

IMPACTS OF THE COVID-19 PANDEMIC ON BUILDING CONSENTS AND CONSTRUCTION SECTOR ACTIVITIES IN NEW ZEALAND

Amarachukwu Nwadike¹ and Itohan Esther Aigwi

Built Environment Engineering, Auckland University of Technology, St Paul Street, Auckland, 1010, New Zealand

The construction sector significantly contributes to New Zealand's economy but obtaining building consent is a crucial preliminary step for any construction project. This study used a document analysis technique to examine the impacts of the COVID-19 pandemic on building consents and construction sector activities with a detailed analysis of approved new domestic buildings in different regions. The findings revealed that building consent applications increased significantly throughout New Zealand despite the pandemic affecting construction activities and resulting in work stoppages due to various lockdowns and reduced cash inflows. Also, some amendments to building consent regulations, as part of the ongoing building system reform program for low risk building projects, were found to have contributed to this increase. This study recommends closely monitoring low risk building projects under the exemption category to ensure compliance with building codes and standards. These findings hold significant implications for the government authorities, providing crucial insights into the impact of the amended building consent regulations on the productivity of the New Zealand construction sector.

Keywords: building consent; COVID-19; construction sector; New Zealand

INTRODUCTION

The COVID-19 pandemic uncovered the unpreparedness, lack of resilience, and vulnerability of the construction sector to deal with unforeseen disruptions, changing the trajectory of the construction sector globally. Most international border closures and local movement restrictions caused a decline in construction turnover and delays (Deloitte, 2021). The COVID-19 also influenced the disruption of construction activities, especially those largely dependent on imported skills, materials, and equipment (Deloitte, 2021; Statistics New Zealand, 2021). The New Zealand construction sector was not left out, as it also experienced workforce retention issues, lack of cash flow, low productivity, increased cost, reduced construction market confidence, and disruptions in the pipeline of work (CSA, 2020; Deloitte, 2021). The identified impacts of COVID-19 on the construction sector have proven to be detrimental to economic and social sustainability globally, as the construction sector serves as a dominant developmental support to many nations (Ebekozi, 2020). These impacts greatly influence the building consent process, especially for new

¹ amarachukwu.nwadike@aut.ac.nz

homes (Deloitte, 2021), because pre-construction involves obtaining consent in a written format to carry out specific building work at a specified site (Duncan and Brunson, 2017).

All building consents must comply with building code regulations to ensure that proposed building works are durable and safe without endangering the health and safety of the building occupants and the neighbouring properties (MBIE, 2014; Duncan and Brunson, 2017). The building code is a compulsory document that sets the minimum standard that all designs, building constructions, and other associated infrastructural works must meet the performance requirements to guarantee safety (Nwadike and Wilkinson, 2021b; Nwadike and Wilkinson, 2021a). Compliance with building consent extends to meeting the building code requirements (MBIE, 2014).

The building consent process is one of the vehicles adopted by the government, and the building code regulatory authorities control the construction sector activities to deliver safe, healthy, and sustainable homes, and other related infrastructures, promoting people's confidence in the construction sector. During the early stages of Covid-19, the New Zealand building code regulatory authorities, and the construction sector experienced a drastic reduction in the granting and approval rate of building consents (MBIE, 2021a).

The New Zealand government responded to these impacts on the construction sector by establishing institutions such as the Accord Steering Group (ASG) and announcing an economic relief package to cushion observed challenges created or amplified by the pandemic (CSA, 2020; Deloitte, 2021). While the government's focus was on maintaining a viable sector during the lockdown, restarting the sector with accelerated projects, and making a critical transformation on the need for high performance in the sector (CSA, 2020), no existing study uncovers the impacts of the COVID-19 pandemic on the building consents process and its influences on the construction sector activities in New Zealand. This study uses a document analysis to examine the impacts of the COVID-19 pandemic on building consents and construction sector activities in New Zealand. The implications of these findings would guide relevant government authorities on how the amended building consent regulations will increase productivity and support the New Zealand construction sector's COVID-19 recovery plans.

The New Zealand Building Consent Process

The building consent process helps ensure safe and healthy homes and related building projects. Before obtaining building consent in New Zealand, the designers and architects must ensure that all designs comply with the building code requirements while indicating the specific building work and the construction site in the application (MBIE, 2016; Duncan and Brunson, 2017). The building consent process begins during the planning, design, and construction stages. It ends when the building works are completed, and a qualified Building Consent Authority (BCA) issues the code compliance certificate (DBH, 2010).

