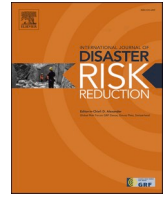




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Unintended consequences of the earthquake-prone building legislation: An evaluation of two city centre regeneration strategies in New Zealand's provincial areas

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ABSTRACT

This paper describes two city centre regeneration strategies by reviewing existing literature and carrying out case study analysis to examine the approaches to City Centre Regeneration (CCR) pursued by two provincial areas in New Zealand.

Findings from the exploratory case study analysis of the two examined cities revealed different approaches to CCR: (i) Invercargill – ‘demolition for redevelopment’; and (ii) Whanganui – ‘heritage preservation for regeneration’. Whereas the earthquake-prone building legislation has created logical arguments that have put earthquake-prone historical buildings in the spotlight for demolition in areas with weaker attachment to place, the same legislation has been used as a catalyst to provide opportunities for the seismic upgrade and preservation of the earthquake-prone historical buildings in areas with a stronger attachment to place.

These discoveries imply that the actions (or inactions) of councils shape the way their communities perceive the value of the historical buildings in their city centres. Also, the decreasing retention and increasing demolitions trends of heritage buildings in New Zealand's provincial city centres as a result of the earthquake-prone building legislation, have now triggered discussions that have contributed to the recent regulatory and financial incentives initiated by the central government to address the unintended consequences of the legislation on the vitality of provincial areas.

1. Introduction

The overall identity of an urban area is typically defined by its city centre. Most city centres transfer deep evident fingerprints and narratives of the social, economic, and cultural development of urban areas through their built heritage form [1]. While historical buildings in the city centres of many New Zealand's provincial areas are characterised by underutilised earthquake-prone historical buildings, the quest to regenerate previously vibrant city centres, currently experiencing a period of protracted decline, has gained momentum. City centres embody the overall heritage of a place due to the significant collection of historical buildings they possess [2]. Also, historic city centres present opportunities and important resources for promoting economic and socio-cultural sustainability, built heritage preservation, and regulatory compliance through the reuse of historical buildings [3].

Despite the significance of city centres, literature identifies how technological advances, popularity of private vehicles, and societal and market forces Post-World War II, induced economic decline in the inner cores of provincial cities due to mass emigration of businesses, workers, and consumers to bigger cities [1,4–10]. Also, provincial city centres are typically dominated by low-rise historical buildings and are usually observed to lack the ascendancy of corporate presence about both economic influence and modern structures when compared to bigger cities [6].

In response to decades of city centre decline in provincial centres, a common challenge is the effective identification of viable uses and financial support for the redevelopment of underutilised or vacant spaces [11]. Other causal factors of city centre decline in provincial areas are linked to: obsolescence factors [12], impacts of globalisation on local industries [13], de-industrialisation [14], building conditions,

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socio-economic and building regulations [2].

While strong demographic and economic forces including economic agglomeration and aggregation, impacts of global regionalism and globalisation, and ageing population may contribute towards shaping the city centres of New Zealand's provincial areas into stagnation or decline within the next 30 years [15], a focus on how to address stagnation or decline through locally-mobilised urban regeneration pathways is essential for the revitalisation of provincial areas. These provincial regions are now struggling to regenerate their central areas with a significant amount of derelict heritage buildings, most of which were built during the recovery period following the 'great depression' that struck New Zealand in the early 20th century [16].

A high proportion of historical buildings in New Zealand's provincial city centres have heritage significance and serve as cornerstones to the areas. These buildings usually reflect the least levels of structural safety during earthquakes. Threats of natural hazards, especially the recent sequence of the 2010/2011 Canterbury earthquakes revealed the seismic vulnerability of many historical buildings [17,18]. In order to promote the resilience of seismically vulnerable buildings to future earthquakes, a new regulatory mechanism mandated building owners to strengthen their earthquake-prone buildings to the minimum required New Building Standard (%NBS) rating within a given timeframe otherwise the buildings will be required to be demolished [19]. Due to the uncertain financial feasibility of retrofitting earthquake-prone buildings, some owners may take the 'wait and see' approach to their historical buildings waiting for the specified legislative timeframes to elapse, essentially facilitating 'demolition by neglect' [3,20]. This decision would have implications for the wider community because whatever retrofitting decisions the building owners make would have downstream impacts on the socio-economic environment of the surrounding area. As an unintended consequence of the earthquake-prone building legislation, provincial town centres are plagued with underutilised historical buildings [2], which is a major driving force for the local authorities of such areas to develop CCR strategies.

The newly enforced Building (Earthquake-prone Buildings) Amendment Act 2016, henceforth (BEPBAA), mandates local councils to ensure that owners of earthquake-prone buildings in territories comply with the updated seismic safety requirements (MBIE). Many building owners within those areas, especially the ones with buildings on the priority thoroughfares, are usually slow to engage with councils to financially commit to the compliance cost of retrofitting their buildings, partly due to uncertainty relating to return on investments [21]. Since the socio-economic activities that happen in provincial city centres greatly influence the sustainability of the areas, local councils are implementing city centre regeneration (CCR) initiatives to create dynamic city centres that are vibrant and attractive places for people to do business, shop and be entertained.

"City Centre Regeneration" (CCR) involves integrated and widespread visions and actions taken to resolve urban problems through the planning and establishment of long-lasting economic, social, physical and environmental improvements in urban areas that have been subjected to prolonged decline [22–24]. According to earlier studies, regeneration of the inner cores of shrinking cities has been very significant in stimulating total city centre vibrancy, mainly because city centres usually constitute the backbone of historic quarters [23,25]. While many local governments have launched and implemented various CCR strategies over the years, the inner cores of some of New Zealand's provincial areas may still be observed to be at the verge of decline [2, 26].

This study therefore presents a review of existing literature and case study analysis to examine the approaches to CCR pursued by two provincial areas in New Zealand. To deliberate on local policies that can improve their CCR process through the retention of underutilised historical buildings, the discussion draws together analysis from the case study areas in comparison with international examples. Recommendations on appropriate programs and effective responses are provided as a

guide for other territorial authorities that are pursuing CCR through the involvement of historical buildings.

2. Existing city centre regeneration (CCR) models

Following years of relative neglect and decline of city centres, triggered by vast decentralisation in the mid-20th century [27], and the loss of main industries and relocation of a big proportion of the local population to bigger cities, affected local government authorities are pursuing effective ways to attract investments back to city centres [28,29]. This implies that although cities around the world will have to develop their own strategic approach towards city centre regeneration, there are common grounds and lessons from the past [30]. Different strategies have been implemented to regenerate declining city centres [6,31–33]. Most successful city centre regeneration attempts (particularly for smaller cities) have been attributed to either the Business Improvement Districts approach [34–36], the Main Street programmes [37–39], or the Town Centre Management approach [40–43].

2.1. Business improvement district (BID) model

The BID model for city centre regeneration is a bottom-up approach involving business and property owners within the boundaries of a specified city centre, proactively imposing a compulsory extra levy (or tax) on themselves every year in order to collectively fund additional public improvements for the enhancement of their commercial precincts [28,44–46]. The BID model originated in North America and is now widely applied in other parts of the world, including Europe, Africa, Asia, and Australia [46]. In the face of some challenges such as inconsistent nomenclature and absence of systematic adoption patterns across the US, the development of the BID scheme as a regeneration strategy has been linked to several political and socio-economic conditions such as: city centre decline following earthquake and fire disasters; urban sprawl; proliferation of new forms of retail and built environments; declining tax base; and the embracing of public-private partnership for urban regeneration [35,47–50]. Similarly, these explanations have also been used to describe the propagation of the BID schemes to regenerate declining city centres in the UK [35], Canada [51], and other countries [46], bearing in mind that the causal factors of city centre decline are often location-specific [44].

