

'NEW' KIDS ON THE BLOCK

ENERGY - EFFICIENT
ARCHITECTURAL
REFURBISHMENT

OVERVIEW

Five dilapidated, dated and leaky detached houses circa 1980, are refurbished into high-performance, energy-efficient and modern homes.

PROJECT SUMMARY

This impressive refurbishment involved the transformation of five, medium-sized houses on a single site into contemporary, highly energy-efficient and sustainable homes.

Delivered by Context Architects, this project was the subject of the television series “The Block” (series 5, 2016); so the transformation took place against a very demanding filming timeline.



Top Right: Looking up through site from central shared driveway – before works.

Main Image: Looking down into site after works completed.

KEY PROJECT INFORMATION

HOUSING TYPE
DETACHED/TOWN HOUSE

LOCATION
**ST JOHNS
AUCKLAND**

The site is located on a busy road in the suburb of Meadowbank, a 10-15 minute drive from Auckland's CBD.

It has a sloping topography with a fall of almost 3.5m from the level of the street to the rear of the site.

The development site has a north-south orientation with existing spaces to the north, east and west of dwellings.

YEAR COMPLETED
2016

PROJECT TYPE
5 STAND-ALONE HOUSES

Two-level and three-level three-bedroom houses (one two-bedroom house – House 5); each with a single garage.

As well as modernising the homes, making them more attractive and livable; a major objective was to make them high performance in terms of their energy efficiency, sustainability and ongoing running costs.

CLIENT/DEVELOPER
EYEWORKS NEW ZEALAND LIMITED

ARCHITECT & DESIGN TEAM
CONTEXT ARCHITECTS
With input from contestants and other consultants.

SITE AREA
1680M²

FLOOR AREA
130M² - 155M² per dwelling

DENSITY
36 DW/HA

PARKING
SINGLE GARAGE + SINGLE OUTDOOR

PRICE BAND
HIGH

Cost estimates for the build were between \$4000-\$5000 per m².

UNDERSTANDING THE NEIGHBOURHOOD

- ① The site is located just to the south of the long, leafy driveway entrance to the Purewa Cemetery and Crematorium which is set amidst a tranquil garden setting at 100 St Johns Road.
- ② Regional connections are good. The development site is well connected to the road network and bus services with a bus stop just down the road.
- ③ To the south - the bottom of the site - excellent views to Waiaatarua Reserve have been maximised in the refurbishment design of the lower two homes.



The development is located on St Johns Road, a busy main road running between Meadowbank and Remuera in Auckland.

GETTING IT RIGHT PLACING THE BUILDINGS ON THE SITE

This was a refurbishment project where the existing site layout and building placement worked relatively well in terms of house orientation and location of outdoor spaces.

The downward slope from the road provided the opportunity for the individual building platforms and sites to be more clearly defined. To this end a new, stepped blockwork wall was introduced along the driveway/accessway.

Significant trees including a large pohutukawa and cabbage trees were retained on the site.



Site plan.

GETTING IT RIGHT DESIGNING THE SITE

The refurbishment focused on enhancing the strengths of the sites and their dwellings.

- ① Landscaping was introduced to clearly delineate the sites.
- ② A sense of privacy and was increased through design elements such boundary walls and planting. A variety of heights and materials softened the environment.
- ③ Outdoor living areas were more clearly defined. New decks and patio areas maximise outdoor space, privacy and light.



Before and after: House 2.

GETTING IT RIGHT STREET TO THE FRONT DOOR

- ① Access to each house is clear and direct.
- ② The houses remained unfenced; separation between dwellings is reinforced by way of design elements and new planting.
- ③ Soft landscaping has been used to create gentler boundaries and promote a more cohesive, community feel.
- ④ Unlike many contemporary designs the front door is privileged over that of the garage.
- ⑤ Main entrances to each house are emphasised by way of projecting louvred windows above the doors and the use of strongly contrasted timber materials.



Before and after: House 1 in foreground, House 3 to right of picture.