A building consent approval is issued in a written format when the building consent application satisfies all the requirements stipulated in the Building Act (Duncan and Brunson, 2017). Each local council handles its building consent application processes uniquely (DBH, 2010; Duncan and Brunson, 2017). Some additional requirements may be required before building consent approval is issued upon satisfaction of the BCA. These additional local council requirements may include but are not limited to council bylaws, district planning rules, and other related conditions

that may be specific to the councils (DBH, 2010). A complete building consent application for building works must contain plans, specifications, additional requirements considered reasonable by the BCA, and a lodgement fee with all documents arranged in the prescribed application form (DBH, 2010; MBIE, 2014). The plans and specification criteria include design calculations, building material manufacturer's data, appraisals from external technical opinions, and a brief description of how the intended building works will comply with the building code (Duncan and Brunson, 2017).

The Building Act was updated in 2020 to exempt low-risk building works, sleep-outs, sheds, carports, outdoor fireplaces, and ground-mounted solar panels from requiring building consent (MBIE, 2020). These exemptions reduced the number of building consents by about 9,000 while saving up to 18 million NZD annually (MBIE, 2020). Any building work without approval consent not found in the exemption list attracts a fine of up to 200,000 NZD, and in conditions where the building work continues, up to 20,000 NZD fine is imposed per half or full day, as the offence continues counting (MBIE, 2016). According to Duncan and Brunson (2017), the BCAs across all the local councils are mandated to process building consent applications within 20 working days, starting from the submission date.

Obtaining building consent within the stipulated 20 working days is difficult, as the BCAs are empowered to pause the application process should there be any need for additional information (Duncan and Brunson, 2017). Inquiries into the building consent services in New Zealand show high concerns regarding quality, cost, timeliness, and lack of consistency with the building control systems (Duncan and Brunson, 2017). For example, investigations conducted by the Controller and Auditor-General (2015) revealed that 70 per cent of the total building consent application submitted to the Auckland Council were put on hold pending further information. The delay in issuing building consent in Auckland Council shows a significant gap between what the building consent officers expect and what the building practitioners believe are the building consent requirements expected of them (NZPC, 2012). The tension between the building code practitioners and the BCAs may cause consent delays, inefficiencies, and ineffectiveness in delivering building consent services (Duncan and Brunson, 2017).

METHOD

Document analysis was used to explore the impacts of COVID-19 on building consent and the construction sector activities in New Zealand. The building consent dataset was extracted from the Statistics New Zealand website (Statistics New Zealand, 2022). Document analysis was adopted to ensure a comprehensive assessment and analysis of the COVID-19 pandemic impacts on building consent and the construction sector activities. Document analysis is a systematic procedure that involves data discovery, assessment, and interpretation of evidential trends from existing documents by competent research investigators to answer specific questions (Bowen, 2009; Aigwi *et al.*, 2019; Nwadike and Wilkinson, 2021b).

It provides an enabling platform to gain valuable empirical knowledge of the research topic under consideration by looking into background information, supplementary sources of information, tracking variations and developmental progress of findings from other reliable sources (Bowen, 2009). This study employed document analysis because it allowed a cost-effective, time-efficient, and accessible data extraction from reliable sources (Bowen, 2009). Despite the overwhelming merits of document

analysis, carefulness is recommended in using this approach, as data obtained may be insufficient, extracting data may be complex, and there may be a possibility of wrong information source selection (Bowen, 2009).

FINDINGS AND DISCUSSION

The building consent analysed in this study comprises consents approved for new dwellings (domestic) across all regions in New Zealand between January 1, 2018, to December 31 2021, extracted from the Statistics New Zealand website. The extracted dataset shows that the Auckland region had the highest number of new dwellings building consent applications in 2018 (12,862 applications), followed by the Canterbury region (4,769 applications), while the Gisborne region had the lowest (83 applications), as shown in Figure 1.

