- We note from the survey results that only 25% of tenants would return to an existing building and hence there is a risk that some of these buildings will not be fully tenanted

Expected rentals required by property owners based on the build costs, land values, developer margin and investor yield

- A monte carlo simulation technique was used to predict the level of rent that would be required for each of the buildings described above
- The following assumptions were included as inputs to the simulation:
  - Investment yield between 7.75% - 8.25% based on an expectation that the yield will trend to the lower end of this range while there are developers willing to develop buildings that will deliver this tenning yield
  - Developers margin of between 0% - 10%
- Land value was assumed at $2,000 sqm based on qualitative feedback from landowners as to the perceived value of their land, in a market which is not yet clearly established. This value was discounted based upon expectation that values would likely fall between 10% - 60%, delivering a value of between $800 sqm - $1800 sqm with a likely output of $1,000 sqm
- Based on the monte carlo simulation the following commercial office property types will require the following net rental charges:

Storey	sqm floor plate	$
5 storey	500	570
5 storey	1,000	460
10 storey	500*	490
10 storey	1,000*	405
15 storey	500*	460
15 storey	1,000*	400

(*) - Denotes buildings that would not meet the height restrictions of the CCP

- The 10 and 15 storey buildings generally do provide a lower rental value but the benefits are marginal in terms of their ability to reduce rents
- A five storey building with a 500 sqm floorplate is also uneconomic due to the relatively higher costs
- The building that is most likely to be viable, both in terms of meeting tenant's demands and complying with the CCP, is the 5 storey building with the 1,000 sqm floorplate
- A supply-side analysis suggests a rental charge of $460 per sqm which is consistent with the net rental levels in the Auckland CBD
- The rental charges required could be reduced if a property owner was able and willing to accept no development margin and the lower end of the investment yields and a relatively low land value
- There were a very limited number of property developers active in the Christchurch commercial office market pre February 2011, with most of these only involved in suburban locations. Post earthquake incumbent landowners, who were previously established property investors, have inherited the role of reluctant developers. This ownership group have advised through survey and interview feedback that they are prepared to complete property developments in order to replace their investment income for a yield return only, with no development margin. Conventional developers require a development margin.
- Any new capital to the Christchurch CBD will require a healthy development margin to reflect not only normal property development profit and risk, but also the added risk of earthquake related market uncertainty. Traditional aspirational property development margins have been in the 15% to 20% range. Given the uncertainty in the Christchurch market, an

	► Using a single point analysis with forecast yield at 8.25%, required land value at $800 sqm and allowing for no development margin; a 5 level, 1,000 sqm development will require a rental of $440 sqm ► Using the same single point analysis with forecast yield at 7.75%, required land value at $1,800 sqm and allowing for a 10% development margin a 5 level, 1,000 sqm development will require a net rental of $500 sqm ► There is a variance between the values determined in the single point analysis and the monte carlo results. This variance is related to the variation in the operation of the two models, the single point analysis versus the normal distribution of variables and outputs in the monte carlo model	additional risk margin of at least 10% would be required in order to attract outside capital. Analysis completed on hypothetical office building developments indicates it will difficult, if not, impossible to achieve the required development margin to attract outside capital.

Viability of rents for commercial office space	► The analysis of the rental costs that are acceptable to both property owners and tenants are presented in the respective supply-side and demand-side sections of this report
	► The analysis show that for a 1,000 sqm floorplate building the rental charge required to make the property viable from the perspective of the property owner is approximately $460 per sqm
	► At $450 to $499 per sqm the extrapolated demand for commercial office space would be approximately 68,000 sqm and this drops to 46,000 sqm at $500 or more per sqm
	► The viability of all the buildings is demonstrated graphically in the next section
		► While there is significant demand for commercial office space in the Central City Area, based on our findings a limited portion of this demand is economically viable when rent levels required by property owners are considered
		► However, we note that commercial office space is currently being offered in the Central City Area at rentals of between $400 and $450 per sqm. There are a variety of reasons as to why these rentals are below our benchmarks, such as concessions being made by the developer on margins and land prices which are unlikely to be sustainable in the long term
		► In order to make the Central City Area more viable either:
		  ► The quantum of demand has to be increased at the price points that make the rebuild viable for property owners, by identifying opportunities for tenants to accept higher rents than what they are currently willing to pay; and/or
		  ► The supply side price points need to be reduced to levels that a higher number of tenants are willing to pay
		► Demand can be influenced either by government incentivisation or through education on workplace efficiency. Both of these points are discussed below
		► Supply side price points can be reduced either by reducing the

		cost of the new building (through reduction in consenting costs or a form of government incentivisation) or removing the restrictions on building height (though this only has a marginal impact on cost)
Analysis of rental efficiency	▶ Analysis was undertaken on a subset of professional service firms and the like who have workstation environments. It is noted from data collected in the tenant survey that this group showed a weighted average of 19.5 sqm / employee workstation which is significantly above the 14.6 sqm national average from the Colliers Workplace Report ▶ The higher national workplace efficiencies are primarily driven by higher rentals in Wellington and Auckland ▶ Assuming that Christchurch tenants were willing and able to adopt a space allocation per employee closer to the national averages then rental efficiencies can be made ▶ If these efficiencies can be achieved the extrapolated demand for buildings with a rental of $450 per sqm (or greater) could increase from 68,000 sqm to approximately 105,300 sqm, as theoretically tenants would be able to pay 25% more net rental costs per sqm for 20% less space without any significant financial impact. If this office space takes the form of 5 storey, 1000 sqm floorplate buildings, this equates to approximately 21 new office buildings before considering the normal level of vacancy that can be expected with any commercial property.	▶ There is a possibility that tenants may be able to afford higher rents than they are currently anticipating by improving workplace efficiency ▶ Whilst our evidence shows that these efficiencies have been achieved in other cities in New Zealand, where there are limited suburban alternatives, there is little evidence to suggest that Christchurch businesses are willing to sacrifice space to return to the Central City ▶ However, we recommend that workplace efficiency discussions are used as an enabler to encourage large tenants to return to the Central City Area ▶ Given the existing commercial stock of 88,000 sqm then if Christchurch could improve rental efficiencies to improve demand then potentially approximately 200,000 sqm of commercial office space would be economically viable

- The demand curve adjusted for rental efficiencies is presented in the following graph:

Commercial office space - demand curve *with secondary curve showing demand with 20% efficiency*

Government incentivisation

- We have developed a scenario as an example to illustrate how tax relief on the income of property developers can be used to reduce the cost of a new building
- Our model shows that tax relief amounting to 60% of tax due over 10 years could have the impact of reducing the net rents required from property owners to between $340 and $360 per sqm
- Government incentivisation could be used to influence the demand and supply of commercial property to make the Central City viable. The following forms of incentivisation should be considered:
  - Tax relief on income (e.g. revenue quarantining or changes to tax depreciation of buildings)
  - Local body relief (e.g. development levies, car parking subsidies or rates holidays)

Appendices

Appendix A Methodology

Methodology

The overall objective of the Study was to identify the projected demand for commercial property (office, retail, hotel and hospitality), how this projected demand compares with potential supply, and the attractiveness of commercial property to investors and developers.

Our methodology is presented in three sections:

- Demand side methodologies
- Supply side methodologies
- Viability methodologies

Demand side methodologies

Objectives

The over-riding objective of our demand side research was to assess the likely demand for new buildings in the Central City Area.

It was recognised that, while employers and therefore tenants will drive the decision as to whether businesses will return to the Central City Area, their employees and customers/clients were equally as important (to ensure these businesses would be viable). Hence, the attitudes of both tenants and consumers were considered.

This information was gathered through two surveys.

Consumer survey

The consumer survey was conducted online and targeted (2,500 as a minimum) at consumers who prior to the Earthquake:

- Worked in the Central City Area; and/or
- Regularly visited the Central City Area for work purposes; and/or
- Shopped or conducted other business in the Central City Area on a regular basis; and/or
- Visited the Central City Area for sport or recreational purposes

Tenants' survey

The tenants' survey covered four types of business use; office, retail, hospitality and hotels.

The office space survey was distributed to the 700 tenants (known to Colliers) that occupied the Central City Area prior to the Earthquake. The retail, hospitality and tenants survey was distributed through appropriate industry groups known to the survey team.

The survey contains a number of questions including:

- How much space (sqm) would be required by tenants intending to return to the Central City Area
- The office workspace density pre-Earthquake and how this could change post-Earthquake
- What rents would tenants be willing to pay
- Where tenants want to go

Responses to these questions were analysed and matched to the responses received by the potential suppliers of property in the CCP to determine if there are any major mismatches of expectation.

Given that a 100% response rate to the tenants' survey was not received extrapolation techniques were performed to determine the quantum of demand for lettable space.

Supply side methodologies

Objectives

The over-riding objective of the supply side research was to assess the likely supply for new buildings in the Central City Area and at what cost.

We note that the recovery of the Central City Area will be demand driven and therefore our work focuses on developers' and investors' willingness (and ability) to meet this demand.

Our work was of two types.

Firstly, a largely qualitative survey targeted developers and property owners to understand their attitude to developing in the Central City Area.

Secondly, we prepared costings for a series of commercial property buildings that would be marketable and be seismically strengthened to meet the anticipated demand requirements.

We have prepared costings for buildings which are both compliant with the heights restrictions of the CCP as well as those that are not compliant for comparison purposes.

Developer / property owner survey

The developer and property owner survey targeted existing property owners with property in the Central City Area.

The developer / property owner survey was performed on-line and targeted existing property owners. The survey was distributed to all property owners listed in a CERA supplied database.

We also interviewed property owners and developers that historically engaged in Central City development.

The focus of the surveys was to gauge expectations of developer profit margins and property owner yields as well as their desire to re-engage in building activity.

The survey looked at a range of qualitative criteria such as the perceptions of property owners of the rebuild that could be cross-checked with the perceptions of tenants, as determined by their survey response.

Building costs

To understand the impact on building costs in Christchurch following the extensive period of seismic activity, cost analysis were commissioned for a range of structures that incorporated 500 sqm and 1,000 sqm footprints, with a specific focus on sub ground structures.

The cost analysis made allowances for current expectations on developer financial requirements and property owner yield.

The data was supplied, by building type, on a per square metre basis so that it could be compared with the demand data as part of our work on viability.

Our work examined the sensitivities of the model to key inputs such as labour and material costs.

Further detail of the scope of the analysis is included within our findings contained in Appendix J.

Viability testing

Our methodology included the following steps:

- Considering the likely commercial space requirements, in light of the commercial office demolitions and the commercial office stock that will remain
- Analysing the data in respect of investor yields, developer margins and land values to provide an estimate of the rental charge required per sqm
- Considering the likely quantum (sqm) of demand of commercial office space at the price points implied by the supply-side analysis on building costs, anticipated yields and developers margins
- Based on this analysis making an assessment as to whether the Central City Area is viable for property developers and investors
- Identifying scenarios where the gaps between demand and supply can be narrowed

Appendix B Profile of Christchurch Central City commercial property market prior to the Earthquake

Commercial office profile

Background

In this section we provide a brief overview of the Christchurch office market which existed prior to the Earthquake on 22 February 2011.

The objective of this section is to provide analysis of the market dynamics of the Central City commercial property market to give context to our findings.

The last major construction boom in the Christchurch Central City office market occurred in the mid to late 1980's when three A grade office towers were completed and a large number of B grade office buildings were developed.

The end of this construction boom coincided with a recession in the early 1990's and resulted in significant vacancies. Overall, vacancies, first measured in 1993, were 30% and in the three A grade buildings vacancies were at 45.6%.

From 1990 through to 2007 the only additional significant office building constructed was the Chas Luney Centre at 250 Oxford Terrace. During this period vacancies slowly reduced, assisted by the conversion of a number of large office buildings into hotels.

Three new generation A+ grade buildings were the most recent additions to the city's stock. The 8-level IRD Building (in Cashel Street) was completed in 2007, the 12-level HSBC Tower (in Worcester Boulevard) was completed in 2009, and the refurbishment of the 7-level Civic Building (in Hereford Street) was completed in 2010. Both the IRD Building and Civic Building were fully committed (tenanted) prior to development.

Office rent levels in 1989 were $225 per sqm net in PricewaterhouseCoopers Centre and Forsyth Barr House, achieved with the aid of major incentives. In the 21 year period from 1989 to 2010 net rent levels only increased to $270 per sqm.

Development of large Central City office buildings pre-Earthquake was only marginally feasible, due to the inability to attract tenants that would pay the rents required to make new buildings viable.

Rental levels

pre-Earthquake rent levels in the new generation A+ grade buildings were in the range from $315 to $400 per square metre, excluding the effect of incentives.

Pre-Earthquake net office rents were as follows:

Grade	$ per sqm
A+	$315 - $400
	$270 -$300
B	$220 - $240
C	$170 - $200

Source: Colliers

Suburban office rents following the Earthquake for modern low-rise buildings were in the $300 to $340 per square metre range.

Net rents in Auckland and Wellington have generally being higher than those in Christchurch driven by a higher level of demand for higher quality commercial office space.

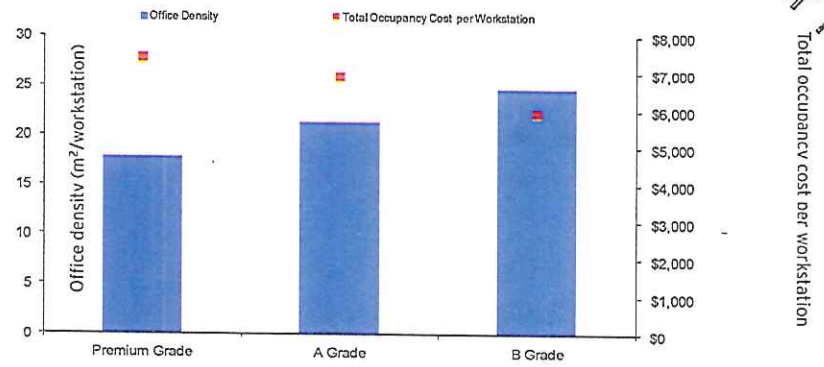
The current net rents for Auckland and Wellington are:

Location	$ per sqm
Auckland	$370 - $530
Wellington	$300 - $420

Source: Colliers

In 2010 Colliers undertook a New Zealand survey into the occupational density of tenants in the five key business centres in New Zealand "the Report"). The following shows the occupational density and total occupancy costs per workstation by grade for Christchurch CBD.

