



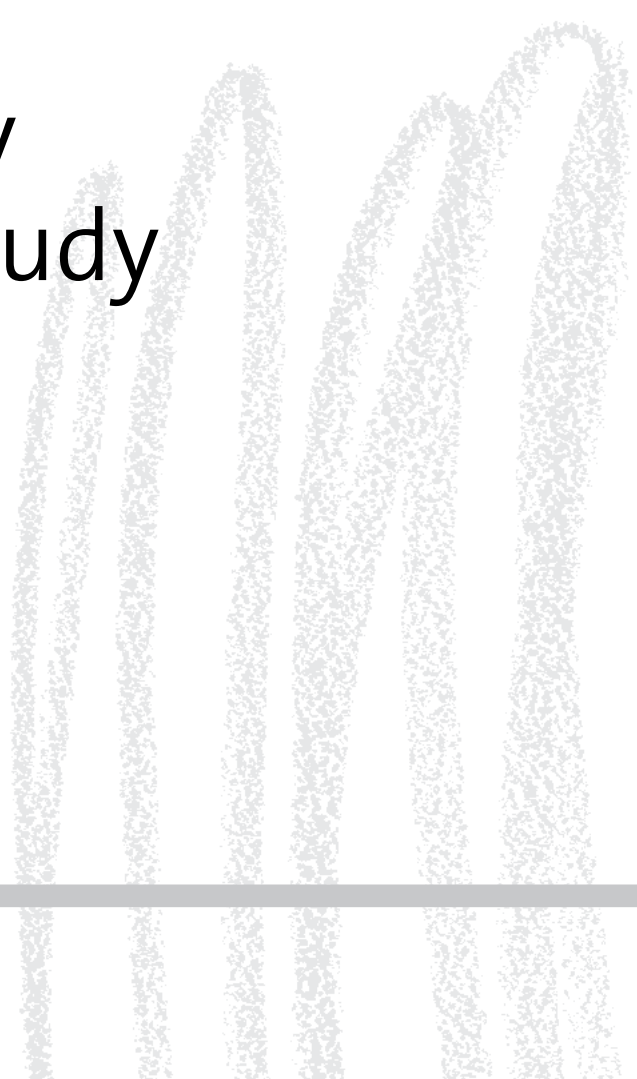
Ministry for the  
**Environment**  
*Manatū Mō Te Taiao*

New Zealand Government



# Medium-density Housing Case Study

Chester Courts, Christchurch



URBAN DESIGN PROTOCOL



**Acknowledgements**

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Hugh Nicholson, Christchurch City Council

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Medium-density Housing Case Study: The Altair, Wellington  
Medium-density Housing: Case Study Assessment Methodology

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[www.mfe.govt.nz](http://www.mfe.govt.nz)

# Contents

Introduction	1
Chester Courts, Christchurch	3
Fast facts	3
Key statistics	3
Site visit details	3
Description	4
Location	4
Site layout	5
Evaluation	6
Urban design criteria	6
Evaluation of urban design essential design qualities	10
Post-occupancy evaluation	11
Conclusion	14
Overall assessment	14
Links to resources	16

# Introduction

Medium-density housing is a major growth area in New Zealand urban development. As housing density intensifies it is important that design quality improves.

This case study is one of three medium-density housing case studies developed by the Ministry for the Environment to support the New Zealand Urban Design Protocol. It presents a successful design solution and provides an insight into how the developer and council undertook the design and consent process, and how the occupants perceive the development. Together the three case studies provide a range of examples of building typologies from different urban centres.

For these case studies medium-density means:

*“Comprehensive developments including four or more dwellings with an average density of less than 350 m<sup>2</sup> per unit. It can include [stand-alone](#) dwellings, [semi-detached \(or duplex\)](#) dwellings, [terraced](#) housing or [apartments](#) within a building of four storeys or less. These can be located on either single or aggregated sites, or as part of larger masterplanned developments”.*

The assessment methodology used to develop this series of case studies provides a robust urban design rating system for medium-density housing developments that could be used for different building typologies. The methodology can be modified and adapted to provide a tool to assess proposed and existing medium-density housing and can found on the Ministry for the Environment’s website at: [www.mfe.govt.nz/publications/urban#protocol](http://www.mfe.govt.nz/publications/urban#protocol).