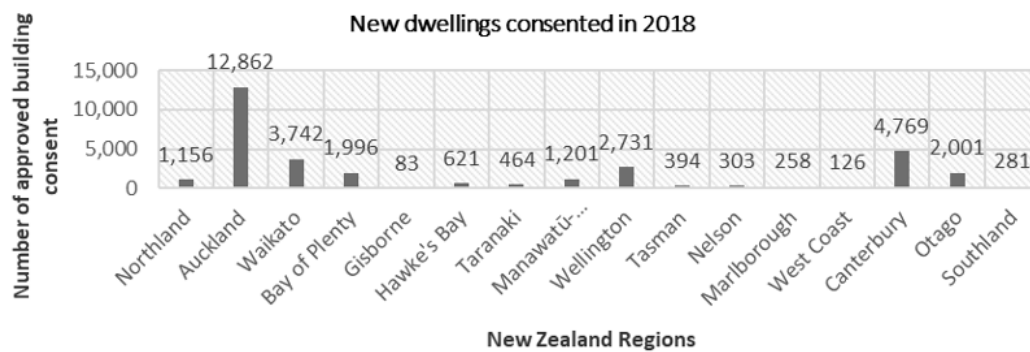


Figure 1: Building consent approved for new dwellings in 2018

Figure 1 shows the rising number of new dwellings consented to in the Auckland region, which can be linked to the increasing house price, approximately 65%, compared to other regions in New Zealand (Johnson *et al.*, 2018). Accordingly, the population of the Auckland region has been increasing with a housing shortage, prompting the need for more housing, which was captured in the establishment of the Auckland Unitary Plan Auckland Council (2018). The lower number of new dwellings consented in the Gisborne, West Coast, and Marlborough regions in 2018 could be attributed to their low population.

From Figure 2, all the types of new dwellings approved in 2018 show a gradually increasing start in the number of approved building consents except 'Apartments' that declined in February, while the 'Stand-alone houses' show a sharp peak in May with a decline in September, as shown in Figure 2. The increase in May could be attributed to the Government policy announcement in April 2018 regarding increasing the funding for the 'Accommodation Supplement' programme by 500 million NZD annually (Johnson *et al.*, 2018). Over 400 million NZD was injected into the private rental housing market as an instrument for housing affordability that will help to cushion the effects of rising rents and housing-related poverty in the country (Johnson *et al.*, 2018).

The extracted data in Figure 3 shows that Auckland region (15,154) has the highest number of building consent approved for new dwellings in 2019, as Gisborne region remains the least with 101 new dwellings consented. The results from the extracted dataset indicate that 37,580 new dwellings were granted building consent approval in 2019, which is about 14 per cent up compared with the building consent record in 2018.

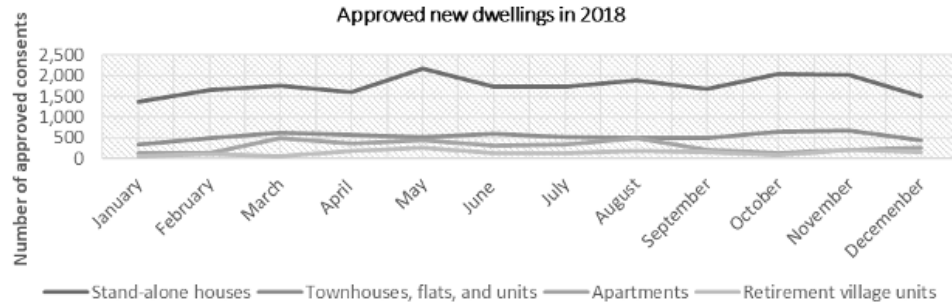


Figure 2: Monthly distribution of building consent approved for new dwellings in 2018

