State of the Art

Integrating public art with the rebuilding and re-imaging of the public realm: Christchurch Central Business District

EXPLANATORY DOCUMENT

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#1447069

A Research Project submitted in partial fulfilment of the requirements for the degree of Master of Architecture (Professional). Unitec Institute of Technology, 2017
For mum, and in loving memory of my dad.
This Explanatory Document has been prepared by myself, Adrian Viegas, as partial fulfilment of the requirements of the Unitec Masters of Architecture (Professional) programme.

I declare that all work included in this document is my own, unless stated otherwise, in accordance with the Chicago Manual of Style (16th Edition).

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Date: May 2017
ABSTRACT

Due to the earthquakes, which occurred on September 4th, 2010 and February 22nd, 2011, Christchurch has lost 80% of its buildings within the Central Business District (CBD). By not considering the use of urban art in a way that helps stimulate a cultural emergence to inform future development, the recovery plan has not fully utilised this unique opportunity of ‘starting from scratch’. Consequently, the end goal of the completed city will seek vibrancy only as a reactive response.

Post-earthquake there are ample opportunities for artists and community start-ups to take back ownership of the city. The circumstances gave rise to many artistic murals and pop-up community-based projects. In the current stage of the rebuild, Cantabrians want to see more permanent tactical urban interventions, structures, and events that entice them back to the CBD. There is currently no platform or framework designed for such actions to exist or be taken into consideration in the planning process.

This research project details the master planning and design of an artist studio and residence, embedded into a new framework of architectural interventions that strengthen the Christchurch Central Recovery Plan. Through architectural interventions, it reinforces the need to adopt creative initiatives focused around urban art that position people at the centre of the rebuild.

The project explores how architecture can establish the context in which urban art can manifest and draw people back into the CBD to familiarise themselves with the rebuilding process. The public can build upon that context with community-led projects which will result in appropriate adjustments of the recovery plan. Therefore, the role of the architect should be to enable people to engage with their environment and allow them to take back ownership of the rebuild. Thus, formalising the proactive response this research project proposes. How can architecture employ urban art and use it as a catalyst to reinvigorate the Urban Centre in preparation for the recovery plan of Christchurch?
ACKNOWLEDGMENTS

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# GLOSSARY

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Angel</td>
<td>A well respected Graffiti artist who has passed away.</td>
</tr>
<tr>
<td>Back to Back</td>
<td>Graffiti that covers the whole wall from one end to the other.</td>
</tr>
<tr>
<td>Bite</td>
<td>To steal of another artist’s idea, name, style or colour scheme.</td>
</tr>
<tr>
<td>Black Book</td>
<td>A sketch book of the artist’s ideas and sketches.</td>
</tr>
<tr>
<td>Bomb</td>
<td>To paint or tag many surfaces in a short space of time.</td>
</tr>
<tr>
<td>Buff</td>
<td>The process of removing graffiti or painting over it in one tone.</td>
</tr>
<tr>
<td>Cannon</td>
<td>A term used for spray paint cans.</td>
</tr>
<tr>
<td>Childstyle</td>
<td>An intentional style done in the manner of a child’s painting.</td>
</tr>
<tr>
<td>Crew</td>
<td>A group of graffiti writers who occasionally paint together.</td>
</tr>
<tr>
<td>Dress-up</td>
<td>To paint over or decorate a window, door, or opening.</td>
</tr>
<tr>
<td>Fat-Cap</td>
<td>A type of nozzle with a large radius used for the infill of letters.</td>
</tr>
<tr>
<td>Fully Monty</td>
<td>Graffiti that is vulgar yet portrays an effective message.</td>
</tr>
<tr>
<td>Gallery</td>
<td>Walls or surfaces that are in public view but in restricted/prohibited areas such as along a motorway or train tracks.</td>
</tr>
<tr>
<td>Getting Up</td>
<td>To advance as a writer or an artist and develop a reputation.</td>
</tr>
<tr>
<td>Ghost</td>
<td>The remanence of previous graffiti that can still be seen after the ‘buff’.</td>
</tr>
<tr>
<td>Graffiti</td>
<td>Works of art, predominantly texts with or without supporting illustrations, which are spray-painted on canvas, walls, or other surfaces.</td>
</tr>
<tr>
<td>Hat</td>
<td>(Honour Amongst Thieves) A person considered trustworthy in the graffiti community.</td>
</tr>
<tr>
<td>Heaven Spots</td>
<td>Desired walls or surfaces which are hard to reach or access, making them more difficult to ‘buff’.</td>
</tr>
<tr>
<td>Hollows</td>
<td>Pieces of art that contain no fills, leaving just the outlines.</td>
</tr>
<tr>
<td>Insides</td>
<td>Graffiti that is executed inside trains, trams, and buses.</td>
</tr>
<tr>
<td>King or Queen</td>
<td>Male or female writers highly respected in the community.</td>
</tr>
<tr>
<td>Landmark</td>
<td>A term used to mark the territory of a wall or surface that has been tagged or referenced in a crew’s name</td>
</tr>
</tbody>
</table>
**Massacre**  When a wall with numerous layers of graffiti and/or tags is wiped clean.

**Paste-Up**  A stencil or drawing on paper applied onto a wall with wheat paste or wallpaper paste.

**Pichacao**  A unique form of tagging known to originate from Brazil.

**Piece**  A large complex painting that is considered to be beautiful. Derived from *Masterpiece*.

**Run**  The duration of time graffiti remains on a wall before being removed.

**Scratchitti**  A form of tagging done by etching into walls or a glass surface. Commonly found in bathrooms, windows, trains, buses, or trams.

**Slash**  To put a line through another artist’s graffiti. Seen as disrespectful.

**Stainer**  A marker pen with a 12mm or 20mm tip used to tag.

**Straights**  Simplistic block lettering which is easily readable and contains only two or three colours.

**Street Art**  Artwork conducted in a public space. Predominantly illustrations or object-based.

**Tag**  A signature styled uniquely to the artist.

**Throw-up**  A type of street art that lies between a tag and a bomb because of the complexity and time taken to complete.

**Toy**  *(Tag Over Your Shit)* Adjective used to describe poor work by an unskilled writer or someone who has not earned a reputation. Alternatively, ‘toys’ describes tags drawn over another more famous artist’s work.

**Wild style**  A graffiti’s text illustrated with arrows, 3D effects and interlocking letters which can become difficult to read.

**Writer**  A graffiti artist. First used to describe an individual writing in the New York underground scene.

**Writing**  An activity in which one writes their lettering or tag. The original meaning of graffiti. Graffiti is a word enforced by the media and not by the individuals performing the activity.
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PART ONE
1. INTRODUCTION
1.1. PROJECT BACKGROUND

The first iteration of this research project was orientated towards mixed-use developments and exploring how they can improve the plan for the CBD post-earthquake. After being brought up in Christchurch and witnessing the earthquakes and thousands of aftershocks, I was determined to critique the future city plan and propose an architectural solution to faults or oversights I believed would be in the planning. While researching, I discovered a section in the recovery plan on mixed-use developments and their role in the future of Christchurch. Evidently, I was not going to continue a research topic that already existed within the future city plan of Christchurch. The approach to finding a new topic now had to change from ‘what the city should have’ into ‘what the city does not have’.

There are two realities to be considered here. One is the present condition of Christchurch, which is continually in a state of flux, and the other is the stagnant future that the recovery plan of Christchurch depicts. By sifting through the information of the future city plan, it was evident that a lot had already been taken into consideration – as one would expect with hundreds of people involved in the rebuilding process. However, inspection of the plan prompted a key question: How will Christchurch become a resilient city? Despite the number of projects proposed, the answer to this question remains unclear in the information provided by the organisations leading the rebuild. This provided a focus for the research project.

1.2. AIMS & OBJECTIVES

This research project aims to investigate new methods of architecture that build upon derelict sites through urban art, while establishing vibrancy in an earthquake-stricken CBD. The project seeks to strengthen the narrative of character and identity through active community engagement from within a CBD and restore conversation between the public and council. Additionally, the project sets out to integrate architectural interventions with a city’s recovery plan. It questions the role of architecture and its place in time between a natural disaster and a predetermined vision of a city.

To achieve these aims, the project will:

- Analyse the presence of urban art projects within a city to inform a derelict architectural response.
- Propose a derelict architectural narrative that instils the character of the past conditions and represents the identity of the people, while providing a platform for open discussion of the future.
- Produce a master plan that builds upon the current status of the CBD, assesses the proposed recovery plan, and integrates architectural interventions.
1.3. **RESEARCH QUESTION**

How can architecture employ urban art and use it as a catalyst to reinvigorate the urban centre in preparation for the future city plan of Christchurch?

1.4. **CURRENT KNOWLEDGE**

Since the February 2011 Earthquake there has been a displacement of knowledge of the Christchurch Central Recovery Plan. In the months of May and June of the same year, successful efforts were made by the Christchurch City Council to include the public and develop ideas for a brief to rebuild a more vibrant city. This initiative was short-lived and, since the devastation of the earthquakes, people have been physically removed from the Central Business District (CBD). For most of them, their perception and understanding of the rebuild is often left to their imagination. The people of Christchurch may have contributed to the internal workings with ideas for the future city plan; however, unless an individual now has direct involvement in the construction process or development of the buildings and precincts within the city, the information provided is scarce and limited or, in some cases, entirely withheld from the public.

What the Christchurch City Council has failed to consider is the possibility of interpolating programmatic platforms within the CBD to facilitate continuous public engagement with the decision-making process.

The lack of supporting evidence in the recovery plan of a medium of educational exchange and collaboration itself generates a hospitable playground for urban art to thrive. Urban art initiatives that start at a grassroots level tend to spark a cultural emergence within the gaps of inadequate planning. In this scenario, urban art is used as a vehicle to express the desire for public education in the recovery plan and for an ongoing conversation with the council regarding this art form. With the aid of urban art, architecture can assist in gentrifying areas of Christchurch’s CBD to organically transition from the fragmented city to a more vibrant urban space. This richer foundation will strengthen the recovery plan.
1.5. **SCOPE & LIMITATIONS**

This research project is a critique of the current Christchurch Central Recovery Plan (developed by CERA) and how it could be improved. The project is informed by the continuously changing context of the CBD and, through analysing the recovery plan, it proposes an incremental approach to change. This approach supports the movement of people in the CBD and how they can interact with architectural interventions themed around urban art. As this project is informed by the context of the CBD, it cannot be replicated in another city, although the criteria and methodology could be adjusted to suit a similar city.

The research is only concerned with the projects laid out in the recovery plan that deal with the CBD. The project assumes the existence of other, separate, resilient efforts to improve the recovery of Christchurch outside of the CBD. This includes housing and social equity, damage to infrastructure, and other wider city issues not relating to the CBD.

One of the challenges that this project faces is the existence of an unknown number of initiatives that have been withheld from the public. This limits the extent of the research, and because of this, the design outcome can only be a product of analysing research provided by the council. At the same time, this limitation actually provides the basis and reason for the project’s presence and current need for existence in the CBD. Another challenge is that the proposal must be flexible enough to adapt to the context. As the city begins to be rebuilt, there is a decreasing number of sites to apply the projects methodology. Thus, the project’s time frame must lie between the demolition of the CBD and the completed vision of the recovery plan.
Figure 1. Structure Flow Diagram
1.6. METHODOLOGY

Research through Literature
The literature review will be conducted in three different sections within the ‘Research Chapter’. The first review is a critique of the Christchurch Central Recovery Plan, which highlights the absence of resilience and the lack of planning to accommodate urban art. This informs further literature reviews which analyse what resilience means for Christchurch and how a more community-led resilient approach can improve the recovery plan. Also, a philosophical text on art is explored to aid understanding of architectures’ adoption and disbandment of urban art throughout history. The literature reviews define the structure of the research chapter and inform a summary of architectural criteria.