GETTING IT RIGHT OUTDOOR SPACES

- ① The soft landscaping was contestant-selected and influenced by the Homestar credit system. Native planting, a combination of hebes and flaxes, were used within the common planted areas around the central drive.
- ② House 2 provided the biggest challenge in terms of providing a private outdoor area. The front of this dwelling was formerly overlooked; the new design introduced a planted retaining area and low walled terrace.
- ③ A new loupered pergola created additional privacy while still allowing good views down through the site.

New partially covered deck, with steel framed loupered pergola over. Open framing retains the views beyond the site to the south. Planting in a new retaining area provides additional screening from the neighbours.



Back deck of House 3; House 4 in background.

GETTING IT RIGHT OUTDOOR SPACES

- ① Rainwater is collected for use on the garden.
- ② House 1 has used a rainwater tank that doubles as a green wall against House 3, which will make a great improvement to this outdoor space as plants become established.
- ③ Vegetable gardens and fruit trees were added to each property.
- ④ Significant existing trees on the site were retained.



GETTING IT RIGHT THE BUILDING

The existing homes were modernised inside and out including the forms, materials and spaces. Each home's personality and features were accentuated, while still maintaining a cohesive look for the development as a whole.

- ① The form of the building was simplified. Unnecessary detailing was removed to create a more contemporary look, including a stronger vertical line through the alignment of the upper and lower levels.
- ② Existing 70s brown brickwork was retained where possible, bagged and then painted white.
- ③ Certain windows were recessed, new joinery was installed.
- ④ Horizontal timber sunshade louvres were used to add further depth and interest to elevations and entrances.



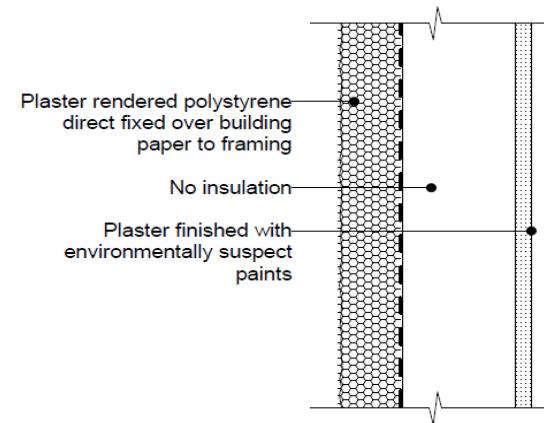
Before and after, the form of the house is simplified and modernised.

GETTING IT RIGHT THE BUILDING

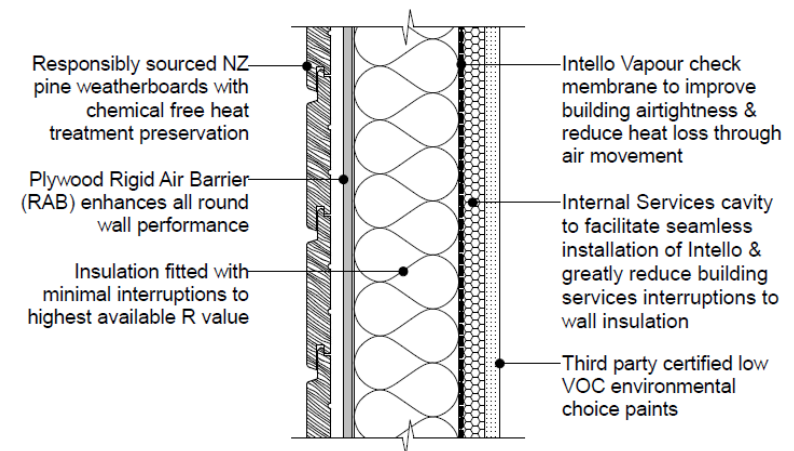
The second principle project aim after modernising was to make the houses as high-performing as possible. During refurbishment the following features were installed:

- ① Homes were made airtight to make heating and cooling easy and highly cost efficient.
- ② The highest levels of insulation were added and double-glazed windows were installed throughout.
- ③ A whole house ventilation system was installed to allow the houses to “breathe” and reduce condensation.
- ④ Smart taps, showers and toilets were installed to reduce water usage and associated costs.

