



Living in the heart of the city: the future of living in the  
Christchurch city centre.

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Housing in central Christchurch following the Canterbury earthquake sequence of 2010 and 2011 has been a contentious issue in the rebuild and regeneration phases. A number of development agencies following the earthquakes have undertaken residential development projects, which predominantly consist of 1 and 2-bedroom apartments (Fletcher Living, 2018).

This research explores the feasibility and desirability for families to live in central Christchurch. Past literature has explored the po

living in the central city (CCC, 2017), a target set by the Crown and reinforced by Christchurch mayor Lianne Dalziel. The Christchurch Central Recovery Plan uses international standards for a thriving city and requires 30% of the population to live centrally (CCC, 2017) equating to approximately 20,000 residents living within the central city, defined as the four avenues.

The shortage of housing in Christchurch following the earthquakes has been addressed with many housing developments quickly being completed. In addition to this, the potential of the central city in Christchurch to be a vibrant urban neighbourhood has been recognised. However, minimal thought and research has been undertaken to explore who wants to live in the central city, how to attract and retain residents in the central city, and how to create and design a liveable urban environment for these residents.

This report explores the feasibility and desirability for residents, with a focus on families and young children, to reside in the central city. The first section of this report is a literature review which explores the definitions and meanings of liveability, and what constitutes an urban environment which is liveable. Global case studies and literature have been analysed to see how other countries have successfully designed and created towns, neighbourhoods, and cities for young children and families. An online survey was made available to Christchurch residents which provided an understanding of what community expectations for amenities and services, housing typology, an urban design would be feasible in attracting residents to the central city. In the final section of the report, recommendations are made outlining what is required for residential family living in the central city, and whether it is feasible or not.



and wellbeing

green space and green infrastructure are evident throughout the literature (Ulrich, 1981 cited in Chiesura, 2004; Reeve et al, 2015; ARUP, 2017). It has been argued that urban green space and green infrastructure encourages the use of outdoor spaces (Kabisch et al, 2014), which in turn increases levels of social integration and interaction (Coley, Sullivan and Kuo, 1997; Kabisch et al, 2014; Belfast Healthy Cities, 2015). It has also been found that urban

infrastructure in urban environments, and in particular in the rebuild for Christchurch. The idea that cities should become child friendly has been a focus of much research and concludes that if a city is child friendly, then it is a city for all to use. Current city planning and development is focused on business and work, which have growing negative impacts on the environment. Therefore, designing and planning a child friendly city will improve the city in many aspects (Corsi, 2002).

In conclusion, previous research has made a clear connection between liveability, urban design into public places and parks, and the involvement of children and their needs in city families and children living in the central city, which this research report will cover.

For the primary aspect of our research project, we undertook a mixed-methods approach as this gave us a variety of insights and understandings of the current, and future potential of central city living. We conducted face-to-face surveys in the BNZ Centre of Christchurch to enable us to talk to individuals, and ask a number of questions about central city living. However, we only received three responses from the face-to-face surveys, which reflects the population we targeted with our surveys. We were wanting to survey people currently using the central city, to understand their current residential situation and why, and what they would require to consider moving to the central city. However, we were in a predominantly business area during business hours, so many people were too busy to stop and talk to us. We then placed the surveys online on four community Facebook pages to enhance the number of responses, which was successful.

Our second key aspect of our methodology was carrying out GIS mapping analysis. To establish a baseline of what was currently in the central city, in terms of housing, facilities and amenities, we created a current situational GIS map, which also demonstrated facilities within walking distance from housing. Walking distance was defined as a 800m radius from the residential developments as past studies concerning walking distance from residential housing used 804m (McCormack, Cerin, Leslie, Toit, Owen, 2008) and 875m (Lopez, Farina, Gonzalez, Cosic, Colmenero, Casaubon, Ortega, Chillon, 2017) as walking distance parameters for children. Results from our literature review and survey responses highlighted the importance of having public green space within walking distance from residential living, however our current GIS map showed that this was not currently present in the central city. We therefore created another GIS map which, based upon our literature review and survey responses, demonstrates an ideal central city living environment.