Research through Precedents
Precedent studies have been interwoven through the relevant sections laid out by the literature reviews. As the literature review discusses resilience, a study on other examples of resilient cities is analysed to formulate architectural precedents for resilient criteria. Creative spaces are explored through the formal approach of urban art and neighbourhood projects are assessed using the informal approach. Additional criteria are extrapolated from the formal and informal precedent studies and combined with the resilient criteria to be used as tools for design.

Research through Design
A set of criteria will be used to help develop the master plan which highlights lessons learnt from analysing the precedents. Through assessing the relationships between these programmes, the arrangement of functions on the site can be positioned. Resilient architectural summaries will be utilised to inform visual collages of resilient environments and be implemented into the framework of the design. Once a chosen site is located, the criteria can then be used to develop the design of the derelict building to research a design outcome. Finally, the developed design outcome will demonstrate a vibrant architectural response to a derelict building with an emphasis on urban art.
PART TWO

2. RESEARCH

CHRISTCHURCH RECOVERY PLAN

RESILIENCE

URBAN ART

INDEX OF CRITERIA

FORMAL

INFORMAL

Figure 2. Structure Flow Diagram part 2
2. RESEARCH
Figure 3. Earthquake date points map 0-0.25 magnitude

Figure 4. Earthquake date points map 2.5-3.0 magnitude

Figure 5. Earthquake date points map 3.0-3.5 magnitude

Figure 6. Earthquake date points map 3.5-4.0 magnitude

Figure 7. Earthquake date points map 4.0-4.5 magnitude

Figure 8. Earthquake date points map 4.5-5.0 magnitude
2.1. INTRODUCTION

At 4:47 a.m. on 4th September 2010, Canterbury experienced an earthquake centred in Darfield measuring 7.1 on the Richter scale. Thousands of aftershocks followed. Fortunately, there were no casualties. However, there was damage to some parts of the city. In response to this earthquake a series of political actions and legislation were put in place. The Mayor at the time, Bob Parker, was re-elected for a second term and local MP and Minister Gerry Brownlee was appointed as Minister for Canterbury Earthquake Recovery (CER).

The earthquake was the first of thousands of earthquakes that would quickly destroy lives, buildings, and the character and identity of the city. At 12:51 p.m. on 22nd February 2011, Christchurch was struck by yet another aftershock, this time closer to the city and a lot more violent than the earthquake of 4th September five months prior. The fault line which lies beneath the Port Hills of Christchurch generated a 6.3 magnitude aftershock that lasted for 43 seconds at a depth of 7km. This fault line angles south-east which means that the 42,000 tonnes of energy being released pointed north-west straight towards the city. At first, the aftershock felt like something people had become accustomed to over the previous five months and so they thought nothing serious would come of it. However, two to three seconds into the shaking, it escalated. A monitoring station located in Heathcote Valley very close to the epicentre recorded that, just two seconds into the quake, the upwards acceleration was equal to 2.2 times the force of gravity.

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1 James Dann Barnaby Bennett, Emma Johnson, Ryan Reynolds, Once in a Lifetime: City-Building after Disaster in Christchurch (Freerange Press, 2014), 18.
2 Ibid.
3 Ibid.
5 Chris Moore, Earthquake Christchurch, New Zealand (Random House New Zealand, 2011), 87.
6 Ibid.
7 Ibid., 90.
Figure 9. Earthquake date points map 5.0-6.0 magnitude

Figure 10. Earthquake date points map All since 4 September 2010
A couple of months after the initial shocks of the earthquake, the people of Christchurch started to ask what was next for Christchurch and how the city could recover. To show strength and overcome the devastation, people were ready to demonstrate their resilience. Together with the Christchurch City Council, the people of Christchurch discussed their ideas to develop a strategy plan.

In the meantime, abandoned buildings and empty spaces resulted in an architectural canvas for urban art to materialise. To demonstrate resilience, street art started to decorate the abandoned buildings and bring people reluctantly back into the CBD. The organisation Oi You! was entrusted by the Christchurch City Council to oversee the painting of almost 40 murals across the CBD. This attracted worldwide attention as it was the largest display of street art in a CBD in the southern hemisphere. The undertaking of street art took place at three events as part of two festivals: *Rise* and *Spectrum*.8

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9 Ibid.
10 Ibid.
Figure 11. Recovery Blueprint
2.2. **CHRISTCHURCH CITY RECOVERY PLAN**

Planning decisions were made within a month of the February earthquakes that would kick-start the rebuilding process and bring about the issues that have come to light since. On 18th April 2011, the Canterbury Earthquake Recovery Act 2011 (CER) was passed.\(^\text{11}\) On May 14th 2011, there was a two-day expo called ‘Share an Idea’ which allowed the people of Christchurch to finally have a say in what they would like to see in the redevelopment of their city.\(^\text{12}\ \text{13}\) The voices of the people were heard, and ideas were gathered to help inform the first draft of the recovery plan.\(^\text{14}\) The ‘Share an Idea’ consultation between the people and the government continued through the ‘Share an Idea’ website’s virtual notice board.\(^\text{15}\) For the following six weeks it became hugely successful as a community expo, and in 2012 it earned a co-creation award.\(^\text{16}\) Within nine months of the Canterbury Earthquake Recovery legislation being passed, the recovery plan was developed by the Christchurch City Council and presented to the Minister for Canterbury Earthquake Recovery.\(^\text{17}\)

Throughout the ‘Share an Idea’ initiative, the people of Christchurch shared 105,991 ideas.\(^\text{18}\) An importance of the initiative was having people involved throughout the reinvention of their city. Post-it notes proved a highly effective tool to convey these ideas and this developed into the theme of the campaign. Big post-it notes represented ideas that were most popular and essential, while small post it notes meant they were still important but not as popular. The main ideas people shared were: people, green spaces, lane ways, fewer cars, and other community-focused projects. The current issue that Christchurch faces is the lack of conversation between local council and communities.\(^\text{19}\) Over the last few years, the cordons around the CBD have been reduced to fenced-off stand-alone lots, where some buildings are yet to be demolished or larger scale developments are currently being constructed. This has resulted in the absence of knowledge and ownership of the recovery plan. A participatory democracy should engage the public or the local community, discuss opportunities, and include involvement through discussions on a regular basis, leading to more interest in the projects because people have a sense of ownership.\(^\text{20}\)

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11 Barnaby Bennett, *Once in a Lifetime: City-Building after Disaster in Christchurch*, 10-11.
12 Ibid.
14 Ibid.
15 Barnaby Bennett, *Once in a Lifetime: City-Building after Disaster in Christchurch*, 59.
16 Council, “Share an Idea”.
20 Ibid.
Figure 12. Share an idea stickers
The disconnection of interrelationships between the precincts and sectors are not facilitated by a detailed bigger picture scheme.

Melanie Oliver writes,

“That these existing relationships and collaborations have been ignored reflects the plan’s lack of detailed consideration for interrelationships of the precincts and sectors, particularly about the arts”.

When the dust settled in Christchurch after more than 1300 buildings had been demolished, the landscape of the city centre was a deserted wasteland. Gap Filler is a creative urban regeneration initiative that fills the gaps of vacant lots in the city centre with pop-up pavilions, events, and installations to promote life within the city. Gap Filler worked with the Christchurch City Council to create a separate trust that allowed them to have access to the empty lots and provide a framework for groups to use the available space. Life in Vacant Spaces (LIVS) was initiated in September 2012 which allowed the creative initiative to work within the fragmented Central Business District.

Fostering the arts and creative industries is crucial to building a twenty-first century international city. Four major art institutions in the new city plan are the existing Arts Centre and Art Gallery, and the proposed Te Puna Ahurea Cultural Centre and Performing Arts Centre. However, some believe that the Arts Centre and the Art Gallery lack a physical connection as well as a cohesive symbiotic relationship which each other.

Artistic incentives such as Oi You! were established to assist local artists and a couple of the smaller art organisations, but there is nothing that addresses the bigger picture of the recovery plan. Recently, the Oi You! festival has moved north to Tauranga where the new art exhibition ‘Paradox’ is currently being displayed. This leaves Christchurch without a home for urban art and without a theme that could link proposed projects outlined in the recovery plan.

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21 Barnaby Bennett, Once in a Lifetime: City-Building after Disaster in Christchurch, 348.
22 Ibid., 317.
23 Ibid.
24 Ibid.
Figure 13. 80% City Demolished
Figure 14. The City Anchor Projects & Core

Legend

<table>
<thead>
<tr>
<th>Outer Core</th>
<th>Inner Core</th>
<th>Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Hagley Park</td>
<td>11 Innovation Precinct</td>
<td>19 Performing Arts Precinct</td>
</tr>
<tr>
<td>2 Cricket Oval</td>
<td>12 Retail Precinct</td>
<td>20 Retail Precinct</td>
</tr>
<tr>
<td>3 Health Precinct</td>
<td>13 Avon River Precinct</td>
<td>21 CCC Civic Office</td>
</tr>
<tr>
<td>4 Canterbury Museum</td>
<td>14 Health Precinct</td>
<td>22 Art Gallery</td>
</tr>
<tr>
<td>5 Metro Sports Facility</td>
<td>15 Arts Centre</td>
<td>23 Cathedral Square</td>
</tr>
<tr>
<td>6 CPIT</td>
<td>16 Cranmer Square</td>
<td>24 Library</td>
</tr>
<tr>
<td>7 Stadium</td>
<td>17 Community Garden</td>
<td>25 Convention Precinct</td>
</tr>
<tr>
<td>8 Temporary Cathedral</td>
<td>18 Margaret Mahy Playground</td>
<td></td>
</tr>
</tbody>
</table>
Figure 15. Precincts
Figure 16. Height Restrictions
Figure 17. Resilient Lenses

Reflective
using past experience to inform future decisions

Resourceful
recognizing alternative ways to use resources

Inclusive
prioritize broad consultation to create a sense of shared ownership in decision making

Integrated
bring together a range of distinct systems and institutions

Robust
well-conceived, constructed, and managed systems

Redundant
spare capacity purposely created to accommodate disruption

Flexible
willingness, ability to adopt alternative strategies in response to changing circumstances

Figure 18. Chronic Stresses & Acute Shocks
2.3. RESILIENCE

To understand resilience, or ‘urban resilience’, and what it means for Christchurch, the project assesses the Resilient Greater Christchurch Plan to ascertain the scope of their proposal. 100 Resilient Cities is a non-profit organisation funded by the Rockefeller Foundation which provides governance and operational infrastructure to its sponsored projects. 25 100 Resilient Cities defines urban resilience as:

“The capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.” 26

The resilience plan was developed with the help of 100 Resilient Cities and tackles the wider scope of Christchurch’s issues. Additionally, this project analyses cities on a smaller and larger scale in comparison to Christchurch, to develop architectural summaries. These summaries are developed by assessing the precedent cities against the project’s aims through the seven lenses of resilience. These seven lenses are: 27

In his discovery, Michael Berkowitz, the President of 100 Resilient Cities says,

“Globalisation refers to the fact that what happens in one city, now, more and more effects what goes on in another.” 28

By being a part of this resilient network, 100 Resilient Cities can employ their Chief Resilience Officers to work with local communities and councils and lead a city’s resilience scheme. 29 The effects of globalisation start with changes to a single city by creating or establishing resilience, and this can then contribute to changes in other cities.

