemporary Values

- Open plan living/kitchen/dining
- Private separate from public
- Large living room
- Living orientated towards sun
- Large expansive decks
- Large openings off living
- Three bedrooms
- Glass doors

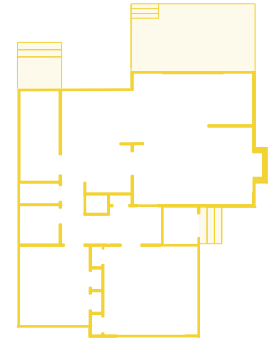
- Timbers
- White, neutral internal finishes

Elevations and Site Plans not been drawn as no external changes have been made from current design.

Passes the state house
checklist



Floor Plan
1:100 on A3



Original House
Floor Plan





On the Left
Fig. 294. Illustration of design strategy six kitchen
Above
Fig. 295. Render of design strategy six kitchen

Design Strategy Seven

The focus of this design strategy was to increase the size of the living room whilst staying within the original house boundaries.

Heritage Values

- Large living room
- Living orientated towards sun
- Recessed front porch
- Service rooms grouped together
- Hipped roof
- Ceramic tile roofing
- Consistent roof pitch
- Small eaves
- 2-3 casement windows
- Top opening windows
- Concrete raised foundation
- Weatherboard cladding

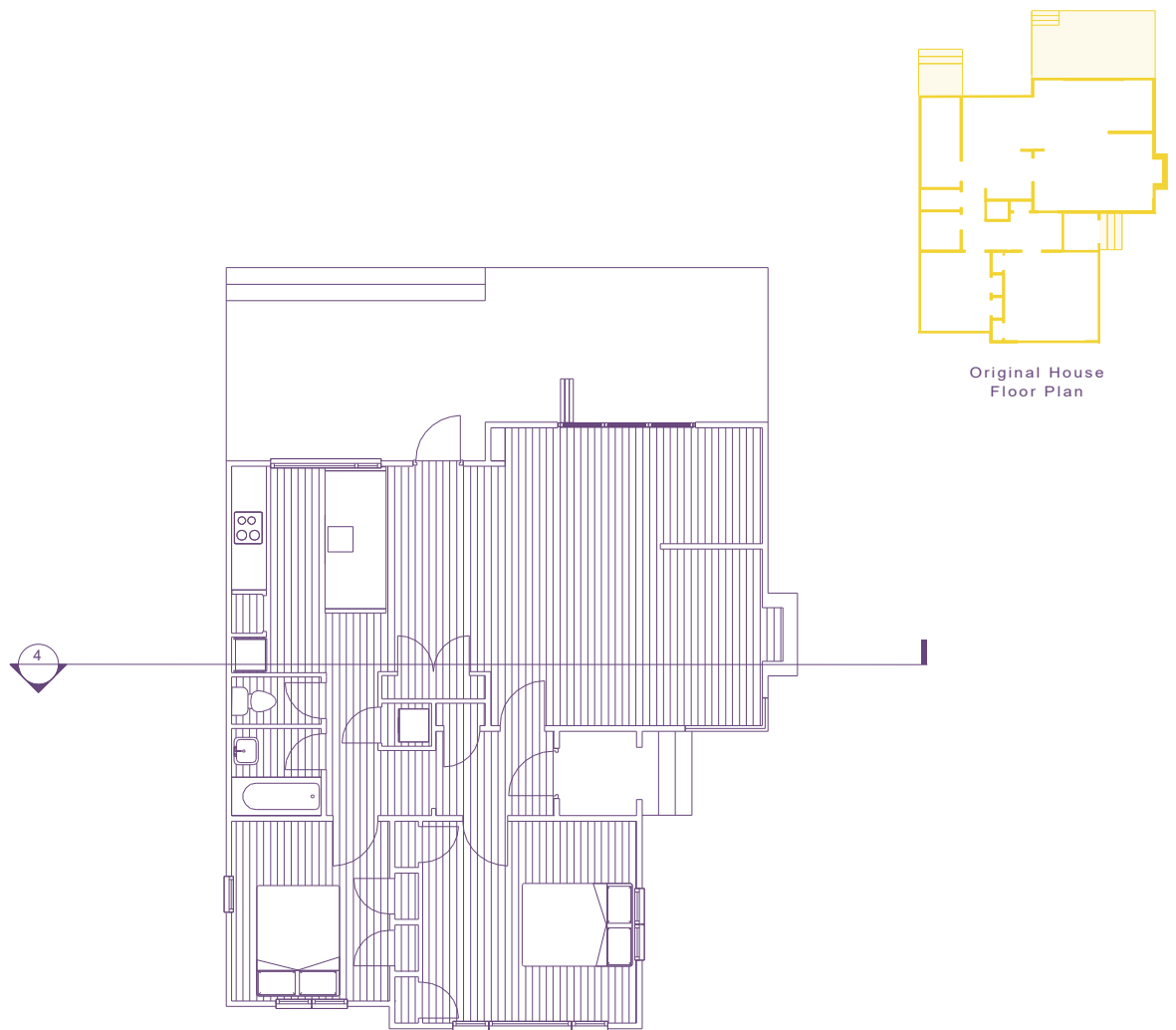
Contemporary Values

- Open plan living/kitchen/dining
- Private separate from public
- Large living room
- Living orientated towards sun
- Large expansive decks

- Large openings off living
- Glass doors
- Timbers
- White, neutral internal finishes

Elevations and Site Plans not been drawn as no external changes have been made from current design.

Passes the state house
checklist



Floor Plan
1:100 on A3





On the Left
Fig. 297. Illustration of design strategy seven kitchen
 Above
Fig. 298. Render of design strategy seven kitchen



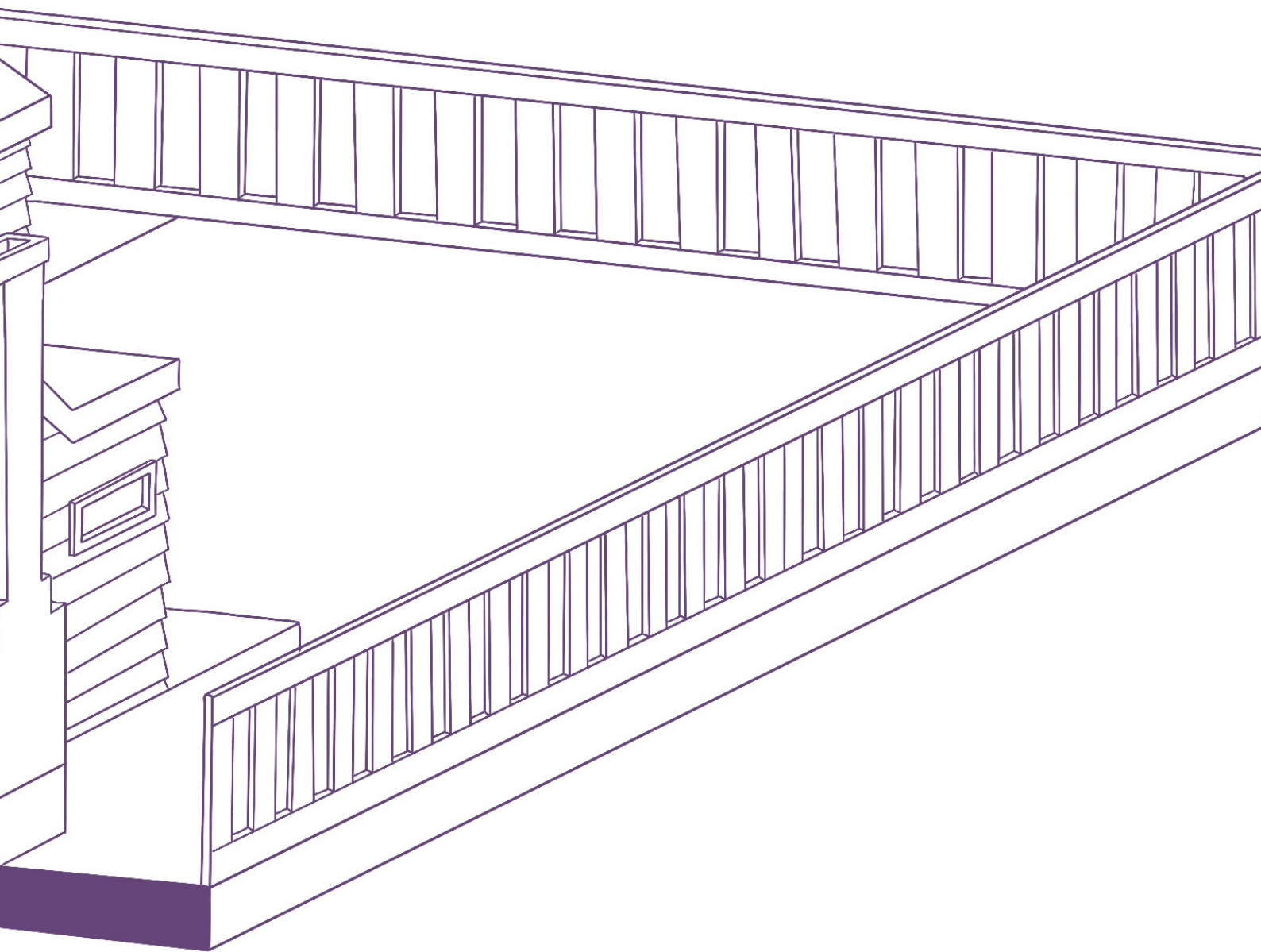


Fig. 299. Design strategy seven section

Supporting Sites

To further prove that these design strategies and the state house heritage checklist works, they were tested on other state houses of this period.

The same five design strategies were applied on each of the houses and then all designs were checked against the state house heritage checklists.

The strategies were:

Strategy One – the priority was to increase the size of the living room while staying within the original house boundaries.

Strategy Two – the priority was to include another bedroom on the main floor while staying within the original house boundaries.

Strategy Three – the priority was to incorporate a small extension which allowed for a larger living and/or extra bedroom.

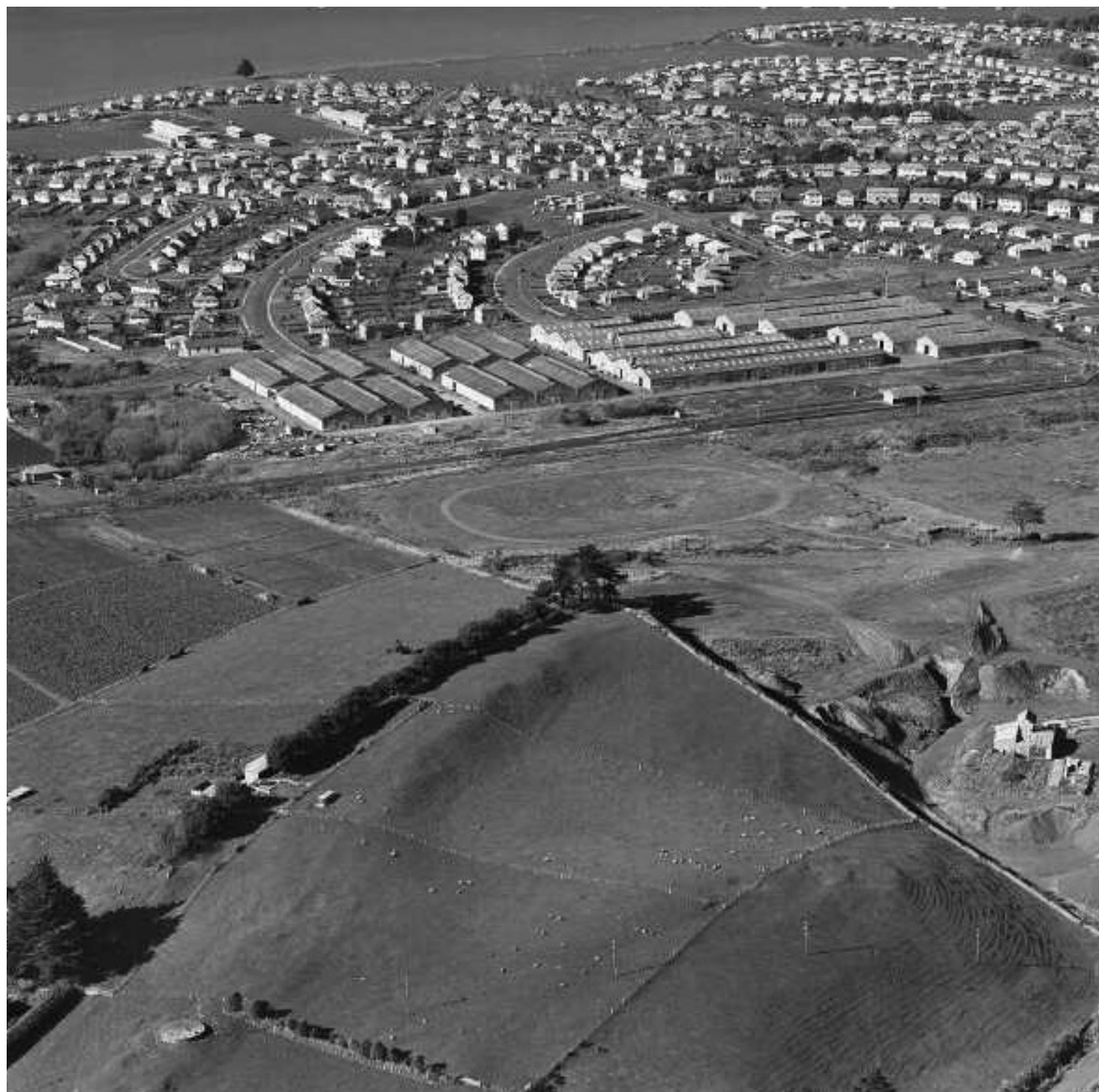
Strategy Four – the priority was to incorporate a large extension which allowed for a larger living space, master suite, and/or an extra bedroom.

Strategy Five – the priority was to include another bedroom on a second floor while staying within the original house boundaries.