Occupational density & total occupancy cost per workstation (by grade)



Source: Colliers New Zealand Workplace Report 2010

The Report was used as a benchmarking tool for businesses to gauge how efficiently tenants are using office space. The "Premium Grade" classification used in the Report is comparable to the A+ grade used in this Study.

Key findings of the Report were:

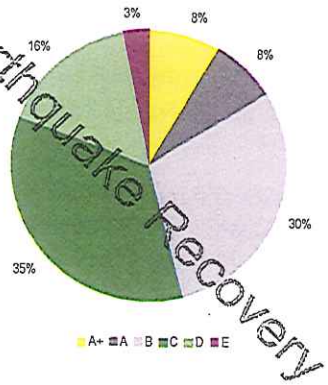
- Office density across all grades in the Central City Area were generally lower than both Auckland and Wellington Central City
- In Christchurch the office density per workstation was 20.6 sqm compared with a national average of 15.9 sqm (with Auckland having an average of 16.1 sqm and Wellington an average of 14.4 sqm)
- Tenants of higher grade buildings use space more efficiently that those of lower grade buildings (a trend that can be demonstrated for all major New Zealand cities)
- The New Zealand national Office Density per workstation for "Green Buildings" (as defined by the World Green Building Council in 2009) was 14.6 sqm

Profile of commercial office stock

The Christchurch office market consisted of the Central City Area, various pockets of office development on the periphery of the inner city (e.g. Hazledean Business Park in Addington) and a number of suburban locations (e.g. Sir William Pickering Drive). The suburban locations comprise a mix of established suburban commercial districts and business/office parks.

The Central City office stock as at September 2010 comprised 446,002 sqm which was categorised into six quality grades as demonstrated by the following chart

Central City commercial office stock summary by grade (sqm)



Source: Colliers

In September 2010 there were three recently completed major office buildings in the Central City Area, comprising the IRD Building, HSBC Tower and the Christchurch Civic Building. We categorised these buildings as new generation superior A+ Grade buildings with HSBC Tower achieving 5 Star Green rating and Civic Building achieving 6 Star Green rating.

At the same time there were three buildings in the A Grade, PricewaterhouseCoopers Centre, Forsyth Barr House, and Clarendon Tower which were all in excess of 20 years old. Although providing high quality accommodation, they did not incorporate the same technology now offered in new office buildings recently constructed in suburban locations.

The B Grade represented predominantly modern office buildings constructed during the 1980s and early 1990s which were air conditioned. Any older substantial office buildings which had been refurbished and are now air conditioned were also categorised as B Grade.

The C Grade represented modern non-air conditioned or partially air conditioned office buildings.

Total office stock in the Central City Area has remained relatively stable during the last ten years. Very few new office buildings have been constructed with any increase in stock generally offset by removal of the buildings from the market for conversion to hotel accommodation.

The only major new office buildings constructed in Christchurch recently are the IRD building completed in 2007 comprising 14,223 sqm, HSBC Tower completed in 2009 comprising 6,015 sqm and Civic Building completed in 2010 comprising 18,860 sqm.

The following is a summary of the total office stock within the Central City Area during the last ten years, measured in square metres.

Christchurch Central City office stock

Year	Area (sqm)
2001	415,124
2002	419,263
2003	415,735
2004	414,386
2005	413,740
2006	410,168
2007	409,528
2008	423,566
2009	427,888
2010	446,002

Source: Colliers

Although the stock of office accommodation in the Central City Area has essentially remained static over the last ten years, demand for A Grade equivalent modern office accommodation has grown over this period which has satisfied by a range of business park developments near the Central City Area (for instance Show Place Central and Hazeldean Business Park in Addington), and close to the airport at Sir William Pickering Drive. We estimate that in excess of 50,000 sqm has been constructed or is under development in these locations.

A significant increase in suburban office accommodation at the expense of the Central City Area can be attributed to a number of factors including the following:

- Absence of modern commercial office space in the Central City Area at rents tenants are willing to pay
- Desirable office park environment
- Availability of affordable car parking
- Transport access
- Lower total occupancy cost

The Central City Area office market has improved since the early 1990's with vacancies now stabilised. Colliers carries out a comprehensive office vacancy survey annually.

The following is a tabulated summary of vacancy levels over the last three years.

Grading of CBD commercial office vacancies

Quality grade	2008 (%)	2009 (%)	2010 (%)
A+	-	6.5	3.8
A	0.5	6.4	9.9
B	7.7	7.8	11.0
C	16.8	18.3	18.5
D	16.3	12.8	17.8
E	21.5	19.3	21.2
Total	12.1	12.6	14.3

Source: Colliers

The following table summarises the vacancy commercial office space by office grade in 2010.

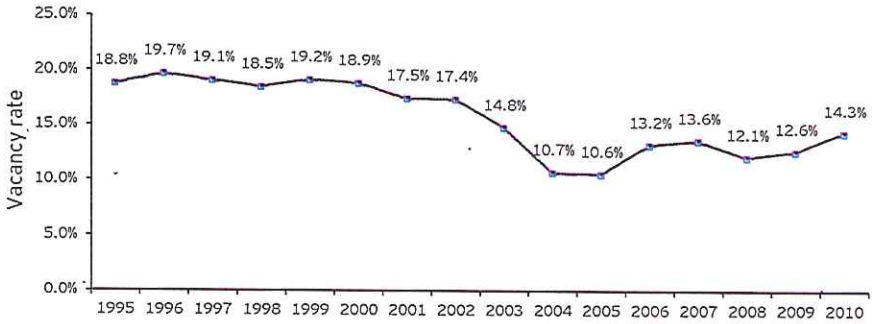
Quality grade	Occupied sqm	Vacant sqm	Vacancy (%)	Total sqm
A+	36,127	1,429	4	37,556
A	31,181	3,417	10	34,598
B	118,161	14,543	11	132,704
C	126,310	28,723	19	155,033
D	59,243	12,814	18	72,057
E	11,069	2,985	21	14,054
Total	382,091	63,911	14	446,002

Source: Colliers

Vacancies in the A+ Grade were at 3.8% which comprised 1,428.7 square metres vacant in HSBC Tower or 24.2% of that building. The IRD Building and the Civic Building were totally occupied.

Vacancies in the A Grade increased from 6.4% in 2009 to 9.9% in 2010. Vacancies in PWC Centre were 7.5%, and in Forsyth Barr House vacancies were 6.0%. In Clarendon Tower vacancies were 15.1%.

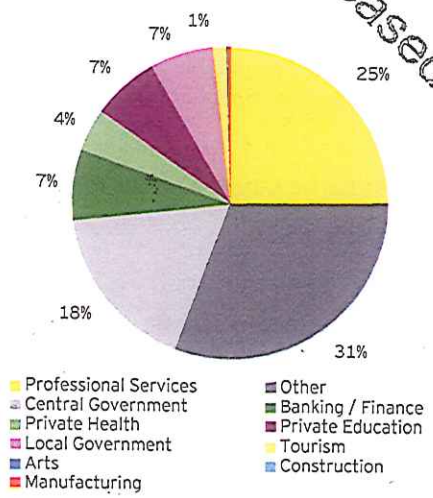
The following graph plots the percentage of commercial office vacancies in the Central City Area since 1993.



Source: Colliers

Profile of tenants

The profile of tenants in the Central City Area (prior to the February 22nd Earthquake) is demonstrated by the following pie chart.



Source: Colliers

A quarter of commercial office space was occupied by professional service firms, with local and central government representing 25%.

Profile of property owners

The profile of property owners is important to understand as it provides historical evidence as to where funds invested in Christchurch commercial property originated.

The predominant ownership class, being South Island owners, comprises a mix of high net worth individuals and families and informal syndicates of wealthy individuals / families, including a number of farmers.

The geographical profile of property owners is depicted in the following chart:

Christchurch City Central City - Ownership profile - by net lettable floor area

Grade	South Island sqm	North Island sqm	Overseas sqm	Total sqm
A+	18,860	18,696		37,556
A	6,957	15,435	12,207	34,599
B	108,817	8,682	15,204	132,703
Total	134,634	42,813	27,411	204,858
Proportion	65.7%	20.9%	13.4%	100.0%

Christchurch City Central City - Ownership profile - by building number

Grade	South Island No.	North Island No.	Overseas No.	Total No.
A+	1	2	-	3
A	1	1	1	3
B	33	1	3	37
Total	35	4	4	43
Proportion	81.4%	9.3%	9.3%	100.0%
Grade A+, A & B		204,858 sqm		45.9%
Total CBD Stock		446,002 sqm		100%

Source: Colliers

The Chart shows that the historical ownership of property in Christchurch has been heavily skewed towards local investors and developers.

Only 13.4% of owners (by net lettable floor area) are based overseas.

Over the last three decades major corporate and institutional investors have steadily withdrawn from ownership of the Central City Area commercial property in Christchurch.

Retail profile

There is no reliable data available on the size of the stock of retail and hospitality tenancies that existed in Christchurch prior to the Earthquake.

Anecdotal research indicates that the ratio of retail space to office space for most large cities is approximately 10% (Source: EY Real Estate Database, Melbourne, Australia 2012) indicating that the potential retail space was likely to be in the vicinity of 40,000 sqm. However this data can fluctuate depending on the nature of the local economy and the size of the CBD area. For this reason we acknowledge that this is a speculative assessment.

The growth in retail property floor space in Christchurch for many years was dominated by suburban malls, which has been at the expense of Central City Area retail with little movement in the overall stock levels in recent years.

Retail in the Central City Area has contracted significantly over the last two decades in the wake of intense competition and continued expansion of suburban shopping centres. The prime retail precinct was concentrated principally in the area south of Cathedral Square in and around Colombo Street, High Street Mall and Cashel Street Mall.

Cashel Street Mall, between High Street and Oxford Terrace, and High Street Mall between Hereford and High Streets comprised conventional retail activities where a number of fashion brands and national retail chains were located. This location was anchored by Ballantynes. Colombo Street, between Cathedral Square and Lichfield Street accommodated major trading banks, BNZ, ANZ and National Bank together with fast food restaurants McDonalds, Burger King and KFC.

The retail focus within Cashel and High Street Malls had shifted recently with the prime frontage now Cashel Street Mall between Colombo and High Streets, and High Street Mall between Hereford and Cashel Streets. High Street, south of Cashel Street, had been rejuvenated over the last ten years and accommodated a number of fashion boutiques and café's.

Central City Area retail rents in prime locations had been relatively stable, with little growth and downward pressure being exerted by suburban shopping centre competition. Net Rent levels in City Mall were between $600 and $1,000 per sqm and in Colombo Street between $500 and $925 sqm. (Source: Colliers International New Zealand Retail Quarter 3:2010).

Retail rents in secondary CBD locations were under pressure and reducing with increasing vacancies evident.

Hotel profile

There were approximately 3,400 hotel rooms in Christchurch prior the Earthquake (Source: New Zealand Hotel Council) which, based on a floor space ratio of 30-40 sqm per bed, equates to a total floor area of between 102,000 sqm and 136,000 sqm. A significant portion of these were situated within the Central City Area.

Hotels chains that were present in the Central City Area prior to the Earthquake were:

- Grand Chancellor
- Millenium Hotels and Resorts (Millenium, Copthorne)
- Holiday Inn
- Accor (Ibis, Novotel, Hotel off the Square)
- Rydges
- Holiday Inn
- Rendezvous (previously Marque)
- Inter-Continental (Crown Plaza)

In addition to the hotels there was a range of mid-low market hotels, motels and backpackers. These tended to be situated on the fringes of the Central City Area benefiting from the lower rents.

Appendix C Survey response profile

In this section we outline the survey response profile.

Three surveys were used as a mechanism to collect data:

- Tenant
- Consumer
- Property owner

Overview and profile of tenant responses

Summary of tenant responses

The tenant survey was:

- Circulated to approximately 700 known entities that were tenants of office space in the Central City Area prior to the Earthquake
- Circulated indirectly through a variety of industry groups, as noted in the methodology section

Noted below:

- Represented in the following table, the majority of responses were from commercial office tenants, (88% of tenant survey respondents by commercial office space). By comparison, retail tenants represented 6% hospitality and 2% accommodation (by commercial office space)
- We received responses from tenants that who stated that they leased commercial office space in the Central City Area totalling 142,283 sqm

Business type	No. of respondents	% of respondents	Area lease (sqm)	% of area leased
Hospitality	19	8%	9,759	6%
Retail	24	10%	6,446	4%
Accommodation	2	1%	3,500	2%
Office	207	81%	142,283	88%
Total	252	100%	161,988	100%

- As well as these 'tenant responses' we received responses from owner occupiers representing approximately a further 30,000 sqm of commercial office space
- Therefore commercial office survey responses received represented approximately 45% of total estimated occupied commercial office space in the Central City Area prior to the Earthquake
- In addition to commercial office respondents we received responses from tenants that leased other types of property in the Central City Area, including retail, hospitality and accommodation, totalling 19,705 sqm
- Of the top 45 largest commercial office tenants based on pre-Earthquake sqm leased, 73% responded to the survey. Of the remaining 27% we note that 42% were central or local government tenants
- The following table shows further analysis of the respondents to the survey by industry sector

Profile of tenants who responded to the tenant survey

Business type	Known population (area sqm lease occupied pre Earthquake) [3]	No of respondents	Respondents of total %	Respondent (area sqm lease occupied pre Earthquake)	Respondent by area sqm %	Area sqm respondent of occupied pre Earthquake %
Hospitality		19	8%	9,759	6%	[1]
Retail	[1]	24	10%	6,446	4%	[1]
Accommodation	[1]	2	1%	3,500	2%	[1]
Commercial						
Professional services	94,973	151	60%	74,757	46%	79%
Other	117,371	16	6%	18,952	12%	16%
Central government	67,502	10	4%	9,894	6%	15%
Banking / finance	27,656	10	4%	23,144	14%	84%
Private health	16,198	7	3%	4,467	3%	28%
Private education	26,367	6	2%	6,577	4%	25%
Local government	24,825	2	1%	2,050	1%	8%
Tourism	5,478	2	1%	1,020	1%	19%
Arts	330	1		12	-	4%
Construction	140	1		40	-	29%
Manufacturing	1,251	1	-	1,370	1%	100%
Commercial office and other total	382,091	207	81%	142,283[2]	88%	37%[2]
Total		252	100%	161,988	100%	

[1] Source data not available

[2] Excluding the responses from businesses that were owner occupiers and responded to the property owner survey

[3] Data sourced from Colliers

- The table shows that the response rate for professional services firms and banking and finance institutions as a proportion of the pre-Earthquake leased are was 79% and 84% respectively
- The response from central government and local government was 15% and 8% respectively
- We estimate that government entities representing approximately 80,383 sqm of commercial floor space did not respond to the survey. These will be contacted directly by the Government Property Centre of Expertise
- As these entities form a significant sub-section of the overall population they will play a key role in the rebuild

While some sector principals were reluctant to complete the survey they did engage in discussion. We summarise our overall engagement as follows:

Business type	Survey response	Discussion engagement
Professional/private firms	Strong	Strong
Local government response	Poor	Reasonable
Regional government response	Strong	Strong
Central government response	Reasonable	(1)
Hospitality	Poor	Strong
Retail	Poor	Strong

(1) These will be contacted directly by the Government Property Centre of Expertise

Poor response	0-10% response
Reasonable response	10-40% response
Strong response	Greater than 40%

Those requiring commercial office space engaged the most with the survey and responded the most positively to repopulating the Central City Area.