**Note:** The Chester Courts medium density housing assessment was undertaken before the February 2011 earthquake and any damage following the earthquake has not been considered in this case study. Chester Courts has sustained minor damage with many residents still residing there. Neighbouring brick buildings such as the Crichton Cobbers building were severely damaged and are to be fully or partially demolished.

The other case studies in the medium-density case studies series are:

- [The Altair, Wellington](#)
- [Stonefields, Auckland](#).

# Chester Courts, Christchurch

## Fast facts

Fast facts	
Name	Chester Courts
Location	Christchurch
Full address	165 Chester Street East, Christchurch
Year completed	1995
Project type	Terraced townhouses
Location type	Urban infill
Project developer	Armagh Developments Limited (Richard and Chris Batt)
Architect	Philip Kennedy (Philip Kennedy Associates Architects)

## Key statistics

Key statistics	
Number and type of units	15 units 2 bedroom units (some converted to 3 bedroom) Unit width/depth: 5 m / 8.5 m Unit interior: 82.5 m <sup>2</sup> Private open space (courtyard only): 20.6 m <sup>2</sup>
Site size	2317 m <sup>2</sup> (approximately 46 m width x 50 m depth)
Site density	154 m <sup>2</sup> per unit 65 households per hectare
Parking (provision / type)	One single garage per unit Visitor parking available on street

## Site visit details

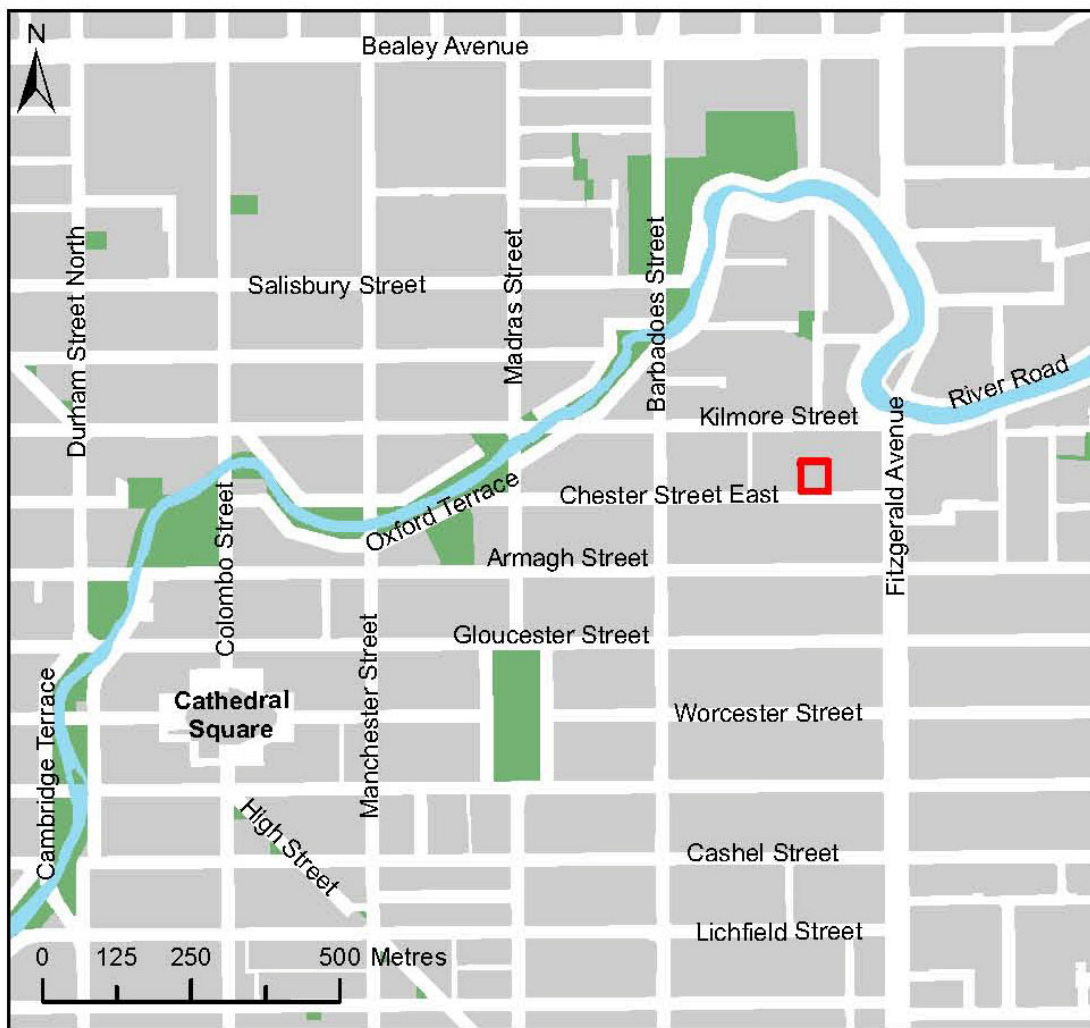
Site visit details	
Researcher	Tim Church, Boffa Miskell Limited (Christchurch)
Date and time of site visit	Thursday 27 January 2011 (afternoon)
Weather conditions	Fine with some cloud