2.2. Main street approach

The main street approach is used widely in the United States and most parts of Europe and Asia, to regenerate shrinking city centres and retail districts [28]. The main street programme was developed by the National Trust for Historic Preservation in the late 1970s to assess the local opportunities of smaller cities in the United States with a significant proportion of historical buildings, and address city centre shrinkage based on a four-point agenda incorporating design, organisation, promotion, and economic restructuring [39]. The focus of the main street approach is on the development of wide-ranging city centre regeneration strategies to re-activate economic development within a historic preservation context [52]. The main street approach has now become a very popular CCR approach adopted by several cities around the world with important historic precincts, to find new economically viable alternatives for their historic resources within the city centres [29].

2.3. Town centre management (TCM) approach

The Town centre management (TCM) approach is a widely used city centre regeneration model in Europe, particularly in the UK, to boost local economies [42]. A majority of TCM programmes in the UK apply the broad areas of the "4 As" framework (i.e., attractions, accessibility, action, and amenities) to enhance the viability and vitality of shrinking city centres [53]. These TCM schemes often emphasise the importance of

public-private partnerships in directing both public and private funds meant for the commercial regeneration of declining city centres [28]. The application of TCM programmes for city centre regeneration in the UK have been identified to provide several benefits including enhanced property values; creation of more friendly, cleaner and secure city centre spaces; stimulation of new retail and recreation activities in the city centres; and the strengthening of both corporate and tourism markets in the city centre [54].

3. City centre regeneration (CCR) strategies

There have been ongoing debates on how best to improve the vitality of provincial city centres [6,11,53], primarily through balancing the opportunities that the reuse of their historical buildings offer in promoting economic sustainability, built heritage preservation, socio-cultural and regulatory aspects [3]. An assessment of several major pathways to CCR that are commonly adopted include [11,55]:

3.1. Pedestrian-friendly city centres

Pedestrianisation is one of the most popular strategies employed to improve the traffic conditions, environmental quality, and socioeconomic status of city centres, hence, making them more pedestrian-friendly [55]. The volume of pedestrian traffic in a city centre is usually used as a measurement of its positive image and vitality, rather than economic indicators alone. Sadly, even attractive buildings in the city centre may appear dead if they do not generate public interest and the need to visit them. To avoid such 'ghost centres', some cities in the United States have successfully used pedestrian malls or skywalk systems to attract more people to the city centres, which improved the human-scale facilities and open space quality of the city centres [56,57]. This approach tends to be more successful in larger urban centres since provincial cities are inherently smaller and more pedestrian-friendly (fewer vehicles, narrow streets) and pedestrian malls may not bring additional foot traffic [55].

3.2. City centre enclosed shopping malls

Over the past four decades, enclosed shopping malls have become a widespread CCR strategy used in the United States to manage the steady reduction of city centre retail sales, blamed on the vast popularity of suburban malls [55]. There have been some identified positive spill-over benefits through promoting shoppers' visitations to neighbouring businesses such as restaurants and cafes, hence, increasing a sense of community pride [58]. However, the city centre enclosed shopping malls have been criticised [59].

As a significant criticism, the 'fortress effect' is a pedestrian movement pattern whereby a city centre enclosed shopping mall would most likely eventually become an island of segregated activities from the remaining parts of the city centre [59]. Shoppers would tend to prefer the design, architectural and self-sufficient and weather-controlled amenities of enclosed shopping malls and ignore the surrounding businesses in the central areas [60]. In order to address this fortress effect on surrounding city centre businesses to promote city centre regeneration, the design of the enclosed shopping mall should be done in such a way that it would integrate other surrounding businesses on the main street [11].

The 'distance-decay effect' is another pedestrian movement pattern that suggests that the overflow benefits from the city centre enclosed shopping mall may be unevenly distributed across other businesses located in more than one or two blocks from the enclosed mall [61]. These further surrounding businesses may suffer lesser activity from the enclosed mall's magnetic force partly because the malls have as retail focal points by pedestrians [59]. Furthermore, city centre enclosed shopping malls could greatly promote a 'commercial gentrification effect', whereby national chain stores that sell speciality substances tend

to suppress local independent businesses from offering their goods and services to potential shoppers [62]. Apart from the three effects above, which are identified as criticisms of the city centre enclosed shopping malls, they have also been criticised due to aesthetic reasons [6].

3.3. Heritage preservation

Built heritage preservation is a city centre regeneration strategy that takes advantage of the abundance of underutilised historical buildings in city centres with unique aesthetic characteristics, to redevelop them [2,3,26]. The adaptive reuse approach has been widely applied in the redevelopment of city centre historical buildings through changing their existing uses to viable new ones [26,143]. Underutilised city centre historical buildings and structures in larger cities have been successfully redeveloped to special historical districts or festival market places in the United States [55]. The festival markets in redeveloped city centre historical buildings are usually characterised by Ref. [55]: (i) a rare blend of local speciality shops; (ii) targeted potential users such as younger adults, erudite, and market affluent people; (iii) strong prominence of food and entertainment; (iv) absence of chain department stores; (v) strong emphasis on architectural or historical themes. Hence, these features differentiate festival markets from ordinary shopping malls.

Some eminent international successful cases of city centre regeneration through the reuse of historical buildings as festival markets to preserve built heritage in the United States include the Ghirardelli Square, San Francisco; the Faneuil Hall, Boston; and the Union Station, St. Louis [55]. Nevertheless, some failures have also been noted [63]. Apart from festival markets, most larger cities in the United States and New Zealand have created city centre historic precincts to regenerate the city centres. Some successful cases of larger cities in the United States that created historic precincts in their city centres to regenerate the areas include: Laclede's Landing, St. Louis; Shockoe Slip, Virginia; Lowertown, St. Paul; and Oldtown, Sacramento [55]. Main Street programmes have also been proven to stimulate city centre regeneration in provincial cities in the United States such as Hot Springs, South Dakota; Madison, Indiana; and Galesburg, Illinois [39,64]. The success of these Main Street programmes was attributed to the massive support rendered to the smaller cities by the National Trust for Historic Preservation, based on the four-point agenda of the Main Street strategy – organisation, promotion, design, and economic restructuring [39].

In New Zealand, Auckland city council adopted the historic precinct approach for successful regeneration of the Britomart transport centre, which is now Auckland's central transportation hub [65]. Also, Dunedin is an example of a major provincial city in New Zealand that has successfully used the Warehouse precinct revitalisation strategy to regenerate its city centre historic area [66].

3.4. Waterfront development

The older urban settlements usually enjoy proximity to water bodies, which probably was an important reason for their early establishment in the first place. The success of the waterfront development as a CCR strategy is often connected to the unique amenity offered to the public by naturally attracting people to the sight, feel, and sound of water [67]. In the past, public access to waterfronts was very rare as people were often cut-off by highways, railways and factories. Many historic cities in the United States and Europe in the 1970s [68], and New Zealand in the early 2000s [69], only started reconsidering the opportunities that city centre waterfronts offered, when they were experiencing a significant decline in their land values and economics of their riverfronts.

A mix of different land uses (e.g., fishing, manufacturing, open space, housing, hospitality/retail, recreation and tourism) is often incompatible with each other, hence, creating a major problem for waterfront development plans. To determine waterfront priorities for different uses, they have been classified into water-dependent; water-related; and water-enhanced uses [70]. Whereas the water-dependent uses including

ship-building, ferry terminals and marinas entirely depend on waterfronts to thrive, water-related and water-enhanced uses such as restaurants, resorts, seafood processing facilities, aquariums, hotels and apartment buildings, are usually enhanced by the location of the waterfront amenities but can also thrive in other settings.