Retail and hospitality and accommodation

The response rate from retailers, hoteliers and the hospitability was poor.

Discussions with retail sector leaders suggested this was due to a reluctance to commit to a Central City Area until there was a clear plan that economically supported a decision to return. We note that the profile (in terms of size, location and profile of tenants) of the Central City Area will play a major role in determining when and if retailers return.

Many retailers indicated that they had relocated to sites that were more profitable. One respondent stated, "the growth we have experienced in suburban malls does not encourage me to even want a new [Central City]" and will require a compelling business case to return. A further respondent stated "the [Central City] needs to be competitive against the major malls".

As a result of the low sample sizes we have been particularly cautious as to the statistical relevance of the data in these areas.

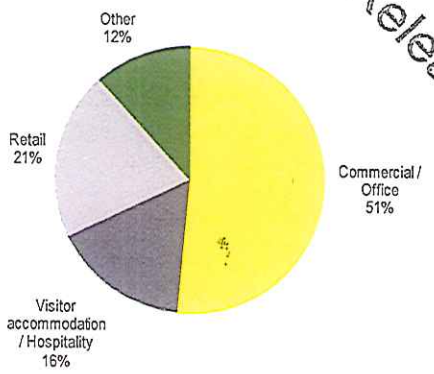
Accommodation operators who were in the city have been reluctant to speak on record about their future intentions. We understand that this is a position taken while insurance negotiations are in progress. We are also told that until a decision is made about the location of key public assets, they will not comment on any course of action.

Overview and profile of property owner responses

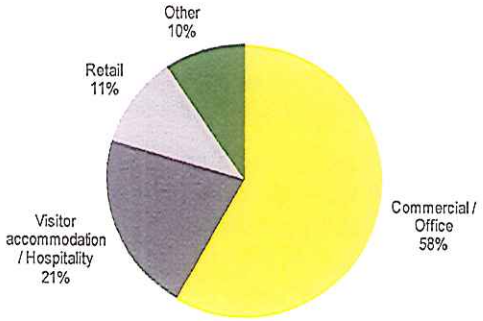
No reliable information has been made available to us that can clearly identify the total net lettable property (all categories) in the survey area that existed prior to the Earthquake. The only response group with a known population (to any level of accuracy) are those that tenanted commercial office space.

The property owner survey respondents are comprised of 112 owner occupiers (in full or in part) with a total of 156,416 sqm of lettable floor space and 127 non-occupying property owners with a total of 260,889 sqm of lettable floor space.

Primary building use for all respondents based on number of respondents



Primary building use for all respondents based on lettable floor space (sqm)



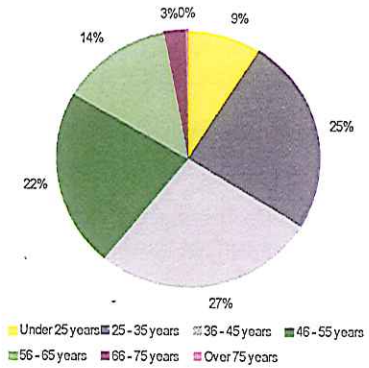
Of the total respondents 58% stated that their property was predominantly commercial office. This portion represents 242,317 sqm of commercial office space.

However, it is difficult to draw direct comparisons to the total pre-Earthquake commercial office space estimated by Colliers due to inconsistencies between how Colliers and the respondents have defined office space.

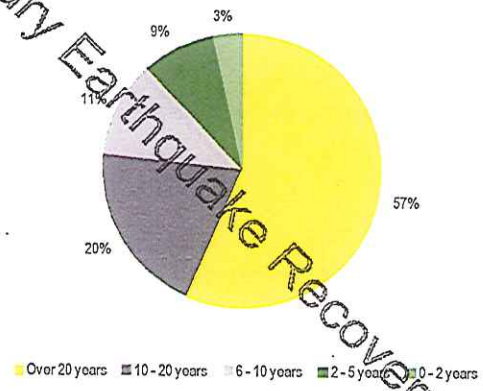
Overview and profile of consumer responses

The following charts depict the profile of consumer respondents by age, length of time in Christchurch/Canterbury.

Age of consumer survey respondents

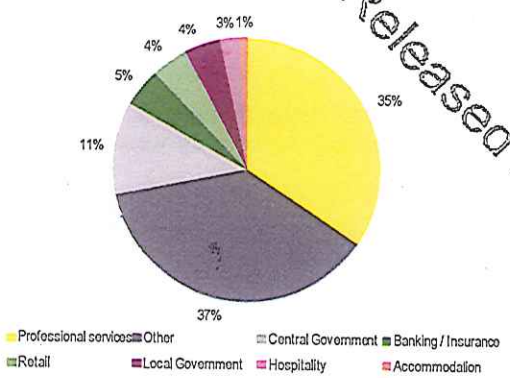


Length of time consumer survey respondents have lived in Christchurch/Canterbury area



65% of consumer survey respondents worked in the Central City Area at the time of the earthquakes and chart below summarises the nature of work undertaken by those respondents.

Type of work undertaken by consumer survey respondents that worked in the Central City Area at the time of the earthquakes

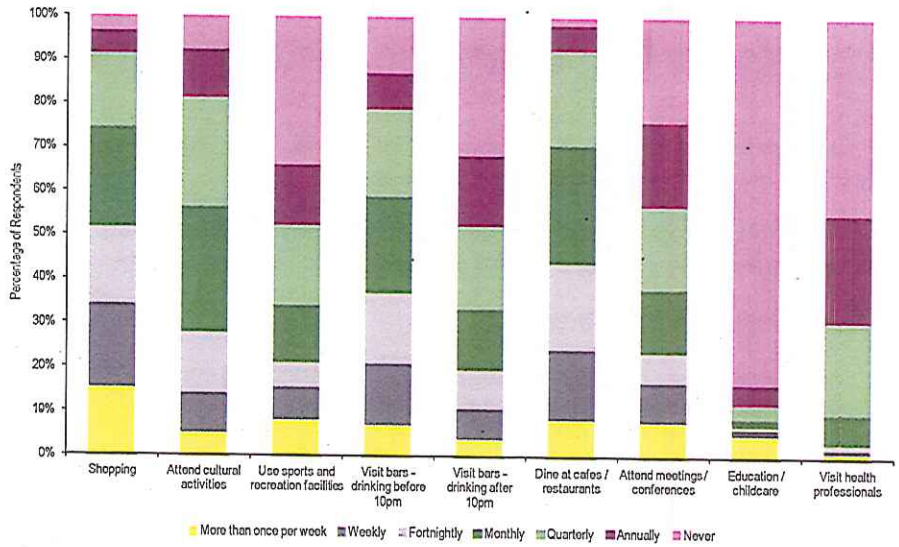


Top ten employee respondents groups to consumer survey by employer

Rank	Company	Total responses
1	Telecom New Zealand	312
2	ANZ National Bank	78
3	Canterbury District Health Board	60
4	Statistics New Zealand	57
5	Solid Energy New Zealand	49
6	Ernst & Young	43
7	CPIT	29
8	Christchurch Casinos	26
9	Aurecon New Zealand	25
10	Orion New Zealand	25

The following charts show how the consumer respondents used the Central City Area prior to the Earthquake (other than for work).

Use of Central City by consumer's pre-Earthquake



Application of the data received to the quantitative and qualitative analysis

Data from all three surveys has been used to analyse overall demand and supply for commercial property in the Central City Area.

While it was our intention to achieve the highest possible response rate from all tenants and property owners we did not anticipate that we would achieve a 100% response rate. As part of the viability testing, the values attributed to the remaining population were given extrapolated values based upon the characteristics of respondents.

Extrapolation introduces unknown errors into the estimates, and the reader of the data should bear this in mind. The size of these unknown errors was difficult to quantify.

Other errors occur for reasons such as respondent error and errors in processing.

While every effort is made to minimise these errors, they may still occur. It is not possible to quantify their effect.

Appendix D Demand side qualitative findings

In this section we consider the dimensions of the demand-side market for Commercial Property in the Central City Area.

Our work on the demand side is predominately based on information collated through two surveys; being a tenant survey and a consumer survey.

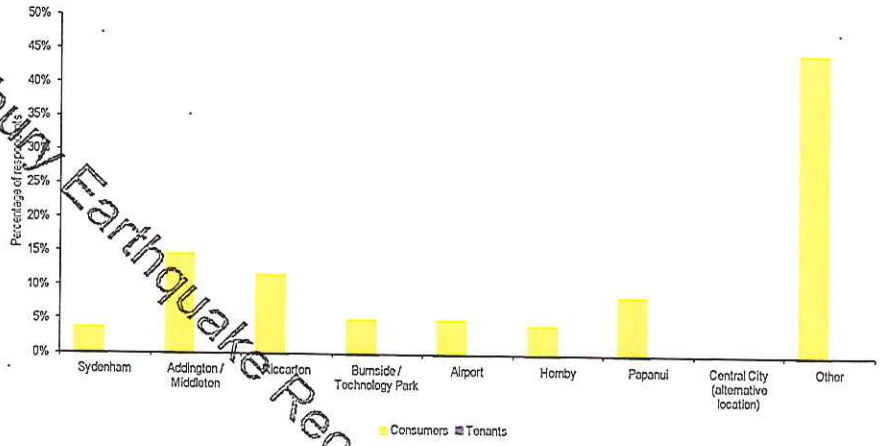
Our work is presented in three parts.

- Firstly, we have analysed the attitudes of tenants and consumers if they have relocated. Specifically we comment as to:
  - Where they have relocated to
  - The type of property relocated to
  - The perspectives of consumers and tenants on their current location
  - Satisfaction levels of consumers and tenants regarding their current location
  - Current lease terms
- Secondly, we have analysed the attitudes of tenants and consumers in respect of their attitude to return to the Central City Area in the following areas:
  - Desire and probability of returning
  - Height and grade of building they will return to
  - Preferred locations
  - Features of the Central City Area that would assist their return
  - Wider views in respect of the rebuild
- Finally, we have determined the preferred rental demanded and square meterage required by those that completed the tenants survey

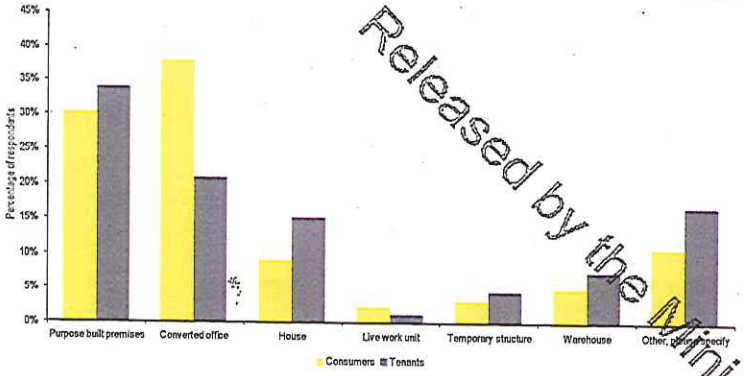
Relocation post-Earthquake

81% of employees who responded to the survey and worked in the Central City Area pre-Earthquake had to relocate to alternative location with their employer following the Earthquakes. 83% of tenants who responded had to relocate from the Central City Area following the earthquakes. The following charts summarise the nature of these relocations and views of these respondents in relation to their relocation.

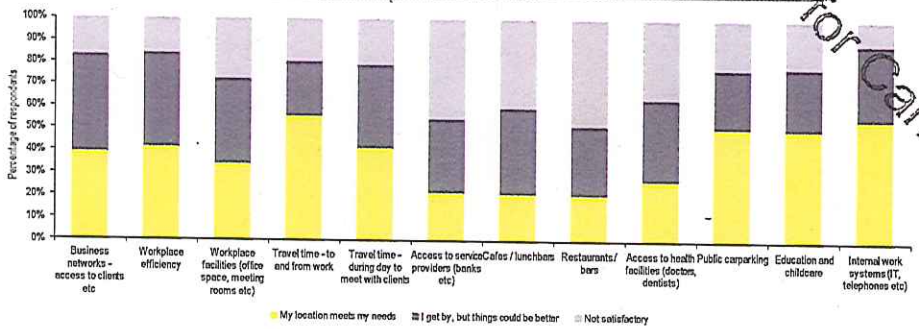
Location of new premises



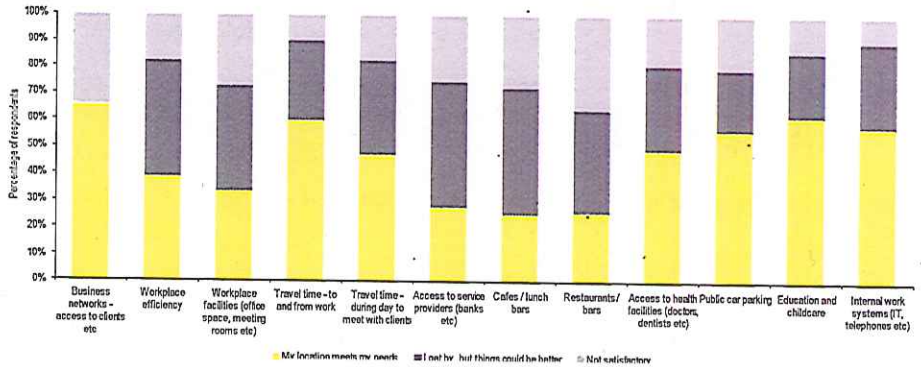
Type of property relocated to



Consumer perspectives on the relocation of their employer



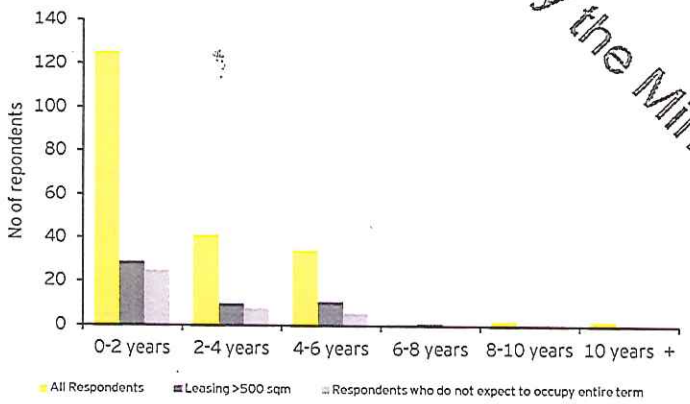
Tenant perspectives on the relocation of their premises