Lastly, a literature study of tactical urbanism discusses the effects of small scale pockets of urban design and their usefulness on a human scale.

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27 Ibid.
29 Ibid.
2.3.1. Christchurch Resilience

The resilient strategy plan for Greater Christchurch came out on 13th September 2016. The Resilient Greater Christchurch Plan differs to the Christchurch City Recovery Plan that was developed by the Christchurch City Council. The City of Christchurch applied to the Rockefeller Foundation to help them plan a holistic approach focused around more resilient people, communities, and ecologies. This research project aims to find the balance in the holistic approach of the Greater Christchurch Plan and the original Christchurch City Plan, and provide an architectural solution brought on by resilience and strategic planning.

Christchurch’s goals for achieving a resilient city are to: Connect, Participate, Prosper and Understand.

For the purpose of this research project, this section will only cover the scope of resilience surrounding the CBD and not the broader scheme outlined in the Resilient Greater Christchurch Plan.

Under the goal of Connect in the resilience plan, it talks about creating adaptable places. This section applies to the recovery plan project is going to be looking at t and addresses the Christchurch City Council Transitional Programme. The Transitional Programme is made up of community and council led initiatives like Gap Filler, Greening the Rubble, and Life in Vacant Spaces Trust. These are good examples of short term projects that aim to bring people into the city through creating a social atmosphere. However, these projects are not interconnected and only function individually on a small-site scale.

An interconnected artist studio and residence with formal and informal spaces would not only provide a platform for conversational exchange, but also establish an urban connection interwoven through the precincts as they are built.

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30 Cities, “City Resilience”.
31 Ibid.
32 Ibid., 93.
33 Ibid., 53.
Figure 19. Kiruna

Figure 20. Kiruna perspective

Figure 21. Kiruna timeline

Figure 22. Kiruna perspective
2.3.2. City Precedents for Resilience

To gain a sense of Christchurch’s own goals for resilience, this section investigates two different cities to determine their resilience aims and goals. The cities are then loaded into the Precedent Analysis Matrix which illustrates appropriate architectural solutions. The cities are Kiruna, with its master plan developed by architect firm White Arkitektur, and Rotterdam, whose resilient strategy plan was developed with 100 Resilient Cities.

As part of this research, we look at Kiruna, a small township in the northern part of Sweden situated in the Arctic Circle. The state-owned mining company Luossavaara-Kiirunavaara AB (LKAB) was the reason the town was established in 1900, and it now has a population of 18,200.34 Due to continuous mining over the last century, Kiruna is faced with a problem caused by the very mine that created the town. The mine has plans to expand underground towards the town which will leave a space in the ground beneath it. The local town planners have been working with White Arkitektur to produce a master plan to move the city east towards stable ground away from the underground mine expansion.35 White Arkitektur’s aims for Kiruna are to move the city, densify, propose a new urban plan, and involve everyone in the process.

White architect, Mark Szulgit, discloses that the design of the project is not as important as the people that are going to be moving:

“The biggest challenge that’s facing us is not the design of a new city which is sustainable and attractive and modern. The biggest challenge is to move the minds of the people and the culture.”36

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35 Ibid.
MORE THAN ROBUSTNESS.

The 100 Resilient Cities programme defines urban resilience as “…the capacity of individuals, communities, economies, businesses, and systems within a city to absorb, recover from, and adapt to the stresses and shocks they experience.” In developing our resilience strategy we drew heavily on the 100 Resilient Cities established methodology and supporting tools. The City Resilience Framework (CRF) helped us to understand aspects of urban resilience. Our stage 2 diagnostic tools helped us to identify the key shocks and stresses that mentioned that Rotterdam may face in the future and the evidence and publicly known, together with the open resilience questions helped us to develop and refine our action list.

WHAT IS RESILIENCE.

INCLUSIVE
Willingness and ability to adopt alternative strategies in response to changing circumstances

ROBUST
Recognizing alternative ways to use resources

Spare capacity purposively created to accommodate disruption

REDUNDANT
Using past experience to inform future decisions

Fosters long-term & integrated planning

Fosters economic prosperity

Meets basic needs

Ensures social stability, security & justice

Supports livelihoods & integrated planning

Areas of strength

Doing well, but can improve

Need to do better

Seven Qualities of Resilience

Figure 23. Rotterdam is robust

METHODOLOGY: THE CITY RESILIENCE FRAMEWORK

Figure 24. Rotterdam action plan

RELATING GOALS AND ACTIONS
In its history, Rotterdam has been faced with many challenges and the people have shown their resilience by overcoming them. Challenges such as; water management, trade, fighting cholera epidemics, and literally rebuilding the city after the destruction caused at the start of the Second World War. Despite no current natural disaster or the need to rebuild a city, Rotterdam continues to be future-driven and remains successful by continue their streak of resilience. Rotterdam’s Resilient Strategy Plan, in which we see local town planners working with architects to examine a city with a much larger population than Christchurch. The project can evaluate its methods of resilience for future planning. Rotterdam has chosen to focus on seven goals to improve the vibrancy of the city. In order of priority, Rotterdam has decided to start with; a harmonious society, clean and reliable energy, a cyber port city, climate resilience and anchoring resilience in the city. Unlike Kiruna and Christchurch, Rotterdam is not trying to physically move a population but wants to enhance what is existing and design a new framework for appropriate actions.

The master planning for Kiruna and the resilient strategy for Rotterdam both focus on building strong relationships between the council, architects, and communities to engage in live discussions and offer feedback to strengthen the designs. As Rotterdam’s resilient strategy was developed by 100 Resilient Cities, it incorporates the seven lenses of resilience, which inform thorough design solutions.

---

### 2.3.3. Criteria

<table>
<thead>
<tr>
<th>Master Planning</th>
<th>Connectivity</th>
<th>Character Identity</th>
<th>Journey</th>
<th>Society</th>
<th>Network City</th>
<th>Climate Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build/design on existing</td>
<td>Learning from mistakes and strengthen</td>
<td>Repurposing the past</td>
<td>Establish new plans</td>
<td></td>
<td></td>
<td>Recycling resource</td>
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<tr>
<td>Review &amp; Strengthen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Community/shared garden</td>
</tr>
<tr>
<td>Leaning room/space for disruption</td>
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</table>

**Figure 25. Precedent Analysis Matrix for Resilience**
<table>
<thead>
<tr>
<th>Resilience</th>
<th>RL4</th>
<th>RL5</th>
<th>RL6</th>
<th>RL7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Integrated</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symbiotic arrangement of function/programs</td>
<td>MP-RL4</td>
<td>MP-RL5</td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Robust</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Rules clearly defined parameters established</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Redundant</strong></td>
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<tr>
<td><strong>Flexible</strong></td>
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</tr>
<tr>
<td>Freedom to shift &amp; change plan</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Connective issue</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Connective tissue</td>
<td>CN-RL4</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Combine/past &amp; future structures</strong></td>
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<td></td>
<td>CI-RL4</td>
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<tr>
<td><strong>Overlapping pathways</strong></td>
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<tr>
<td></td>
<td>JR-RL4</td>
<td></td>
<td></td>
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<td><strong>Disruption interventions</strong></td>
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<td>JR-RL6</td>
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<td><strong>Freely changing path to adapt</strong></td>
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<td></td>
<td>JR-RL7</td>
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<td><strong>Small public squares</strong></td>
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<td>ST-RL4</td>
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<td><strong>Platform for exchange</strong></td>
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<td>NC-RL4</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Climate strategies</strong></td>
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<tr>
<td></td>
<td>CR-RL4</td>
<td></td>
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</tbody>
</table>
2.3.4. Tactical Urbanism

Tactical urbanism is a new concept which aims to improve the livability of cities or towns by starting off with low-cost, small-scale change at a single building or street level. This tactical urban approach uses the advantage of its small-scale improvements to vitalise an area. The low-investment high-impact nature of these projects means they are seen often and are sometimes used as tests before making political or financial requests. These small-scale actions of urbanism can be sanctioned or unsanctioned and are often referred to as DIY or pop-up urbanism.

The benefit of working contextually within small-scale pockets inside the urban fabric is that it creates a safer area for people to spend time in or pass through. Large public squares are often seen empty or run down because they are far too big for the population they were intended for. Whereas smaller public squares are busier because they create a courtyard-like atmosphere and there is a higher chance of people crossing paths with a neighbour or friend.

The size and presence of a smaller public square has a bigger impact on social networking safety than a large public square. The sequence of many parts facilitates connections within a city, enables it to function on a human scale, and allows for navigation from one place to another.

Throughout history, there have been two tried and tested ways of building communities. The first is the traditional neighbourhood which is diverse and compact, making it easy to live, work, shop, eat, and be educated all within a walkable distance with defined places to walk. This contrasts greatly with the urban sprawl invented after the second world war. In this model, there is no diversity and all the houses are spread out, and very few of the streets connect with each other; it is an urban space that’s not ‘walkable’. The latter urban planning method is typical in Auckland where there is a sprawl of the suburbs and large subdivisions with ‘cookie cutter’ houses targeted at young couples or first home buyers. This urban sprawl encourages a larger road infrastructure with cities and landscapes designed around cars and parking spaces rather than pedestrian friendly areas.

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40 Ibid.
42 Ibid.
43 Ibid., 74.
45 Ibid.
46 Ibid.
Urban Art Evolution

Figure 26. Urban Art Evolution
2.4. **URBAN ART**

This section covers graffiti and street art in the context of urban art, while investigating the transition of urban art in and out of architecture. It also analyses the history of graffiti’s emergence within a city as well as the turning point of its evolutionary cousin, street art; the more desirable art form. In addition, graffiti management plans are critiqued to clarify their definitions of the urban art forms and how they enforce legislation.

Public art events are organised by a city to promote creative culture. They attract tourists and residents to explore cities in a way that they could not do before. City councils realise the cultural benefits of beautifying the urban fabric of a city with urban art. More and more cities are re-imaging new buildings and politicising them to incorporate urban art.

Urban art projects find their way into cities or communities that need beautifying. A mural, by *el Seed*, is an example of such a project. As a graffiti writer, he was commissioned to paint a mural that spread across 50 buildings in Manshiyat Naser, a district in Cairo, Egypt. Seed’s talent in Arabic Calligraphy was used to paint a message in Arabic. From the words of St. Athanasius of Alexandria, a Coptic bishop from the third century,

> “Anyone who wants to see the sunlight clearly needs to wipe his eyes first.”

Once the project was approved, the whole community banded together to help with the mural in any way they could. The project took a year to plan due to the scale and surface area to be painted on and the hundreds of litres of paint that were used. The project meant a lot to the community and particularly to one of the residents, Uncle Ibrahim, who said, “This project was a project of peace and unity which brought people together.”

What started out as a vision of beautifying a neighbourhood community by introducing art, ended up opening the dialog about the people’s identity and the part they play in their community. It was about switching perception and opening a web of unfamiliar communities.

Finally, just as the urban art project in Manshiyat Naser did, this section looks at switching the perception of graffiti and opening dialog to help us understand this art form.