The preferred use of city centre waterfront developments either as public or private spaces is another big issue that city centre regeneration decision-makers may face. The use of waterfront developments as public spaces has been identified to be more advantageous, especially by attracting many people to waterfront events (such as festival markets) and increasing the city's tax revenues [55]. On the other hand, private waterfront developments such as restaurants, hotels, and housing, usually intensify the amount of privatised free open spaces available for public use, hence restricting public access to waterfront amenities [71]. Since often city centres lack adequate open spaces mostly due to their unique grid-system street layouts, it would be a sensible city centre regeneration strategy to develop waterfront amenities for public use. Examples of cities that have successfully developed attractive waterfront public spaces to revitalize their city centres include: (i) the United States – Rochester in New York, Portland in Oregon, St. Louis, and Louisville in Milwaukee [55]; (ii) New Zealand – Auckland city's Viaduct waterfront redevelopment project which started in the early 2000's [69], and the Wynyard Quarter regeneration by Panuku Development which started in 2011 [72]; (iii) UK – Chatham in Kent [73]; (iv) Canada – Toronto [74]; (v) Singapore – Clarke Quay [75]; and South Africa – Cape town [76].

3.5. Office space development

The office space development strategy through the transformation of city centres into administrative, financial, and professional services centres, is typically the focus of most corporate-centre approaches to city centre regeneration [6]. The corporate-centre approach allows different business units to come under one corporate umbrella [77], and can impact the performance of multi-business firms through the main economic activities, additional value activities, and shared services of the businesses [78]. This city centre regeneration strategy usually targets educated professionals, tourists, and convention attendees, who may be attracted to the central part of a city with a lot of office spaces and corporate services, and are likely to use surrounding business centres, hotels, restaurants, and cafes located in the city centres [11].

However, it would be difficult to attract many corporate offices to provincial city centres due to their reduced commercial vitality. Also, a boom in office space development using the corporate-centre strategy in the United States in the 1960s led to the construction of too many city centre offices, which had several consequences [79]. For example, the oversupply of pre-existing office spaces in the 1980s made it more challenging to get tenants, resulting in a rise in the number of underutilised and devalued office spaces, especially in older inner-city buildings [55]. While this reduction in the value of city centre office spaces from underutilised buildings led to a corresponding reduction in the tax base of cities, the capabilities of other activities in city centres were diminished, hence, greatly reducing the popularity of office space developments for CCR.

3.6. Special activity-based facilities

Significant public infrastructure is often located in city centres. Facilities such as stadiums, showgrounds, convention centres, are often located in such a way that their contribution to the regeneration of a city centre would generate spillover benefits for nearby businesses such as restaurants, hotels, cafés, retail stores, etc. Subsequently, these spillover benefits on surrounding businesses would contribute to livening-up city centre main streets during weekday evenings and weekends; hence, regenerating blighted central areas [70].

Activity-based facilities could vary in their schedule patterns. For

instance, while convention centres and showgrounds may be able to schedule events throughout the year, stadiums may not. Nevertheless, a common issue with activity-based facilities is related to public cost, which in most cases are insufficient for their maintenance [55]. Also, when activity-based generators are not in use, they could become dead spaces. Due to their specific functions and sizes, it could be challenging to integrate the architectural design of special activity-based facilities with other existing buildings in central areas [80].

3.7. Transportation improvement

Sometimes inadequate transportation infrastructure can discourage the public from visiting the city centre. For example, inadequate parking spaces, travel time/distance, safety concerns, and traffic congestion [11]. Whereas safety concerns and traffic congestion are less prevalent in the central areas of provincial cities than in larger ones, parking could be an issue for any size of cities. Moreover, public transport improvement has a significant role to play in the regeneration of provincial city centres where they are either rare or non-existent. As a result, people tend to wait for longer durations to be able to commute to city centres, which could be a major deterring factor for the use of public transport in smaller cities [81].

3.8. Housing and socio-cultural attractions

Various cities in the United States and Europe have invested in housing and socio-cultural attractions as a way of attracting more people into city centres to regenerate the areas [11]. The adaptive reuse of inner-city historical buildings such as mills and warehouses to hotels and residential units, the new construction of multi-storey and low-rise housing apartments have also been found to contribute significantly towards enhancing the vitality of city centres after standard business hours [82]. Also, when special activity-based facilities are built in a city centre, there is usually substantial investment in the construction of new hotels, in anticipation to accommodate tourists, sports fans, visitors and conventioners [55]. Other forms of socio-cultural attractions, such as street art on the walls of city centre historical buildings [83], restoration of old movie theatres and opera houses, libraries, and museums, may also help to draw more locals and visitors to the city centres.

4. Prevalence of underutilised historical buildings in New Zealand's provincial city centres

City centres constitute a substantial part of a city's image and identity, sense of community, economic development appeal, and tax base from property rates, and also, embody the overall heritage of a place due to the significant collection of historical buildings they possess [1]. Many historical buildings in New Zealand's provincial city centres may be underutilised for a variety of reasons, including building conditions, socio-economic, and regulatory factors [2]. With a focus on regulatory aspects, some owners may be willing to comply with the BEPBAA but are not be able to afford the cost of the seismic upgrade. On the other hand, some owners may be uncertain about the cost implications of seismic strengthening in comparison with the return on investment on their historical buildings [26]. While a majority of these buildings may not qualify for national heritage incentives, it is also difficult for owners to secure bank loans and insurance, due to their vulnerability to earthquakes [17].

However, in situations where it becomes hard to attract tenants to these buildings due to seismic safety concerns for users, the buildings may start experiencing a drop in their value [2]. A more extended period of vacancy could lead to a reduction in the value of the buildings. In some instances, building owners may go as far as reducing their rents, as a desperate measure to keep their existing tenants. Alternatively, owners may opt to transfer the burden of strengthening and responsibility of maintaining historical buildings to other investors, especially when the

taxes on the properties begin to outweigh their value [84]. At this stage, it becomes difficult to find willing buyers.

Furthermore, owners may apply for building consents from local councils to demolish their underutilised earthquake-prone historical buildings and rebuild, or decide to defer maintenance on their buildings when building consent applications for demolitions are unsuccessful [2]. Hence, a scenario of where out-of-town property owners make poor maintenance decisions about their assets [85], and neglected historical buildings would emerge in the affected city centres. Consequently, there would be significant adverse effects on surrounding property values, especially from larger and more visible underutilised historical buildings also referred to as “White elephants” [86] in the main streets of New Zealand’s provincial city centres.

5. Significance of ‘attachment to place’ towards city centre regeneration (CCR)

Research on the theories and contribution of ‘attachment to place’

regarding urban regeneration projects and its inferences for planning has increased within the last two decades. ‘Attachment to place’ refers to the emotional bond formed by people with their communities [87–91]. The influence of ‘attachment to place’ on the behaviours and motivations of communities in urban development and planning processes, have been linked to some socio-cultural actors such as: length of residence and familiarity [92,93], sense of rootedness and bondedness [94], sense of community [95,96], and value of shared identity [97] within a community. These actors are often intertwined to illustrate the significance of ‘attachment to place’ regarding the commitment and participation of community members during city centre regeneration pursuits.

Communities with residents that have stronger levels of ‘attachment to place’ often contribute more efforts to urban regeneration project implementations [90], because such residents usually have higher motivation to stay, preserve, protect and make improvements to their shared community assets [98,99]. However, some factors such as threats from disasters, derelict built assets, unrealistic health and safety requirements, and low quality of life of a community may disrupt the level



Fig. 1. Map of New Zealand showing the case study areas. Source [101].

of residents' commitment towards having a stronger 'attachment to place' [98].

While CCR encompasses a range of community actions and policies guided by a combination of strategies, theories, frameworks, and practice constructs, the connectedness of people to a place could either be reinforced or weakened, through their development capacity of the opportunities of the place, usually resulting in a higher level of social capital [99]. Hence, the ability to develop and make use of this social capital to stimulate potential CCR outcomes through constructive and cooperative activities remains the chief component for the sustainable regeneration of urban areas [98]. The significance of 'attachment to place' to CCR, therefore, presents an opportunity to discover ideas and influences regarding shared values and experiences towards CCR.

6. Case studies

The case study method [100] has been adopted for this research to describe the city centre regeneration (CCR) strategies pursued by two provincial areas (Whanganui and Invercargill) in New Zealand, and examine their approach to CCR. These two provincial areas (see Fig. 1) have been chosen because of their ongoing socio-economic stagnation or decline in their city centres [4]. Whanganui and Invercargill were among the first five earliest and most prominent cities in New Zealand [4,102], and are large urban areas in the medium seismic hazard zone of New Zealand [103,104].