- Of the tenants who interacted regularly with colleagues, clients and customers based in the Central City Area prior to the Earthquakes, 18% do not consider they have maintained a satisfactory business relationship with these parties in their new location
- 55% of tenants consider the fragmentation of the business community to the suburbs has a significant to very significant impact on their ability to operate the business effectively. Whereas 65% of consumers consider the fragmentation has had an impact on their efficiency
- 53% of consumers whose employer relocated following the earthquakes are satisfied with their new business location. Similarly 49% of tenants are satisfied with their new business location. However, if we analyse tenant responses by tenant type we find that only 45% of commercial office tenants are satisfied, 67% of hospitality tenants are satisfied and 77% of retail respondents are satisfied with their new business location
- Tenants who had relocated following the earthquakes were asked whether they consider their productivity had improved, reduced or has unchanged at their new location. Overall 49%, of tenants consider their productivity has reduced at their new location. These percentages were lower for retail and hospitality/ accommodation with 46% and 33% respectively
- We note that only 46% of tenants stated that existing lease commitments were a significant or very significant factor in preventing their return to the Central City Area

- Further only 7 of the 210 tenant respondents who had relocated had existing lease terms that exceeded 6 years and one of these stated that they did not expect to occupy the premises for the full lease term
- 60% of respondents (57% of those tenants seeking to lease 500 sqm of more) have a remaining lease term of less than 2 years and only 3% of respondents had a remaining term of 8 years or longer

Number of years of current lease term for relocated tenants



Appetite for returning to the Central City Area

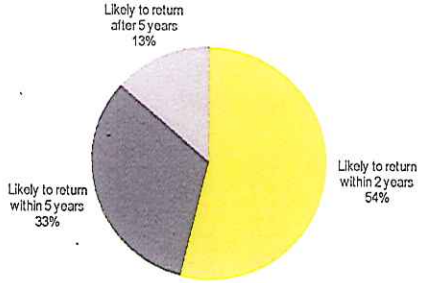
Consumers' desire to return to the Central City Area

- 64% of consumer survey respondents wish to work in the rebuilt Central City or are currently working in the Central City Area
- Of those that would return 63% would be prepared to work in an existing building refurbished and strengthened as required
- 76% of consumer respondents who were in employment in the Central City Area prior to the Earthquake would return to work in the Central City Area

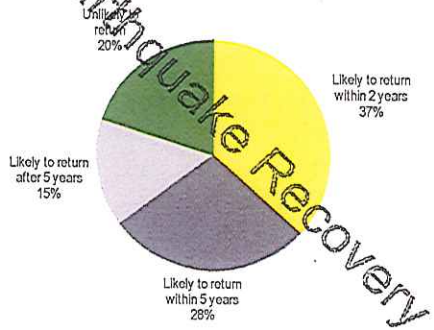
Tenants' desire to return to the Central City Area

- 80% of tenants who moved to a new location following the Earthquakes stated that they are likely to return to the Central City Area and 55% said they would consider moving twice while permanent buildings are developed in the areas that will become the final precincts in the Central City Area
- Only 25% of tenants would return to an existing building refurbished and strengthened as required

Probability of returning for tenants leasing >500 sqm



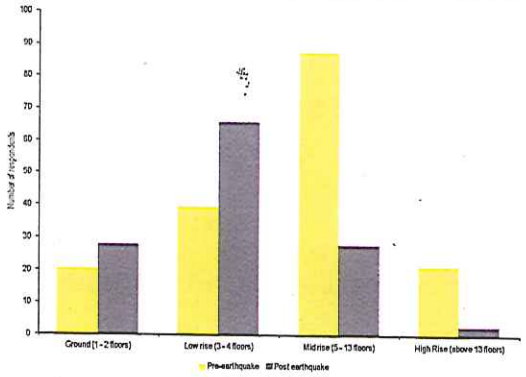
Probability of returning for all tenants



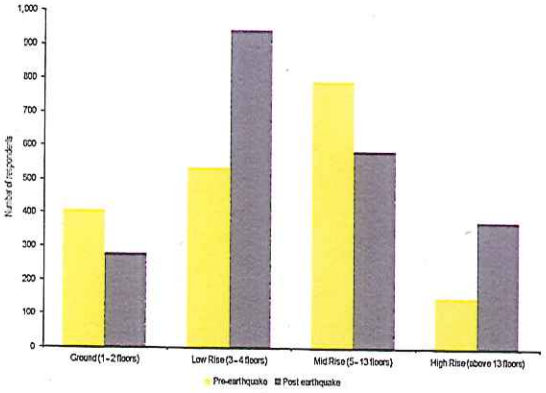
Building height

- There is support for low rise and ground floor buildings from both consumers and tenants, with 58% of consumers and 75% of tenants preferring commercial property that has a height of 4 floors or less

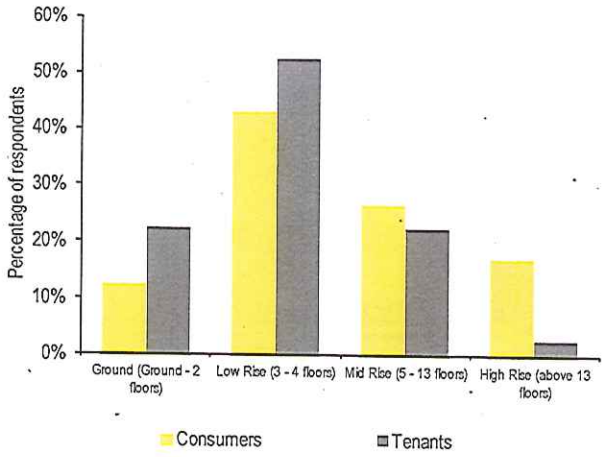
Tenant responses to building height pre-Earthquake vs. preferences post-Earthquake



Consumer responses to building height pre-Earthquake vs. preference post-Earthquake

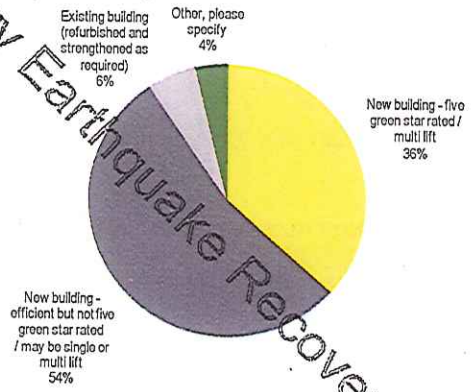


Comparison of tenant and consumer views on the height of building they would return to in the rebuilt Central City Area

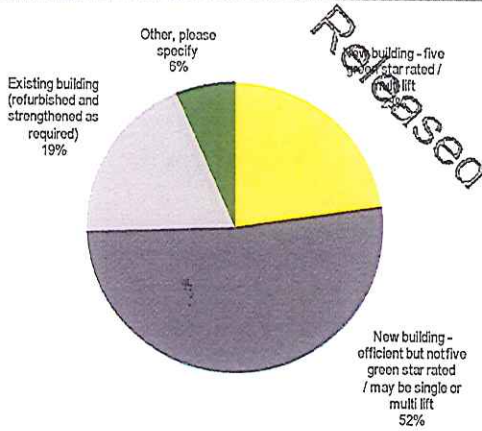


Desired grade of building

Grade of building desired by tenants leasing >500 sqm



Grade of building desired by all tenants



Tenant demand for leased car parks

- Prior to the earthquakes 93% of tenant respondents had car parking less than 5 minutes walk from their premises. Currently, 63% of respondents who have been relocated and wish to return to the Central City Area want onsite parking and a further 23% of respondents want parking within five minutes walking distance

Operating expenses

- Pre-Earthquake operating expenses for A+ and A grade buildings were in the region of $60 - $75 per sqm
- Projected post-Earthquake operating expenses are likely to be in the region of $90 - $100 per sqm*. It is difficult to be precise due to the uncertainties of the insurance and Council rates components

** Source: Colliers*

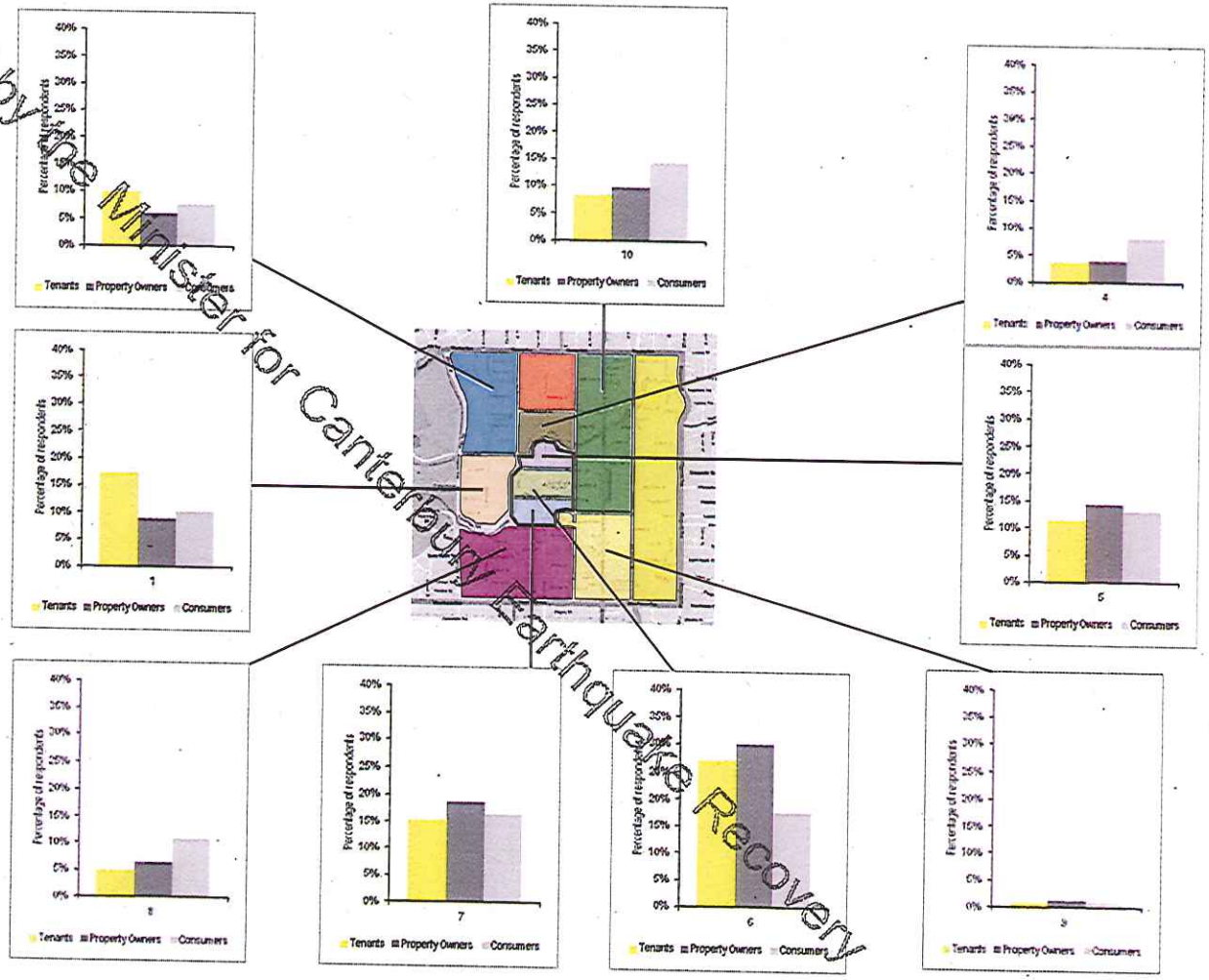
Tenant preferred locations (by number of respondents)

- There was a diverse range of views as to where the office precinct should be, with tenants preferring one of the following areas that were within the Central City Area:
- Gloucester St, Manchester St, Oxford Tce and Hereford St (the Square) - (27%)
- Armagh Street, Durham Street, Cambridge Terrace and Rolleston Avenue (Arts) - (18%)
- Hereford St, Manchester St, Lichfield St and Oxford Terrace (Cashel Mall) - (15%)
- However, there was also strong support for the area around Victoria Street (10%) and the area of Oxford Terrace, Manchester Street, Gloucester Street and Durham Street (Victoria Square) - (12%), leading to commercial tenants being diffused over a wider area that anticipated by the CCP
- There is a clear preference to locate the retail precinct in either the area of Gloucester St, Manchester St, Oxford Tce and Hereford St (the Square) or Hereford St, Manchester St, Lichfield St and Oxford Terrace (Cashel Mall) with 68% of tenants, 64% of property owners and 57% of consumers preferring these areas. We note that these preferences are broadly consistent with the CCP

Desired location (tenants vs consumers vs property owners) as a % of respondents - Business / office precinct