# Description

## Location

Chester Courts is on the north side of Chester Street East on the north-eastern side of central Christchurch. It is located just inside Fitzgerald Avenue, one of Christchurch's historic 'four avenues'. Chester Street East is a quiet local street running east to west between two major arterial routes and is mainly residential. There is a commercial development and the historic Crichton Cobbers fitness centre next door on its eastern side.

**Figure 1: Location map**



Source: Boffa Miskell, Christchurch City Plan – Open Space Zoning.

Sourced from Land Information New Zealand data. Crown Copyright Reserved

## Site layout

The development is on a combination of four narrow lots. It comprises 15 units, split across two terraces that run parallel with the street. One terrace fronts the street and the other is set back deep into the site. A central courtyard surrounded by several garage blocks occupies the heart of the site; these are accessed through an archway in the front street terrace.

**Figure 2: Aerial photograph**



Source: Bing Map © 2009 Microsoft Corporation and its data suppliers.



# Evaluation

## Urban design criteria

Chester Courts was assessed against 20 urban design criteria structured around four broad topic areas. In the following tables, a score is assigned to each criterion with a short commentary that explains the relevant background information and aspects of the development.

The total score for the development is 79 out of 100, indicating that the development as a whole is well considered and successfully addresses a range of urban design qualities with a balanced response to public, neighbouring and residents' amenity.

## Site context and layout

**Figures 3 – 5: Photographs**



Chester Street East looking towards the development (left) and Crichton Cobbers (centre).



Archway entrance with letter boxes and bin stores (viewed from within the development).



North facing courtyard and rear garage court (note discrete placement of satellite dish).

**Table 4: Housing indicators: site context and layout**

Assessment criteria	Score					Total
	1	2	3	4	5	
Neighbourhood context				✓		4
Site context				✓		4
Landscape coverage			✓			3
Outdoor living space				✓		4
Car parking and access				✓		4
Service areas and utilities					✓	5
<b>Sub-total</b>						<b>24 / 30</b>

The development is less than a 10 minute walk to the central city and the Avon River corridor. Several bus routes connect the development to a range of city-wide destinations. A public indoor swimming pool and a community based fitness centre are close by.

Design features of the development, such as the archway entrance, reference an adjacent character building.



The rear private courtyards all have a northerly aspect and are sheltered from the predominant cold easterly winds by taller boundary planting. Other planting within the common areas of the site seems generous when viewed from the street, with taller Yew and Magnolia trees lining the central driveway. On closer inspection, some planting strips are narrow and the central parking courtyard is dominated by large areas of asphalt.

Overall, the development appears well maintained. Most satellite dishes and aerials were confined to internal facades and heat pump exchangers placed in discrete locations. The archway provides a convenient location to integrate letter boxes and wheelie bin storage into the building design. Generous amounts of private storage are available in most internal rooms with additional attic and garage space provided for bulkier items.

## Building form and appearance

**Figures 6 – 7: Photographs**



Street trees, building features and boundary walls help to reduce the scale of the building on Chester Street.



Rear terraced houses face onto internal courtyard and garage blocks.