48 Ibid.
49 Ibid.
50 Ibid.
51 Ibid.
Figure 27. Petroglyphs

Figure 28. Pompeii Fresco
2.4.1. Urban Art to Architecture

Throughout history, urban art has been a tool used by the people of the time to communicate and tell stories of who they are and what they do. Urban art, such as graffiti and street art, can trace its origins back to pictographs (cave paintings) and petroglyphs (rock carvings).\(^5^2\) In Ancient Egypt over 5,000 years ago the Egyptians constructed monumental tombs filled with hieroglyphics, pictures and symbols depicting stories and scenes, as well as writings. Fast-forward to Ancient Greece, the use of painting or imagery, known as fresco, is still used on the walls of the buildings to represent a narrative.

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Figure 35. Creation of Adam
Figure 34. Michelangelo Buonarroti’s Fresco

Figure 33. Banksy’s Borning
Figure 32. Graffiti Writers of New York

Figure 31. Over Consumer is Still Here (Tag)
Figure 30. New York City Handstyle (Tag)
Fresco is a technique used to mix paint and plaster on walls and dates back as early as 1500 B.C.E in Ancient Greece. ‘Fresco’, meaning fresh in Italian, describes the surface of the plaster being wet as the paint is applied. The plaster is made by mixing lime, water, and brown volcanic ash (pozzplana) into a smooth violet colour paste. This plaster is then applied to a textured surface known as the Arriccio layer, which is prepared a day in advance. A thin wet layer, known as the Intonaco, is then applied just before painting. As the paint and the plaster are exposed to air, the surface forms into a hard rock-like finish. The pigment in the paint is then cemented into the plaster Intonaco and Arriccio layers.

Throughout history, architecture has been expressed to represent or worship a Higher Being in the form of temples and churches. In the Sistine Chapel, renaissance architecture incorporates frescos to illustrate the narrative of Jesus and God. Michelangelo Buonarroti utilised the structure of the Sistine Chapel’s ceiling to establish a monumental painted framework. Unlike previous artists that painted in the chapel, Michelangelo did not paint architectural buildings on his work, but instead used the architecture to express the narrative of the paintings. In this way, architecture is the canvas in which art can be displayed on.

Centuries later, architectural modernism now disregards the integration of art completely and instead replaces it with the simplicity of architectural expression. In architectural works, it is important to have a balance between the shapes, colours, spaces, and the narratives, stories, and meanings that can be told about them. These properties of formalism and conceptualism are used to make us think and feel on a conscious and subconscious level. It helps us to define what makes beautiful architecture. But is this architectural evolution correct and complete or is it still missing that connection with art which was practised for over twenty centuries? Towards the late twentieth century, the urban artists’ iconoclastic movement of graffiti challenged architectural modernism. We now see examples in the twenty-first century where architecture is now accepting our innate capacity as humans to draw on walls.

55 Ibid.
56 Ibid.
57 Ibid.
58 Ibid.
Figure 36. New York Subway Graffiti

Figure 37. New York City Subway Graffiti
2.4.2. History of Art in The City

From the very start ‘graffiti’, as it is now known, was not called graffiti by the artists. It was called writing. In lecture with Askew One, he explains that graffiti is the only art form that originated from young people as an art form of the youth. Graffiti is a media term that was attached to political slogans or the defacing of bathrooms. The writing was very basic, and the desire to write came from the individual need for expression. To identify themselves, ‘writers’ would use their real name, while others would use a name followed by a number to represent the avenue or street where they grew up. The lettering of graffiti went from being very simple to complex, with the addition of elements such as arrows, underlines, halos, and little embellishments, which can still be seen today in modern graffiti writing. People started to capitalise or bold their letters in a lighter or darker colour and finish their work with a contrasting colour as an outline to stand out against other graffiti.

The New York subway scene was a movement that launched the art form into the type of graffiti that is seen today. Artists could display their work on a moving train which gave them the opportunity to have their work be seen by many people.

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60 Askew One. “Graffiti Vs Street Art: The Distinctions between Various Art Forms in the Urban Space.” Seminar, Studio 40 from Olivia Laita, Auckland, 23 August, 2016.
61 Ibid.
62 Ibid.

Figure 38. New York City Subway Graffiti
Letters started to take on characters in the form of cartoons or include extensions that were almost unnecessary to the core of the letter shaping, such as filling in the background, adding motion, or accentuating the 3D aspect. Works like these were known as masterpieces and this is where the word ‘piece’ originated. Towards the 1980s, themes, backgrounds, or characters, such as cartoons lifted from comic books of the time, started to take over from the simplicity of the original lettering.

It is important to understand that graffiti and street art both take a lot of their context and power from their surrounding environment. Graffiti is more about defining the environment. Street art often involves humorous or ironic plays on the environment. Graffiti artist Futura 2000 was the first to show an abstract painting that removed lettering completely and essentially applied a giant fill. Futura 2000 was a writer and wanted to take risks to explore new ideas and be innovative to break the mould of graffiti.

Overseas there are examples of groups, organisations, and styles or trends that were generated underground in communities whose individual expression was suppressed. An example of a style being created in this way is the dance style of Hip-Hop. In New York City through the 1970s four elements went into creating hip hop: DJing, MCing, B-Boying/B-Girling (Breakdancing) and graffiti. These cultural expressions of breaking the mould of society have made their way into the mainstream spotlight with graffiti, one of the last elements, evolving into the public art forms of street art and muralism. Other elements such as DJing became more popular and in recent history evolved into the form of electronic dance music (EDM). MCing in turn led to the development of rap.

New York is the Holy Grail of graffiti and street art. Street art originated in the 1970s and 1980s as a form of empowerment for marginalised groups, strong art communities, and protesters. During the Hip-Hop Movement, graffiti writing, being the original art form of the street, had heavy undertones of political backlash and was subject to cultural oppression and carried harsher penalties than modern street artists would have today. So why is it that spray painting a side of a building in a text style is treated differently to spray painting pictures of rats, people, or a range of other different images?

63 Ibid.
64 Ibid.
65 Ibid.
68 Exit Throught the Gift Shop. Banksy. United Kingdom, 2010
Figure 41. Banksy’s Elephant in the room, Barely legal show, LA

Figure 42. Banksy Art

Figure 43. Banksy Art

Figure 44. Banksy Art
2.4.3. Banksy Effect

Banksy is one of the most popular and famous figures in the street art world. However, nobody has seen his face or knows his real name. The Artist does not do things for the money but rather highlights important issues in the world and gets people talking about the ‘elephant in the room’. He is a person who speaks out for the millions of voices that cannot be heard. Some graffiti artists believe that Banksy is a sellout and goes against everything that graffiti stands for. Banksy started off as a provincial graffiti artist tagging the sides of buildings with his name. Later, he believed that art could do so much more than vandalise the sides of a derelict buildings with text. Street art had a voice that graffiti could not get across. The use of stencils had been done before, and Banksy turned towards this because it was fast and efficient. One could spray paint or glue the art to the wall in a matter of minutes and then run away. He needed to keep up his image of the man of mystery without being caught by the police. In the graffiti world, this was viewed as cheating as it went against their unwritten rules. Banksy started renting out warehouses and empty lofts and studio spaces and converting them into temporary DIY exhibitions where he would display his work and get his message across. Whether it was to go against the contemporary art world because they never acknowledged him as an artist, or as Banksy said:

“To create chaos and an event that is free to the public and accessible to the vast population that the contemporary art world has segregated”,

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69 Ibid.  
70 Moukarbel, “Banksy Does New York.”  
71 Ibid.  
72 Banksy, “Exit Throught the Gift Shop.”
Some of the stunts were to capture the attention of a brain-washed society that has lost the ability to think for themselves. His provocative public displays of street art attracted much interest and radiated beyond the world of street art. He slowly changed the perception of street art, taking it in an entirely new direction which sparked a movement. He was praised as a genius with a spray can but had some critics still questioning whether or not it was art.

For his first major art show in Los Angeles ‘Barely Legal’ Banksy hired an elephant as a statement to demonstrate how easy it is to ignore the current realities of life or ‘the elephant in the room’ as the metaphor goes. It turned the show into an event which drew attention from top A-listed celebrities such as Brad Pitt and Angelina Jolie who both made an appearance. This was the turning point when street art suddenly became a hot commodity, instilling Banksy’s name in the list of great artists such as Andy Warhol, Roy Lichtenstein and Jackson Pollock. Prices of art from the leading street artists around the world skyrocketed with some collectors purchasing items for millions of dollars.
8.3. Stick or post any kind of signs, poster, sticker, paper on any part of building, wall, vehicle, structure or a tree, unless you first get the permission of the owner.7

9. Under the Graffiti Prevention Act, local government has the jurisdiction to remove graffiti and street art from public and private property with the written permission of the owner/occupier. Where a form cannot be instantly signed, it is left at a building and owners/occupiers are usually given 10 days to object if they don’t want the graffiti removed.

10. According to Victoria Police crime statistics, although 25 per cent of alleged offenders within the Melbourne local government area are aged 20 or over, the vast majority of offenders are 19 years or younger. See Table one below.

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<thead>
<tr>
<th></th>
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<tr>
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<tr>
<td>Total</td>
<td>139</td>
<td>126</td>
<td>108</td>
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Table one - Victoria Police, Region One statistics – people charged with graffiti offences.

Graffiti removal

11. Administered through the Graffiti Removal Services Contract, dedicated graffiti removal vehicles were introduced in October 2010. The graffiti vans focus on areas of high pedestrian usage (eg. central city, Lygon Street, Rathdowne Street, Errol Street, Domain Road, Macaulay Road and Belair Street) but also remove graffiti from the entire municipality. Graffiti is removed as a free service. Residents and businesses are encouraged to report graffiti visible from public spaces so as it can be removed as quickly as possible.

12. The trend over the first three years of the graffiti removal contract is for a lower quantum of graffiti removed but more graffiti related incidents. (See Table two below).

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Graffiti removed</td>
<td>46,000 m²</td>
<td>38,000 m²</td>
<td>35,000 m²</td>
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<tr>
<td>Number of jobs</td>
<td>5551</td>
<td>6846</td>
<td>7421</td>
</tr>
</tbody>
</table>

Table two – Graffiti removal8

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8. These figures are from the Graffiti Removal Services Contract which does not yet include removal of graffiti from parks or Council owned property. It includes a small component of poster removal. The contract is for four years with an option for a further two years.

Figure 47. Melbourne - People charged with graffiti offences
2.4.4. Legality

Melbourne City Council has employed street art to beautify areas of the municipality and reflect Melbourne’s cultural identity.77 The City of Melbourne defines graffiti as the ‘marking of another person’s property without permission’.78 The City of Melbourne’s definitions of street art contradict the Graffiti Management Plan 2014-2018. It defines street art as ‘artistic work done with the permission of the person who owns the wall that the work is being done on’.79 Technically this is incorrect because street art can also be illegal, just as graffiti can be carried out with permission of the person who owns the wall or surface. The Graffiti Management Plan states that ‘street art is more elaborate than graffiti because it takes time and preparation’.80 This is not only incorrect, because ‘graffiti pieces’ can take just as long to construct, but it also discredits graffiti by defining it only as vandalism. The Oxford Dictionaries definition of vandalism is ‘Action involving deliberate destruction of or damage to public or private property’.81 Graffiti has evolved from the art form it was when the media attached the definition of vandalism to it.82 Graffiti comes from the Latin word Graffito, meaning images or text scratched into a surface, such as those scratched into the façades of Ancient Rome.83 There is a fine line between encouraging graffiti and street art in general and yet discouraging it from unwanted areas.