The two case studies – Invercargill and Whanganui, were both established in the early-1900's and were used for early settlement in New Zealand. With their strategic locations, both towns had plans for significant population growth and expansion and invested heavily in the building stock and infrastructure. Following the era of the great depression [16], World War II, first and second oil crises, and the floating of New Zealand's dollar in 1985 [105], the population and economic growth they had anticipated did not realise. This was partly because there was underperformance in their main industries (i.e., farming, mining, housing and manufacturing) in terms of income status and employment [106]. Also, some upshots of the 2011/2012 Canterbury earthquakes exposed how New Zealand's provincial areas differ from the bigger cities in the aspects of risks, socio-economic physiognomies, expertise, challenges, and opportunities, regarding urban resilience [107]. Loss of employment and vulnerabilities of building stock exposed by the Canterbury earthquakes resulted in a mass movement of businesses, workers, and consumers to bigger cities [1,7–9]. Auckland and Wellington being the economic and government hubs of New Zealand are two big cities that have provided better economic opportunities and ascendancy of corporate presence, and hence, have attracted the vibrant younger populations from these provincial areas over the years [4].

6.1. The city of Whanganui

Whanganui is a major provincial city in the Manawatu-Whanganui region, historically used as an early site for pre-European Māori settlement in New Zealand, and was among the earliest largest towns to become a city in New Zealand during the mid-19th century [108]. Whanganui is currently one of New Zealand's 13 large urban areas [109]. The city is on the west coast of New Zealand's North Island and is nicknamed "the river city" because of its north-western location around the entrance of the Whanganui river, which is the third-longest navigable watercourse in New Zealand. From New Zealand's urban-rural subnational population estimates, the city has about 39,400 inhabitants [104]. The city's local economy thrived under its agricultural sector, particularly from dairy and meat production. Whanganui first started experiencing a change in its socio-economic prosperities in the 1970s, which has been attributed to its failing growth prospects, and shortage of skilled workforce over the years [110]. The city has also experienced a significant rise in its ageing population within the last two

decades [111].

Whanganui's city centre spatially features a semi-complex system of narrow roads and courtyards that accommodates its historical urban fabric, with buildings that are typically between three to four storeys high. Two squares (i.e., Trafalgar and Majestic squares) and one main street (i.e., Victoria avenue) represent the commercial inner-core of Whanganui. Victoria Avenue is the main retail area of Whanganui's city centre but has been observed to be losing population due to mass emigration of businesses along with their employees to other peripheral areas. Currently, Victoria avenue is characterised by many underutilised or vacant pre-1935 historical buildings, which may be due to certain factors that are directly or indirectly linked to mass emigration of businesses from the city centre, such as regulatory compliance issues with the recently amended BEPBAA by building owners [2]. As a result, most of these commercial historical building owners are under pressure to seismically strengthen their buildings, even as they may solely rely on rents to pay for the cost of the seismic upgrade and other building expenses [111]. In some situations, the buildings may not generate enough income to cover such expenses. Also, when owners of affected earthquake-prone historical buildings fail to keep their tenants due to seismic safety concerns from the tenants, and disruptive seismic upgrade process, their ability to raise capital for seismic upgrade works on their buildings decreases, hence, promoting underuse and obsolescence of these buildings [2].

A CCR strategy was initiated in 2010 after a sectional review of Whanganui district council's (WDC) plan [112]. The CCR strategy focused on providing coherent endeavours that would guide infrastructure development, changes in plans and resource consents, towards attracting more people into the commercial city centre of Whanganui (refer to Fig. 2 for the scope of the project). This CCR strategy is quite different from an ad-hoc programme because it offered a general plan that extensively balances differing objectives and interests in the direction of achieving sustainable outcomes for the area through realistic activities, priorities and timelines. Besides, the strategy was intended for the following reasons [112]: to (i) develop an integrated approach for the reconciliation of multiple interests within the city centre; (ii) guide decision-making regarding WDC's resource management and infrastructure planning; (iii) guide redevelopment and retrofitting of historical buildings to harness the full potential of the city centre concerning encouraging private investors; (iv) determine how to improve and integrate existing public spaces, reserves and features within the city centre; (v) guide funding and design for infrastructure, facilities and services in consecutive 10-year plans to accomplish the objectives of the community; and (vi) facilitate a resilient and vibrant future for Whanganui's city centre, which will in turn provide economic, socio-cultural, and environmental benefits for the entire city.

The initiation and development of Whanganui's CCR strategy was a combined effort between the local council staff and representatives from the following stakeholder groups [112]: (i) retailers and business group (including Mainstreet Whanganui Inc., Earthquake-Prone Building Taskforce, Maori Economy and Business Development Group, Whanganui and Partners, Visit Whanganui, and real estate businesses); (ii) Iwi representatives; (iii) community and social organisations (such as Road Safety, Citizens Advice Bureau, Life to the Max Trust, Community Patrol, Sustainable Whanganui Trust, and Fire Service); (iv) arts and culture sector (comprising Royal Whanganui Opera House, Sarjeant Art Gallery, Artists open studios, Quartz Studio Ceramics Museum, Rayner Brothers Gallery, Whanganui Regional Museum, NZ Society of Artists in Glass, Spacemonster, and Whanganui Musicians Club, etc.); and (v) Universal College of Learning (UCOL).

Whanganui's ongoing CCR programme is getting some central government financial support including Heritage Equip [113], the Regional Culture and Heritage Fund, and, the National Heritage Preservation Incentive Fund [114]. The key endeavours of the CCR alongside its rationale and analysis were directed towards making Whanganui's assets and qualities more noticeable through the following proposals



Fig. 2. Spatial scope of Whanganui's city centre regeneration strategy. Source [112].

[112]: (i) targeting to bring back retailers that are currently missing from the city centre; (ii) providing immense support for the entire retail core; (iii) pursuing big businesses to start up in the inner-city; (iv) introducing an art studio to the city centre that would be shared by targeted artists; (v) targeting activation-focussed public art; (vi) presenting an Iwi dimension [115] in the inner-city; (vii) offering some basic visitor necessities and proposing several new attractions for potential visitors; (viii) introducing new events and making changes to improve the existing ones; (ix) supporting the planned innovation quarter; (x) proposing programmes focused on attracting residential occupancy into the inner-city, improving the existing built form, and providing assistance with strengthening earthquake-prone historical building; (xi) Upgrading some targeted inner-city public spaces including footpaths; (xii) reviewing and updating the role of Mainstreet Whanganui; and (xiii) preparing a prospectus.

6.2. The city of Invercargill

Invercargill is the southernmost major provincial city in the Southland regional area, located on the South Island of New Zealand. With a distance of about 18 km north of Bluff, the city lies within fertile farmland bordered by vast marine reserves and conservation land areas. The city has about 48,700 residents from New Zealand's urban-rural subnational population estimates [104]. Invercargill was also one of the earliest largest towns in New Zealand [108], and as well, is one of New Zealand's 13 large urban areas [109]. Historically, the city's local economy prospered from its vast involvement in dairy and sheep farming [102]. However, the city of Invercargill suffered its first significant losses in job opportunities and economic decline when its export-led farming industries were affected by inflation across New Zealand, due to the first and second global oil crises between 1975 and 1978, which led to the floating of the New Zealand Dollar [105]. By the early 1980s, Invercargill's population was the fastest declining in

Australasia.

Invercargill's city centre has two wide main streets (Tay and Dee), and other prominent ones (Esk, Eye, Tweed, Ness, Don, Tyne, Spey and Forth), that were named after rivers in Scotland. These streets are characterised by blocks of historical precincts with collections of historical buildings constructed between the late 19th and early 20th centuries. Similar to Whanganui, the city began experiencing city centre decline and high vacancy rates of historical buildings, especially the upper floors in the 1980s. New Zealand's recently amended BEPBAA may have also contributed to the underuse of these significant proportion of historical buildings.