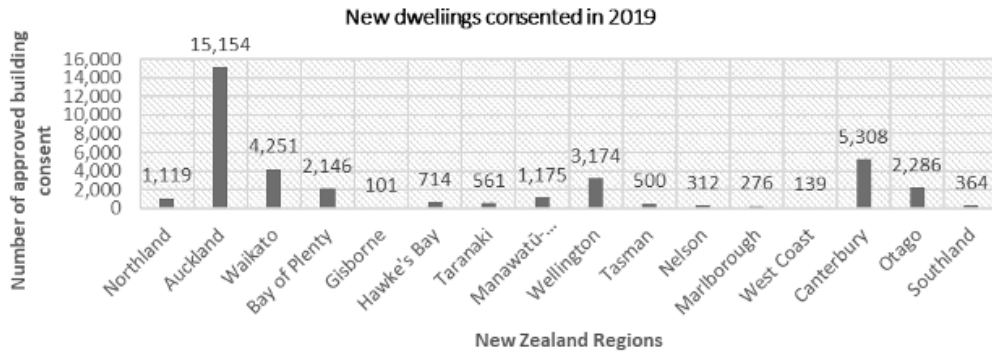


Figure 3: Building consent approved for new dwellings in 2019

Also, most New Zealand regions experienced a significant increase in the total number of new dwellings consented to in 2019, excluding the Northland and Manawatu-Whanganui regions, which experienced a decline (Statistics New Zealand, 2019). This result indicates that New Zealand building owners are progressively working towards meeting the government housing targets. Figure 4 shows the building consents approved for 'stand-alone houses' in 2019 (rising to 2.1 per cent between October and November before falling to 1.9 per cent in December), outnumbering all other categories, followed by 'townhouses, flats, and units'. In contrast, the 'retirement village units' category remained the lowest approved new dwellings across 2019.

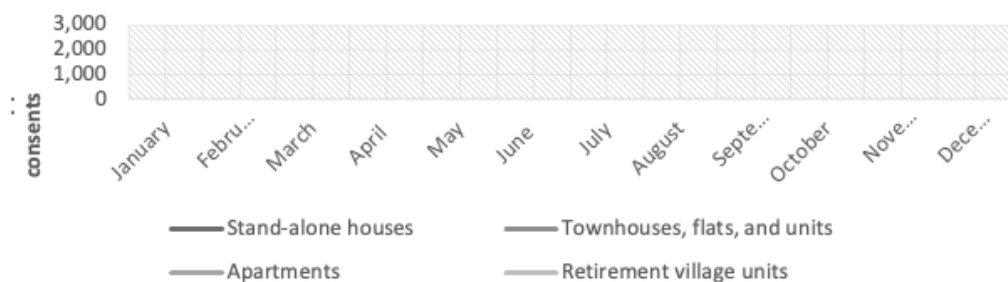


Figure 4: Monthly distribution of building consent approved for new dwellings in 2019

Figure 5 shows the distribution of new dwellings with approved building consent across all the regions in New Zealand in 2020. Across all the regions, Auckland maintained a lead with 16,656 building consents for new dwellings, while Gisborne remained the lowest, with 98 new dwellings approved in 2020. However, the Northland, Waikato, Gisborne, Wellington, Nelson, Marlborough, West Coast, Otago, and Southland regions experienced a decline in the number of new dwellings

consented to in 2020 compared to the 2019 building consent dataset. These findings were argued to be influenced by the COVID-19 pandemic, followed by a series of lockdowns at various alert levels across New Zealand from March 25, 2020 (Deloitte, 2021). Accordingly, the number of building consents in the Waikato region is forecasted to increase by the end of 2024, reaching 4.4 billion NZD yearly, and with an average of 7,000 new dwellings before decreasing to \$3.9 billion in the subsequent years (MBIE, 2021b). Also, the Wellington region is expected to experience a minor decrease in the number of building consents for new dwellings before a marginal increase of 0.3 per cent (MBIE, 2021b). The monthly distribution of approved building consent for new dwellings plunged to a shallow margin in April, following the 25 March 2020 Government announcement on alert level 4 total lockdown due to the COVID-19 pandemic disruptions, as demonstrated in Figure 6. However, the approval rates gradually increased as the government announced the 12.1 billion NZD economic relief packages (MBIE, 2021b).

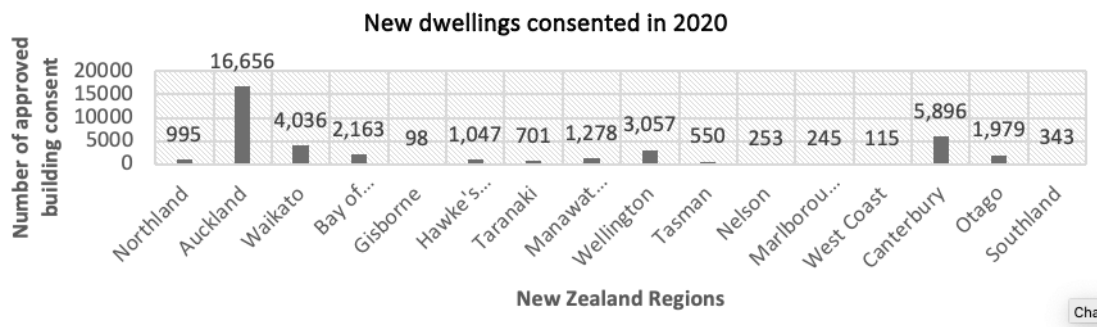


Figure 5: Building consent approved for new dwellings in 2020.