Walls prior to refurbishment



Walls post refurbishment.



GETTING IT RIGHT THE BUILDING

- ① Solar panels were installed to generate electricity, along with a control panel to show how much power is being generated.
- ② Rainwater collection systems provide water for use on gardens.
- ③ Sustainable, quality materials were used to ensure durability and ease of maintenance.



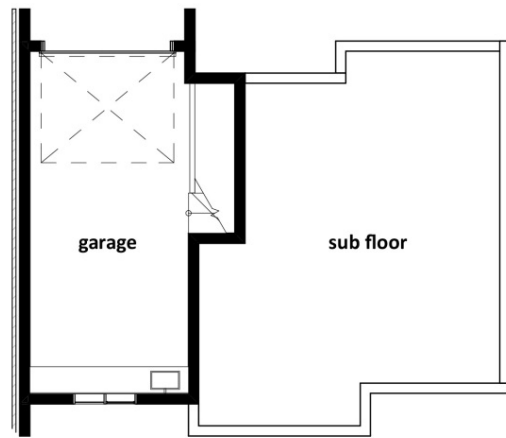
House 1 on the sites street front boundary (to the right).

GETTING IT RIGHT ACCOMMODATING THE CAR

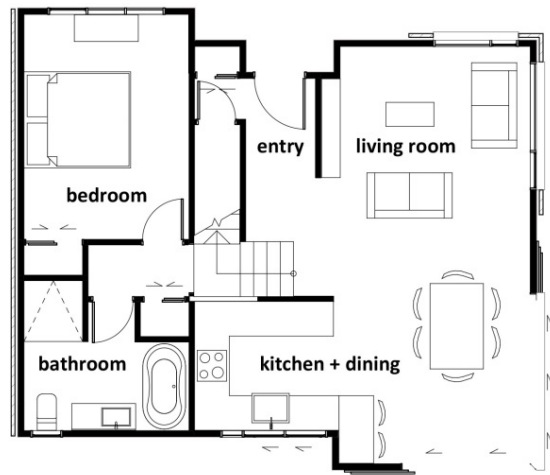
- ① The driveway is clearly separated from pedestrian routes and outdoor living areas by retaining and planting.
- ② A single lane driveway makes efficient use of space to service all 5 dwellings.
- ③ Dwellings have oversight onto the driveway, providing passive surveillance/safety.
- ④ All houses, with the exception of House 1 already had two car parking spaces – one in a garage and one adjacent to the house. House 1 came with a single garage only.
- ⑤ In line with the emphasis on energy efficiency, electric car charging posts were provided for each house site.