The last method for this research is GIS mapping. GIS (Geographic Information System) is a system that is designed to capture, store, manipulate, analyse and present all types of geographical data. In this case, GIS mapping was used in order to find which area in the central city has the most suitable access to the facilities for families. Most of the mapping were used in a program called ArcGIS. This is where all the tools, extensions and data gathering are provided to do GIS analysis (ESRI & Redlands, 2004). Sometimes, ArcGIS can be problematic in its performance, especially if there is too much data gathered or, data that are not recognisable to perform an analysis. It is important that the geodatabases are filed correctly with an appropriate folder location. Multiple methods were used to analyse, mainly using the network analysis to observe whether how many facilities can be accessed by families and other people. By linking this in the survey, urban parks were used as the main facility points to analyse because many people that were surveyed considered parks as the most important for residential living in the central city. Also, by linking GIS with interviewing, many Christchurch real estate agents considered that the central city is within the four avenues; Deans Avenue, F 90eW\*nx.n11.04 Tfn3 d A9-4( )-4(l)6(tia)-4(F 95(nk)-..000008u7.1a)0Qc



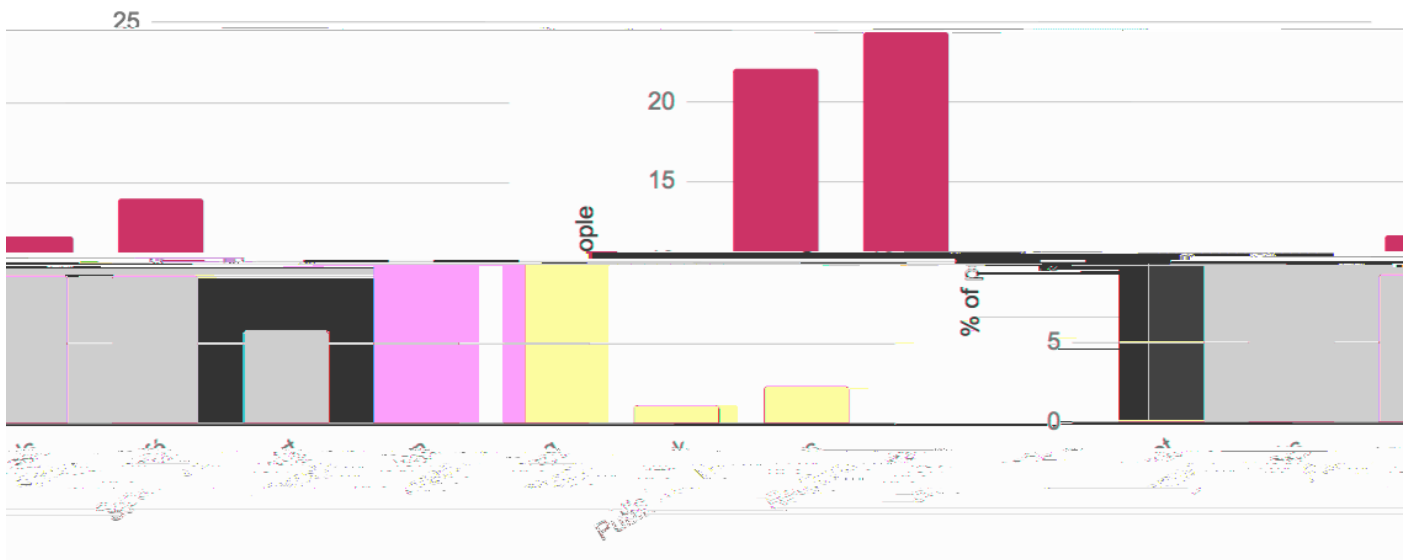


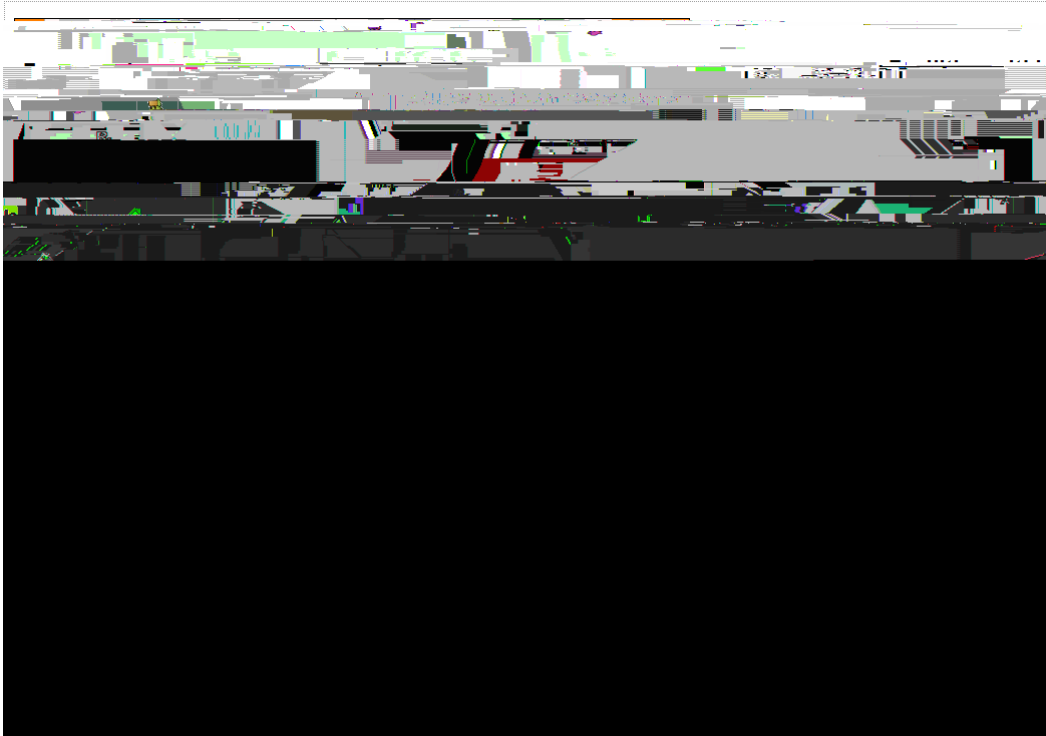
Figure 3: Amenities respondents want within walking distance of their home.

Respondents commented that parks (24%) and supermarkets (22%) were required within walking distance, however they were willing to travel further afield for work and the doctors (Figure 3).



Respondents also showed they would want to see recreational activities within biking distance of their living area as well as shops and parks being other amenities being of high