The houses used were taken from the text 'Beyond the State: State Houses from Modest to Modern'. In the original Housing New Zealand drawings there is no site context, so no site plans have been completed. Strategies without elevations are because no external changes have been made from the original design.

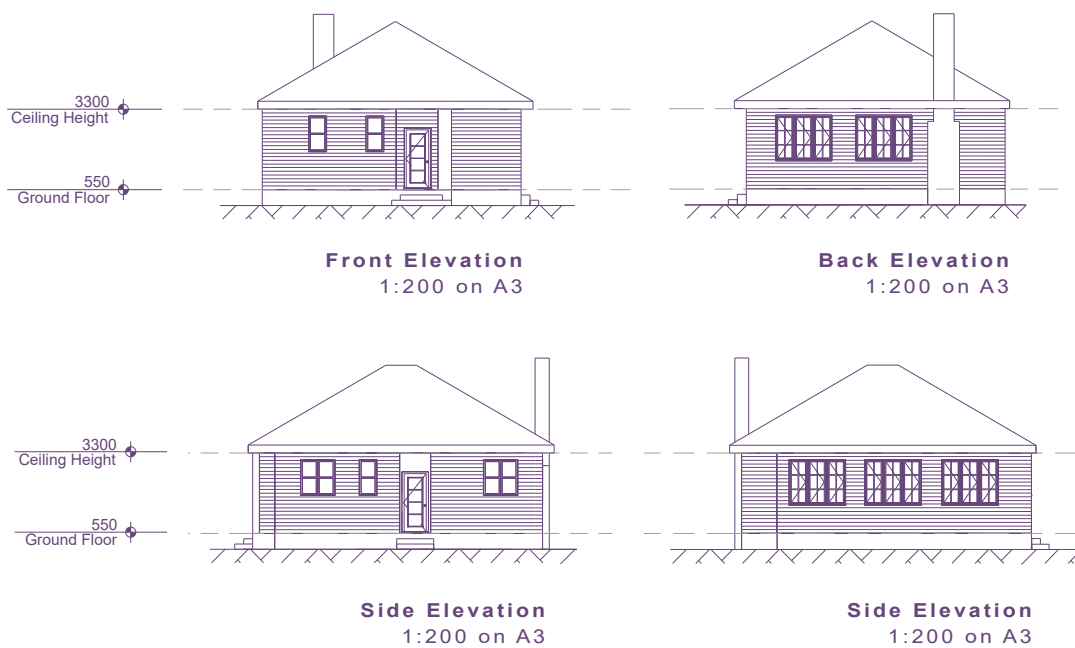
All following design strategies have passed the heritage checklist.

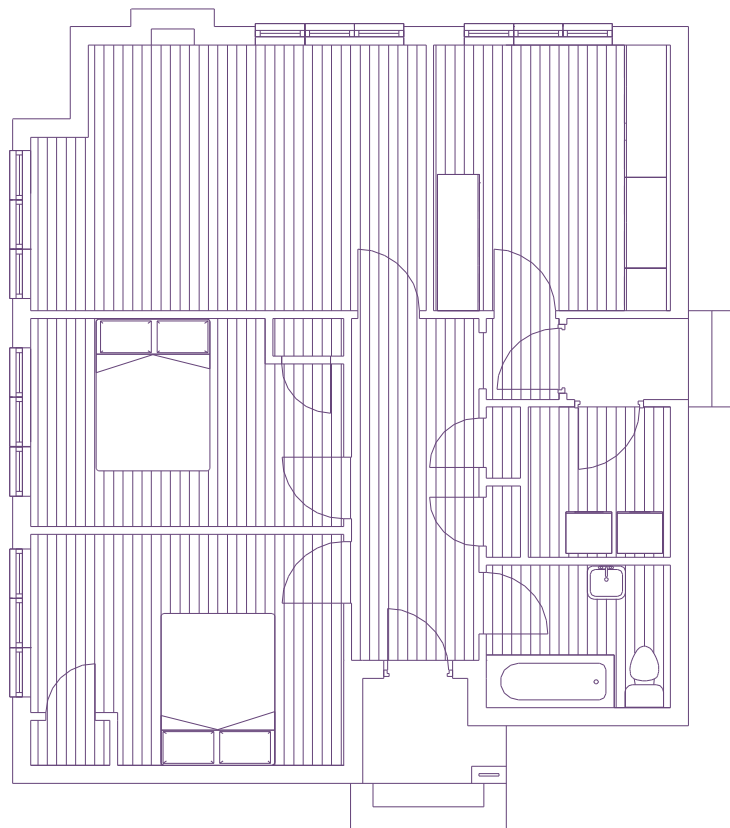
Following Page
Fig. 300. Tamaki state suburb, Auckland



Supporting Site: Design No. 646

Original House Drawings

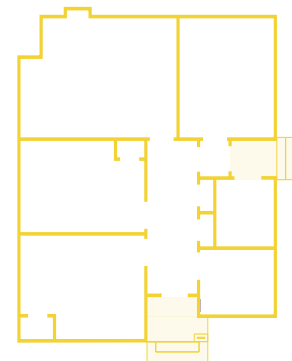
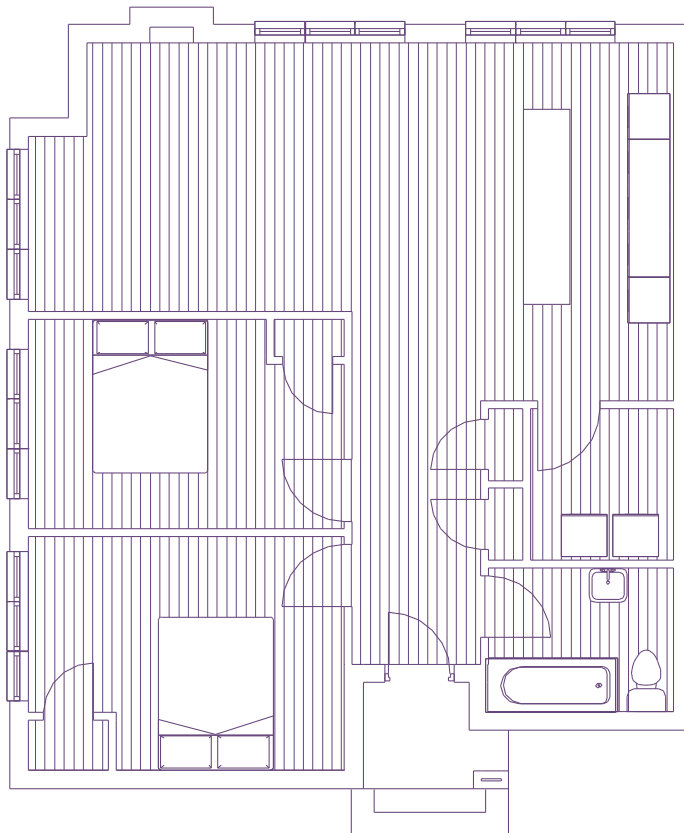




Floor Plan
1:100 on A3

Supporting Site: Design No. 646

Strategy One

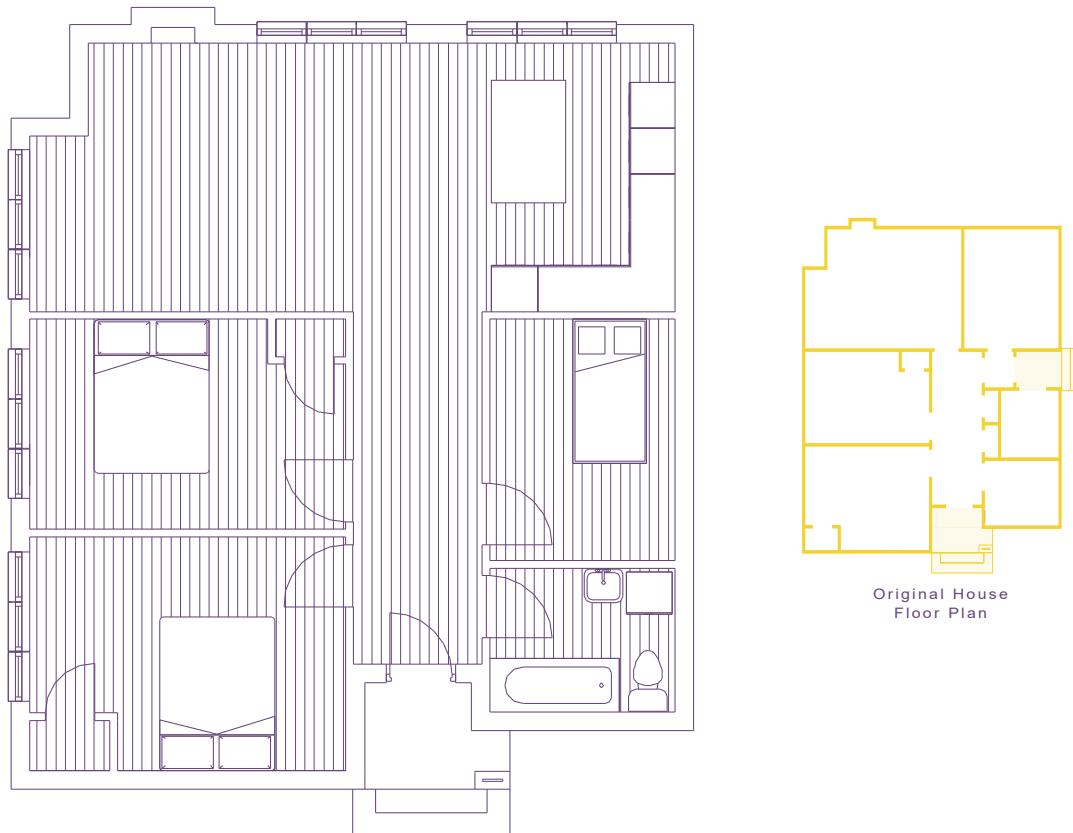


Original House
Floor Plan

Left Fig. 306. Design no. 646 strategy one floor plan
Right Fig. 307. Basic Design no. 646 floor plan

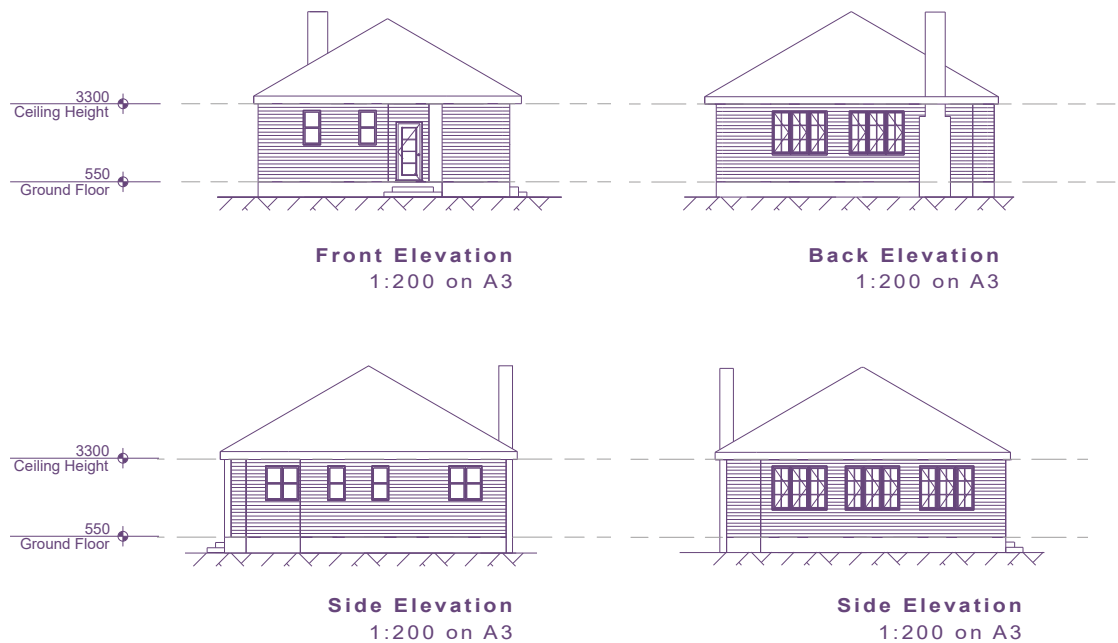
Supporting Site: Design No. 646

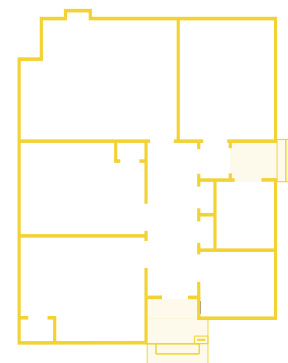
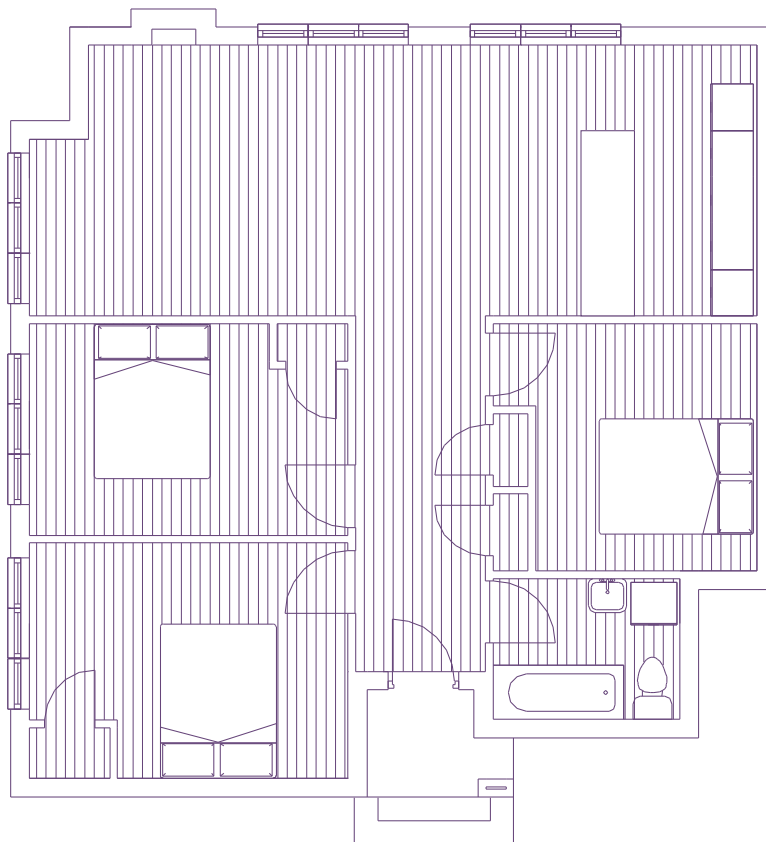
Strategy Two