**Table 5: Housing indicators: building form and appearance**

Assessment criteria	Score					Total
	1	2	3	4	5	
Horizontal modulation				✓		4
Continuous building line			✓			3
Building roofline			✓			3
Façade articulation			✓			3
Material use and quality				✓		4
<b>Sub-total</b>						<b>17 / 25</b>

The development has several long building facades and rooflines. These are broader in width than other residential developments along the street, but are narrower than the commercial units and the large fitness centre adjacent. The central archway feature and a garage block help to visually break up the building bulk. Regular windows and the addition of entrance porches and balconies, above the archway, further break up the façades. Garages of lower height and recessed behind the street façade act as ‘wings’ at either end of the front building to better tie it in with the height of neighbouring, single storey buildings. The street trees and rear boundary planting also help to disguise the scale of the buildings.

The materials used are basic, including tilt slab concrete and long-run iron, and have been simply used to good effect. Although they lack interest and depth, this has been moderated with the colour treatments and basic architectural detailing around the door and window openings.

## Street scene

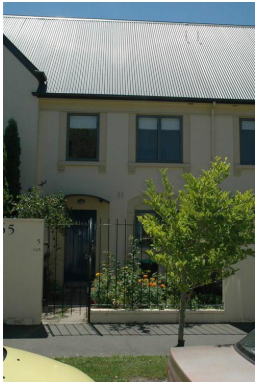
Figures 8 – 10: Photographs



A strong street edge with many window and door openings. The unit above the access way creates an attractive archway feature.



Front garden walls and visually transparent railings complement the building design.



An inviting unit entrance with opportunities to personalise the street frontage.

Table 6: Housing indicators: street scene

Assessment criteria	Score					Total
	1	2	3	4	5	
Street edge: continuity and exposure					✓	5
Building entrances					✓	5
Façade openings					✓	5
Street boundary treatment				✓		4
<b>Su-total</b>						<b>19 / 20</b>

The shallow street setback of the front façade is in keeping with other residential buildings in the area. The building’s height and width provides a strong edge to the street with no unused spaces. Numerous windows in the façade ensure the street is well overlooked and contributes to public safety. The addition of front gardens (approximately 4 m by 5 m) with railings and side walls, complementary to the building design, provides some separation of street activities and neighbours at ground level. Personalisation has occurred in the units front gardens and different coloured front doors.

The main entrance to the unit above the archway is less obvious than to the other units. The resident has effectively used pot plants to soften this harder-edged entrance way within the archway. The archway entrance into the central courtyard provides a good sense of arrival to rear units.

## Internal configurations

Figure 11: Internal sketch plan from the development



Source: Christchurch City Council Resource Consent Drawings.

**Table 7: Housing indicators: internal configurations**

Assessment Criteria	Score					Total
	1	2	3	4	5	
Internal / external relationships			✓			3
Visual privacy					✓	5
Aspect / natural ventilation			✓			3
Layout efficiency / adaptability			✓			3
Storage space					✓	5
<b>Sub-total</b>						<b>19 / 25</b>

The layout of the development maximises privacy between residents and neighbours. There is good internal separation distances between front and rear units. Garages in the central courtyard screen views between units at the ground level and allow light into upper level bedrooms. Taller planting at the rear northern boundary screens views into neighbouring properties.

The layout and orientation of units are simple and practical with not a lot of redundant spaces or awkward shapes. However, with just one bathroom upstairs and no ground level bedroom, these units may prove difficult for older residents.

The ground floor combination of lounge and courtyard facing north and kitchen and corridor/entrance facing south works well. The rooms are relatively well proportioned, but the lounge is a bit small to fit a dining table and a lounge set.

The first floor provides two double bedrooms (one south and one north facing), which allows flexibility for a wide range of occupants and occupancy types (eg, two couples flatting together). The bathroom is internalised with no exterior window and relies on mechanical ventilation and artificial lighting.

## **Evaluation of urban design essential design qualities**

### **Context**

The number of units on a site of this size responds well to its strategic location, close to the city centre. The combination of four narrow lots has allowed for an efficient use of the whole site while the design fits in with neighbouring buildings.

### **Character**

Design references were taken from adjacent character buildings in the use of the archway entrance and symmetrical layout. The development integrates well with its immediate neighbours through the provision of front gardens and lower height garage ‘wings’ either end of the larger terrace.

### **Connections**

Street-front units prioritise walking access. It is a comfortable walking distance for all residents to central city employment, shops, community facilities, bus services and open spaces.