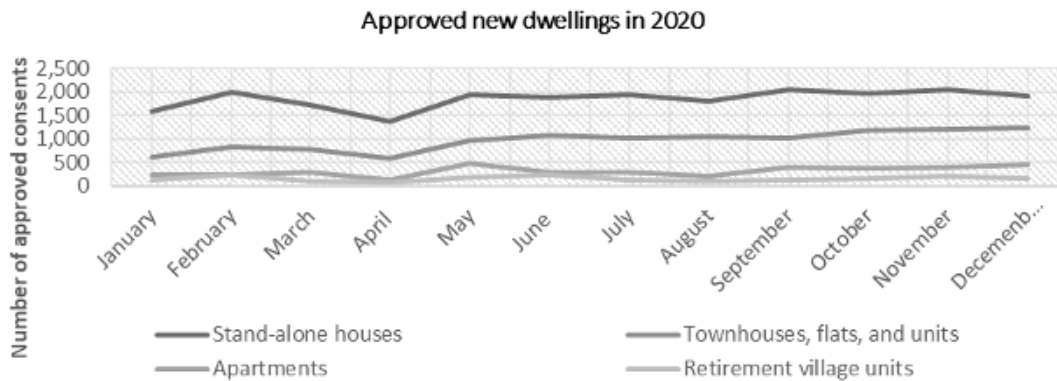


Figure 6: Monthly distribution of building consent approved for new dwellings in 2020

New dwellings consented across New Zealand regions in 2021.

The building consent data in Figure 7 shows a significant increase in the number of new dwellings consented to in 2021 across all the regions in New Zealand compared to the previous years under consideration in this study. The Auckland region approved 20,529 building consents for new dwellings, followed by the Canterbury region (7,714). The observed continuous increase of consented new dwellings in the Auckland region may be traced to the response to the underlying severe housing supply shortage (Bell, 2021; MBIE, 2021b). Accordingly, coupled with the fast-growing population in Auckland, the regional government enacted various reforms, including investing 31.8 billion NZD in housing and infrastructure initiatives to provide essential services in the region (Auckland Council, 2022).