Supporting Site: Design No. 646

Strategy Three

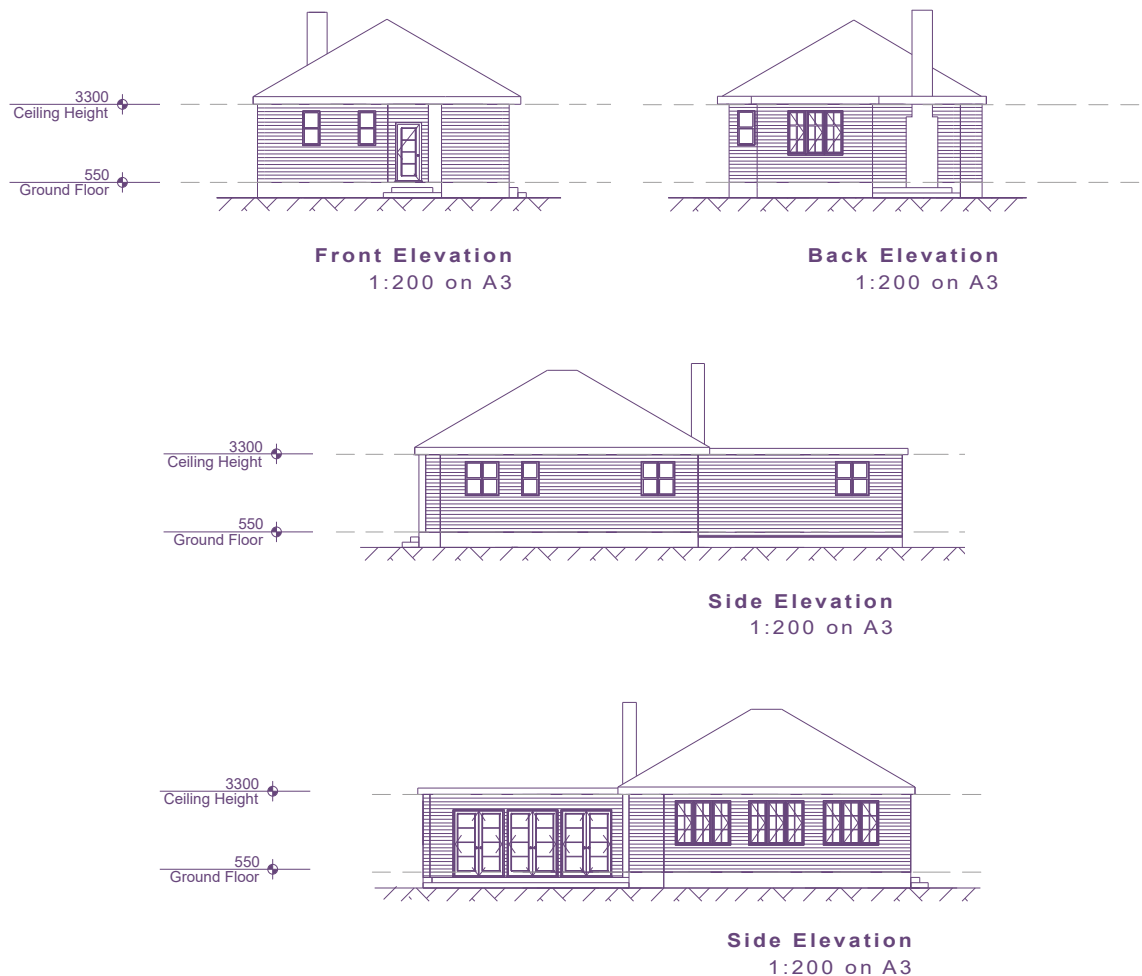




Original House
Floor Plan

Supporting Site: Design No. 646

Strategy Four



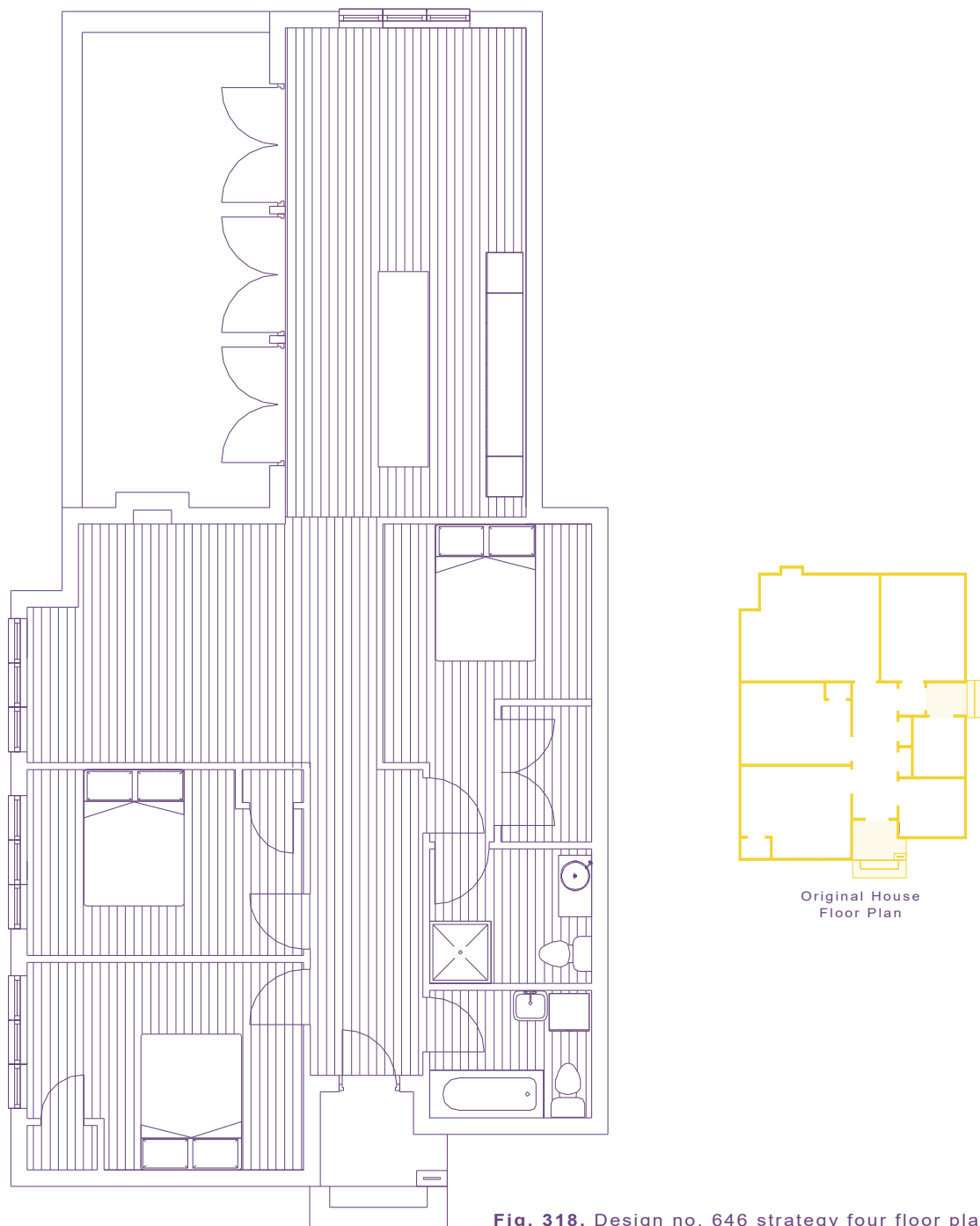
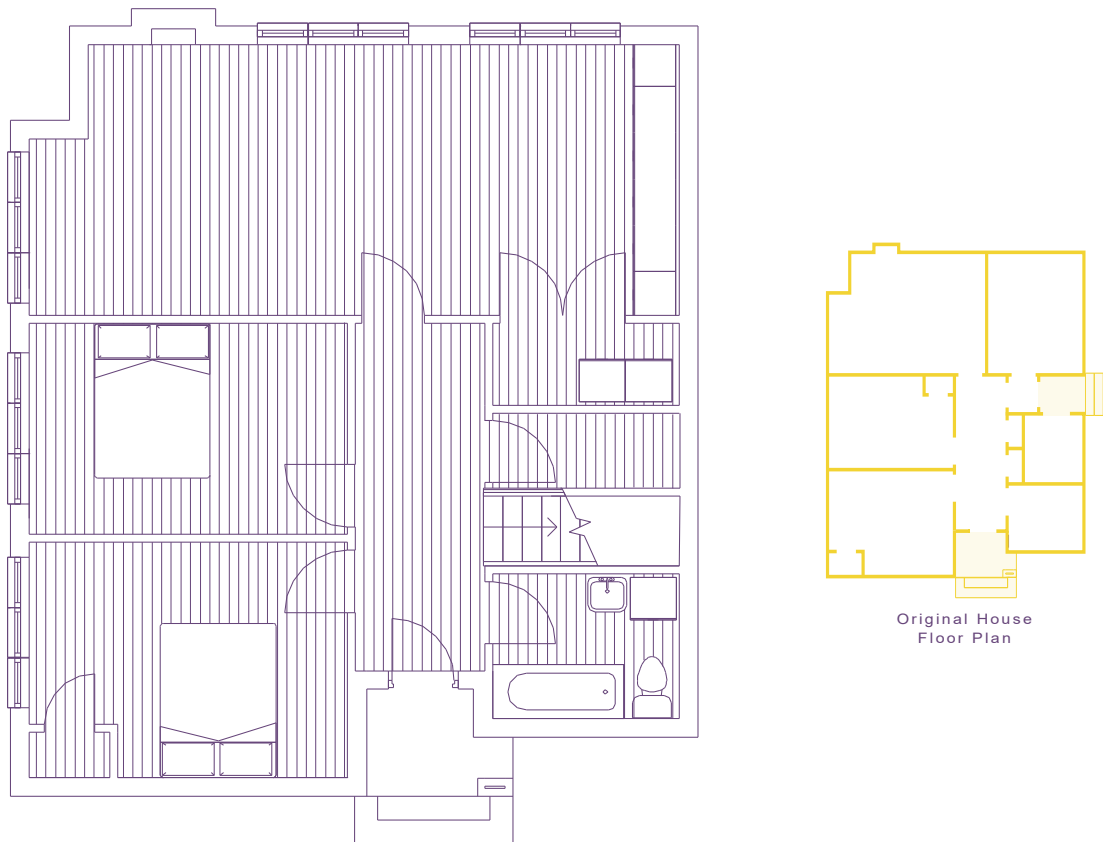
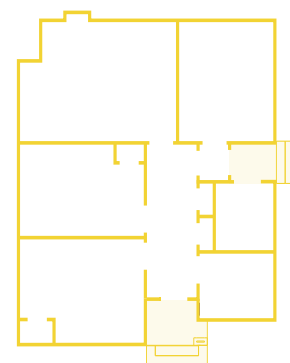
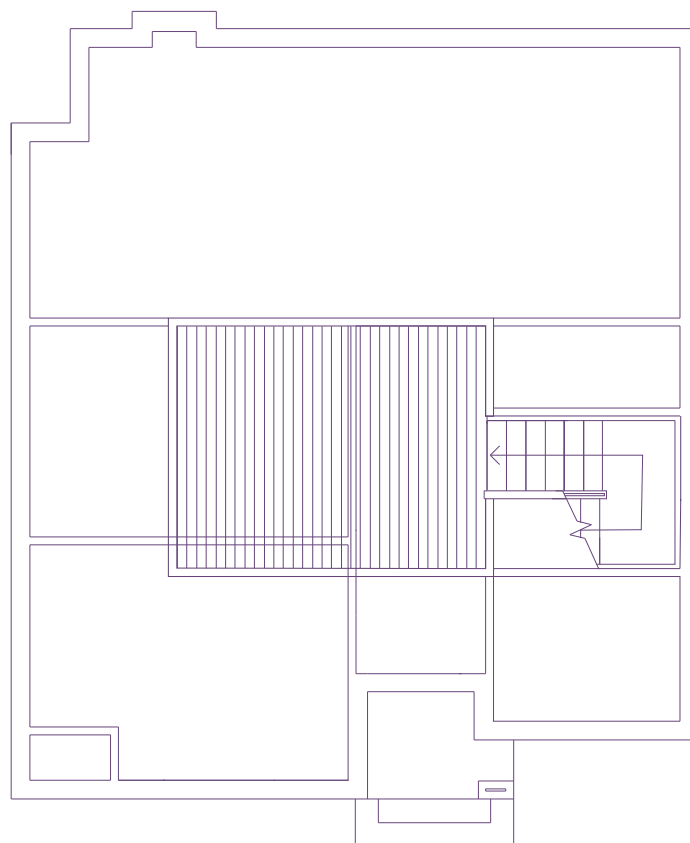