The Invercargill rejuvenation programme (see Fig. 3) was launched in 2015 as one of the nine projects of the Southland Regional Development Strategy – SoRDS, to grow the region's population with 10,000 additional people by the year 2025 [116]. Due to a prolonged concern regarding Southland's socio-economic vulnerability and viability, the SoRDS strategy document offers an opportunity for the prosperity of cities in the Southland region, while focussing on building the socio-economic capacity and capability through the involvement of local leadership and national resources where applicable [116].

As one of the cities covered by the SoRDS strategy, Invercargill may currently lack the pull to attract and hold the required number of people due to its abundance of old underutilised historical buildings in its city centre that are in deteriorating conditions. Just like the case of Whanganui, these buildings are currently struggling to attract quality tenants whose rents would be sufficient in offsetting the cost of maintaining and upgrading the buildings to relevant building code safety requirements. The approach that is being adopted by ICC to create a vibrant, compact and contemporary city centre, is by "skipping a generation" and introducing new modern development in the city centre, in order to meet the

SoRDS year 2025 deadline [116].

In line with the Resource Management Act 1991 [117], ICC in its district plan aims to use the 'Precinct approach' to attain a socio-economically vibrant and pedestrian-focused city centre through the introduction of new developments and heritage protection in the area. The basis of the adopted precinct approach to city centre regeneration is due to the area's inability to rediscover a vibrant and sustainable character for itself after extensive periods of demographic, retail and economic decline, despite the abundance of historical buildings in the central district. As a result, the majority of the existing Edwardian and Victorian historical fabric is in disrepair or underutilised [118].

Findings from an economic performance survey of Invercargill's city centre between the period of 2000 and 2017 revealed that there was [118]: (i) 19% decrease in the total number of businesses across the city centre compared to a 26% increase in nearby suburban areas; (ii) 22% decrease in the total workforce across the city centre compared to 28% increase in nearby suburban areas; (iii) 30% decrease in the proportion of retail businesses across the city centre compared to 13% increase in nearby suburban areas; and (iv) 29% decrease in the proportion of retail employment across the city centre compared to 61% increase in nearby suburban areas. Accordingly, this economic analysis gives a clear narrative of how despite gradual population decline in the area, there is more spending in suburban centres compared to the slow spending in the city centre [118]. The implication being a shift in the shopping patterns of residents and visitors, who have increasingly preferred not to shop in the city centre, as they can meet all their commercial and retail needs in the suburban centres.

Whereas city centre residential living has been noted to be uneconomically viable when promoting inner-city vitality in Invercargill, a



Fig. 3. Invercargill's city centre rejuvenation strategy. Source [116].

joint venture (referred to as the HWCP Management Ltd) was formed between private interest groups (51% stake), and ICC's property unit (49% stake), to facilitate the redevelopment of a commercial retail precinct in the city centre [119]. Invercargill's HWCP inner-city redevelopment block proposes to create a bustling central business district by demolishing and redeveloping most parts of an entire block of existing buildings on the pre-existing site [119]. This city centre regeneration approach focuses on the redevelopment of an entire city block of underutilised (and mostly earthquake-prone) historical buildings within the boundaries of four major streets in the inner-city. The final redevelopment project aims to offer a functional precinct that will engage customer experience while integrating the new development with the surrounding historical buildings.

Furthermore, the Invercargill Licensing Trust (ILT) proposed the demolition of a class two heritage building on the local district plan, and the development of a new hotel – the ILT hotel project, as a strategy to promote Invercargill's city centre [118]. The eight-level ILT hotel is proposed to incorporate 80 suites, bars, cafés, restaurants, parking slots, and other guest amenities.

7. Impacts of the earthquake-prone building legislation on CCR in the two cities

The discussed CCR efforts in Whanganui and Invercargill imply that although the cities fall under the medium to high-risk seismic hazard areas of New Zealand, they may have different approaches to the commercial revitalisation of their inner cities. Consequently, some examples are used to explain the attitude of the public regarding the contribution of historical buildings to their CCR strategies, and the unintended consequences of the existing BEPBAA on the preservation of the buildings.

7.1. Whanganui

The Thains building is an integral part of Whanganui's Edwardian-styled gateway to the main street of the city centre, located at the corner of Taupo Quay and Victoria avenue (see Fig. 4). It is a three-storey unreinforced masonry building (see Fig. 5) with some proportion of timber construction materials [3]. The building is listed as a heritage class B building under the local council's district plan. Whereas the ground floor was affected by flooding in 2015, it is currently an earthquake-prone building with a severely low 5% NBS rating [3]. Consequently, the building owner made a resource consent application to Whanganui District Council on August 2017 to demolish the building. The owner cited the feasibility of seismic strengthening and lack of tenants as some of the reasons in favour of demolition.

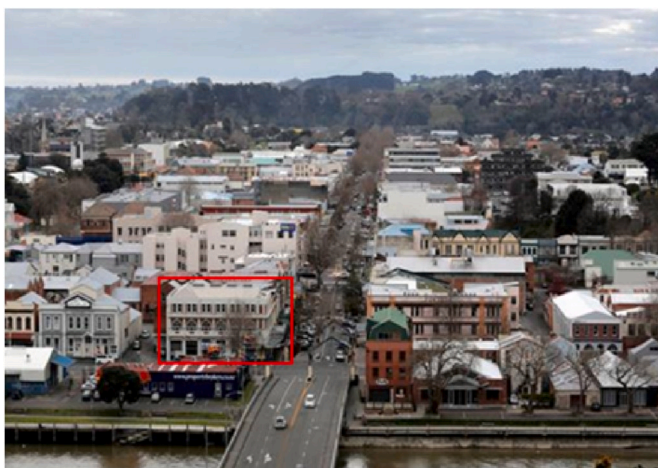


Fig. 4. Whanganui's main street entrance.
Source: Authors



Fig. 5. Thains building.

Since retaining the building was no longer an option that was economically feasible from the owner's perspective, a proposal was made for the community or the council to either compensate the full seismic upgrade and refurbishment cost or purchase the building if they required it to be saved. Without any luck, the owner further submitted to the council to approve the demolition consent as an incentive to enhance the prospects of selling the building to a buyer who could seismically upgrade and redevelop the building. However, as members of the Whanganui's earthquake-prone buildings (EQPB) task force, Mainstreet Whanganui, and other heritage advocates were concerned about the heritage significance of the building to the city's central streetscape, they sought for alternative options to preserve the building. Opportunities for seismic strengthening cost-sharing with neighbouring building owners were also explored by the EQPB task force but not pursued.

In May 2018 Whanganui district council called for public submissions on the application for demolition by the owner of Thains building [120]. The council received 32 submissions that opposed the application to demolish Whanganui's Thains building from a total of 33 submissions, with only one neutral submission [121]. A primary concern of most of the submitters that opposed the demolition consent was that it would create an irrevocable loss of the region's substantial heritage assets, and negatively impact the values of historic heritage, which is contrary to Whanganui district council's heritage policies and objectives provided in the district plan. Another concern by the public opponents was that an approved demolition consent for the Thains building would generate a precedent for more demolitions of inner-city historical buildings on Victoria avenue – Whanganui's main street.

The general theme of the opponents' recommendation was for Whanganui district council to work with the Thains building owner to establish the best alternatives for seismic strengthening and reuse, which could offer useful information and future direction for owners of other underutilised earthquake-prone buildings in Whanganui's city centre. Otherwise, the council would have to bear the burden of dealing with an abundance of old historical buildings that have been abandoned by their owners due to the high cost of seismic strengthening and low return on investment. The demolition consent application was declined in August 2018 [122]. This decision validated a 'heritage preservation' approach to city centre regeneration in Whanganui with the following supporting factors including: (i) inconsistencies with the Resource Management Act 1991 [117]; (ii) the inability of the application to demonstrate an exploration of all feasible alternatives leading to demolition as the last option; and (iii) the community support towards retaining heritage buildings.