values. Compared to walking distance though work and school showed a rise in percentage seeing being able to bike to everyday amenities is important.



*Figure 5: Facilities within 800m of Atlas Quarter.*



walking distance (another key theme discussed later on in this report). Our interview with the

between neighbours and more space for families. One respondent identified the need for three-bedroom homes, rather than one or two-bedroom places, as these are more practical and suited to families. The Atlas Quarter development consists of 95 one and two-bedroom apartments and 14 townhouses, therefore making it a less attractive family residence due to







The aim of the research was to establish if central city living for families was feasible, allowing the city centre to be a diverse growing population. The main findings through the use of variety of methods backed up by literature showed the three areas of concern were schools, accessibility around green space and affordability creating a general perception that with change in these areas the city would be feasible and attractive for families to live there. The importance of change in mindsets another aspect to consider, from the locals, councils, house





Riggio, E. (2002). Child friendly cities: Good governance in the best interests of the child. *Environment and Urbanization*, 14(2), 45-58. doi:10.1177/095624780201400204

Steinberg, S. L., & Steinberg, S. J. (2015). *GIS research methods: incorporating spatial perspectives*. Esri Press.

Witten, K., Pearce, J., & Day, P. (2011). Neighbourhood Destination Accessibility Index: a GIS tool for measuring infrastructure support for neighbourhood physical activity. *Environment and planning A*, 43(1), 205-223.

Zhou, X. Rana, M. (2012). Social benefits of urban green space: A conceptual framework of valuation and accessibility measurements. *Management of Environmental Quality: An International Journal*, 23(2), 173-189. Doi: 10.1108/14777831211204921