Fig. 318. Design no. 646 strategy four floor plan

Supporting Site: Design No. 646

Strategy Five

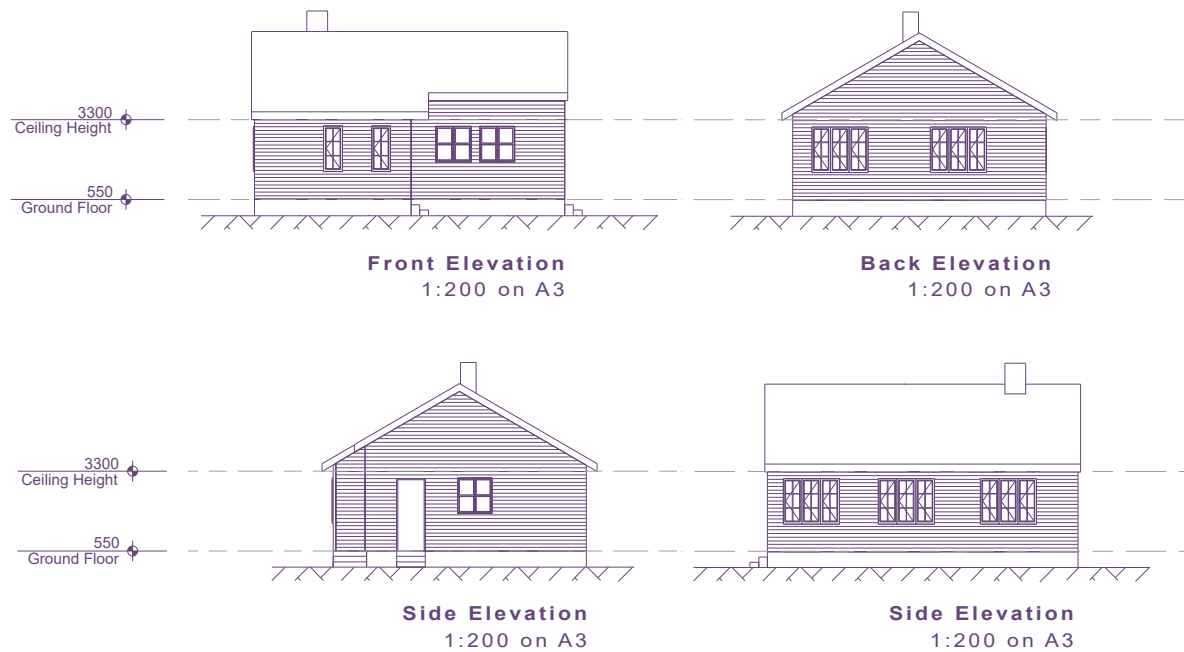


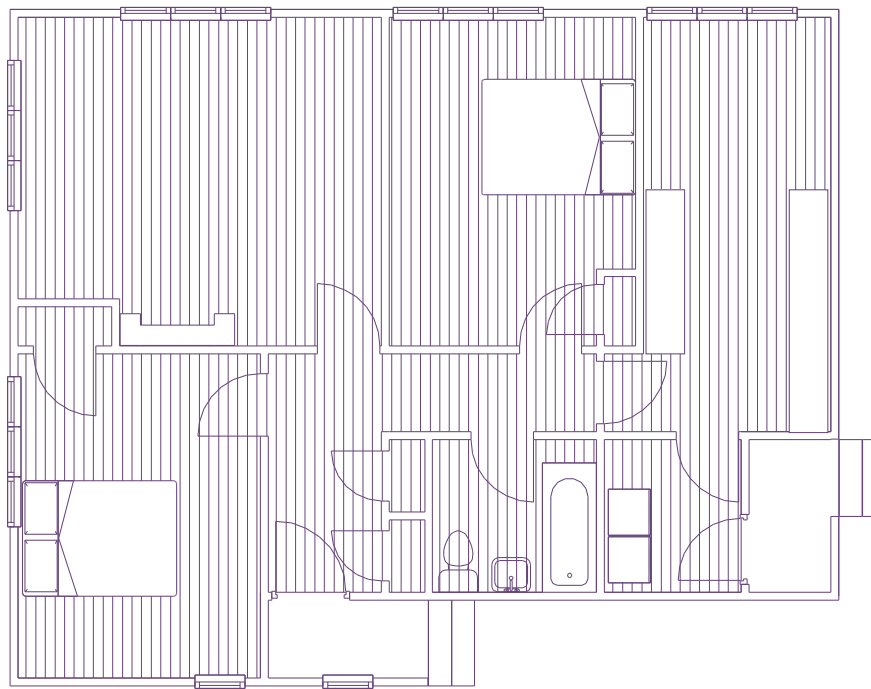


Original House
Floor Plan

Supporting Site: Design No. 1313

Original House

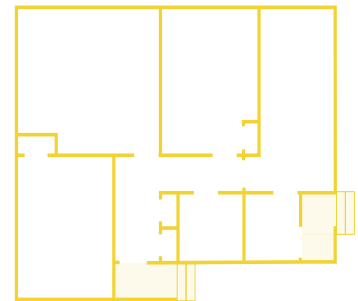
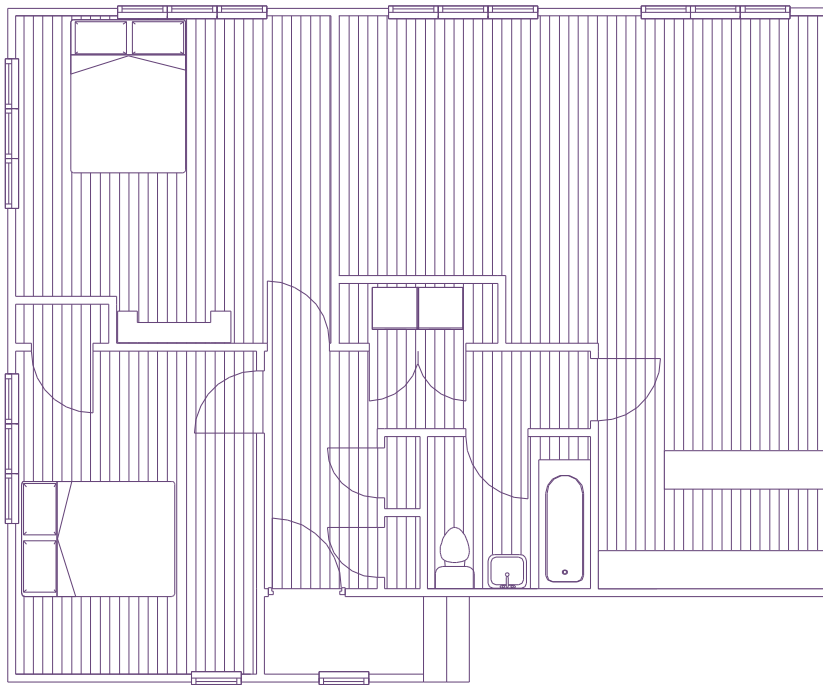




Floor Plan
1:100 on A3

Supporting Site: Design No. 1313

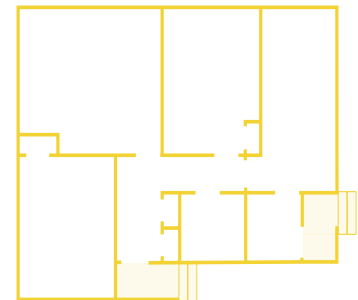
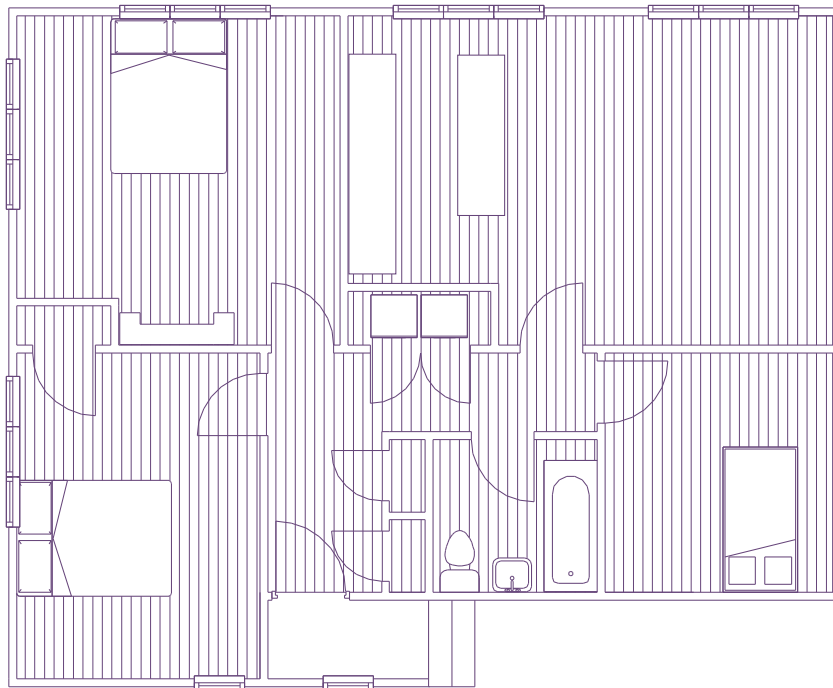
Strategy One