After the unsuccessful building consent application for demolition, the owner of Thains building eventually sold it to one of the submitters who advocated to preserve the building during the public hearing process. Though the new owner intended to retain and preserve the

historical building and was already planning to close for renovations on 31st July 2019 after receiving support from Whanganui Heritage Grant Fund [123], the Thains building was devastated by a fire that broke out in the upper floor residences on 20th July 2019. The fire made the building to be structurally unstable [124]. Following inspections and assessments by WDC's building control officers, an independent engineer, and fire investigators, on the extent of damage and risks the Thains building would pose to passer-by and adjacent buildings and businesses, the building was deemed a 'Dangerous Building' under sections 121 and 124 of New Zealand's Building Act 2004 [125]. Based on the advice from the post-fire risk assessment and investigations of the building (see Fig. 6a, 6b and 6c), a resource consent application to demolish the building was approved by WDC in the interests of public safety [124, 126].

7.2. Invercargill

The ongoing city centre regeneration strategies in Invercargill are discussed using the situations surrounding two significant projects in the area (refer to Fig. 7) – HWCP inner-city redevelopment block, and the ILT Hotel development.

7.2.1. HWCP inner-city redevelopment block

The HWCP Management Ltd made an application to Invercargill City Council (ICC) in October 2018 for resource consent to redevelop a block of several underutilised commercial historical buildings within the city centre into a multi-faceted facility to be named 'Invercargill Central' [128]. The proposed location for the HWCP redevelopment project has boundaries with four major central streets (i.e., Dee, Esk, Kelvin, and Tay streets; on their east, south, west, and north sides, respectively). See Fig. 8.

The application proposed two stages of redevelopment to rescue Invercargill's city centre from its existing decline trajectory, and, for the inner-city which has accumulated more than a century's historical building stock with heritage elements, to start functioning credibly as the entertainment and retail core of the city through the reinforcement of feasible commercial activities by 2021. The current cost estimate for capital expenditure on the HWCP project was between \$180 to 200 million NZD [128].

The applicant proposed the following activities in the first stage [128]: (i) demolition of two Category-2 heritage buildings on the national heritage list [130], and assessed locally to have medium heritage values; (ii) alteration to the façade of an additional Category-2 heritage building on the national list [130], and assessed locally to have a high heritage value; (iii) demolition of 13 historical buildings characterised as Class-2 historical buildings in ICC's district plan, and assessed to have low heritage values; (iv) retention of the façades of three Class-2 historical buildings with optimal architectural components on Esk street; and (v) incorporation of one Category-1 heritage building on the national heritage list [130]. A total of 16 historical buildings in the ICC's district plan were affected. Additionally, a multi-faceted facility was proposed for the second stage of the redevelopment to include: anchor

retail shops, boutiques, housing apartments and office blocks (targeted at attracting extra 1500 people daily to the city centre), restaurants and food courts, an enclosed multi-level carpark (with about 850 parking slots), outdoor dining spaces and open-air alleyways, and, a central medical facility [128].

The technical team of the applicant argued that the physical situations of most of the existing historical buildings in the proposed redevelopment site did not match up with the economic reality of rejuvenating them [128]. This argument was due to the combination of some broader economic forces, the awareness of their seismic vulnerability and compliance to the recently amended BEPBAA, activating an unsustainable and unbridgeable gap between the cost of seismic retrofit and enough return on investment. They also argued that the destruction and redevelopment of a significant proportion of old historical buildings would be deemed appropriate in addressing the scale of the vulnerability of the area, to bring back vibrancy to the city centre.

Besides, after undergoing engineering assessments, the seismic capacity of majority of the listed historical building stock that were planned for demolition in the HWCP inner-city redevelopment were found to be less than 33% NBS rating [19], with about 90% of the buildings scoring between 10% and 20% NBS ratings [128]. Fig. 9 depicts the seismic rating summary of these buildings. Also, the feasibility of retaining the façades of most of the buildings on the block was very low, when issues such as likely strengthening costs, technical challenges and the originality of their heritage parapets were explored by during the engineering assessments [128].

The public was notified on October 2018, to give their opinions about the HWCP inner-city redevelopment resource consent application. Out of an overall 44 submissions, 24 were in support of the application, ten opposed, and nine were neutral [128]. The recommendations of those in support of the application were based on arguments that the seismic strengthening costs versus the loss of heritage values of the listed historical buildings to be demolished, would adequately balance the positive CCR impacts of the application, in line with the sustainability principles of the Resource Management Act 1991 [117] and the proposed policies and objectives of ICC's district plan.

Those that opposed the application emphasised the disproportionately low mitigation measures for the heritage that would be lost through demolition and façadism, in comparison to the proposed mitigation measures in the application. Accordingly, they were more of the point of view that the HWCP project should have emphasised on the retention of heritage character through incorporating the preservation and reuse of the historical buildings in a more persuasive manner [128]. Moreover, the recommendations from the submitters that remained neutral on application emphasised that, although a significant loss of heritage elements after demolition would negatively impact the coherence of Invercargill's city centre streetscape, sacrificing a number of these historical buildings for the project would eventually promote a sense of place and create a huge economic boost for future development of the wider city centre [128].

The HWCP application for resource consent was deemed worthy of endorsement by the decision commissioners of the hearing process and

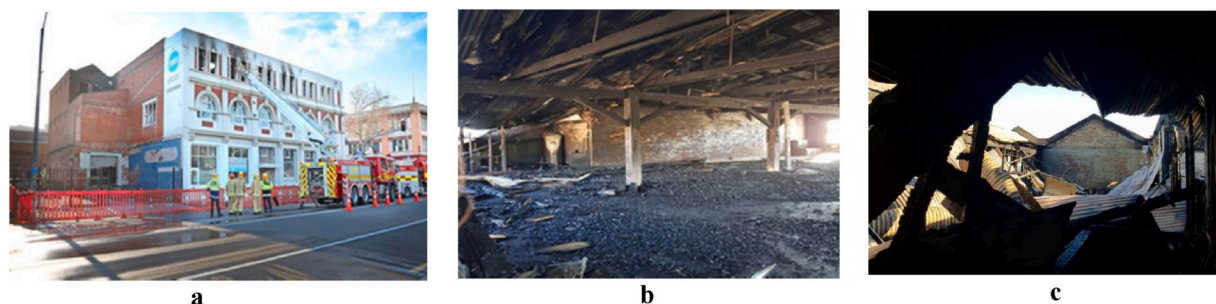


Fig. 6. The extent of damage caused by fire. Source [124].



Fig. 7. Invercargill city centre regeneration project scope. Source [127].