Key

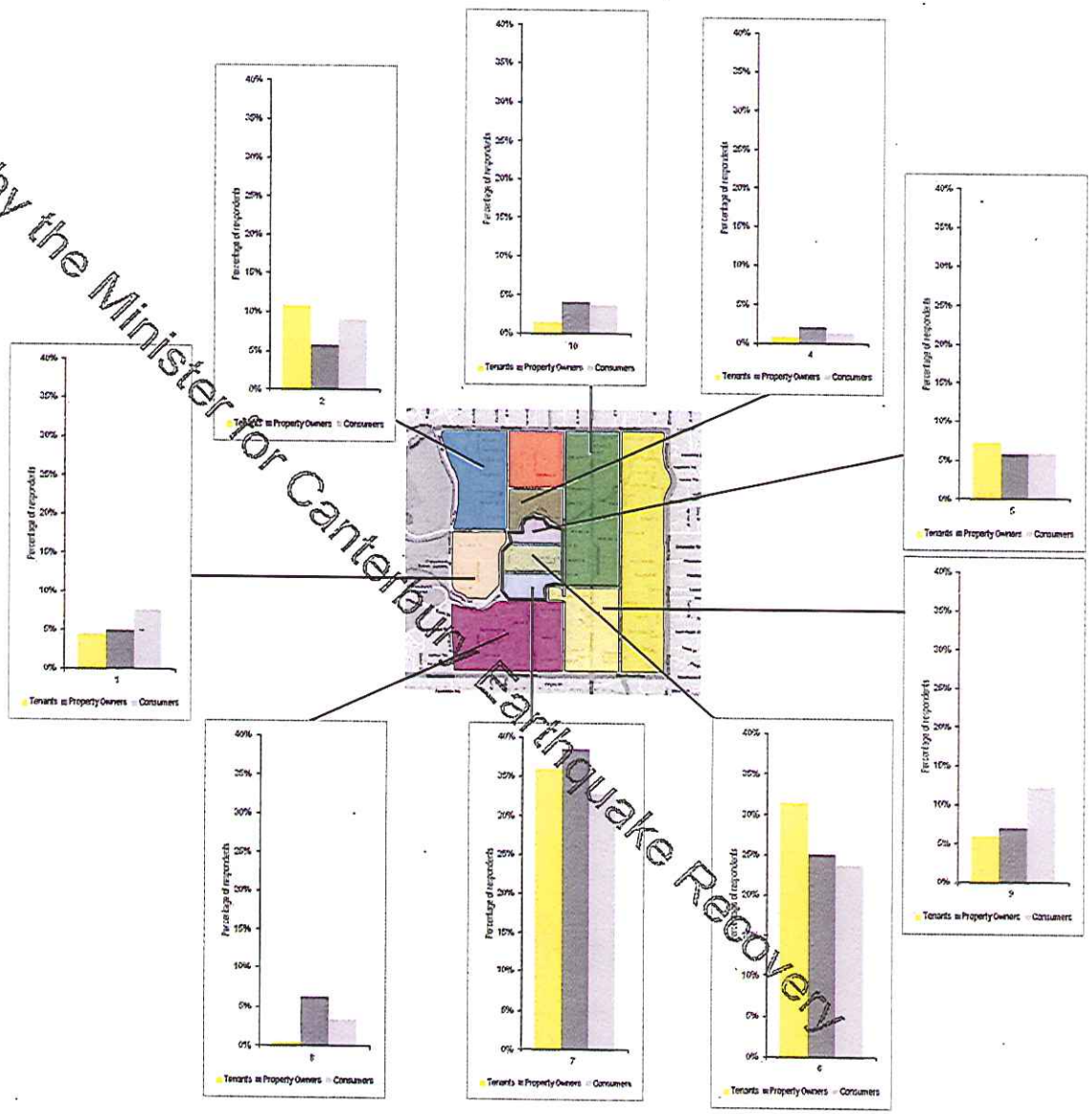
1	Area of Armagh St, Durham St, Cambridge Tce and Rolleston Ave
2	Area of Victoria St
4	Area of Peterborough St, Manchester St, Oxford Tce and Durham St
5	Area of Oxford Tce, Manchester St, Gloucester St and Durham St
6	Area of Gloucester St, Manchester St, Hereford St and Oxford Tce
7	Area of Hereford St, Manchester St, Lichfield St and Oxford Tce
8	Area of Lichfield St, Barbadoes St, Moorhouse Ave and Antigua St
9	Area of High St
10	Area of Bealey Ave, Barbadoes St, Cashel St and Manchester St



Desired location (tenants vs consumers vs property owners) as a % of respondents - Retail precinct

Key

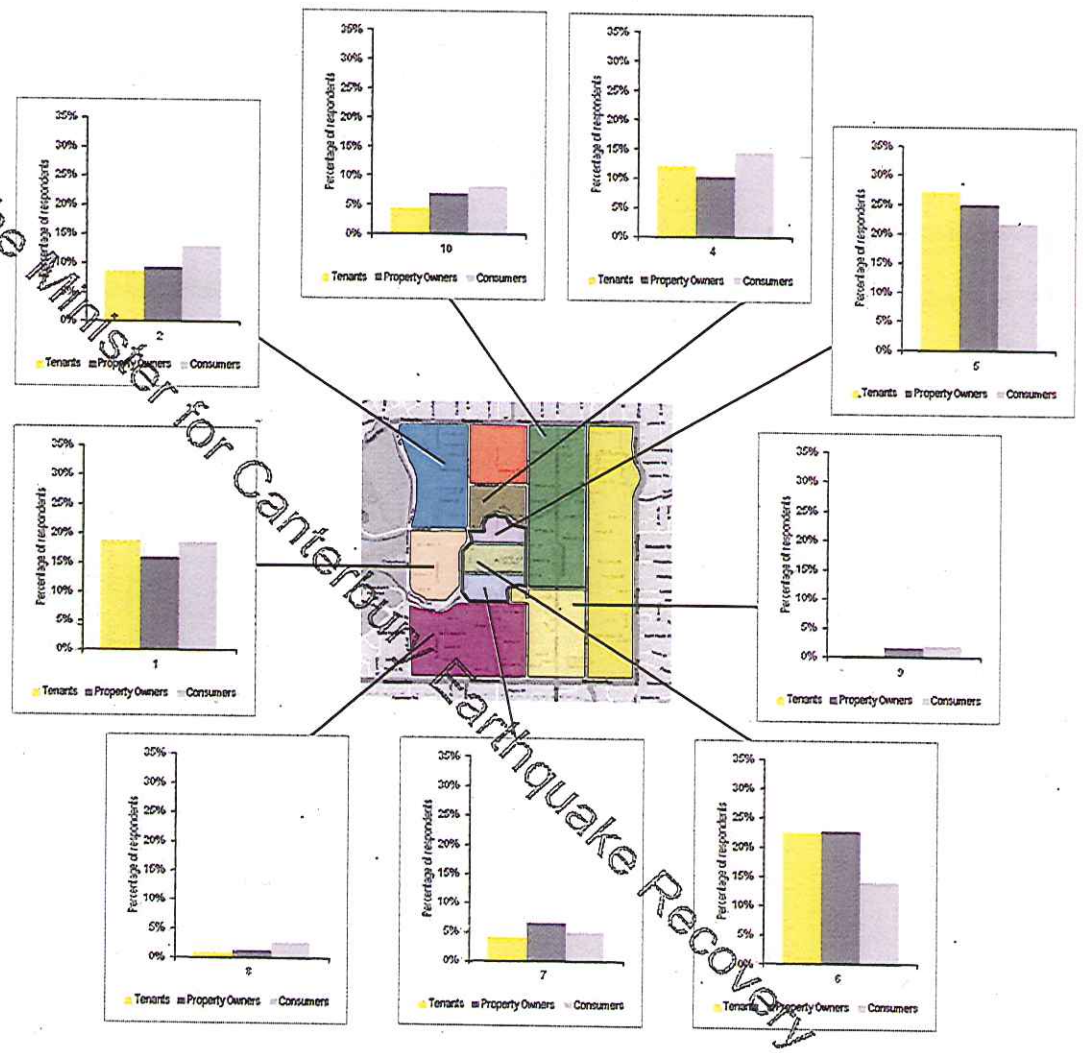
1	Area of Armagh St, Durham St, Cambridge Tce and Rolleston Ave
2	Area of Victoria St
4	Area of Peterborough St, Manchester St, Oxford Tce and Durham St
5	Area of Oxford Tce, Manchester St, Gloucester St and Durham St
6	Area of Gloucester St, Manchester St, Hereford St and Oxford Tce
7	Area of Hereford St, Manchester St, Lichfield St and Oxford Tce
8	Area of Lichfield St, Barbadoes St, Moorhouse Ave and Antigua St
9	Area of High St
10	Area of Bealey Ave, Barbadoes St, Cashel St and Manchester St



Desired location (tenants vs consumers vs property owners) as a % of respondents - Hotel and convention centre precinct

Key

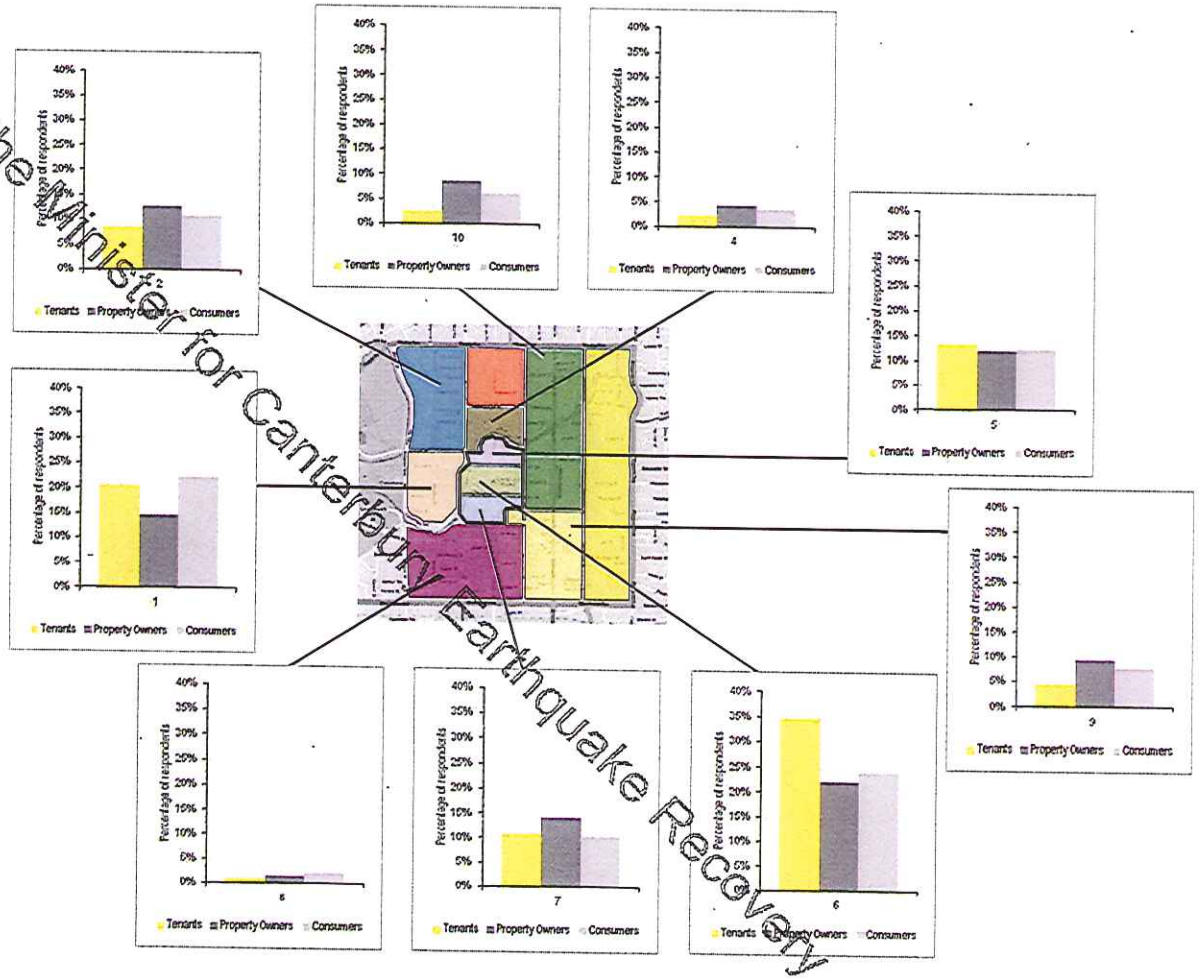
1	Area of Armagh St, Durham St, Cambridge Tce and Rolleston Ave
2	Area of Victoria St
4	Area of Peterborough St, Manchester St, Oxford Tce and Durham St
5	Area of Oxford Tce, Manchester St, Gloucester St and Durham St
6	Area of Gloucester St, Manchester St, Hereford St and Oxford Tce
7	Area of Hereford St, Manchester St, Lichfield St and Oxford Tce
8	Area of Lichfield St, Barbadoes St, Moorhouse Ave and Antigua St
9	Area of High St
10	Area of Bealey Ave, Barbadoes St, Cashel St and Manchester St



Desired location (tenants vs consumers vs property owners) as a % of respondents - Restaurant and bar precinct