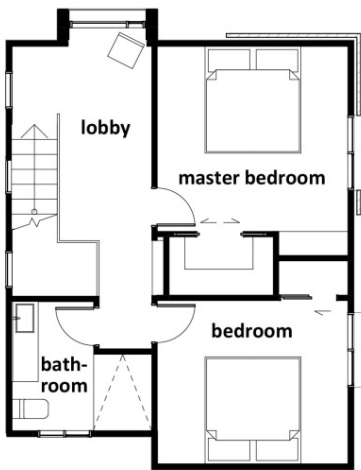
GETTING IT RIGHT FLOOR PLANS



Basement Floor Plan
26m²



Ground Floor Plan
76m²

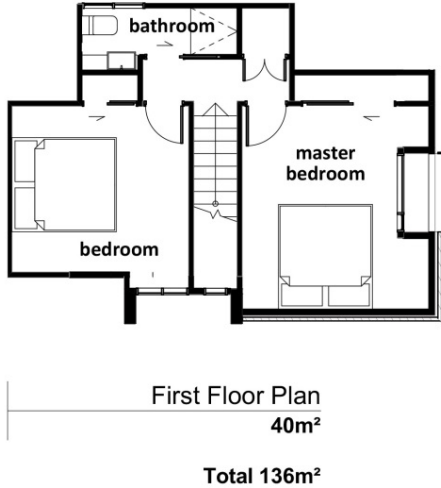
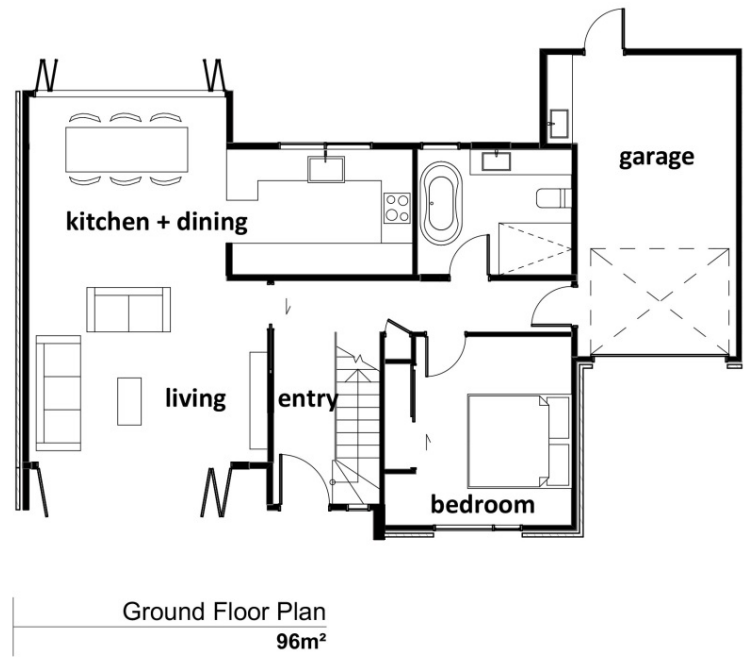


First Floor Plan
52m²

Total 154m²

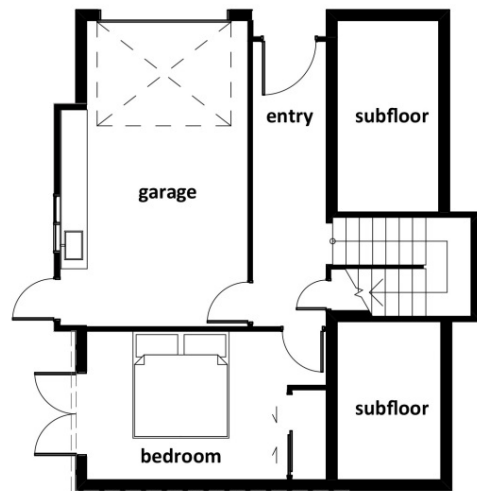
House 1 floor plans.

GETTING IT RIGHT FLOOR PLANS

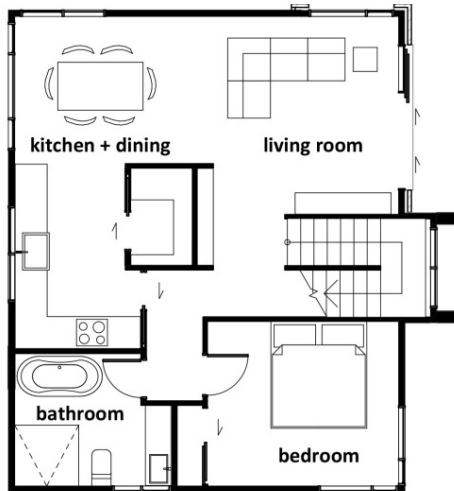


House 2 floor plans.