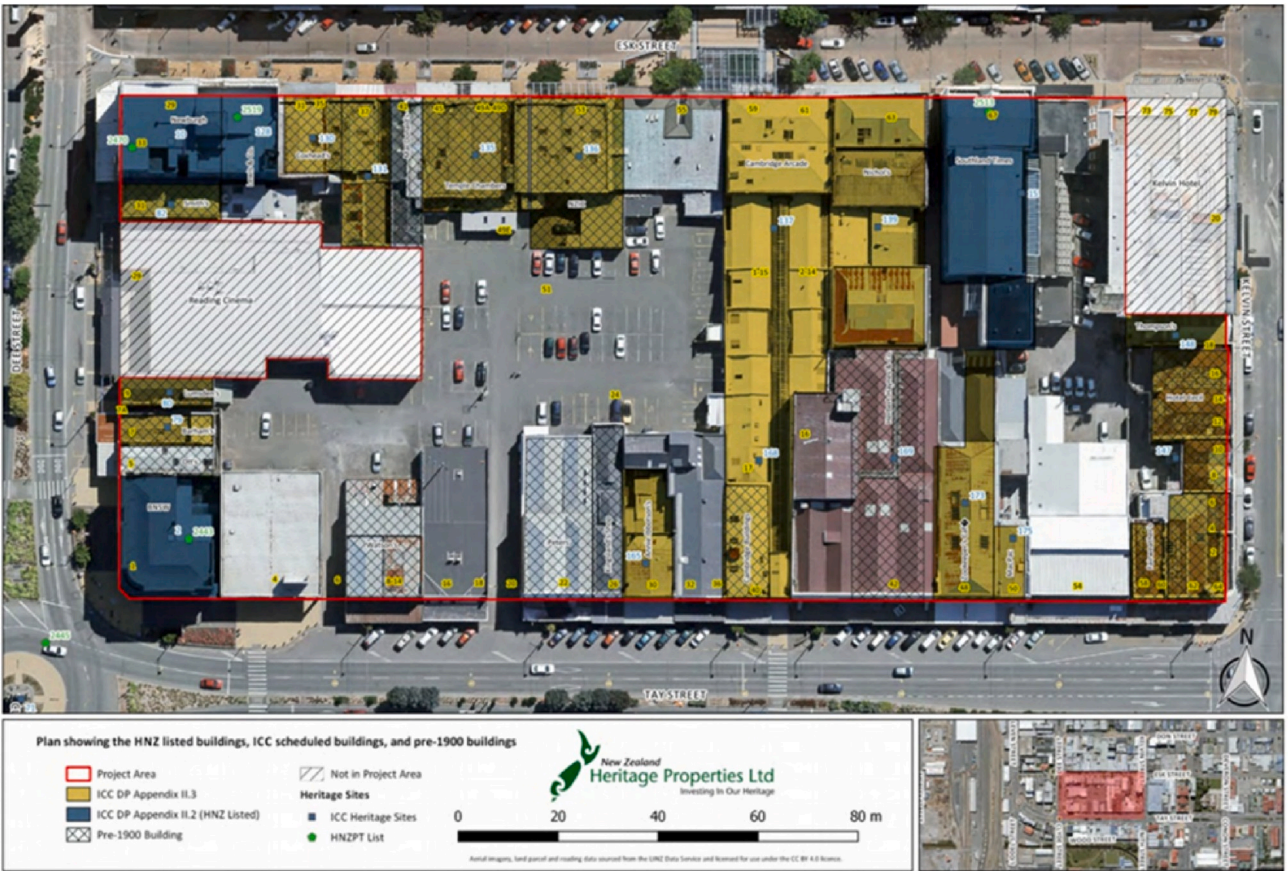


Fig. 8. HWCP inner-city redevelopment block. Source [129].



Fig. 9. Seismic assessment of historical buildings within the inner-city redevelopment block. Source [131].

was approved in June 2019 with no submissions for appeal made [128]. The conditions for approval required the consent holder to (i) make funds available (i.e., \$20,000 NZD/year for 'Anchor tenants' that would be occupying at least 5,000 m² of the redevelopment site); for the Neighbourhood Retailers Group (NRG) to manage the vibrancy of retail activities in the city centre before the commencement of any demolition; (ii) lodge recordings of any alterations or demolitions of the affected heritage buildings with Heritage New Zealand and ICC; (iii) maintain and preserve the Category-1 heritage building (Bank of New South Wales building) on the corner of Dee Street in accordance with its registered covenant, and ensure that any building consent application for any adjacent or adjoining new buildings to the former bank building, must include recommendations from a conservation architect; (iv) prior to alteration of any heritage building, submit a façade retention plan prepared by a qualified conservation architect and engineer to ICC for authorisation; (v) ensure the reuse of salvaged heritage materials from the demolished buildings in the construction of the new replacement buildings and other building projects; and (vi) disseminate all information gained from archaeological investigations, historical research, and the heritage recordings of the altered or demolished buildings, to the public at every completion stages of the redevelopment project.

It could be understood for the Invercargill case study that, the management of historical buildings in the CCR strategy, aims to preserve only the best heritage elements of the buildings, hence, encouraging regeneration of the city centre through demolition and rebuild. The implication of the circumstances surrounding the approval of the HWCP redevelopment project irrespective of the significant loss of heritage buildings from demolition validates a 'demolition for redevelopment' approach to city centre regeneration in Invercargill.

7.2.2. The Invercargill licensing trust (ILT) hotel

The Invercargill Licensing Trust (ILT) was established in 1944 through public election to monopolise the sale and supply of alcohol in Invercargill, with an obligation of investing the profits on community development projects. In line with the Southland Regional Development Strategy to upsurge the region's population with 10,000 additional people by the year 2025 [116], the ILT submitted resource consent application to ICC in September 2018 for [118]: (i) the demolition of a Victorian-styled historical building including other adjoining existing buildings on the site without heritage classification; and (ii) the construction and operation of an innovative eight-level hotel building that would integrate 80 hotel suites, a café, a restaurant, function venues, bars, parking spaces, and guest amenities – see Fig. 10. The former T&G building also referred to as 'Caledonian', is in a corner location at 73–81 Dee Street in Invercargill's city centre. It was built in 1885 and is currently a Class-2 historical building in ICC's district plan [118].

There was a public notification of the application on 13th August 2018, and a thorough community engagement hearing process was initiated. Accordingly, out of 18 submissions made to ICC, ten were in total support, one gave conditional support, two were neutral, and five opposed the application.

The arguments of those in support of the ILT proposal were based on some positive impacts of the new hotel project towards fostering the regeneration of Invercargill's city centre, and the implications of city centre decline from retaining the existing Caledonian building. The positive impacts of proposed ILT project include [118]: (i) direct employment and economic benefits; (ii) positive redevelopment impacts from project's outcomes (i.e., through comprehensive architectural and urban design ideologies, enhanced activation of pedestrian-friendly environments at street level, and provision of entertainment places to



Fig. 10. **a** Existing Caledonian building within the streetscape. Source: [118]. **b** Existing Caledonian building within the streetscape and artwork of the proposed ILT hotel project. Source [132].

entice visitors and residents to the city centre); and (iii) indirect benefits to remaining city centre heritage fabric through potential economically viable adaptation of adjoining buildings. Moreover, the application supporters also argued that although the Caledonian building has been assessed to be of moderate-high heritage significance, the negative impacts of retaining the existing Caledonian heritage building would include several engineering and economic challenges ranging from costly façade retention and unrealistic adaptive reuse, to costly seismic upgrade of the entire building's existing structural state of less than 20% NBS rating [118].

The submitters who opposed the application argued that the negative impacts of the proposed ILT project would create some direct negative impacts from demolition, through the loss of the Caledonian building's heritage significance, and the cumulative effects on other adjoining historical buildings in the city centre [118]. However, the applicant offered some direct mitigation efforts to safeguard the entire loss of heritage fabric, such as NZD 50,000 contribution to Invercargill's heritage fund, the incorporation and reuse of heritage components, and off-sets from minor futuristic impacts on heritage retention [118].

Eventually, an evaluation of the significance of the potential positive and adverse effects from the demolition of the Caledonian building and construction of the new ILT hotel as advised by the supporters and opponents of the application, were weighed against the objectives and policies of ICC's district plan and the Resource Management Act 1991 [117]. The application was approved after meeting the environmental outcomes of ICC's district plan by a considerable margin. The ILT hotel project was also justified to contribute significantly to the advancements in the sustainable management of physical resources and land use in Invercargill's city centre.

8. Discussion

This paper adopted the case study method [100] to describe the city centre regeneration (CCR) strategies pursued by two provincial areas (Whanganui and Invercargill) in New Zealand, and examined their approach to CCR.

Findings from the Invercargill case revealed a 'demolition for redevelopment' approach to CCR. The major arguments that justified the support of this approach by Invercargill's public include several engineering and economic challenges (such as: (i) costly seismic upgrade of the entire building's existing structural state to meet the required seismic strengthening requirements; (ii) costly façade retention; and (iii) unfeasible adaptive reuse), versus the higher prospects of spill-over benefits [58] from the new development. The implication of the 'demolition for redevelopment' approach for Invercargill is that though it facilitated the depletion of a significant number of Invercargill's inner-city heritage building stock, it was considered the best strategy to CCR in Invercargill due to their low attachment to place [90,99]. While these findings are in line with a similar study conducted by Ref. [133], other studies have highlighted the non-feasibility of the 'demolition for redevelopment' approach for the regeneration of rural areas [134–136].