### **Choice**

Terraced houses offer a different level of urban vitality, convenience and a low maintenance lifestyle compared with detached suburban houses. Although most of the units have two bedrooms, flexibility to convert attic spaces provide for an additional bedroom or office.

### **Creativity**

There are some thoughtful and interesting design features incorporated into the development, particularly the archway and brightly coloured front doors. A large copper plaque with the name and date of the development has been commissioned. Furthermore, residents can express their own creativity through the use of front garden spaces, particularly along the street front terrace, and this has added to the visual interest of the development.

## **Custodianship**

The development has maximised its northern aspect for the location of living areas and private courtyards, while also overlooking the street for public safety. The design is also considerate of visual privacy between units within the development and between neighbours.

## **Collaboration**

The developer engaged an architect to maximise the potential of the site and design a high quality development. Once complete, a Body Corporate was established to manage the building exteriors and common grounds over the long term, with the opportunity for unit owners to have a say in the maintenance and enhancement of the development. The developer kept in touch with the Body Corporate in the first few years after completion to ensure a smooth handover of responsibilities.

## **Post-occupancy evaluation**

### **Resident survey**

Four residents responded to the survey (27 per cent). Analysis of responses indicates that the development has a mix of ages, including a family and retired couples. All owned their units and had been living in the development more than 12 months with at least two having lived there five years or more. All owned only one car, but indicated that residents in other units had more and this was often hard to manage.

Those residents who responded thought the development was good to very good. Areas where the development rated most highly was its neighbourhood context (ie, proximity to community facilities and local street environment) and the design of their home (ie, internal layout, access to sunlight, ventilation and open space). Other notable results were the consistent good ratings for the maintenance of the common areas and the ability to manoeuvre vehicles around the development.

Parts of the development which were considered by residents to perform less well were the provision of communal facilities (eg, barbeque areas and play facilities), amount of bike parking, and noise between their home and other neighbouring units.

Interestingly, respondents in the front terraces felt they could personalise their space more and visual privacy was better than respondents in the rear terraces.

### **Council comments**

Hugh Nicholson, Christchurch City Council's Principal Advisor on Urban Design, provided a council perspective on Chester Courts.

The development complied with most City Plan provisions at the time. The length of the garage blocks along both internal side boundaries was the main consenting issue and written agreement was obtained from the neighbours to achieve this.

Hugh thought the development is '100 times better' than some developments he has seen within the intensification areas of the city. He noted that this terraced townhouse and courtyard

typology has a long association with Christchurch that dates back to early medium-density housing developments by well known local architects. The street enclosure, passive surveillance of the street and common areas, and well resolved privacy relationships are considered by him to be some of the success stories of this typology and 'make a greater contribution to the community than the more common 'sausage flats', which look over neighbours' fences instead'.

Hugh noted 'the arched gateway helps establish a sense of ownership for residents and reduces the dominance of the car from the street' and thought 'creating features like this can take you a long way without too much effort'. The size of the development was probably as 'big as it could go', without further breaks in the building form and roof line. He referred to other similar developments that use gables more regularly to clearly define each unit and create a 'real room' in the roof space. The addition of the third floor within these gables maximise the use of the site and its northern aspect.

Hugh considers Chester Courts is a good example of development that uses modern construction techniques, such as tilt slab concrete walls, yet is still able to achieve some attention to architectural detail and to highlight the window reveals.

If there was anything that could be done better, he would suggest improving the quality of the internal courtyard and its relationship with the rear terrace. He says, 'this area could be designed as a shared space for residents to hang out in and for children's play, in addition to occasional car use'. A front garden or 'transition space' between the courtyard and the rear terraces would also help to soften the edge of the courtyard.

## **Developer comments**

Developer Richard Batt was contacted and discussed the development that he constructed along with his brother Chris.

The cheaper land value and manageable development contributions in 1995 enabled the developers to achieve a higher quality housing product for the site. At the time of development this area of Christchurch was not desirable for new residents and a constraint of this development was the knowledge that the units would not sell for high prices. Council also contributed through streetscape improvements of street tree planting and traffic calming measures. The new development coupled with the streetscape improvements led to regeneration in this part of the city.