Original House
Floor Plan

Supporting Site: Design No. 646

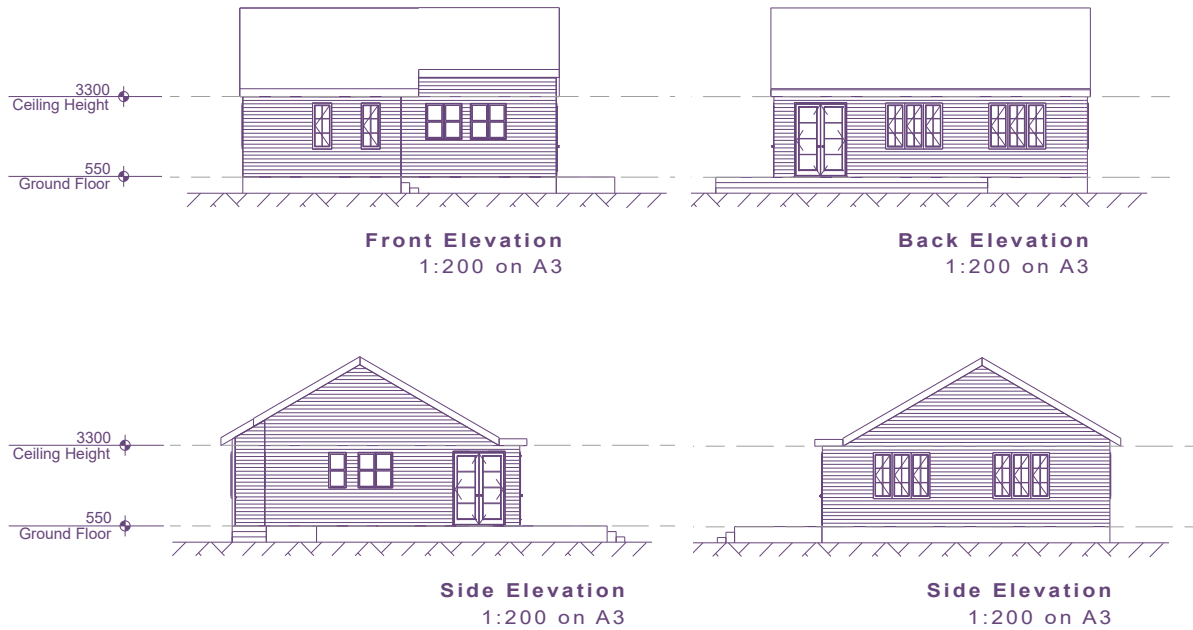
Strategy Two

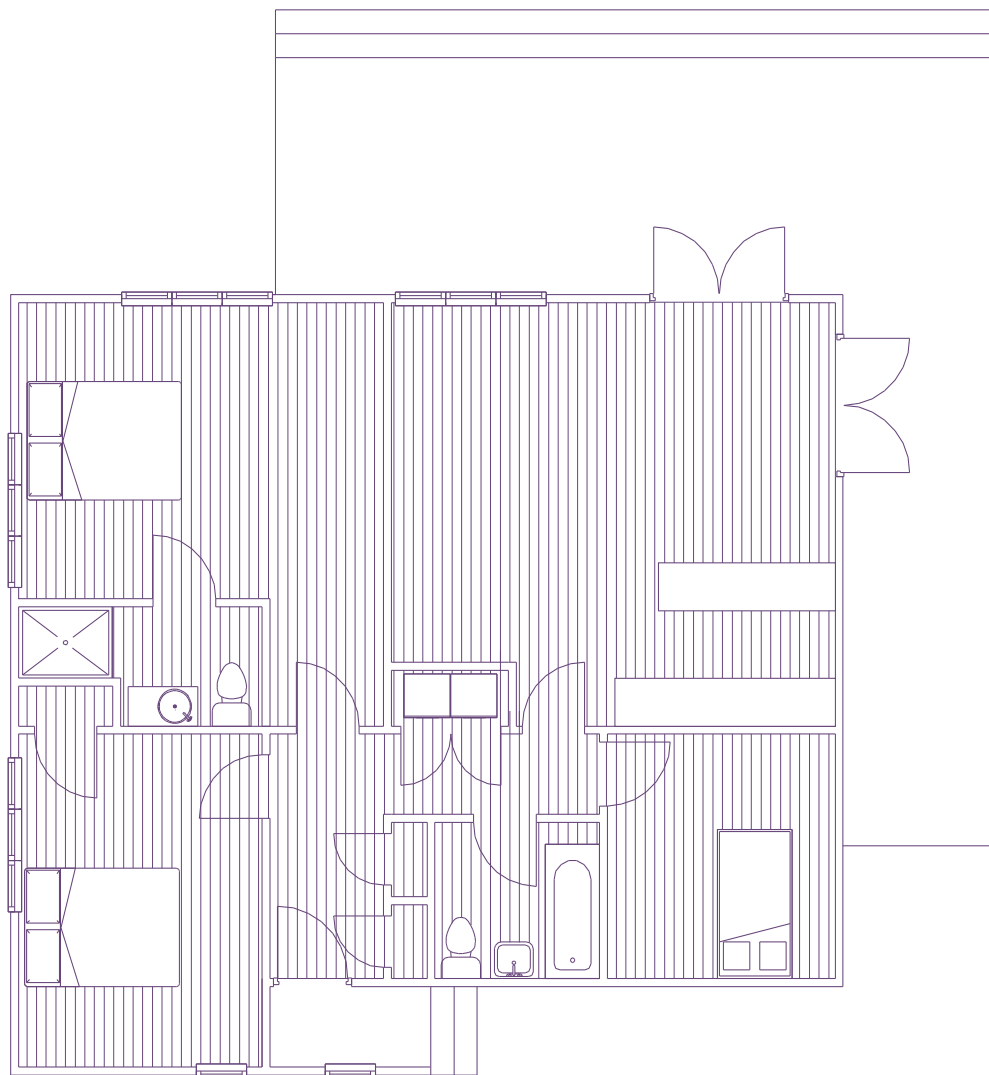


Original House
Floor Plan

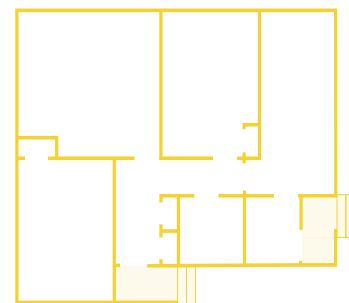
Supporting Site: Design No. 1313

Strategy Three





Floor Plan
1:100 on A3



Original House
Floor Plan

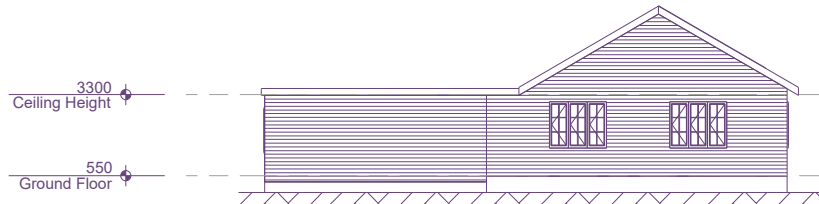
Supporting Site: Design No. 1313

Strategy Four



Front Elevation
1:200 on A3

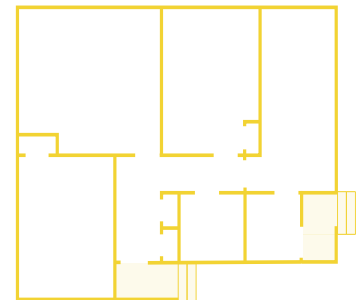
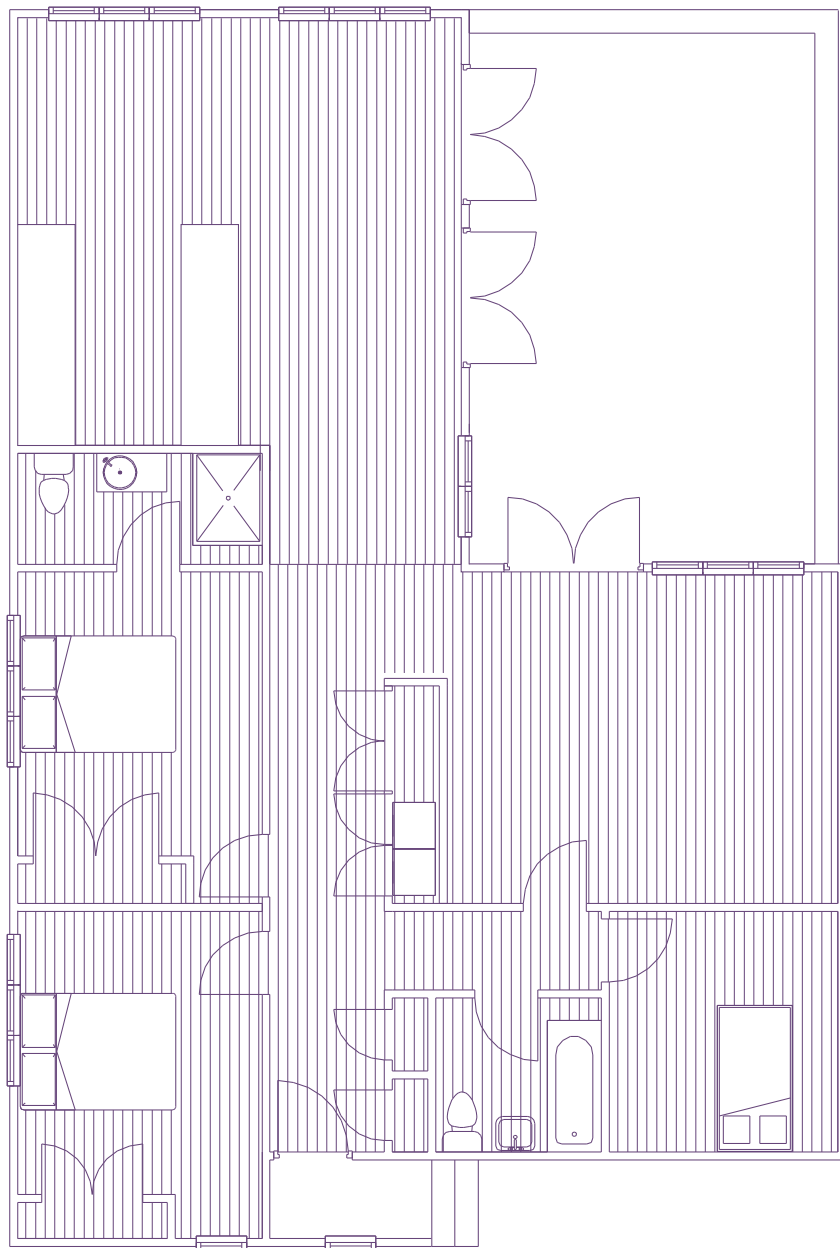
Back Elevation
1:200 on A3



Side Elevation
1:200 on A3



Side Elevation
1:200 on A3



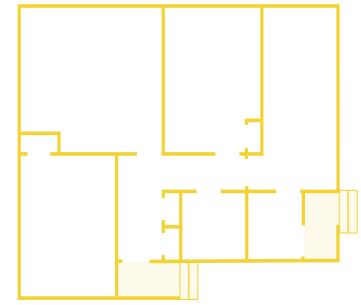
Original House
Floor Plan

Floor Plan
1:100 on A3

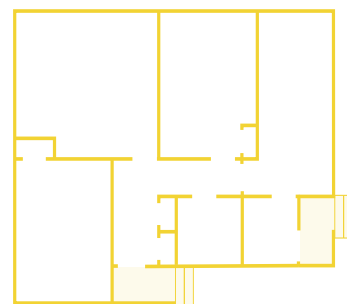
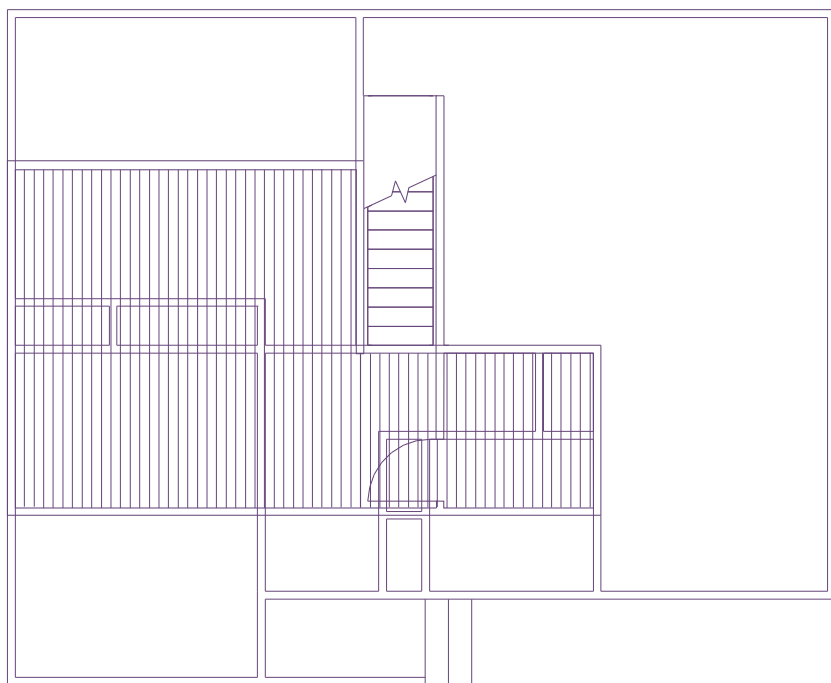
Fig. 332. Design no. 1313 strategy four floor plan

Supporting Site: Design No. 1313

Strategy Five



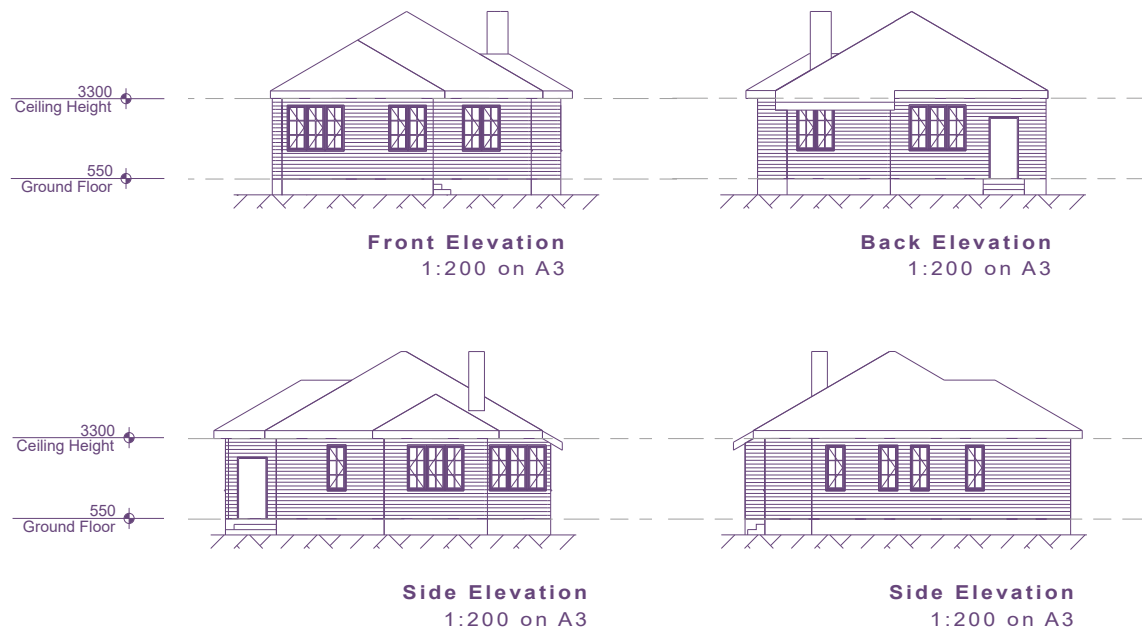
Original House
Floor Plan

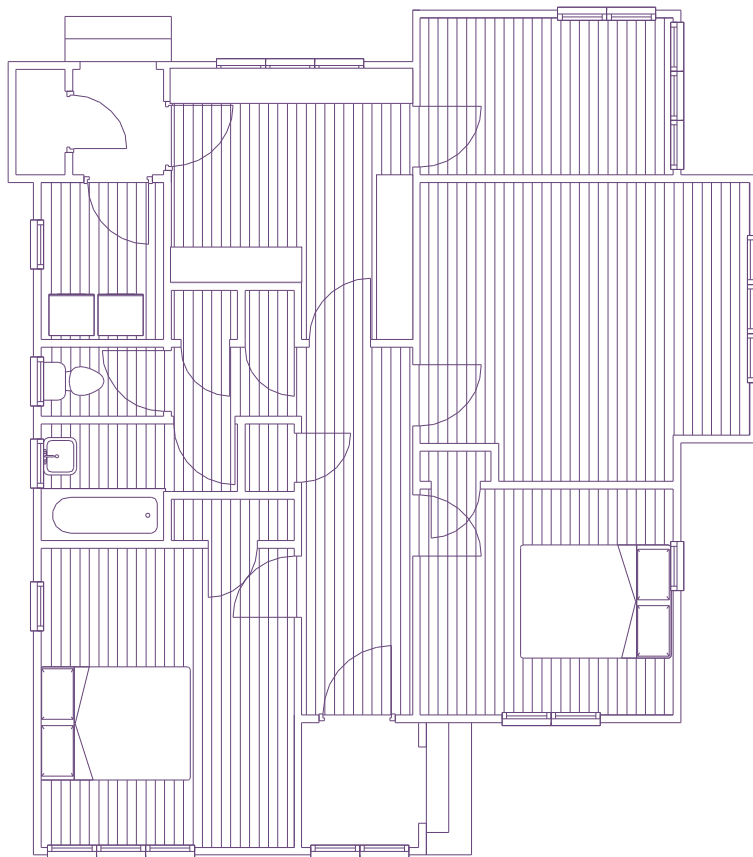


Original House
Floor Plan

Supporting Site: Design No. 594

Original House

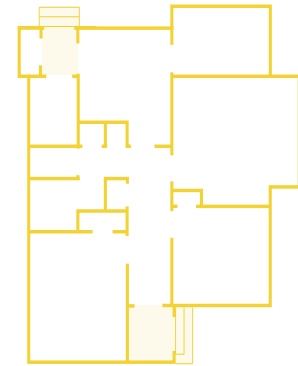
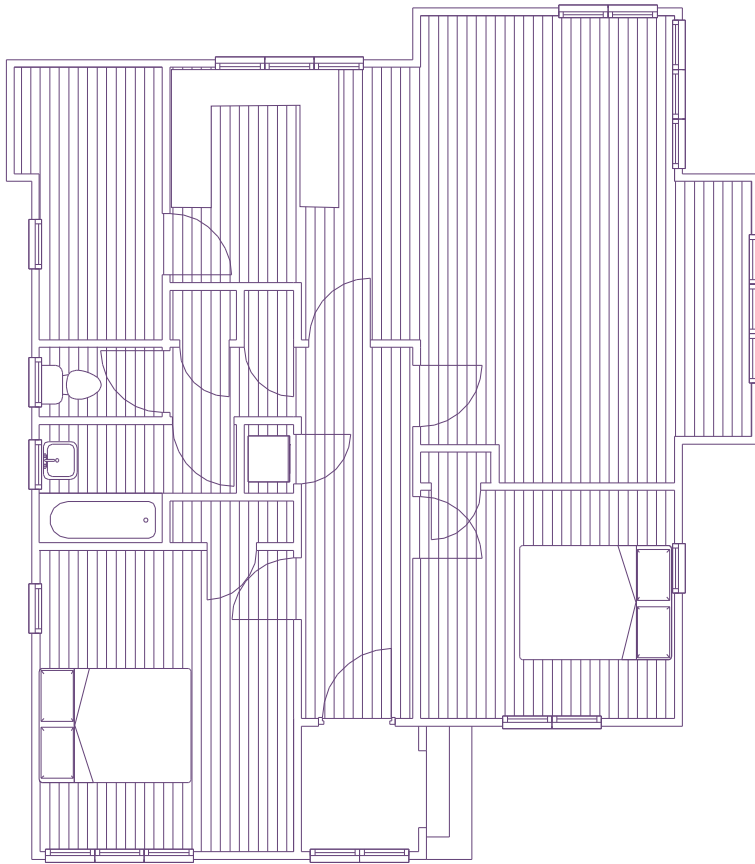