Victoria Police crime statistics show that many graffiti offenders are aged 15-19 years old.84 The Graffiti Management Plan states that 25 per cent of alleged offenders are above the age of 20.85 However, in 2010 that percentage increased to 49 per cent and in 2011 decreased to 37 per cent.86 These statistics are not an accurate indication of the percentage of people doing graffiti, only an indication of the ages of those who get caught doing it.

Graffiti vandalism is a constant and expensive cost to councils trying to maintain private and public properties. The Melbourne Graffiti Management Plan recognises that the quantum of graffiti removed from surfaces decreased from 2010 to 2013, but claim there was an increase in graffiti-related incidents.87 Having a graffiti vandalism prevention plan is essential when also trying to encourage this art form.

78 Ibid.
79 Ibid.
80 “Graffiti Management Plan 2014-2018”.
82 One. “Graffiti Vs Street Art: The Distinctions between Various Art Forms in the Urban Space.”
84 Ibid.
85 Ibid.
86 Ibid.
87 Ibid.
In 2012, Wellington City Council spent $550,000 on removing graffiti, which does not include the cost of private property incidents. This is nothing in comparison to Auckland Council’s spending of approximately $4.8 million across 340,000 sites in 2010/11.

The City of Melbourne’s aim is to reduce graffiti within each municipality through:

- Mix of education
- Engagement
- Artist opportunities
- Enforcement
- Quick removal

It is important that the quality of street art is upheld through the strong partnerships with stakeholders. Clarification of the various art forms is important for young people to understand so they can practice urban art in a safe environment. By redefining our definitions of graffiti and street art, these two urban art forms can be appreciated for what they are.

Figure 51. Dtees Tag

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91 Ibid.
2.4.5. Appreciating the Art

Graffiti is an art form that is not fully understood by many people and is often put under the umbrella of vandalism. A lack of knowledge in understanding graffiti leads to it being disregarded as an art form, which is why this section is required. Throughout this project, the different forms of urban art and stylistic effects of graffiti have each been associated with an icon to form a type of language pattern that can be easily recognised and understood. Using such a language pattern of icons will help graffiti disconnect from the umbrella of vandalism and establish itself as another art form. Viewing urban art in an iconographic form helps to focus the attention more on the relationships between the different forms of urban art and their evolutionary paths.

Figure 52. Appreciating the art
Figure 53. Montana Colours Cap System
Tools

Understanding different types of tools or pieces of equipment helps us to understand the skill required to wield them to create art. Just as paint is to paint brushes, spray paint cans are to spray paint caps. The paint can be metallic, gloss, or matt but the caps, that change from spray can to spray can, affect the size and pressure of the spray. Different caps create different effects for what the artist is trying to achieve. For example, rotating the spray can changes the angle of paint expelled which can be compared to holding a paint brush in a certain way to change the angle of the bristles. In graffiti writing, a skinny cap can be used for details or accents and a fat cap can be used for the infills. Knowledge gained from cap styles reveals a structure and order to how an art form like graffiti is constructed.

Some street artists use stencils because they provide a calculated and efficient method for application on a surface. Stencils can be cut out in advance off-site and arranged when it is time to construct the piece. Templates give a consistency to the style if it is required to be replicated many times.

Markers carry the same paint used in spray paint cans but are restricted to smaller surface areas. They can be used as finishing touches on a piece as they allow for more precision.

Stickers and paste-ups do not require any paint and are easier to remove. Paste-ups are printed out designs which are then applied using an adhesive such as wall paper paste or a homemade wheat paste. Homemade wheat paste consists of only three ingredients: water, flour, and sugar. This method of application has been adopted by people to advertise events, concerts, or performances on notice boards.
Figure 54. Urban art relationships
Art Relationships

The method of deconstructing an art form such as graffiti intends to highlight the positive aspects and take out the negatives. This formula could be used as a tool to identify positive illustrations of graffiti and street art. Commonalities, when broken down into a language of icons, are revealed between different urban art forms. These commonalities justify the right of graffiti and street art to be regarded as art forms and not vandalism.
Figure 55. Amy by sofles

Figure 56. Vents graffiti writing
**Deciphering Graffiti**

When one first looks at a tag or throw-up of graffiti it can be difficult to read, let alone understand. The following images have been dissected into a toolkit of parts to break down the elements into distinct components. Through graffiti’s own evolution, these style and effects have been added to help the piece stand out.

<table>
<thead>
<tr>
<th>3D Effects</th>
<th>Clouds</th>
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<td>Bubble Writing</td>
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<td>Outlines</td>
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<td>Bubbles</td>
<td>Flames</td>
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<td>Characters &amp; Cartoons</td>
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<td>Spots &amp; Dots</td>
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</tr>
</tbody>
</table>

Figure 57. Deciphering Graffiti
Figure 58. Sofles graffiti writing
Crews & Collaborations

Crews are an integral part of the world of graffiti and street art because they hold up a standard for the work the artists produce. An artist can belong to more than one crew as this is common with artists that travel internationally and associate with overseas crews. Crews sometimes collaborate to create small to large scale pieces and bring a mix of diversity of styles.

TMD
MSK
RTR
TNS
RFC
SUK
DMN
UPP
FTC
TNA
DRT
AFG
TDU
VTS
UPC
DMJC
FILTH
LECLUB
BH
DAF
GG
IRA
FL
TC
DTS

Figure 59. Crews and their Collaborations
2.5. **FORMAL SPACE**

Formal urban spaces within a central business district can create atmosphere, hold cultural events, and express art and creativity. When these spaces get repurposed from busy vehicle-only streets into pedestrian market places, they instil a sense of character and vibrancy into the city.92

Public art projects are woven into the commercial fabric of a city through the enforcement of political will. Ali Butcher states that ‘the value of the public’s lives is enriched through arts and culture in conjunction with commercial development’.93 Public art installations transform the impersonal zones to create inviting hybrid spaces where pedestrians can interact in spaces around, inside, or underneath buildings.

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93 Ibid.
2.5.1. Case Study – Public Art Events

Public art events themed around cultural urban art installations and interventions are displayed throughout a day or across a week.

Public art events are organised by a city council in collaboration with art organisations. They help to promote a city’s culture and provide a way to display a city’s resilience. Events usually occur throughout the warmer months of the year.

These installations and interventions are in various places throughout a city, depending on scale and type of project. For instance, an open installation that requires more space might be installed in a square where more people can access it. A small-scale intervention might need to be resting against or constructed on the side of a building. Therefore, it might be set up down an alleyway in a more intimate location and limit the number of people experiencing it. Public art events can create jobs as well as improve the morale of people in the city.

People want to know that they live in a city that has vibrancy and this is brought on by events, festivals, shows, and activities. Christchurch is missing the atmosphere that organised public demonstrations create. Two public art events have been chosen as case studies to analyse their functions and programmes to find out how events are categorised, distributed, and executed.

The case studies demonstrate some of the relationships between installations and the architecture of the city to draw conclusions on how Christchurch can adopt some of these techniques.

Jane Jacobs says:

“... that the sight of people attracts still other people, is something that city planners and city architectural designers seem to find incomprehensible. They operate on the premise that city people seek the sight of emptiness, obvious order and quiet. Nothing could be less true. People’s love of watching activity and other people is constantly evident in cities everywhere.”

Figure 61. White Night Melbourne
**Melbourne – White Night**

**Flames & Fantasy**
1-2 Children’s Gallery & First Peoples, Melbourne Museum
3 The Pyrophone Juggernaut, Melbourne Museum Plaza
4 Nebulous, Melbourne Museum Plaza
5 Rhythms of the Night, Royal Exhibition Building
6 Pixel Fruit, Carlton Gardens
7 Point to the Possum, Carlton Gardens
8 Sonic Light Bubbles, Carlton Gardens

**Precipitation & Enlightenment**
9 The Metro Tunnel – Under Construction, City Square
10-11 Ectoplasm, What Big Teeth You Have, RMIT Gallery
12 Morbis Artis: Diseases of the Arts, RMIT Gallery
13-15 Urban Animators: Living Laboratory, Story Wall, Viral Screens, RMIT Gallery
16 The Secret Life of Statues – The Belle of the Ball, Francis Ormond statue
17 Buskers Pitch #1, La Trobe & Russell Streets
18 Street Screens 1, La Trobe & Russell Streets
19 KOOZA – Cirque du Soleil, La Trobe Street
20 Fingers of Light presented by Melbourne Central, Melbourne Central Shot Tower
21 The Night Garden, State Library of Victoria – exterior
22 ON AIR :40 Years of 3RRR, State Library of Victoria
23 Seadragon’s Lair, State Library of Victoria
24 Purple Rain, Little Lonsdale Street
25 Enlighten, QV Melbourne
26 Lonsdale Lounge Cinema, Lonsdale Street
27 Street Screen 2, Lonsdale & Swanston intersection
28 Buskers Pitch #2, Lonsdale Street
29 Live Music Marathon, Bourke Street Mall
30 Street Screens 3, Bourke & Swanston Intersection
31 It’s Nice To Be Alive, Telstra Window
32 The Secret Life of Statues – Queueing for a Kiss, Corner of Bourke & Swanston streets
33 Rebel Elders, Rainbow Ally
34 White Night Light, Matt Irwin Gallery Block Place
35 Neon Angel Wings, Melbourne Town Hall
36 Wavelength, Collins Street Baptist Church
37 Universal Principle & the Reckoning at the Southern Cross Hotel, Scots’ Church

**Swing Central**
38 Swing City presented by VicHealth, Collins Street
39-40 Light Cycles & Shadow Dancer, Watson Place
41 Home Less, St Pauls Cathedral
42 Life is Sour, Chin Chin
43 The Secret Life of Statues – A Fruity Fiesta, Matthew Flinders Statue
44 Blackface (realface): Indigenous Faces of Ballarat, St Paul’s Cathedral – interior
45 More Than 1 Nation
46 Fractured Fairytales
47 The Major Chord, Federation Square Stage
48-54 Philippe Parreno – Thenabouts, Bombay Talkies, Screen Worlds, Flash Back, Mega Mashup Cinema, Proximity, Video Game Mixtape, ACMI
55-56 Glenn Murcutt: Architecture of Faith, Who’s Afraid of Colour?, The Ian Potter Centre: NGV Australia
57 Spherophyte, Birrarung Marr – Upper Terrace
58 The World – Live, Birrarung Marr – Lower Terrace

**Innocence Returned**
59 Echinodermus, Southbank Promenade
60 Suzi Quatro, Hammer Hall
61 LOVE THIS WAY, Alexandra Gardens
62 Buskers Pitch #3, Boathouse Drive
63-65 Peony, Herbum Follus, Intrude, Alexandra Gardens
66 The White Knight Messenger, Alexandra Gardens
67 Axiom, Alexandra Gardens
68 The Medusa, Alexandra Gardens
69-71 The Red Detachment of Women / One Beautiful Thing by Circa / John – Melbourne Theatre Company, Arts Centre Melbourne
72 The Secret Life of Statues – A Day in the Life, Queen Victoria Gardens
73 A Sign of Things to Come, Queens Victoria Gardens
74 The Secret Life of Statues – The Bouquet Toss, Queen Victoria Gardens
75 The Secret Life of Statues – The Belle of the Ball, Francis Ormond statue
76 Unplugged, MPavilion – Queen Victoria Gardens
77 2016 NGV Architecture Commission, NGV International – Grollo Equiset Garden
78-80 Viktor&Rolf: Fashion Artists / David Hockney: Current / Atelier: Viktor&Rolf – Inside Out, NGV International Moat / Front Façade
Auckland - Art Week