Key

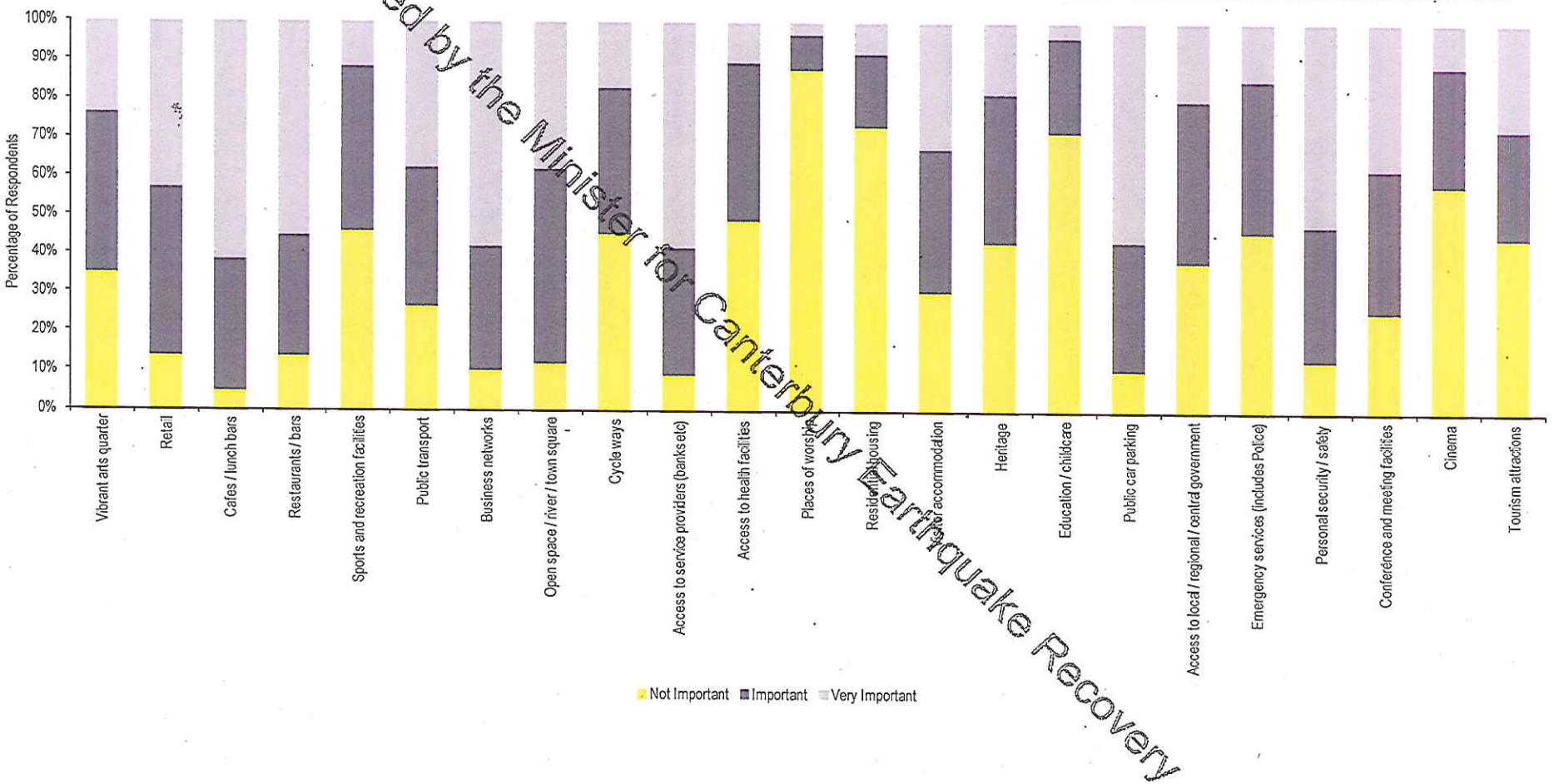
1	Area of Armagh St, Durham St, Cambridge Tce and Rolleston Ave
2	Area of Victoria St
4	Area of Peterborough St, Manchester St, Oxford Tce and Durham St
5	Area of Oxford Tce, Manchester St, Gloucester St and Durham St
6	Area of Gloucester St, Manchester St, Hereford St and Oxford Tce
7	Area of Hereford St, Manchester St, Lichfield St and Oxford Tce
8	Area of Lichfield St, Barbadoes St, Moorhouse Ave and Antigua St
9	Area of High St
10	Area of Bealey Ave, Barbadoes St, Cashel St and Manchester St



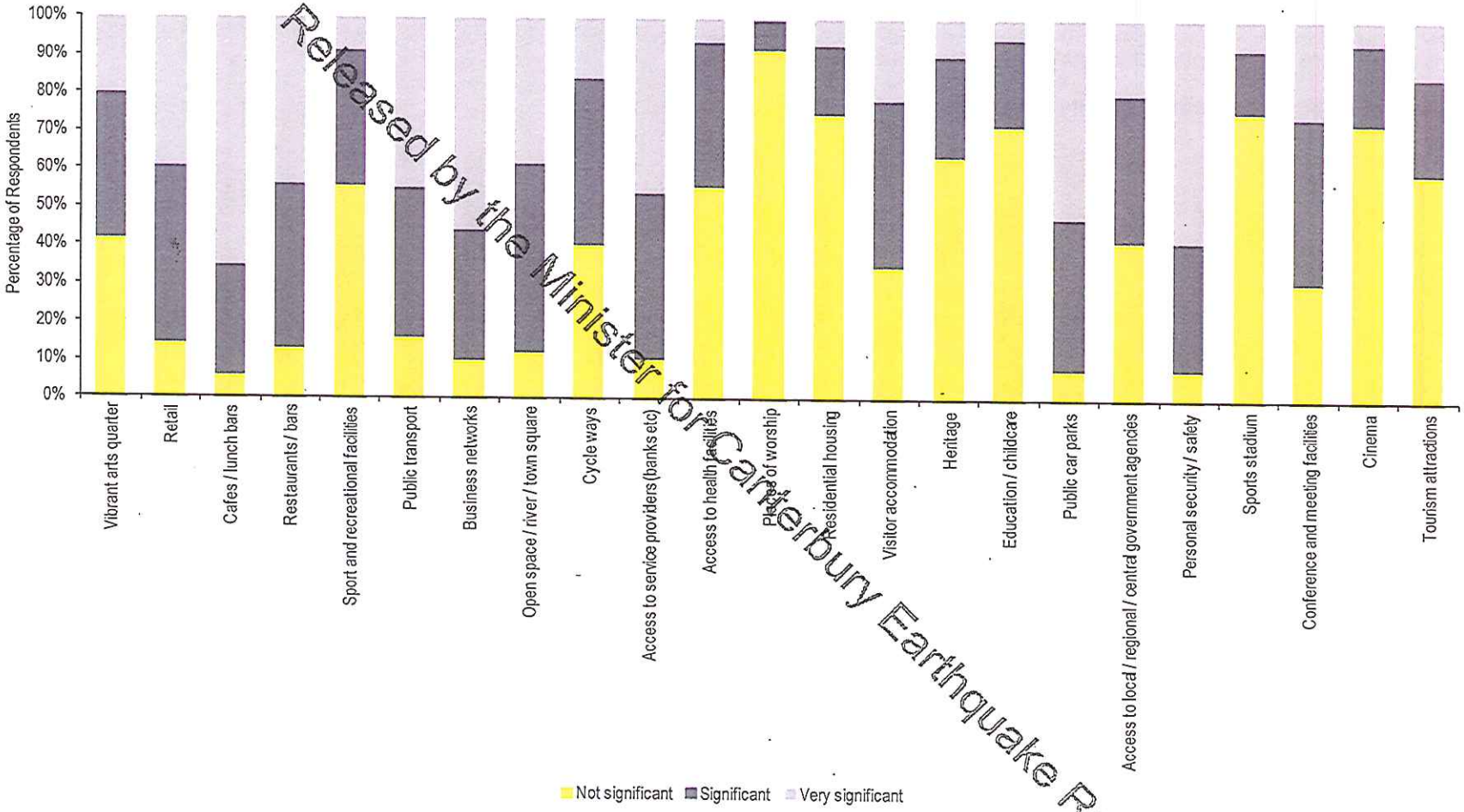
Important features in the Central City Area

Tenants and consumers were asked what features of the Central City Area were important to them before the earthquakes and what features are significant when making their decision to return to the Central City Area. Their responses are detailed below.

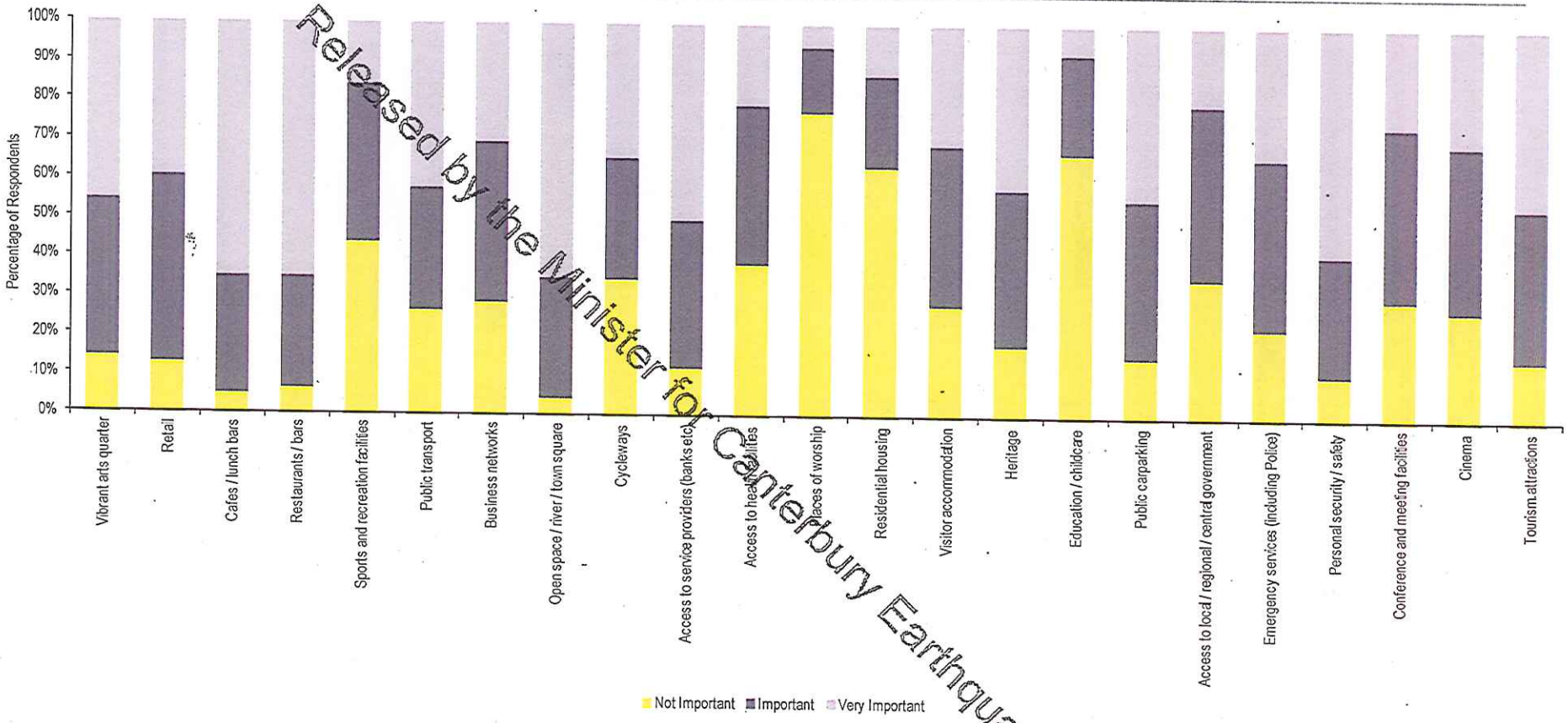
Tenants - importance of particular features of the city pre-Earthquake



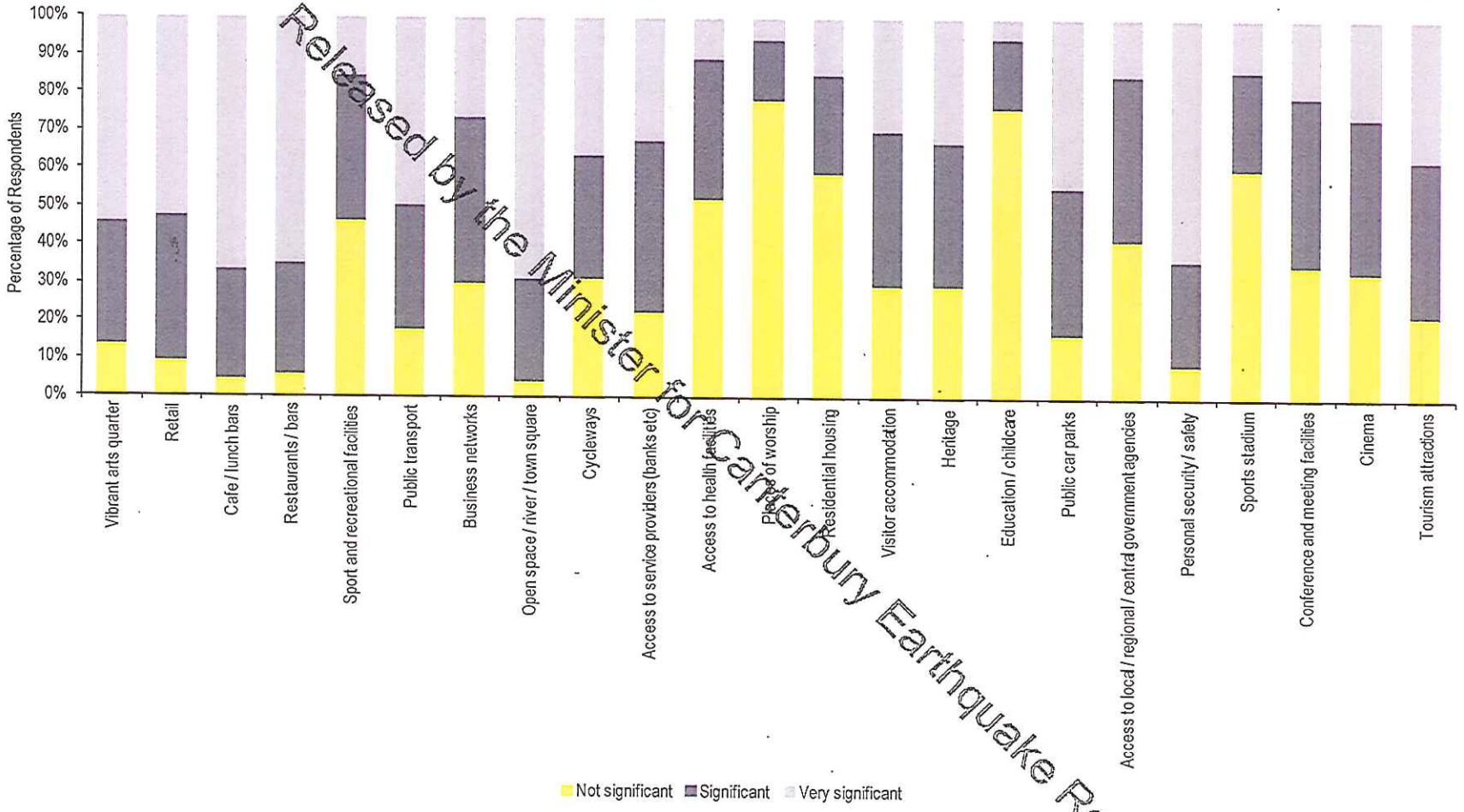
Tenants - importance of particular features of the city post-Earthquake



Consumers – importance of particular features of the city pre-Earthquake



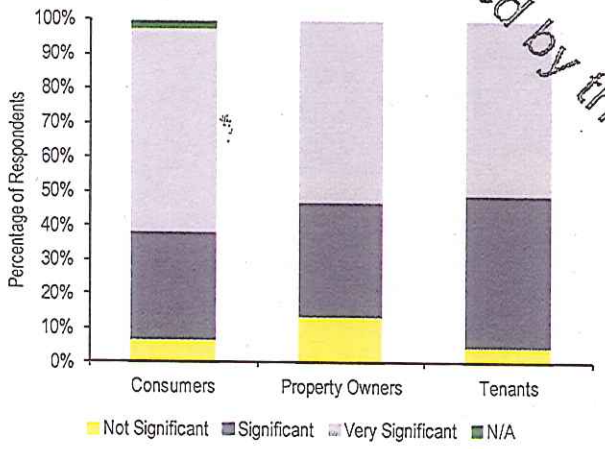
Consumers – importance of particular features of the city post-Earthquake



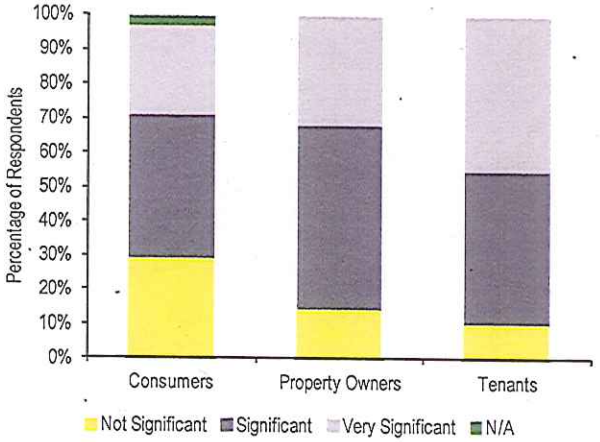
Factors that may prevent consumers and tenants from returning to the Central City Area in the next five years

These factors are detailed below in order of significance to tenants.