Floor Plan
1:100 on A3

Supporting Site: Design No. 594

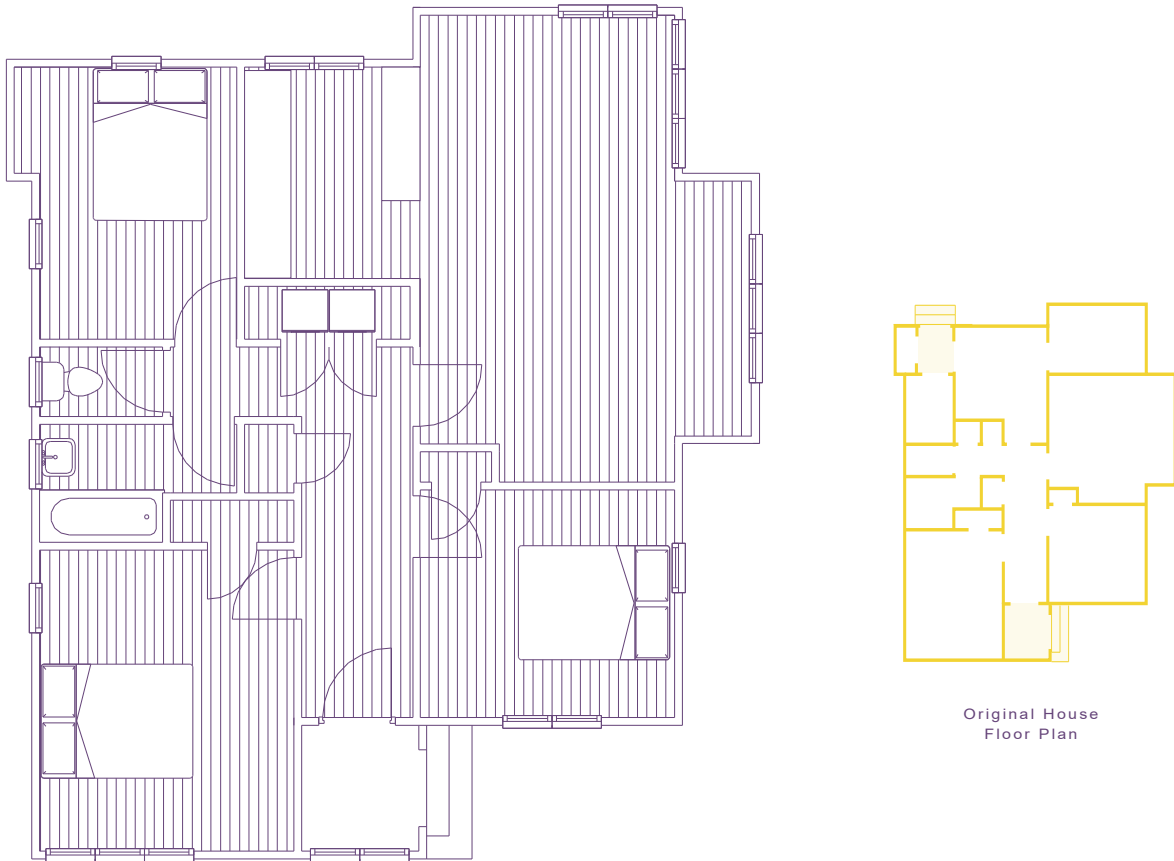
Strategy One



Original House
Floor Plan

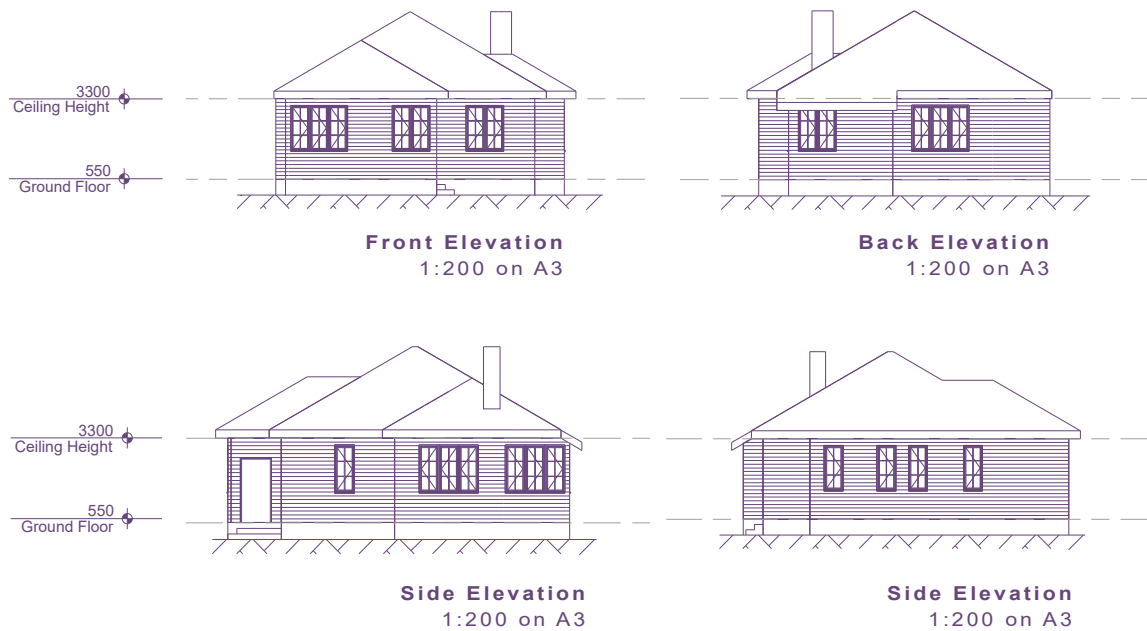
Supporting Site: Design No. 594

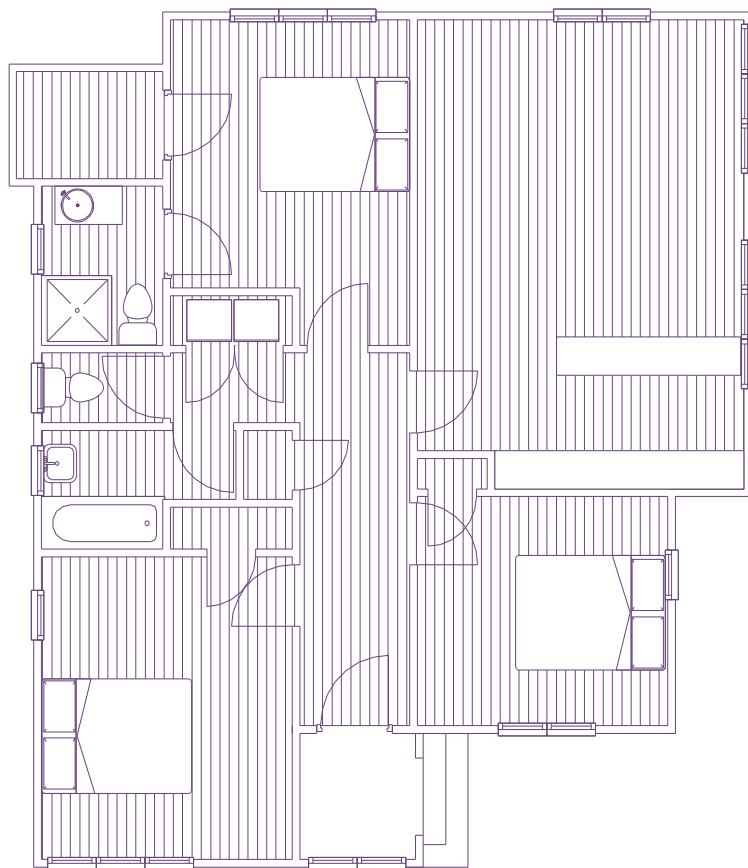
Strategy Two



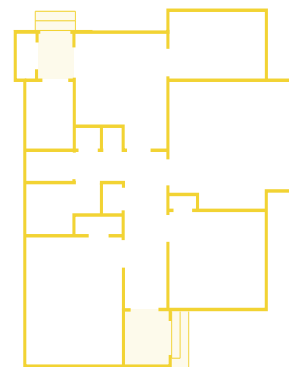
Supporting Site: Design No. 594

Strategy Three





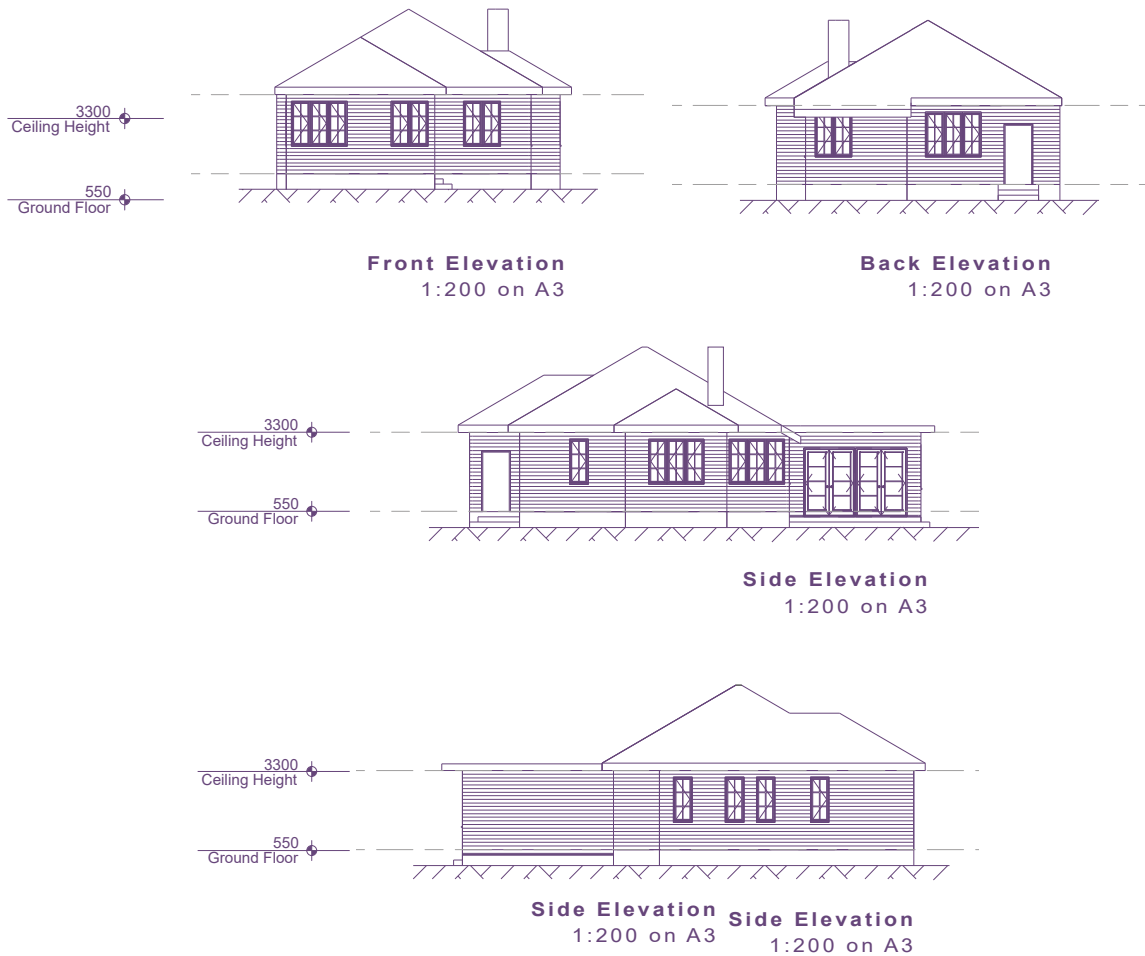
Floor Plan
1:100 on A3

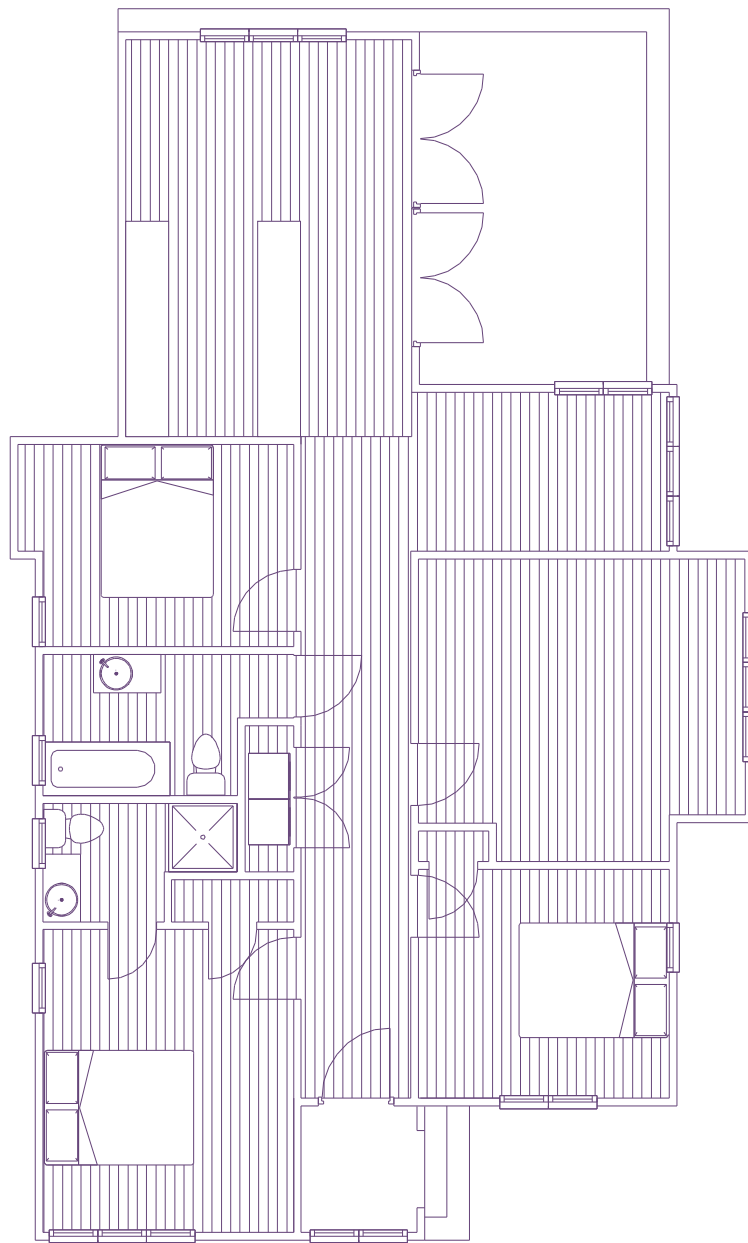


Original House
Floor Plan

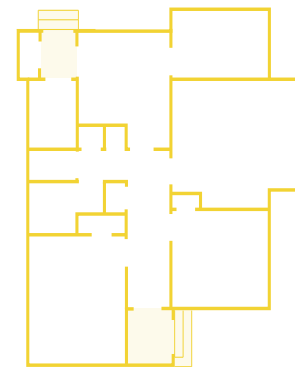
Supporting Site: Design No. 594

Strategy Four





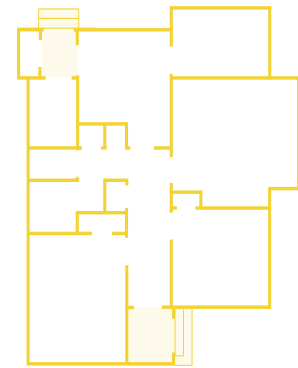
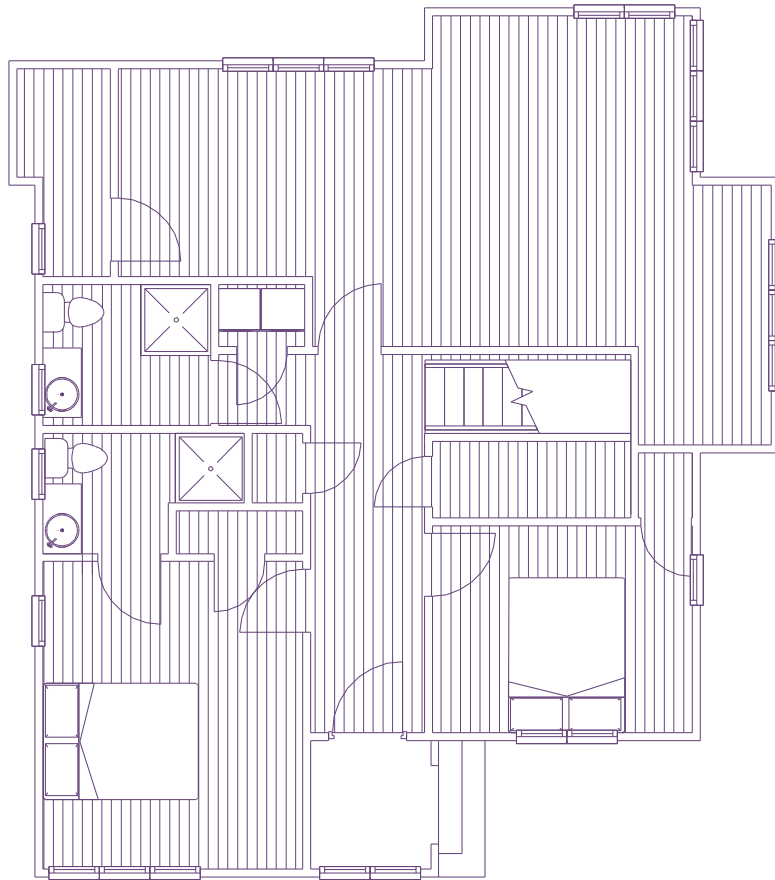
Floor Plan
1:100 on A3



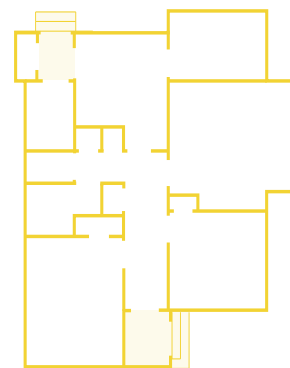
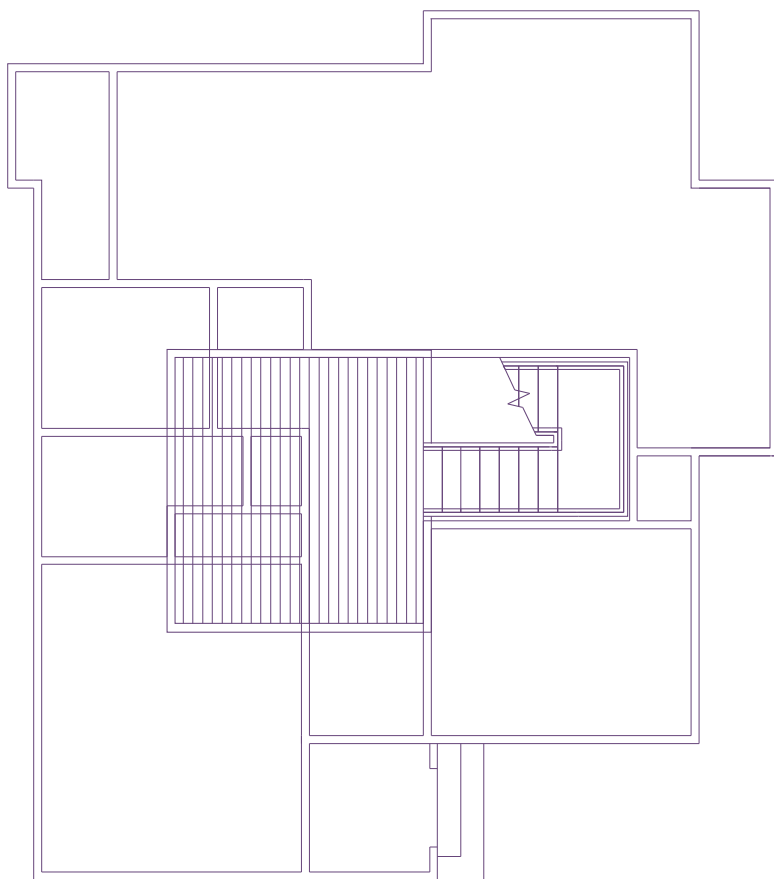
Original House
Floor Plan

Supporting Site: Design No. 594

Strategy Five



Original House
Floor Plan



Original House
Floor Plan



Chapter Nine

Conclusions



Introduction

This chapter includes a reflection of the process taken during this thesis. It will also include an overall reflection and discussion of where this research can be taken from here.

[See Previous Page](#)

Fig. 345. Suburban street, with power poles, Porirua, Wellington

Reflection

Before starting this thesis, I was guilty of being one of many who judged New Zealand's state houses as a waste of space destined for the scrap yard. So, when choosing a typology to study in this thesis I decided to give myself a challenge. I wanted to argue for the protection of a typology that really needed and deserved it.

It took a while for myself to be convinced of their protection, but as I slowly uncovered and understood the legacy of these homes as well as their heritage value and good bones, I was convinced. To me, these homes became a New Zealand taonga.

This thesis endeavoured to understand firstly, whether these homes deserved heritage protection and secondly, how this can be done whilst making them usable for contemporary living. Overall, this research focused more on the process than on a final design as, any final designs would not be relevant if we first did not understand why these homes deserved heritage protection.

The following page gives reflections of each phase of this design led research, showing any strengths or limitations.

Phase One: Heritage Research

A big limitation of this phase was that I did not reach out to anyone from the past who had lived in a state home to understand their perspective on if these homes should be protected. Nevertheless, the amount of literature and visual based research completed provides enough of an understanding to make justified conclusions. However, if I had of spoken with these groups of people my argument for the protection of these homes would have been more educated.

Phase Two: Architectural Value Research

My process taken for understanding architectural values of the studied typologies seemed thorough and well-considered. Different types of data were studied and reflected upon, and the process was repeated for the three typologies, allowing the process to become refined.

Phase Three: Design

The biggest limitation for this thesis was that only one state house was thoroughly studied and tested upon. This was because of the current global pandemic and therefore difficulties gaining access into these homes. This was an uncontrollable factor, as when the site analysis phase was beginning, lockdowns in New Zealand were occurring.

Nevertheless, there were real strengths in this design phase as design decisions were well-educated and thought out due to strong design led research having been completed and a design process that allowed for constant reflection and development.

Conclusions

The intent of this thesis was to create design strategies that would protect the heritage values and legacy of the 1940's New Zealand detached family state house in a contemporary environment.