Legends
1 Peter Roche, Asylum, Silo 6 – Wynyard Quarter
2 NZ Geography Photographer of the Year, Karanga Plaza
3 Kura Gallery, PWC Tower, 188 Quay Street
4 Re:Trace, A4 Downtown, 1-21 Queen Street

Art Zoning Various locations
5 Tracing Steps on Empty Dancefloor, Jean Batten Place
6 Artists Anonymous, Jean Batten Place
7 Paper Fort, 53 Fort Street
8 The Real Pyramid Schemer, 51 High Street
9 Workshop #59, 59 High Street
10 The Recycled Playhouse, 6 Lorne Street
11 Gus Fisher Gallery, 74 Shortland Street
12 Trish Clark Gallery, 1 Brown Avenue

Changing Lanes Various locations
13 Landscape of Memory
14 A Welcoming Terrain For...
15 Zwines, The Bluestone Building
16 Where the Path leads you
17 Light & Life
18 Art4Food
19 Chancery Square Arts Pop-Up, Chancery Square, Off Court House Lane
20 Freyburg Place, Chancery Square, Off Court House Lane
21 Little High St. Pop-Up
22 Gow Langsford Gallery, Crn Kitchener and Wellesley Street
23 Fingers Contemporary Jewellery, 2 Kitchener Street
24 StreetArtDeco & Auckland Art Gallery, Khartoum Place & Art Gallery
25 Central City Library, 44-46 Lorne Street
26 Digital Art Live, Aotea Centre, Mayoral Drive
27 Basement Theatre, Lower Grey’s Avenue
28 Sunday School Union Studios, Level 2, 323 Queen Street

Figure 62. Auckland Map with events
2.5.2. SWOT Analysis

**STRENGTHS**

- Uses a mechanical approach to diverse programme selection
- Is reliant on weather conditions
- Provides enough amenities for crowds
- Disrupts business and transport systems

**WEAKNESSES**

- Short term economic benefit
- Encourages creativity and individuality
- Organisation, Universities need for promotion / exhibition
- The coming together of communities

**EXTERNAL FACTORS**

- Terrorism
- Event cancellation due to rain
- Damage to property
- Potential loss of reputation

**INternal FACTORS**

- Creates jobs
- Has financial backing
- Controls quality of interventions
- Promotes culture of the city

**O P P O R T U N I T I E S**

- Has financial backing
- Controls quality of interventions
- Promotes culture of the city

**Figure 63.** Swot analysis for street art
2.5.3. Criteria

- Cultural Identity
- Formal Space
- Outdoor Performance
- Place Making

Figure 64. Architectural summary criteria
Architectural Summary

Culture Identity: Provide an architectural response to support the theme of the event. Businesses, council and event organisers working together to display public art events that represent the city and express the culture of the inhabitants.

Formal Space: Purposefully designed space to inform activity. Defined places where architectural intervention and installations have been installed purposefully in a location where activities of the public event can take place.

Outdoor Performance: Canopy or a temporary weather proofing structure that protects performers.

Place Making: Public art events centred or distributed around architectural landmarks around a city to reinforce its significance and importance within the urban fabric of a CBD.
Figure 65. Everfresh Studio

Figure 66. 798 District
2.5.4. Creative Space Precedents

Everfresh Studio is an artist studio in Melbourne. This group have become key contributors to the urban fabric of Melbourne by moulding and defining the prolific and dynamic graffiti and street art scene. Ten creative artists work out of the shared studio spaces and not all of them come from a graffiti or street art background. One girl has a business designing and selling her own jewellery and another artist does tattoos. As a business, they produce commercial pieces, corporate murals, and privatised artworks, and organise gallery and art exhibitions. The studio’s zoning allows the building to have a bedroom where a ‘Hat’, a friend of the community from out of town, can use while they are visiting. Everfresh has six studio spaces, some of which are rented out to help the artist’s lease property.

The 798 Art District in the Dashanzi area northeast of central Beijing is a decommissioned military factory complex that once produced electronics. Dating back to 2002, artists and cultural organisations slowly started to transform these electronic warehouses into artist studios, galleries, workshops, restaurants, and bars. Eventually, it was shaped into the largest, most important art district in China.

These two creative hubs are examples of both small and larger scale operations. Both Everfresh and the 798 Art District help to culturally enrich the urban fabric through urban art by gentrifying areas that were once undesirable pockets of the public environment.

New Zealand is yet to embrace a more permanent location for an arts district or precinct to function on the same level, but not necessarily the same scale, as the 798 Art District. However, Christchurch does have the potential to house an artist studio within the CBD while the city is still in a state of flux. An artist studio within the CBD would be able to create clusters of the connective tissue of urban art and provide the vibrancy needed to gentrify areas of the CBD in its current state. The master planning of the clusters would have to be designed in conjunction with the recovery plan by overlapping the proposed model with a new one.

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97 Ibid.
98 Ibid.
2.5.5. Criteria

- Artist Residence
- Artist Studio
- Derelict Sites
- Repurposing the Past
- Urban Disruption

Figure 67. Architectural summary criteria
Architectural Summary

**Artist Residence:** A place where international or domestic artists can live. Artists make most of their environments with their skill and creativity to transform deserted spaces into vibrant neighbourhoods.

**Artist Studio:** A physical indoor space where artists are free to work out of to plan and construct art. A shared artist studio space is also beneficial for international artists to work out of.

**Derelict Sites:** Sites that have been forgotten or abandoned buildings that attract squatters, usually the creative artists and nomads of a city

**Repurposing the Past:** Programmes that have been established from grassroots initiatives or private investors that take an existing building and give it a new programme then what was existing. Successful projects such as 798 District, has been approved by the government and recognised as a positive contribution to the area and should be replicated.

**Urban Disruption:** Creative spaces situated amongst an existing urban fabric, made to disrupt the flow of the environment and create a more diverse atmosphere.
Formal space
2.6. **INFORMAL SPACE**

Informal spaces are the most interesting places because the programme or subject is never defined by any rules. People are free to express themselves, create, displace, and represent themselves. In late September of 2013, New York City, the word had spread that Banksy was going to be taking up residence in the city. For each one of the thirty-one days of October, Banksy was going to display one of his works of art somewhere around the city. On his Instagram page, he would post a picture of his latest creations, not giving a full description of where it was; only leaving tiny hints and teasers of where the street art might be. The posts sent the people of New York on a frantic treasure hunt for an artwork just so they could see an original ‘Banksy’. Because of the nature of his work, sometimes the artist himself would go back two or four hours later and paint over his work. In other cases, shop owners would take it down, someone would deface it by tagging it, or people looking for an opportunity to make money would take it if possible. It is still common to tag alongside a famous graffiti artist or a street artist to gain more recognition amongst the graffiti community. With the use of the internet and social media, the street art that Banksy was creating was spreading fast and this media itself became a form of art. According to Moukarbel, Banksy states:

> “Outside is where art should live. Amongst us where it can act as a public service, evoke debate, voice concerns, forge identities. Don’t we want to live in a world made of art, not just decorated by it?”

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100 Ibid.
101 Ibid.
2.6.1. Case Study – Laneways

Laneways have become a way to tour the back streets of cities while observing the city’s cultural fabric. Laneways used to be places where very few pedestrians would walk; now they are pedestrian walkways with many people stopping to take photos.

A case study of Melbourne’s laneways has been conducted because the council’s Graffiti Management Plan promotes the legalisation of these laneways. Legal laneways provide a place for up and coming artists to practice their skills without the consequence of being arrested.

Hosier Lane, for example, used to be illegal. Debates amongst the artist community suggest that some walls remain illegal because this would attract more highly skilled artists. This is known as the ‘Hall of Fame’. Respect for highly skilled artists means that lower skilled artists would be less likely to tag the Hall of Fame. This illustrates the desire and need for artists to gain respect from fellow artists.

Instead of bare grey concrete or brick walls, these laneways produce colour and vibrancy in otherwise dull and dangerous pockets between buildings. Organisations have been collaborating with crews and art groups to convert the side streets into attractive hotspots for residents and tourists to visit.

Three laneways have been selected as case studies to demonstrate locations and distances of the lanes. Elements in the lanes themselves, such as architectural features or urban furniture, are highlighted to draw attention to the way in which they are spray painted on.
Informal space

Figure 68. Melbourne laneways
Melbourne laneways analysis

Legends
1 AC/DC Lane and Duckboard Place
2 Hosier and Rutledge Lanes
3 Centre Place
4 Flinders Court
5 Union Lane
6 Presgrave Place
7 Russel Place
8 Croft Alley
9 Stevenson and Tattersalls Lanes
10 Drewery and Sniders Lanes
11 Caledonian Lane
12 Corner 361 Little Bourke Street and Rankins Lane
13 Finlay Lane
14 Behind corner of Queen and Franklin streets
15 Blender Lane

Figure 69. Melbourne laneways analysis
Figure 70. Mount Maunganui Laneway
Figure 71. Mount Maunganui Laneway Analysis
Figure 72. Tauranga Laneways
Tauranga

Legends
1 Sofles – 176 Cameron Road rear of building, view from Durham Street
2 Fintan Magee – Grey Street service lane
3 Jacob Yikes – Spring Street parking building
4 Wongi – Spring Street substation
5 Seth Goblepainter ew One – Masonic Park, back of Tauranga Art Gallery
5 Askew One – Masonic Park, back of Tauranga Art Gallery
6 Lucy McLauchlan – Brooklyn Patio & Eatery 53 The Strand
7 Charles & Janine Williams – 24 Dive Crescent

Figure 73. Tauranga Laneways Map
2.6.2. SWOT Analysis

**STRENGTHS**
- Attraction of people into intimate spaces; people attract people = safer environment
- Legalisation = freedom for artists to spray paint
- A framework that helps to reduce unwanted graffiti elsewhere.
- A designated zone to harbour culture and creativity

**OPPORTUNITIES**
- Graffiti and street art becoming a part of a city’s culture
- Upgrade of shelter
- A place for diverse people to meet
- Laneways – the connecting paths to destinations
- Marketplace

**WEAKNESSES**
- No shelter from the elements
- Discourages higher skilled artists
- Wind tunnel effect
- No control over the quality of graffiti and street art produced

**THREATS**
- No commissions = no profit
- Others have better shelter
- Potentially unsafe at times
- No street lights = unsafe environment
- No security

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Figure 74. SWOT analysis for lane ways
2.6.3. Criteria

- Architectural Furniture
- Connective Laneways
- Informal Space
- Material Selection

Figure 75. Architectural summary criteria
**Architectural Summary**

**Architectural Furniture:** Urban furniture such as rubbish bins, chairs and seats that get spray painted on or manipulated as part of the art. Along with windows, doors and opening, together they create that architectural furniture of a laneway that can be purposefully placed to support artistic creativity.

**Connective Laneways:** Laneways that are a certain distance from another that are in an easy five-minute walkable distance. Laneways can be used to navigate the back streets of a city without blocking a person’s path as they make their way through a city.

**Informal Space:** Opportunity space purposefully left for the public to create their own programmes or interventions in.