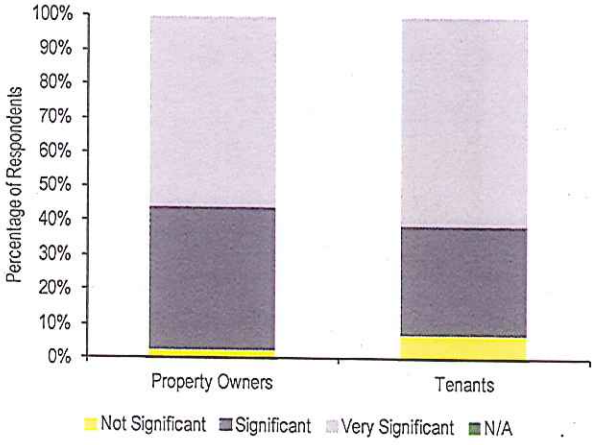
Level of amenities - available in the future (beyond 5 years)



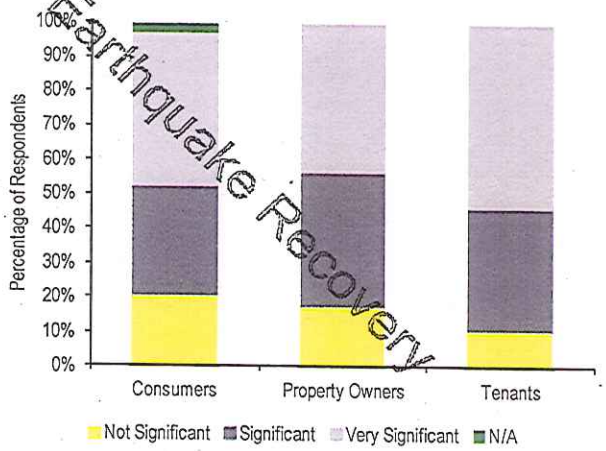
Ability to isolate construction zone (noise, traffic etc)



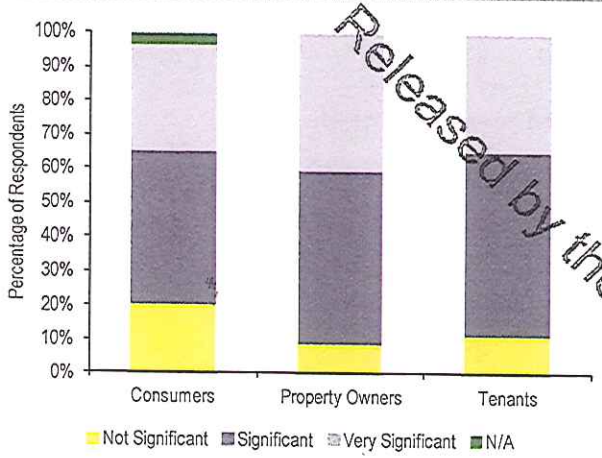
Availability of buildings within their timeframes



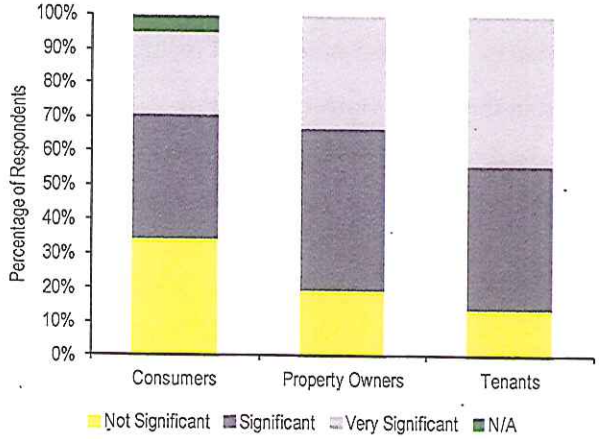
Car parking



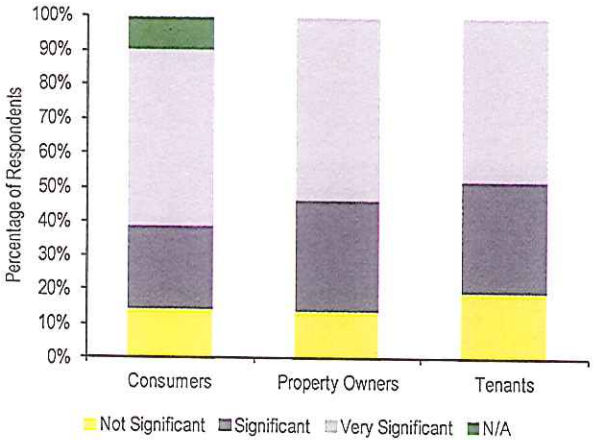
Level of amenities - being immediately available



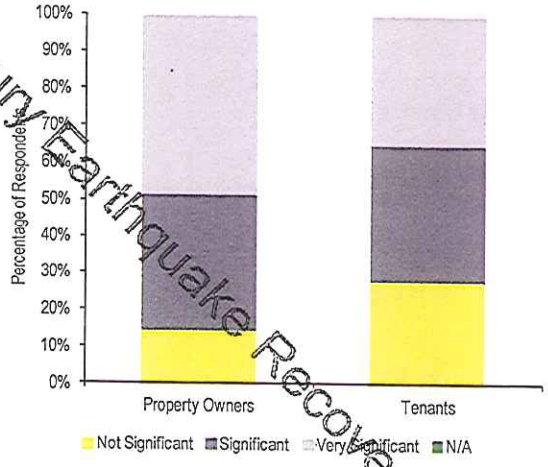
Impact of working amongst construction



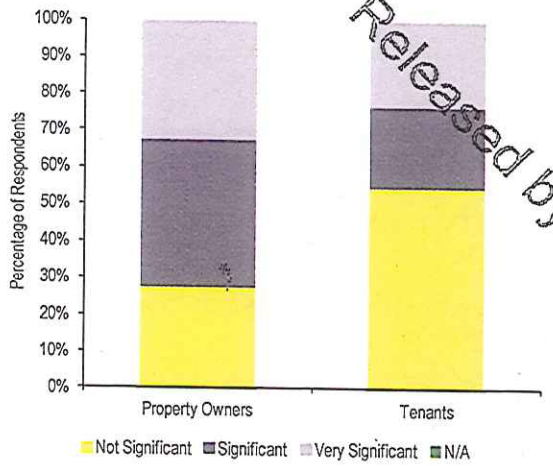
Personal safety in the workplace



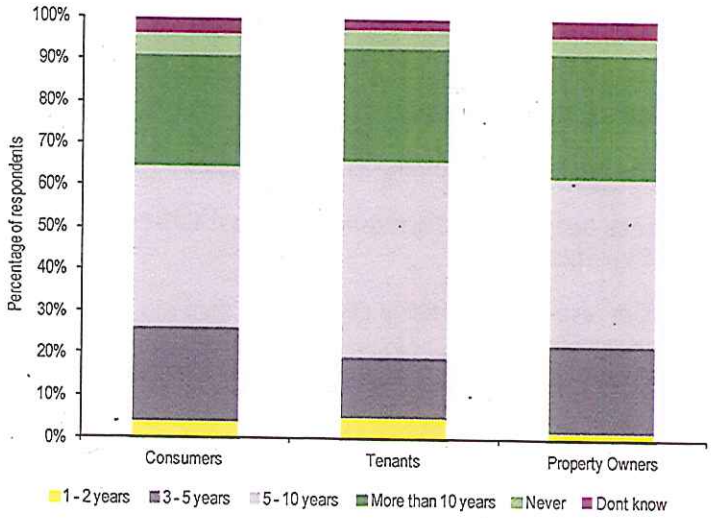
Unwillingness / inability to pay rental costs



Existing lease commitments



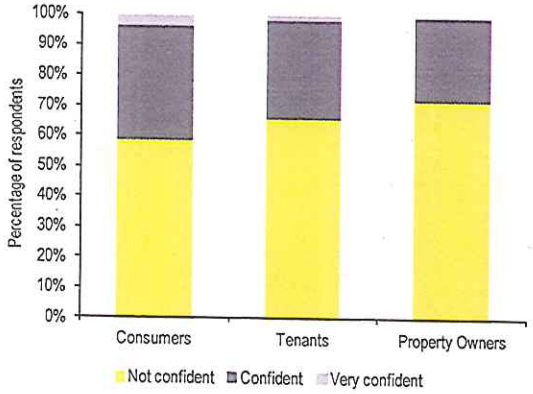
How long before the Central City Area becomes the heart of the city again



Wider perspective on the rebuild

The following two graphs indicate consumer and tenant perspectives of the Central City Area rebuild.

Level of confidence that the rebuild is on the right track



Appendix E Demand side quantative findings

In this section we examine the following:

- Price and quantity analytics for commercial office space
- Examine the trends between pre-Earthquake and post-Earthquake requirements of tenants
- Provide analysis in respect of the likely quantum of demand by location

Price and quantity analytics for commercial office space

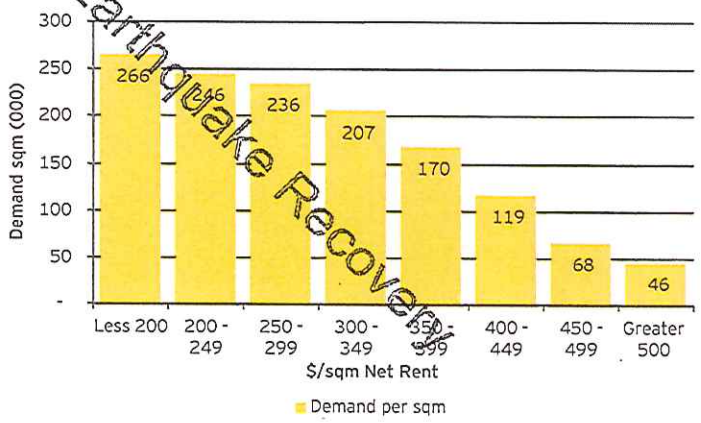
Acceptable levels of rent for commercial office tenants

The diagram opposite shows the demand curve for commercial office space based on the responses in the tenancy survey in respect of acceptable level of rents for tenants that would return to the Central City Area.

The demand curve has been derived as follows:

- The actual sqm of desired rental from tenants was 97,770 sqm (after data corrections), this compares to the 142,283 sqm of office space occupied pre-Earthquake. This reduction in required office space represents a combination of both tenants that are looking to return to the Central City Area and a reduction in the space required by the respondents
- The actual sqm of office space occupied by the respondents pre-Earthquake represented 37% of the total occupied office space in the Central City Area pre-Earthquake
- Based on this data we estimate that the total extrapolated demand is approximately 266,000 sqm
- We acknowledge that the our sample may be skewed towards respondents who are more likely than that the total population to return because:
  - Businesses that are returning are more likely to respond to our survey
  - The respondents to the survey are skewed towards the larger commercial office tenants
- However, these issues are largely offset by the following factors:
  - There is a significant portion of government entities representing a significant quantum of pre-Earthquake office space
  - The survey did not include the owner occupiers that completed the property owner survey and given they own property in the Central City Area are more likely to return

The demand curve shows that we estimate 68,000 sqm of commercial office space will be required at net rents of $450 per sqm or more.



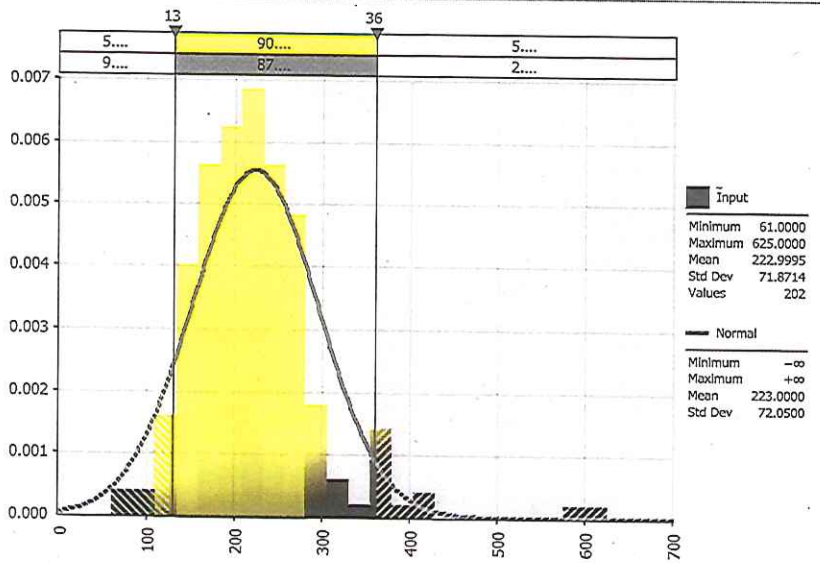
Pre-Earthquake rental and efficiency

Efficiency in modern office configurations will play a major part in a tenant's ability to meet the level of future net rent.