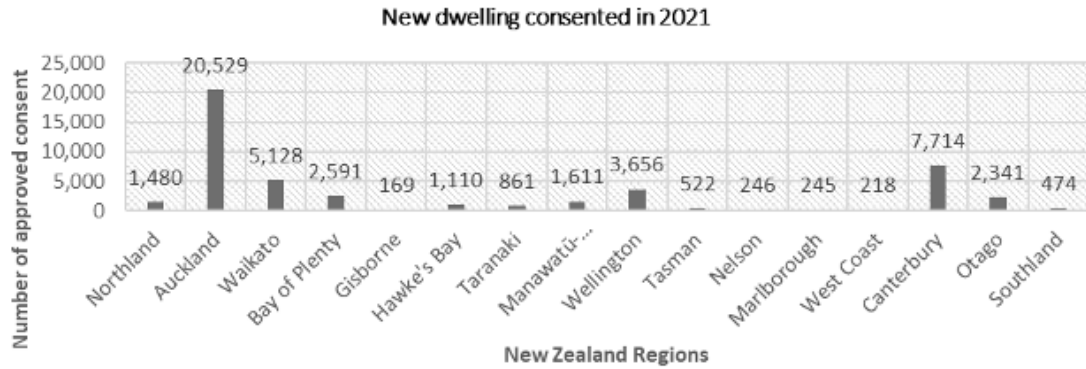


Figure 7: Building consent approved for new dwellings in 2021

This high number of building consent for new dwellings in the Auckland region is expected to grow until 2024 before a gradual decline is experienced, as Auckland is New Zealand’s significant building and construction market (MBIE, 2021b). As seen in Figure 8, the New Zealand government issued the highest number of building consent for new dwellings in March 2021 for the ‘stand-alone houses’ category (2,438 approvals), in August for ‘townhouses, flats, and units’ category (1,869 approvals), in November for ‘apartments’ category (490 approvals), and in April for the ‘retirement village units’ category (306 approvals). The all-time high historic record number of new dwellings was consented in 2021, with about a 17 per cent increase compared to the 2020 dataset, while the ‘townhouses, flats, and units’ category reached the highest number since 1990 (Williams, 2021). The historic record of approved building consents shows a robust pipeline of works in the residential section of the construction industry in New Zealand as the construction industry continues to deliver safe, healthy, and affordable homes. The number of building consents issued in New Zealand in 2021 shows the resilient nature of the construction sector towards recovery from the COVID-19 pandemic (Williams, 2021).

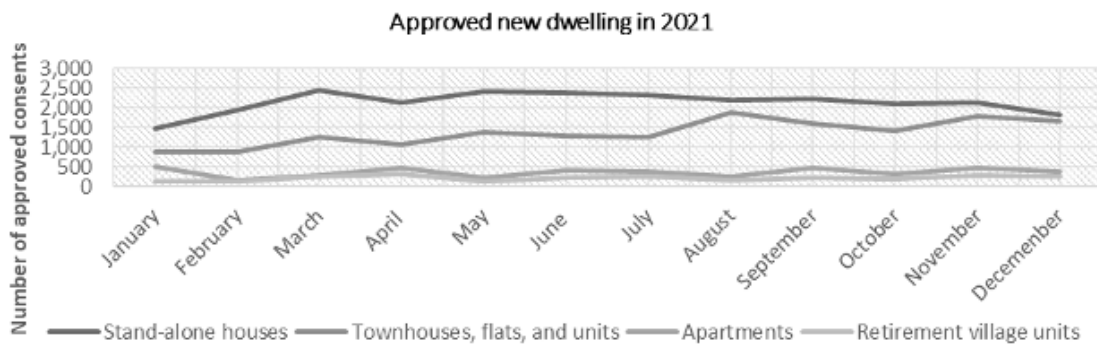


Figure 8: Monthly distribution of building consent approved for new dwellings in 2021

CONCLUSION

This study explored how the COVID-19 pandemic impacted the building consent activities across all New Zealand regions and the construction sector trajectories. Accordingly, the document analysis technique was adopted to assess the number of building consents issued from January 1, 2018, to December 31, 2021, in all the regions in New Zealand to examine the construction sector activities toward the building consent approvals. The study identified that all the local authorities across all New Zealand regions uniquely maintained, monitored, and issued building consent approvals for new dwellings when all the essential requirements and other conditions

specific to the councils in the regions were achieved. The local authorities struggled to meet the demand as there was an influx of applications across all the regions due to the government's economic response package and the trajectory changes from the COVID-19 pandemic. The study showed that the government economic intervention incentive following the COVID-19 pandemic sustained the construction sector while creating a resilient structure with a high tendency for quick recovery.

This study's results revealed an upward trend in the Auckland region, with the highest number of new dwellings, consented from 2018 to 2021 by a wide margin. In contrast, the Gisborne region approved fewer building consents for new dwellings. Also, 'stand-alone houses' had the most approved building consents from 2018 to 2021, while the 'retirement village units' received the least. Besides, the 'townhouses, flats, and units' category experienced a surge in 2020 following the government's substantial economic investment in infrastructure to cushion the impacts of the COVID-19 pandemic. The number of building consent approvals continuously experienced a geometric progression from 2018 to 2021.

These study findings may be suggestive that local authorities across all New Zealand regions may need more support to process all the categories of building consent applications as the demand continuously grows as the year progresses. The increasing number of approved building consents for new dwellings requires a highly productive, performing, and more sustainable construction sector that matches the building consent approval rates. The proactiveness of the construction sector depends on its capacity and competence to deliver a safe, healthy, affordable, and sustainable built environment.

This study's findings raised the question of the construction sector's readiness to handle the robust housing and infrastructure demand in New Zealand. This concern will be addressed in subsequent future studies. A limitation of this study is the use of only a document analysis research method and the consideration of building consent for only new dwellings. Future studies should consider combining interviews and focus group workshops to probe further into the New Zealand building consent process including non-residential, and how the local authorities deal with the sudden surge in building consent applications.

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