**Material Selection:** Selected material that governs where artists can paint. Disruptive material facades make it hard for taggers to tag at the same time, making more design decisions on the placement and selective criteria of materials.
Figure 76. NDSM

Figure 77. Parc de la Villette
2.6.4. Neighbourhood Project Precedents

NDSM is a development in the city of Amsterdam of old dock buildings and structures, from a 1937 Dutch ship-building company called NSM, that have been repurposed to house events, restaurants, cafés, artist studios, offices, and student housing. Later, the ship-building company merged with Dutch shipbuilders of NDM and thus changed its name to NDSM (Nederlandsche Dok en Scheepsbouw Maatschappij, which translates to Dutch Dock and Shipbuilding Society). Due to the lack of demand, the company discontinued the production of ships and focused on repair work up until 1984 when the enterprise shut down. With the buildings being empty, the land was soon squatted on by the artist and craftsman nomads of the city who established themselves as Kinestisch Noord (Kinetic North). The Amsterdam city council admired what Kinestisch Noord had done to the area, so they gave them subsidies to further develop. NDSM is now the breeding ground for a city of artists with over 200 creative types working out of the central hub.

Parc de la Villette was part of an international design competition from 1982 to 1983 to re-design and master plan an unutilised section of land from a wholesale meat market and slaughter house. Bernard Tschumi’s concept was the winning design. The project brief requested that the design envisage a twenty-first century park over 546 square feet of land. Tschumi designed an arrangement of organised follies in such a way that would give the visitor of the park a sense of freedom as well as points of reference due to the uniqueness of each folly. As each folly is different from another, the visitor experiences their location within the park by the distinctions of each folly. The deconstructed nature of these way-finding follies allows for of different programmes to operate in that space. As the popularity of these urban pockets grew, some of the follies were converted into hospitality and office spaces.

Successful urban neighbourhoods can be born out of a planned competition or started from community initiative; however, we can learn from these precedents that individuals have an ability to find their way and create their own environment within the established framework. Architects need to provide a framework which the community can then work with to develop their own sense of place and belonging. The architecture starts on a subtle scale of individual projects or, like Tschumi’s Parc de la Villette, unique follies that in unison make up part of a large master plan.

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103 Ibid.
106 Ibid.
107 Ibid.
2.6.5. Criteria

Adaptability

Art Supply Store

Connective Tissue

Indoor Performance

Way Finding

Figure 78. Architectural summary criteria
**Architectural Summary**

**Adaptability:** Architecture that provides a framework for programmes to change and evolve.

**Art Supply Store:** A place where artists or the public can go to get materials for creative projects. This facilitates a mode of exchange where artists and the public can cross paths and interact and learn.

**Connective Tissue:** A network of inter-connected nodal points that has been structured through a development process of master planning. These nodal points create their own links to each other while weaving through an existing framework.

**Indoor Performance:** Areas that have been designed to cater for temporary performances.

**Way Finding:** Iconic landmarks, architectural interventions or installations that have been designed to aid people in navigation and gives a sense of direction.
2.7. **INDEX OF CRITERIA**

- Cultural Identity
- Artist Residence
- Architectural Furniture
- Adaptability
- Formal Space
- Artist Studio
- Connective Laneways
- Art Supply Store
- Outdoor Performance
- Derelict Sites
- Informal Space
- Connective Tissue
- Place Making
- Repurposing the Past
- Material Selection
- Indoor Performance
- Urban Disruption
- Way Finding

Figure 79. Index of Criteria
PART THREE

3. DESIGN

MASTER PLANNING  FRAMEWORK

DEVELOPMENT

DESIGN OUTCOME

Figure 80. Structure Flow Diagram part 3
3. DESIGN

This section examines how master planning and a design framework uses the criteria analysed from the research to formulate and articulate the architectural solutions synthesised.

The master planning explores the essential programmes of this project and its integration with the proposed programmes of the Christchurch City Recovery Plan.

The Framework analyses the criteria of formal and informal spaces and assesses them against some resilient criteria gathered from the precedents.

The development process collates the data explored through the master planning and framework to finalise a site location. The information is further assessed on a site scale and tested through application on the site with justification of positioning and placement.

Finally, the design outcome is a series of architectural interventions that explores the opportunities of programmes and demonstrates proposed architectural solutions.
Figure 81. Master planning sketch schematic
3.1. MASTER PLANNING

The master planning studies the programmes and elements of the project and explores ways of integration through relationships of cluster groups. It does this by deconstructing the function of programmes and essential cluster groups in an iconographical format. Once deconstructed, it applies the same methodology to the proposed projects of the recovery plan, and overlays the data to find commonalities to coordinate programme synchronicity.

Lastly, the master plan demonstrates adaptability to suit changes with the rebuild or flexibility in regards to the recovery plan. The master planning is designed so that at least one aspect of the plan can be used as a tool by council planners and the public and implemented into the current framework.
3.1.1. Programme Selection

The core programmes of the project have been narrowed down to the following:

- Artist Studio
- Artist Residence
- Art Store
- Formal Space
- Informal Space

The selection of these core programmes is based on my own evaluation of different cities I have visited in Australia and New Zealand, as well as an analysis of criteria from the chosen precedents.

To make sure the user groups are satisfied with each core programme, I have put together a user group requirement list. The needs and requirements of each user group have been well thought out and catered for. The requirements list is influenced by elements of the precedents studied, and the elements of the Christchurch Recovery Plan.
PEOPLE REQUIREMENTS

Visitor & Local/Resident Artists
- Visitor Entrance
- Visitor Entrance Experience
- Artists Entrance
- Single Accommodation
- Couple Accommodation
- Cooking
- Washing
- Storage
- Private Open Space
- Shared Open Space
- Restrooms
- Communal Eateries
- Recreation Area

STUDIO REQUIREMENTS
- Drying Room
- Workbench Space
- Spraying Room
- Double Height Space
- Equipment Storage
- Washing Area
- Materials and Supplies Room
- Shared Work Space
- Work Station
- Open Space
- Communal Area
- Canvas Storage
- Dark Room
- Gallery
- Hanging Space
- Wall Space

ART STORE REQUIREMENTS
- Counter
- Shop Floor Space
- Office
- Material and Supply Storage
- Washroom
- Loading Dock
- Storage
- Workshop Classroom
- Meeting Room

FORMAL SPACE REQUIREMENTS

Council / Businesses
- Meeting Room
- Lecture Room

Additional Programming
- Exhibition Space
- Gallery
- Playground
- Recreation Space
- Market
- Eatery Space

INFORMAL SPACE REQUIREMENTS
- Opportunity Space
- Architectural Furniture
- Canopy Shelter
- Indoor Performance Space
- Outdoor Performance Space
- Laneway Connections
3.1.2. Programme Iconography

The master planning of the project calls for more programmes that are important but not as essential as the core programmes. Therefore, I have developed micro programmes that can be plugged into the macro programmes creating different cluster groups. These micro programmes are still vital to the future development of the city by establishing strong cluster groups spread around the city. Creating a continuity of programmes that link together and provide a platform that the current Gap Filler and similar projects fail to achieve.

To clearly portray the macro and micro programmes, they have been illustrated in an iconographical language. By removing the words and replacing programmes with icons, the relationships and associations between them become clearer.

![Diagram with icons representing Studio, Residence, Store, Formal Space, and Informal Space.]

Figure 82. Macro programme iconography
Figure 83. Micro programme iconography
Figure 84. Infrastructure Cluster

Figure 85. Housing Cluster

Figure 86. Exchange Cluster

Figure 87. Education Cluster

Figure 88. Artist Cluster

Figure 89. Transition Cluster
3.1.3. Cluster Group Relationships

The cluster diagrams express the relationships and associations of macro clusters to micro clusters. They do this by showing connections to each other and exploring the smaller connections that make up a bigger cluster. This creates a pattern of language which aids understanding of the internal workings of a cluster when applied to a diagrammatic master plan. The relationships between the clusters are informed by the precedents and case studies.

From studying the Christchurch City Recovery Plan, and implementing the precincts and anchor projects using the same methodology, the macro and micro cluster relationships now achieve programme context within the future city as and when the precincts and anchor projects are built.
**Artist Cluster Group**

The *Artist Cluster* illustrates the need of artist requires that are centred around a *shared work space*. The group consists of transition spaces that lead into a *double height space* or directly into the *shared work space*.

The cluster is trying to achieve program requirement organisation based on the relationships of spaces the branch into sub category elements.

For example, the sub category element of *communal space* also has its own branches of *cooking facilities* and *restrooms*. The need for storage organisation, where artists could keep their materials would be connected to the *shared space* as well as accessed through the *double height space*. This is to ensure that artists will not be disturbed by deliveries coming in and can be taken directly to the *storage room* through the *double height space*.

This, in turn, demonstrates how the micro element of an *Artist* and their needs, contribute to the macro element of the *Artist Studio*.

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Figure 92. Artist cluster arrangement
Housing Cluster Group

The Housing Cluster express the organisation and spatial relationships between the micro element requirements of the residents. This cluster is attempting to understand how space is orientated around a central private open space.

Neither the accommodation or private open spaces are subcategories because they are essential to the housing cluster. A resident can stay within their private open space, or if they wish to interact, they can go through to the artist entrance spaces to the visitor entrances and transition to a communal area with sub category elements of the eatery or market place.

This data can then be used as criteria for requirement hierarchy within the core macro element of the Artist Residence.

Figure 93. Housing cluster arrangement
**Education Cluster Group**

The *Education Cluster* group attempts to make connections to the micro elements of exchange and transition which makes up criteria for the macro element of the *Art Store*.

It shows how the connections between the *education of laneways* can be utilised for future programming for *outdoor performances*.

The cluster group illustrates how a person can be educated about art through an *exhibition or gallery space* and a *laneway*. As well as learning about future developments of the Christchurch City Recovery Plan through meeting areas. All of which draws connections to the *Art Store*.

![Figure 94. Art store cluster arrangement](image-url)
Exchange Cluster Group

In contrast to the Artist, Housing and Education Groups, the Exchange cluster group highlights a flat structure of exchange between the micro elements. The flat structure shows that instead of the sub category elements, the overarching elements of Exchange directly correspond with the Micro Elements.

It may need to be further analysed where exactly on the site these connections are made, which will vary from site to site. However, the relationships of the cluster group can provide a framework for a master plan to be generated.

Lastly this cluster group exhibits the internal connections of the cluster group.
Transition Cluster Group

In a similar way to the Exchange Cluster Group, the Transition Cluster Group translates direct connections to the macro elements.

While also maintaining some inner connection between the micro clusters for example, the laneway connections and the outdoor performance space.

Some of the macro elements can utilise multiply transition micro clusters at one time, giving a verity of thresholds to cross for different user groups.

Figure 96. Transition cluster arrangement
**Infrastructure Cluster Group**

The *Infrastructure cluster group* explains how the central micro element is expanded out into the micro clusters. From there, the micro clusters branch out to other micro elements which correspond to the macro element.

For example, the *Infrastructure* element expands out to the *Architectural Furniture* which relates to *Laneway Connections as it* is an essential element of the laneways. This is of course, linked to the transition micro element which corresponds to the macro *informal space* element.

In the same method, other micro clusters that branch off from the *infrastructure element*, lead onto more element clusters, tied to more macro elements.
Figure 98. Diagrammatic master planning concept
3.1.4. Diagrammatic Master Plan

The diagrammatic master plan demonstrates the results of the cluster relationship diagrams. It illustrates how micro programme clusters can be interconnected within macro programmes while still maintaining threads relating back to their original cluster.

One section of this master plan can be plugged into the existing framework of the city plan and act as an architectural catalyst for that area of the CBD. This is achieved by insuring macro clusters are compatible with the context of the chosen site.