Tenants (commercial) responding to the survey indicated that prior to the earthquakes, they:

- Occupied 142,283 sqm
- Employed 6,620 full time employees who worked in this collective space
- Provided an average of 21.61 sqm / employee workstation
- Provided a weighted average 22.75 sqm / employee workstation
- Paid an average Net Rent of $223 / sqm
- Paid a weighted average Net Rent of $230 / sqm

Net rent ($/sqm) - pre-Earthquake RiskNormal (223.000,72.050)

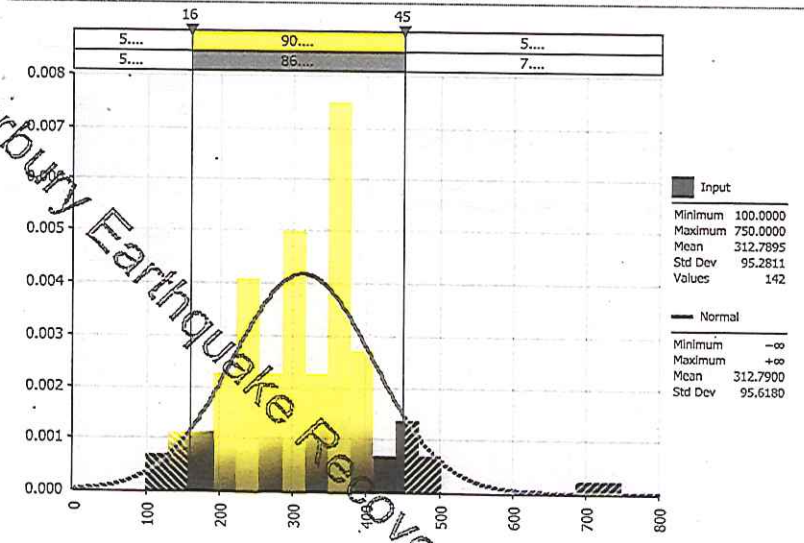


Post-Earthquake rental and efficiency

This same group of Tenants responded to a forecast basis with:

- A requirement of 100,382 sqm of commercial space in the Central City area
- An indication that 6,223 full time employees will work in this collective space
- An average 16.13 sqm / employee workstation in a new office configuration
- A weighted average 21.5 sqm / employee workstation in a new office configuration - reflecting the impact of the larger tenants who have sought more sqm per employee
- An average Net Rent has been forecast as $312 / sqm
- A weighted average forecast Net Rent of $370 / sqm

Net rental ($/sqm) - Forecast RiskNormal (312.790,95.618)

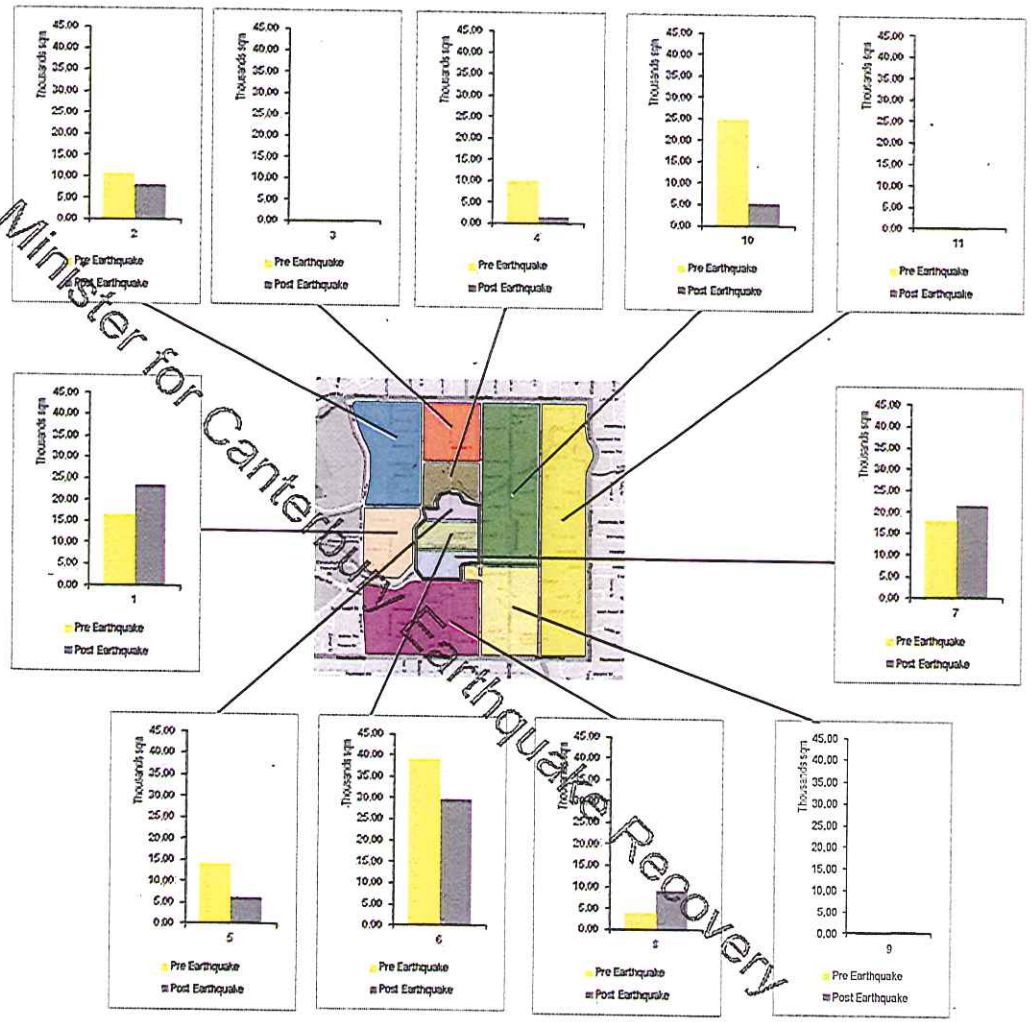


Preferred locations by size

The chart overleaf shows the sqm of space occupied pre-Earthquake by commercial office tenants and the preferred locations weighted by size post Earthquake.

Commercial office tenants preferred locations (weighted by size) - pre vs. Post-Earthquake

1	Area of Armagh St, Durham St, Cambridge Tce and Rolleston Ave
2	Area of Victoria St
3	Area of Bealey Ave, Manchester St, Peterborough St and Durham St
4	Area of Peterborough St, Manchester St, Oxford Tce and Durham St
5	Area of Oxford Tce, Manchester St, Gloucester St and Durham St
6	Area of Gloucester St, Manchester St, Hereford St and Oxford Tce
7	Area of Hereford St, Manchester St, Lichfield St and Oxford Tce
8	Area of Lichfield St, Barbadoes St, Moorhouse Ave and Antigua St
9	Area of High St
10	Area of Bealey Ave, Barbadoes St, Cashel St and Manchester St
11	Area Bealey Ave, Fitzgerald Ave, Moorhouse Ave and Barbadoes St



Interview with Angus Macfarlane - established property developer and investor

Angus' family has owned and developed Central City commercial property over two generations. He owns eight inner city properties including the large Munns site in Armagh Street, SBS Building at the intersection of Manchester and Worcester Streets and part of the Farmers Carpark and Food Court in Colombo Street.

Angus was concerned at the consenting process for new building development and on this subject he said "The consenting process needs to be streamlined. The council's responsibility should be focused on an administration role and all technical issues should be addressed by independent, competent consultants".

Angus has concerns on the slow speed of progress since February 2011 inside the cordon and stated "I will not reinvest substantial equity in the CBD core until I have confidence there is clear direction and leadership that will result in development of a vibrant and successful city centre".

He provided his thoughts on what measures are required to stimulate development in the Christchurch CBD and said "One of the key drivers to encouraging the rebuild could be tax concessions to the property owners and tenants in selected areas of the CBD, such as Cathedral Square."

Interview with Tim Glasson

Tim is a prominent Christchurch business person with a wide range of retail, property and business interests in the Central City.

Tim has four properties in the Central City - three of these properties have been demolished and the fourth is the subject of discussion with consultants.

Tim has no confidence in the city plan and it will take a lot to convince him that the city will establish a thriving retail environment that will be sustainable in the long term.

Tim supports the need for a smaller more compact and activated city, however stressed that the first information needed before any decision can be made about rebuilding is where the key assets including Convention Centre and sports precincts will be located.

"The government needs to provide commitment at the city plan will be reviewed to support development otherwise developers will not interfere to facilitate the redevelopment".

"Retail will always follow demand".

"A master plan is required to ensure that we do not simply evolve the city with a lot of three-storey buildings".

"The success of the rebuild will be about attracting the right leadership within the Christchurch City Council who are committed to rebuilding and revitalisation process and who will take advice on what is required to make the redevelopment process work"

Interview with Lou Vieceli – leading business person in the hospitality industry

Lou has previously owned and operated a number of central city and suburban hospitality businesses including the Holy Grail, Tap Room and Halswell Tavern.

Lou owned the Bangalore Polo Club on the strip prior to the Earthquakes and has since opened a Bangalore Polo Club in Wellington.

Lou is keen to re-establish a hospitality offering in the new central city.

"A key issue to hospitality business owners is the location of the major sports stadium. Owners will only invest the necessary capital into the central City if the sport stadium is located within walking distance from the main entertainment area." Lou Vieceli, Owner Bangalore Polo Club.

"The hospitality strip needs businesses like the Bangalore Polo Club and these types of businesses cannot reopen without changes to the noise restrictions proposed in the draft City Plan. Christchurch people want an area with sophistication, open to later hours but which is separated from the 'thud thud' of the night club scene." Lou Vieceli, Owner Bangalore Polo Club.

Appendix F Building cost analysis

The objective of this section is to understand the current building costs for a sample of new buildings.

Building costs

The following are the "vital statistics" of the building scenarios chosen for analysis including details of the materials used, the construction methods selected, the reasons why, together with some observations, comments and assumptions made.

In broader terms the building types fall into the following categories:

- The first is a small footprint mid to high-rise development with a building plate of approximately 500 sqm and with heights of 5, 10 and 15 levels. This building was chosen as it represents a good proportion of the building types that originally populated the Central City Area pre-Earthquake, and is also considered a valid benchmark
- The second is a larger footprint mid to high rise development with a building type similar to the above however occupying a considerably larger building plate of 1000 sqm. This model was chosen for analysis for direct comparison to the smaller but similar styled building above to highlight the amount, if any, efficiency increase due to building on a larger scale. The same heights of 5, 10 and 15 storeys were used
- Both of the mid to high-rise scenarios include above ground car parking within the building structure on either the first one, two, or three floors above retail on ground floor level. Cladding of all scenarios assumes a facade which could be of toughened / reinforced glass in nature or equally of a metallic type. For the purposes of this exercise the significant factors that have been considered are those of strength, cost, and time rather than architectural intent which will always be a subjective and personal consideration
- The draft CCP proposes maximum building heights of 31 metres (9 - 10 floors) in the Compact CBD and 21 metres (6 - 7 floors) in the wider Central City Area
- Apart from isolated examples, much of the previous building stock will fit within the proposed height limits, although existing use rights will provide opportunity to exceed them
- The building types adopted in terms floorplate size and heights of between 5 and 15 levels are considered to represent in broad terms a cross section of what the market requires, what is proposed in the CCP and what previously existed
- The Central City Area skyline was predominantly confined to office building and an array of hotels, some of which were converted office buildings, of between 4 and 12 levels. Around Cathedral Square and along the River Avon the following buildings existed:

Cathedral Square
ANZ Bank - 4 levels
BNZ - 13 levels
Rural Bank - 4 levels
Grant Thornton - 12 levels

River Avon
DTZ - 8 levels
HSBC (original) - 4 levels
URS - 8 levels
Ambo Craig - 8 levels
Chas Luney - 5 levels
Trust House - 5 levels

- Apart from three A grade buildings completed in 1989 - PricewaterhouseCoopers Centre (21 levels), Forsyth Barr House (17 levels) and Clarendon Tower (13 levels), there were comparatively few other buildings exceeding 12 levels

- It is the general consensus that the majority of buildings that failed during the recent Earthquakes did so due to their vintage; in so much that they were designed and built with only minimal consideration of seismic resistance in mind and with no consideration of an event the magnitude of which Christchurch encountered in 2010 / 2011. To this end the Project Team have chosen to utilise steel framed structures sat upon piled foundations which are not only significantly lighter than the previous reinforced concrete frames and unreinforced masonry buildings, but also lend themselves to the introduction of seismic consideration more readily

Below are various comments and assumptions made during the design and cost assessment:

- With no specific site for the buildings, the design and costings have been based on a site with "average" geotechnical conditions within the 4 avenues. The design allows for driven piles on all buildings of 5 levels and above. Final costs for this component of any building will require specific design and testing

- It is assumed that with the low level of construction activity around New Zealand and also the region and world that overall construction costs will change little in the next few years, thus costs are based on today's values. Contributing to this thinking is the likely slow start to rebuilding activity

- The foundation and building structural design has been completed using the proposed new seismic accelerations for the Canterbury Region. This has added significant build costs over existing building designs

- Car parking ratios are somewhat arbitrary and vary between 1/90 sqm to 1/223 sqm. Final car parking levels would likely depend on tenant requirements and availability of public parking

- The building specification is considered to be generally consistent with an equivalent Greenstar 4 star rating

- All buildings are architecturally designed of "standard" form. Specific architectural features would add additional costs to the building

- The cost analysis showed, as expected, that as the building footprint increases that the costs reduce. This is consistent with the assessment included within the Draft CCP

- All high rise buildings are designed using structural steel frames similar to those utilised on the HSBC Tower

- The following is a summary of the estimated build costs for each scenario, which includes all professional fees and a contingency allowance:

500sqm floor plate

Level	$	$ per sqm
5	9,746,537	$3,899
10	19,564,680	$3,045
15	29,731,225	$3,317

1,000sqm floor plate

Level	$	$ per sqm
5	16,033,509	$3,206
10	32,360,049	$3,236
15	50,819,968	$3,388

- Cost summaries are presented in Appendix J

- This analysis, together with assumptions in respect of land values, developer margins and investor yields is converted into a required rental per sqm that property owners will require to make the commercial property viable in Appendix I

We have been asked to provide an opinion on the potential additional costs to construct new buildings in the Christchurch CBD compared to pre earthquake. This information is a matter of opinion only and the actual figures will depend on many factors and would require some detailed assessment to provide 100% surety.

In our opinion the additional costs related to a 5 level 1000m² footprint building would be up to 10%, and most likely in the range of 5-10%.