GETTING IT RIGHT FLOOR PLANS



Basement Floor Plan
51m²



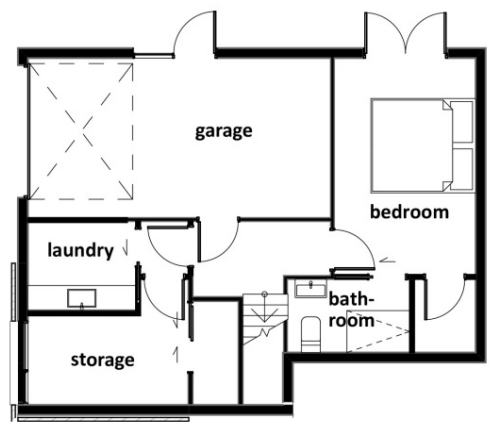
Ground Floor Plan
68m²



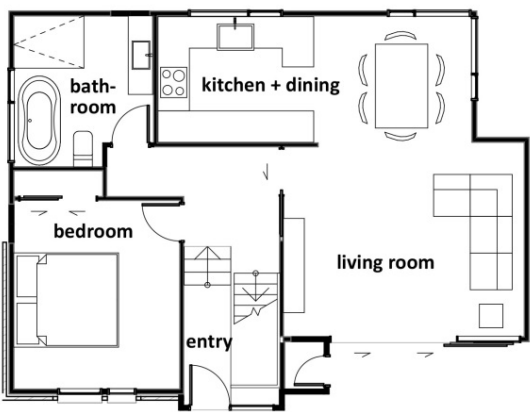
First Floor Plan
36m²
Total 155m²

House 3 floor plans.

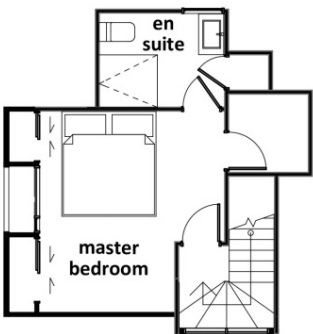
GETTING IT RIGHT FLOOR PLANS



Basement Floor Plan
59m²



Ground Floor Plan
68m²

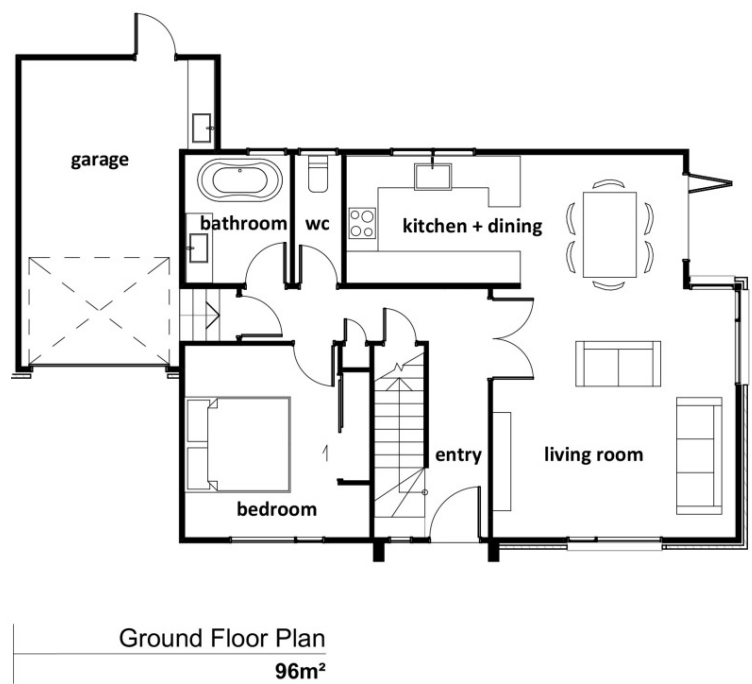


First Floor Plan
29m²

Total 156m²

House 4 floor plans.

GETTING IT RIGHT FLOOR PLANS



House 5 floor plans.



The Auckland Design Manual is a fantastic free resource that's been created to help you through your design concept and development phase. It's a practical guide that sits alongside the Unitary Plan. If the Unitary Plan is your rule book, think of the Design Manual as your how to guide - helping you to visualise what you can build in Auckland.

The Design Manual will help you to avoid expensive mistakes by giving you the information you need up front, so that you are well-informed and know how to ask the right questions.

The Design Manual can support you at the following key stages in your development process:

- Inspiration for what you could build on your site
- Understanding the rules
- Writing your brief
- Developing a design
- Hiring your design and build team

Go to aucklanddesignmanual.co.nz to find out more