There are three main outcomes of this thesis, the argument for this typology's heritage protection, the heritage checklist as well as design strategies to protect their heritage value whilst incorporating contemporary living values.

The first outcome is an argument for the heritage protection of this New Zealand typology. This proves that there is a legacy and heritage value worth being protected and without this outcome, the rest of this thesis would have been negligible.

The second outcome is the heritage checklist for state homeowners to follow when they are renovating their 1940s New Zealand detached family state house. This checklist is an easy way of testing the success of different design strategies, further ensuring the success of this thesis.

Finally, the third outcome of five design strategies that have been tested on four different state houses is very useful. They provide a range of options for state home renovators whilst proving the success of the heritage checklist. The first three strategies stay within the original house boundaries, and they include a second storey for another bedroom, increasing the living room size, and adding a third bedroom on the main floor. The two more invasive strategies are a small extension to increase the living room size or a larger extension that allows for an extra bedroom as well as a larger open plan living room.

Overall, an amalgamation of these three outcomes provides an answer to this thesis' research question. By providing these buildings with heritage protection we are maintaining their legacy and heritage value as generations will be able to see and appreciate New Zealand's housing history. Through the heritage checklist and multiple design strategies, it is proven that the heritage value of these state homes can be protected whilst ensuring these homes are functional for today's family's needs.

What Next?

Firstly, it would be beneficial to complete further research about whether these homes deserve heritage protection. In this thesis, the argument formed for the protection of this state house typology is based on methods created and used by heritage protection organisations. However, many of these organisations are dominated by western perspectives and values, so how can we trust their methods to not be prejudiced and instead based on general society? Therefore, further research into other perspectives of these homes is necessary to be assured that these homes do deserve protection.

Following that, we need to ensure the popular appreciation of these homes continues in a positive projection. This is currently occurring slowly, as society is recognising the 'good bones' of these homes as well as their renovation potential. It is only once society begins to appreciate these homes that they will then be protected, and checklists and design strategies could be applicable.

It would then be beneficial to test the heritage checklist on a wider range of sites and homes to ensure their success. As mentioned in the heritage checklist, a list of approved new opening technicians will also need to be created. These technicians will need to have specific state house designed pieces that take into consideration original state house materiality and design whilst still ensuring functionality for contemporary living.

Once the checklist has been further tested and a technician list has been created, they could be made publicly available so that state homeowners are aware of the heritage value of their home before they begin the renovation process. Alongside these documents, it may be beneficial for a guide to renovating your state home be provided. This guide could show design strategies and processes that clients could use in their renovation process.

thank you

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Figure List

Figure 1: State houses, Mahoe Street, Waterloo, Lower Hutt, ca. 1930

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Figure 2: Building site of a state house showing carpenters at work, n.d.