On the flip side, a 'heritage preservation for regeneration' approach to CCR was identified from the examined Whanganui case study. This approach emerged as a result of the disapproval through public submissions to demolish the Thains building. The arguments revolved around the community support towards saving heritage buildings to sustain the city centre's main streetscape. The submitters believed that using the low seismic rating and expensive seismic upgrade of the building as an opportunity for demolition would create an irrevocable loss of the region's substantial heritage assets [137], and negatively impact the values of historic heritage, which is contrary to Whanganui district council's heritage policies and objectives provided in the district plan. Accordingly, these findings align with other similar studies that have highlighted the benefits of the 'heritage preservation for regeneration' approach [138,139].

Inconsistencies with the Resource Management Act 1991 [117] and the Thains building's application not being able to demonstrate an exploration of all feasible alternatives, leaving demolition as the last option, justifies Whanganui's stronger attachment to place [90,99] and the heritage preservation attitude to city centre regeneration. Whanganui district council has been observed to be proactive in providing support for building owners to preserve their heritage buildings. Some examples in Whanganui where historical buildings and façades in the city centre were successfully preserved to regenerate the city centre include: (i) 15A Victoria Avenue, where the building owner went through all the processes of seismically strengthening and architecturally restoring the building because of the passion for built heritage [140]; (ii) refurbishment and seismic strengthening of council-owned projects (such as the opera house, art gallery, museum, etc.) implying WDC's attitude of leading by example; (iii) the new buyers of the Thains building who bought the historical building with the intention of preserving it; and (iv) the façade retention by owners of the cotton-on building – 84 Victoria Avenue.

Differing levels of attachment to place were identified in both case studies, based on the strong arguments in the submissions for building consent that supported the demolition and rebuild of historical buildings in Invercargill, and preservation of historical buildings in Whanganui, towards CCR. Whereas a stronger attachment to place [90,99] was exhibited in Whanganui, a weaker attachment to place was observed in Invercargill.

Furthermore, as the BEPBAA mandates owners of seismic vulnerable heritage buildings to make hefty investments to comply with the new safety requirements, there is an impediment to classify provincial city centres as 'Priority Areas' according to the building act. The 'Priority Areas' requirement may have greatly contributed to building owners within those areas to prefer not to engage with the council because they may not want to financially commit to the compliance cost of retrofitting their buildings. Hence, the motivation for owners of historical buildings in provincial city centres to invest in the seismic upgrade is usually low due to the poor economics of the property market in these areas. Since the socio-economic activities that happen in provincial city centres greatly influence the sustainability of the areas, investments in

strengthening and preserving the city centre historical buildings would make these areas lively and busy with retail, business and social activities.

Mayors of the Manawatu-Whanganui region (i.e., Whanganui, Rangitikei, Manawatu, Tararua District Councils) have been very proactive in driving the change on how New Zealand's provincial areas with lesser resources are expected to effectively comply with the "one-size-fits-all" BEPBAA and still thrive, when compared to bigger cities such as Auckland and Wellington. These Mayors long realised that the existing BEPBAA would threaten the sustainability of provincial town centres in New Zealand if there is an absence of extensive regulatory and non-regulatory incentives by the central government to promote compliance in smaller cities.

The central government have started to address the disproportionate influence of the BEPBAA on New Zealand's provincial areas with the following regulatory and financial incentives: (i) some adjustments have been made to the funding pathway of Heritage EQUIP [113] which now supports provincial areas with funds to pay for professional services for seismic assessments, including structural engineering and architectural plans; (ii) In addition, owners of buildings in New Zealand who were previously required to seismically upgrade their buildings after the building's estimated value exceeds a substantial alteration threshold of 25%, would only do so now if the value of the alteration is greater than \$150,000 NZD or whichever is higher [141]; (iii) only the façades, verandas and parapets of priority routes need to be strengthened within half the regular legislative timeframe, while the seismic upgrade of remaining building can be done in full time; and (iv) section 133AT in the Building Act now exempts access and fire requirements during building consent applications for seismic upgrade.

9. Conclusions

This paper presented and described the city centre regeneration strategies of two case study areas – Whanganui and Invercargill. Both case study areas are good examples of New Zealand's provincial areas currently struggling with city centre decline, partly due to the cost-benefit implications of owners' willingness to invest in seismic strengthening of their underutilised historical buildings. Findings from an exploratory case study research of the examined provincial cities revealed two different approaches to city centre regeneration for the two examined cities: (i) Invercargill – 'demolition for redevelopment'; and (ii) Whanganui – 'heritage preservation for regeneration'. Also, while the BEPBAA has created logical arguments that have put earthquake-prone historical buildings in the spotlight for demolition in an area, the same legislation has been used as a catalyst to provide opportunities for the preservation and seismic upgrade of the earthquake-prone historical buildings in areas another area.

The conditions of the historical building stock in the two city centres greatly influenced the attitudes of the public in their submissions to either support or oppose the building consent applications for demolition. The poorly maintained, deteriorating historical buildings in Invercargill's city centre including the categories I and II listed buildings in the HWCP inner-city redevelopment block project, and that on the ILT hotel site, were left to decay for so long, that it got to a point where the deterioration of the walls and façades of these buildings became an eyesore to the public. Such poor conditions of the city centre historical buildings contributed to the low value attributed to heritage buildings held by Invercargill's public. On the other hand, Whanganui District Council has been more proactive in securing government funding for the maintenance and seismic strengthening of their cultural amenities (e.g., the opera house, museum, art galleries), which has made the public value their inner-city heritage buildings more. These findings imply that the actions (or inactions) of both councils shape the way their communities perceive the value of the historical buildings in their city centres.

The energy that Whanganui's Mainstreet organisation and earthquake-prone building task force put into promoting the

preservation of heritage following the enactment of the BEPBAA could also be considered as an initiative that promoted a stronger attachment to place in Whanganui. It could, therefore, be asserted that it is the BEPBAA that triggered conversations that have created strong community support for heritage preservation in Whanganui. If the BEPBAA were not in place, the conversations about heritage preservation would still be developing, and there would not have been much financial support from the government to strengthen and preserve heritage buildings. Although the Invercargill public demonstrated a weaker attachment to place [98] by, the local investors behind the HWCP inner-city redevelopment block project and ILT hotel considered these redevelopment projects as very important towards stimulating the regeneration of Invercargill's city centre. These local investors went through the rigorous processes of buying the historical buildings from their existing owners and getting approvals from council, sacrificing some of the buildings for demolition, and preserving a few with significant heritage values [142], when they could have taken an easier and less costly approach by developing on green sites in the suburbs.

The decreasing retention and increasing demolitions trends of heritage buildings in New Zealand's provincial city centres as a result of the BEPBAA, have now triggered discussions that have contributed to the recent regulatory and financial incentives initiated by the local and central government to address the unintended consequences of the legislation on the vitality of provincial areas. Though these unintended consequences of the legislation may have created opportunities for incentives, further research should explore if the allocated financial incentives for the protection and conservation of heritage buildings in New Zealand's provincial areas has influenced their heritage building retention and demolitions counts. It would also be useful to explore a cost benefit analysis for both approaches to city centre regeneration, i.e., 'demolition for development' and 'heritage preservation for regeneration' in further studies. The limitations of this study's findings include its focus on historical buildings in New Zealand's provincial city centres, and, the use of fewer case studies. However, while further studies should explore the use of more case studies, this study's findings could apply to other countries with similar characteristics to New Zealand in the context of this paper.

Declaration of competing interest

The authors whose names are listed immediately below certify that they have **NO** affiliations with or involvement in any organisation or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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