They aimed the development at a 'broad' target market of owner occupiers and investors who were 'enlightened' as to the benefits of living on a quiet street in the inner city. Most units sold off the plan and a 'good mix' of residents resulted, including those of retirement age and young families. The developer himself even lived in the complex at one stage and 'really enjoyed inner city life'.

The design was intended as a 'conventional build' of town houses, as opposed to apartments, which provided purchasers with the familiarity of downstairs living and a garden courtyard. The design also allowed flexibility to utilise the attic space for storage or convert it into an additional bedroom and en suite. Converting proved popular and several owners asked the developers to undertake the required building work.

The ‘instant appeal’ of the development from the street was a key design consideration to attract buyers and retain value in the property. He saw this going ‘hand-in-hand’ with the wider urban design benefits gained by the community.

To his knowledge the turnover of residents living in this and other similar developments is relatively low. Although they do not have direct management responsibilities once they hand over a development, they ensure a Body Corporate is set up and keep in touch with them for the first few years. Richard says ‘a strong and effective Body Corporate that enforces its rules, yet retains some flexibility, is important’. In particular, the Body Corporate rules ensure that permission is gained from all owners before work to building exteriors and common grounds is undertaken.

While he remains entirely comfortable with the outcomes of the development, he considers further design treatments (eg, more planting) to the rear terrace would be beneficial and more recent developments of theirs are now better insulated and incorporate a single satellite dish and aerial to minimise visual clutter on exteriors.



# Conclusion

## Overall assessment

Chester Courts is a medium-density development that has stood the test of time since its completion in 1995. The development introduces a terraced townhouse typology, which provides an intermediate form of development between detached suburban houses and more intensive apartment living. The difficulties often encountered with redeveloping narrow lots, typical of historical subdivision patterns in central Christchurch, have been overcome through site amalgamation by the developer. This allowed the architect to maximise the depth of the site to achieve a range of good urban design outcomes, such as locating car parking behind street-facing units. The development remains tidy, well managed and positively contributes to the look and feel of the street and central city.

Some key areas are identified for potential improvement. The development would benefit from enhancing its association with more notable buildings along the street to add further depth and richness to the design. The central courtyard could be easily retrofitted to reduce the dominance of car parking and garages. The addition of front gardens for rear units and a mix of paving materials to make the space more user-friendly and create a pleasant outlook would contribute to this. In addition, the introduction of more permeable paving would moderate stormwater runoff close to the Avon River. Within the units, a greater level of open plan arrangement on the ground floor could have achieved a lighter, more spacious feel with flexibility for different arrangements of furniture or room layout. The amount of insulation could have been increased to retain more warmth and minimise noise transfer between units.

## Lessons learnt

Some of the lessons learnt from the Chester Courts development are:

- The size and layout of these units has resulted in a mix of residents including single occupiers, couples and families.
- The amalgamation of narrow sites into one larger site has allowed the development to achieve a strong relationship with the street, integrate with neighbours, and reduce the visual dominance of car parking. The developer's investment in a well designed building on the street helped to sell the units as well as resulting in many good urban design outcomes, such as street enclosure, public safety, and urban vitality.
- The cheap land value and manageable development contributions at that time enabled the developers to achieve a higher quality housing product for the site.
- The design of the front gardens allows residents direct access to units off the street and allows them to personalise the appearance of their unit.
- The main design focus has been on the archway and this serves a number of purposes, including referencing neighbouring character buildings, creating a gateway into the development, breaking up the long street facade, providing a mix of unit types, and accommodating utilities and service areas.

- The flexibility provided within the building design allows residents to increase their storage space or enlarge units using the attic space. This has enabled owners to meet a variety of housing or workplace needs.

**Note:** This case study was completed before the 22 February 2011 earthquake and any damage following this earthquake has not been considered in this report.

# Links to resources

- City Council Living 3 Living 4 Plan Change:  
<http://www.ccc.govt.nz/thecouncil/policiesreportsstrategies/districtplanning/cityplan/proposedplanchanges/proposedchange53.aspx>
- Urban Design Protocol:  
<http://www.mfe.govt.nz/publications/urban/design-protocol-mar05/index.html>
- Developer Richard Batt: [www.juliancourts.co.nz](http://www.juliancourts.co.nz)