Building site of a state house showing carpenters at work. (n.d.). [Photograph]. Alexander Turnbull Library. <https://tiaki.natlib.govt.nz/#details=ecatalogue.127508>

Figure 5: State house, Levin

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Figure 6: Mrs Zeta Tutt standing at the gate of her State house with her dog Benji, Naenae

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Figure 8: New state houses in Masterton, Southern Wairarapa, 1958

New State houses in Masterton, Southern Wairarapa. (1958). [Photograph]. Alexander Turnbull Library. <https://tiaki.natlib.govt.nz/#details=ecatalogue.666722>

Figure 72: State housing, Naenae, Lower Hutt

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Figure 83: Amrita Alternate

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Figure 84: Apollo 142

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Figure 86: Discovery 160

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Figure 87: Austral-170

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Signature Homes. (n.d.-c). Kingfisher - 130 [Digital Render]. Signature Homes. <https://www.signature.co.nz/smart-collection/kingfisher-130>

Figure 90: Nautilus -150

Signature Homes. (n.d.-d). Nautilus - 150 [Digital Render]. Signature Homes. <https://www.signature.co.nz/pacific-collection/nautilus-150>

Figure 123. Under Pohutakawa external

Reynolds, P. (n.d.-h). Under Pohutakawa House: Exterior [Photograph]. Herbst Architects. <https://herbstarchitects.co.nz/projects/under-pohutukawa>

Figure 124. Under Pohutakawa internal

Reynolds, P. (n.d.-h). Under Pohutakawa House: Exterior [Photograph]. Herbst Architects. <https://herbstarchitects.co.nz/projects/under-pohutukawa>

Figure 125. Headland House external

Smith, M. (n.d.-a). Headland House: Exterior [Photograph]. Home Magazine. <https://homemagazine.nz/2013-home-of-the-year-stevens-lawson/>

Figure 126. Headland House external

Smith, M. (n.d.-a). Headland House: Exterior [Photograph]. Home Magazine. <https://homemagazine.nz/2013-home-of-the-year-stevens-lawson/>

Figure 127: Eyrie external

Toth, J. (n.d.-a). Eyrie House: Exterior [Photograph]. Home Magazine. <https://homemagazine.nz/projects/eyrie-cheshire-architects/>

Figure 128. Eyrie internal

Toth, J. (n.d.-b). Eyrie House: Interior [Photograph]. Home Magazine. <https://homemagazine.nz/projects/eyrie-cheshire-architects/>

Figure 129. E-type House external

Reynolds, P. (n.d.-d). E-type House: Exterior [Photograph]. RTA Studio. <https://rtastudio.co.nz/portfolio/e-type-house>

Figure 130. E-type House internal

Reynolds, P. (n.d.-e). E-type House: Interior [Photograph]. RTA Studio. <https://rtastudio.co.nz/portfolio/e-type-house>

Figure 131. K Valley House external

Herbst, L., & Reynolds, P. (n.d.-a). K Valley House: Exterior [Photograph]. Herbst Architects. <https://herbstarchitects.co.nz/projects/k-valley-house>

Figure 132. K Valley House internal

Herbst, L., & Reynolds, P. (n.d.-b). K Valley House: Interior [Photograph]. Herbst Architects. <https://herbstarchitects.co.nz/projects/k-valley-house>

Figure 133. Town House external

Toth, J. (n.d.-c). Town House: Exterior [Photograph]. Christopher Beer Architects. <https://christopherbeerarchitect.com/town-house>

Figure 134. Town House internal

Toth, J. (n.d.-d). Town House: Interior [Photograph]. Christopher Beer Architects. <https://christopherbeerarchitect.com/town-house>

Figure 135. Kawakawa House external

Reynolds, P. (n.d.-f). Kawakawa House: Exterior [Photograph]. Herbst Architects. <https://herbstarchitects.co.nz/projects/kawakawa-house-piha>

Figure 136. Kawakawa House internal

Reynolds, P. (n.d.-g). Kawakawa House: Interior [Photograph]. Herbst Architects. <https://herbstarchitects.co.nz/projects/kawakawa-house-piha>

Figure 137. Diagrid House external

Reynolds, P. (n.d.-a). Diagrid House: External [Photograph]. Home Magazine. <https://homemagazine.nz/projects/diagrid-house/>

Figure 138. Diagrid House internal

Reynolds, P. (n.d.-c). Diagrid House: Interior [Photograph]. Home Magazine. <https://homemagazine.nz/projects/diagrid-house/>

Figure 139. Light Mine external

Devitt, S. (n.d.-c). Light Mine House: Ceiling [Photograph]. Simon Devitt Photography. <https://simondevitt.com/portfolio/live/light-mine/>

Fig. 140. Light Mine internal

Devitt, S. (n.d.-d). Light Mine House: Exterior [Photograph]. Simon Devitt Photography. <https://simondevitt.com/portfolio/live/light-mine/>

Figure 141. Black Quail House external

Devitt, S. (n.d.-a). Black Quail House: Front Facade [Photograph]. Simon Devitt Photography. <https://simondevitt.com/portfolio/live/black-quail/>

Figure 142. Black Quail House internal

Devitt, S. (n.d.-b). Black Quail House: Rear Facade [Photograph]. Simon Devitt Photography. <https://simondevitt.com/portfolio/live/black-quail/>

Figure 150. Under Pohutakawa roof plan

Herbst Architects (2012). Under Pohutakawa [roof plan].

Figure 151. K-Valley House roof plan

Herbst Architects (2016). K Valley House [roof plan].

Figure 152. Diagrid House roof plan

Jack McKinney Architects (2019). Diagrid House [roof plan].

Figure 156. K-Valley House elevations

Herbst Architects (2016). K Valley House [elevations].

Figure 157. Diagrid House elevations

Jack McKinney Architects (2019). Diagrid House [elevations].

Figure 158. Black Quail House elevations

Bergendy Cook Architects (2021). Black Quail House [elevations]

Figure 162. K-Valley House elevations

Herbst Architects (2016). K Valley House [elevations].

Figure 163. Diagrid House elevations

Jack McKinney Architects (2019). Diagrid House [elevations].

Figure 164. Diagrid House elevations

Jack McKinney Architects (2019). Diagrid House [elevations].

Figure 172. State Housing, Penrose, Auckland

Whites Aviation. (1946). State Housing, Penrose, Auckland [Photograph]. Alexander Turnbull Library. <https://tiaki.natlib.govt.nz/#details=ecatalogue.714940>

Figure 180. Original Drawings for Design No. 646

Department of Housing Construction New Zealand (1940). Drawing No, 656 [working drawings] Retrieved from Stevens, A., & McKay, B. (2014). Beyond the State: New Zealand State Houses from Modest to Modern. Penguin Books.

Figure 181. External Photograph of Design No. 646 and Fig. 182. Internal Photograph of Design No. 646

Devitt, S. (n.d.) Photograph of Design No. 646 [photograph] Retrieved from Stevens, A., & McKay, B. (2014). Beyond the State: New Zealand State Houses from Modest to Modern. Penguin Books.

Figure 183. Original Drawings for Design No. 594

Department of Housing Construction New Zealand (n.d.). Drawing No, 594 [working drawings] Retrieved from Stevens, A., & McKay, B. (2014). Beyond the State: New Zealand State Houses from Modest to Modern. Penguin Books.

Figure. 184. Current floor plan showing renovations completed at Design No. 594

Current floor plan showing renovations completed at Design No. 594 (n.d.) [Digital Drawing] Retrieved from Stevens, A., & McKay, B. (2014). Beyond the State: New Zealand State Houses from Modest to Modern. Penguin Books.

Figure 185-188. Photographs of Design no. 594

Devitt, S. (n.d.) Photographs of Design No. 594 [photograph] Retrieved from Stevens, A., & McKay, B. (2014). Beyond the State: New Zealand State Houses from Modest to Modern. Penguin Books.

Figure 189. Original drawings for Design no. 1313

Department of Housing Construction New Zealand (1943). Drawing No, 1313 [working drawings] Retrieved from Stevens, A., & McKay, B. (2014). Beyond the State: New Zealand State Houses from Modest to Modern. Penguin Books.

Fig. 190. Current floor plan showing renovations completed on Design no. 1313

Current floor plan showing renovations completed on Design No. 1313 (n.d.) [Digital Drawing] Retrieved from Stevens, A., & McKay, B. (2014). Beyond the State: New Zealand State Houses from Modest to Modern. Penguin Books.

Figure 191-195. Photographs of Design no. 1313

Devitt, S. (n.d.) Photographs of Design No. 1313 [photograph] Retrieved from Stevens, A., & McKay, B. (2014). *Beyond the State: New Zealand State Houses from Modest to Modern*. Penguin Books.

Figure 248. Original drawings of the chosen site, design no. 477

Department of Housing Construction New Zealand (1937, September 17). Design No. 477 [Architectural Drawings]. Hutt City Building Archives. <https://www.huttcity.govt.nz/property-and-building/search-property-and-building/property-and-building-details?recordID=f7dd24055813149984c01b4e09350b237f9b1>

Figure 249. Current floor of chosen site

Moore Design and Draughting. (2017, September 19). Planss [Architectural Drawing]. Hutt City Building Archives. <https://www.huttcity.govt.nz/property-and-building/search-property-and-building/property-and-building-details?recordID=f7dd24055813149984c01b4e09350b237f9b1>

Figure 250-153. Current elevations and roof plan

Moore Design and Draughting. (2017, September 19). Planss [Architectural Drawing]. Hutt City Building Archives. <https://www.huttcity.govt.nz/property-and-building/search-property-and-building/property-and-building-details?recordID=f7dd24055813149984c01b4e09350b237f9b1>

Figure 255. The Holmes family outside their home in Naenae

Pascoe, J. D. (ca. 1945a). The Holmes family outside their home in Naenae [Photograph]. Alexander Turnbull Library. <https://tiaki.natlib.govt.nz/#details=ecatalogue.194950>

Figure 257-258. Internal photos of design no. 84/8

Devitt, S. (n.d.) Photographs of Design No. 84/8 [photograph] Retrieved from Stevens, A., & McKay, B. (2014). *Beyond the State: New Zealand State Houses from Modest to Modern*. Penguin Books.

Figure 259-260. External photos of design no. 7/5

Devitt, S. (n.d.) Photographs of Design No. 84/8 [photograph] Retrieved from Stevens, A., & McKay, B. (2014). *Beyond the State: New Zealand State Houses from Modest to Modern*. Penguin Books.

Figure 290. Tamaki state suburb, Auckland

Whites Aviation. (1957). Tamaki state suburb, Auckland [Photograph]. Alexander Turnbull Library. <https://tiaki.natlib.govt.nz/#details=ecatalogue.754899>

Figure 345. Suburban street, with power poles, Porirua, Wellington

Winder, D. (1962). Suburban street, with power poles, Porirua, Wellington [Photograph]. Alexander Turnbull Library. <https://tiaki.natlib.govt.nz/#details=ecatalogue.202797>

Appendix One: Consent for Property Access and Recording



TE KURA WAIHANGA | WELLINGTON SCHOOL OF ARCHITECTURE

VICTORIA UNIVERSITY OF WELLINGTON, PO Box 600, Wellington 6140, New Zealand

Phone +64 4 63 6200 Email architecture@vuw.ac.nz Web wgtm.ac.nz/architecture

ARCI 593 Master's of Architecture Thesis Research

CONSENT FOR PROPERTY ACCESS AND RECORDING

August 2021

Project title: *The Modern State House: An investigation into the legacy and heritage values of traditional New Zealand State Homes in a contemporary environment.*

Project Supervisor: *Dr Michael Dudding*

Researcher: *Megan Sims-Dummett*

- ☒ I have read and understood the information about this research project in the project information sheet dated August 2021.
- ☒ I have had an opportunity to ask questions and to have them answered.
- ☒ I understand that providing consent to the researcher to enter and record (through drawings and photographs) my property is voluntary and that I may withdraw consent at any time.
- ☒ I understand that photographs, drawings and any other adaptations made from them, will be used for the researcher's Master's portfolio, educational exhibition and examination purposes only and will not be published in any form outside of this project without my written permission.
- ☒ I understand that any copyright material created during the visits is deemed to be owned by the researcher and that I do not own copyright of any of the photographs, drawings, or subsequent adaptations of them.
- ☐ I wish to receive a summary of the research findings (please tick one):
Yes ☒ No ☐
- ☒ I give the researcher consent to visit and record 18 Hart Avenue, Boulcott, Lower Hutt, Wellington, 5011 on the following dates and times:

Wednesday 11 August 2021 at 12pm

Participant's signature:

Participant's name:

Date:

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VICTORIA UNIVERSITY OF WELLINGTON, PO Box 600, Wellington 6140, New Zealand

Phone +64 4 63 6200 Email architecture@vuw.ac.nz Web wgtn.ac.nz/architecture

ARCI 593 Master's of Architecture Thesis Research
**INFORMATION SHEET FOR CONSENT FOR PROPERTY ACCESS AND
RECORDING**
August 2021

Project title: The Modern State House: An investigation into the
legacy and heritage values of traditional New Zealand
State Homes in a contemporary environment.
Project Supervisor: Dr Michael Dudding
Researcher: Megan Sims-Dummett

This Master's of Architecture thesis analyses the traditional New Zealand state house to see if the legacy and original heritage values can be maintained in a contemporary context.

As part of this research, I will be testing various design strategies with the aim of achieving an outcome that improves property value and amenity by incorporating desirable contemporary living values harmoniously with the heritage values of New Zealand State Houses.

Your consent is being sought to obtain access to and permission to photograph and draw your home on dates/times and terms that are convenient to you. All photographs, drawings, and any subsequent adaptations made from them (for example, models and explanatory diagrams) will be used for educational purposes only. When completed, the resulting Master's portfolio document will be available in the University library and via the online University research database. You may, if you prefer, request any identifiable images of your house to be redacted (removed) from these versions of the portfolio document.

Copyright of the materials created during the visits and any subsequent adaptations of that material are owned by the researcher.

If you have any questions or would like to receive further information about the project, please contact me using the details provided below. Alternatively, you may contact my Master's Supervisor, Dr Michael Dudding, at the Wellington School of Architecture at Victoria University of Wellington, P O Box 600, Wellington, phone (04) 463 6294, or email: Michael.Dudding@vuw.ac.nz.

Signed:

Date:

Megan Sims-Dummett

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Appendix Two: Consent to use Architectural Firm Drawings

Dear Herbst Architects Ltd

I am a research student in the School of Architecture at Victoria University of Wellington, currently completing my thesis, titled 'The Modern State House: An investigation into the legacy and heritage values of traditional New Zealand State Homes in a contemporary environment.'

I am seeking permission to utilise the following copyright material in my thesis for the purposes of examination and subsequent deposit in Victoria's publicly available digital repository, ResearchArchive:

- Drawings from the Under Pohutakawa PDF Documents – including plans and sections
- Drawings from the K Valley PDF Documents – including plans and elevations
- Drawings from the Kawakawa Bach PDF Documents – including plans

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