The use of this language pattern provides its own set of criteria resulting in the implementation of architectural interventions consisting of a cluster group of programmes that are is adaptable to and flexible with the Christchurch City Recovery Plan.
Figure 99. Framework view point progression
3.2. FRAMEWORK

The framework aims to investigate spatial collages and materiality of environments to suit a flexible and adaptive design.

Because of the ever-changing context of the CBD, this section does not address a location for the project. It does attribute a methodology to visualise, through a resilient lens, what those spaces might require and look like.

A material framework has been assessed to determine what materials match the theme of the site, as well as careful selection of materials that will not attract tagging. Further development will demonstrate a material selection in the final design outcome.

Figure 100. Collage 1
Figure 101. Collage 2
Figure 103. Site Language Typology
3.2.1. Materiality

The material has been selected to consider two factors. The building programmes themselves as well as what material are best to use to discourage tagging.

The building material will be sourced from recycled bricks surrounding demolished buildings. The reason for this is to link the character of what those previous bricks used to hold, and implement them into the future design.

The material selection for anti-tagging, or graffiti vandalism, will be a selected texture as to make it difficult for tagger to tag. This might be a combination of gabions that define areas on the site and create the boundaries. A combination of material from the demolition of earthquake damaged buildings that make up irregular finished.

Lastly is the division of first storey and second story façade treatments to indicated areas of a wall that is legal to graffiti or street art.
Figure 104. Collage of site language #1
Figure 105. Collage of site language #2
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3.3. DEVELOPMENT

The following section is the result of the master planning and framework analyses and then applied to a site with Christchurch CBD.

The site is chosen from criteria established in the research and analysed to determine how the arrangement of the master planning can work with the surrounding context.

Lastly, architectural interventions are developed and tested so that the aims of the project are met.
Figure 109. Selected Site
3.3.1. Site Selection

Several sites around Christchurch’s CBD have the potential to carry out the requirements of this project.

The reasoning to choose this site, which is highlighted in the map, is because it is the same site that the Recovery Plan aims to put a stadium. If the stadium plan was to go ahead, this project would have by then, created a vibrant framework and spread resilience to the surround context. The stadium would then be built and potentially informed with the character and identity of the newly vibrant area of the CBD.

The building that is chosen on the site is to be repurposed and made into the artist studio which will be a focus point of this project.

Figure 110. Site Images
3.3.2. Architectural Interventions

As stated in the master planning, the criteria gathered from the precedent studies has informed five architectural interventions to explore. The interventions of; an artist studio, an artist residence, an art store, formal spaces and informal spaces encompasses the response to key problems of the Recovery Plan. By repurposing a derelict building, with themed urban art projects, the architectural interventions propose a new method of master planning and adapting to an existing framework.
**Artist Studio**

The proposed artist studio acts as the link between the artist residence and the art store. Through repurposing an abandoned building, the artist studio will help to gentrify one of the most forgotten areas of the CBD. The response utilises existing structure as a means of building upon remnants of the past. The artist studio will provide space for occupants to create and exchange ideas with other visiting artists, in turn, providing a dynamic environment which encourages people to develop their artistic skills. Additionally, it provides a new-found sense of community, within a derelict framework deemed to be demolished. It is only one piece of the puzzle, however by itself, it sparks a response of communal resilience.
**Artist Residence**

The artist residence provides temporary dwelling space for international artists who seek refuge within Christchurch's CBD. Located near the artist studio, the residence allows occupants to dwell with other like-minded international creative's, encouraging a sense of communal activity and artistic engagement with each other. The residence will accommodate 10 to 12 occupants and will provide shared amenities. As a part of the connecting tissue, the artist residence links both the artist studio, store, informal and formal spaces to encourage chance encounters between artists, thus the spaces create a thriving environment for visiting artists.
Art Store

The art store provides supplies for creatives who dwell within the artist residence and the wider Christchurch area. The store consists of shelves for selling products, storage, a self-help counter space, and assistant space. Located near the artist studio, the store allows creatives to easily replenish art supplies when needed and provides opportunities for the wider public to engage with their own artistic tendencies, encouraging the development of art within the city.
Figure 111. Index of Criteria
**Formal Space & Informal Space**

A crucial part of the development of the artist studio, residence and store are the formal and informal spaces. These spaces are the connecting tissue between each intervention. Firstly, the formal spaces provide specific locations for public art events to take place within the CBD. The formal spaces take place within existing buildings entice and define new activity, hence a new form of artistic creation takes place. These spaces also encourage the wider public to engage with the art produced by the visiting international artists. Secondly, the informal spaces allow the wider public to engage with art in an unstructured manner. These spaces include laneways, courtyards and parks which can host creations by the artists who dwell in the residence. Collectively, the formal and informal spaces encourage wider communal engagement with the art, hence, forming a new sense of artistic community for occupants.
Figure 112. Conceptual sketch design
3.4. **DESIGN OUTCOME**

The aim of this project was to investigate how new methods of architecture could build upon derelict sites using urban art as a catalyst for positive change. The design was achieved through analysis on the current Christchurch City Plan, resilient cities, urban art, formal and informal spaces which provoked appropriate architectural interventions. The interventions are sensitive and responsive to the immediate contextual conditions and suggest potential future development.

As mentioned above, the interventions include a series of artist and public amenities that encourage engagement with the creators and their work, questioning the role of architecture in a predetermined vision of a city.
4. CONCLUSION

The present condition of Christchurch is in continual state of flux after the earthquakes and represents a potential stagnant future for its occupants. The Christchurch City Recovery Plan has not utilised this unique opportunity of ‘starting from scratch’ to build a 21st century city. Consequently, the end goal of the completed city will seek vibrancy only as a reactive response to the earthquake.

As a design response, this research project proposes a new framework of architectural interventions that seek to strengthen the current Christchurch City Plan. The interventions reiterate the need to adopt creative urban art initiatives that put people at the centre of the rebuild, in turn, creating an architecture which encourages people back into the CBD and gives purpose back to their city.
PART FOUR
5. REFERENCES
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6.2 Supplementary Information

Appendices A - Structural Report by Marriott Consulting Engineer

The partial demolition has left the roof structure without a diaphragm that would have been provided by the sarking as shown in the photo below.

6.0 REVIEW OF ENGINEERING REPORTS

We have been provided with the following engineering related documents that CERA has on file:

- BMC Level 3A - Structural Engineering Assessment dated 22 September 2011.
- CERA Engineering Notes dated 31 January 2012, written by Neville Higgs.
- CERA Detailed engineering Evaluation Review dated 15 February 2012
- CERA Engineering Notes dated 27 August 2012 by Warren Lane.

The BMC reports are reasonably detailed and the September 2011 report estimates the pre-earthquake strength of the building at 6%NBS. Clearly there was significant damage to the building at that time and the damaged strength was clearly below 6%NBS.

The make safe plan recommends significant works to the building to restrain the façade from collapsing. There is no evidence that this work was undertaken. The photo of the façade on page one of the report shows more of the façade of 162 Lichfield Street in place. We are not certain whether this was deconstructed or collapsed in the 23 December 2011 aftershock. As no make safe appears to have been undertaken we support CERA’s actions to close off a lane of Madras Street to protect the public. There is no Engineering explanation as to how the façade has remained in place for so long without support. It effectively is a two storey gravity wall supported only at the party wall with 214 Madras and at ground level. It is also punched with large openings at both levels which make it more vulnerable to collapse in less than a moderate earthquake.

7.0 COMMENT ON CERA OPTIONS FOR THE BUILDING

CERA have requested that we provide options for the removal of the risk of collapse of the building onto Madras Street in order that the road can be reopened.
looked at a number of scenarios and suggest four options for the site. We will outline each option below and comment on the proposal from an Engineering point of view.

7.1 Option 1: Full Demolition

This option reduces the risk to the public to zero. The party wall with 214 Madras will however require some strengthening and weatherproofing. The connections between the wall and the floor and roof structure of 214 Madras were designed by John Spence of OTS and believed to have been installed in 2011 without building consent, but subsequently issued with a Certificate of Acceptance on 29th June 2012. These connections assist in supporting the wall in face loading.

As the floor and roof structures will be removed from the 216 Madras side of the wall, the wall may have to span further than previously. It is our understanding that the owner of 216 Madras will be required to provide support to their half of the party wall to the extent it had prior to the 2010 earthquake swarm. From the BMC Consultants structural assessment, the wall will need to be strengthened to at least 6%NBS in the long term. We believe the wall will self-supporting during the demolition.

The most practical strengthening of the party wall is likely to be to install cantilever steel columns at 2m centres cast 6111 into concrete filled piles in the ground. Horizontal beams would be installed at roof truss and first floor level and all beams and columns fixed to the wall with M16 bolts set 200mm into the brickwork with Hilti RE500 resin at 1m centres. The final steel sizing will need to be designed and drawn for building consent approval and construction as this is outside of our brief.

For pricing purposes we estimate the weight of the steel required at approximately 3T.

Care will be required when demolishing 216 Madras that the demolition has no undue effect on the party wall or other structure to 214 Madras. Brickwork that is toothed into the party wall will need to be cut away with a wire saw or similar and the bricks removed by hand. A detailed demolition methodology should be agreed prior to any work being undertaken.

From our observations on site, we believe that 216 was built prior to 214. This may mean that the northern end of the façade may not be tied into the party wall. Care will be required during demolition and some remedial work may be required to secure this corner following demolition. The party wall will also require weatherproofing.

On completion of the work, the road and footpath are able to be fully opened.

7.2 Option 2: Demolition of building to first floor level

This option demolishes both the roof structure and walls down to first floor level. This removes the risk of the façade collapsing and spilling across the road lanes.

Hence the road lane could be opened with a fall zone of 5m allowed for with the existing concrete blocks moved back to the line of the parking bay.

In addition to the demolition, the existing first floor would need to be tied to the wall below using a 150x150x10 steel angle bolted to the wall using M16 bolts set 300mm into the brickwork with Hilti RE500 resin at 400mm centres and to every joist using one M16 coach screw per joint. We also recommend installing a 21mm thick H3.2 CCA treated plywood diaphragm over the full first floor area with 60x2.8mm stainless steel nails at 50mm centres to sheet edges and ends and 150mm centres within the panel. The floor would require a weatherproof covering if it was left exposed for more than six months.
The party wall with 214 Madras would also require weatherproofing, but is considered to have at least 3% NBS without additional strengthening above first floor level as it is tied into the roof and floors of 214 Madras. The remainder of the partial structure is likely to be less than 3% NBS, but the risk of collapse is reduced and the risk to the public mitigated by the fall zone and concrete block barrier.

Care will be required when demolishing 216 Madras that the demolition has no undue effect on the party wall or other structure to 214 Madras. Brickwork that is toothed into the party wall will need to be cut away with a wire saw or similar and the bricks removed by hand. A detailed demolition methodology should be agreed prior to any work being undertaken.

7.3 Option 3: Retention of the existing Building in its present form

If the building were to be retained in its present form, significant temporary works would be necessary to mitigate the risk to the public once the road was reopened. The parapet and parapet return to the North wall would also need to be removed as they have displaced significantly and separated from the remainder of the wall. The top of the façade would be capped with a 100x10 angle each side tied at 900mm centres with a 150x150x10mm plate welded to each angle. The plate would be bolted down to the wall with 16mm diameter stainless steel threaded rods set 1200mm into the brick with Hilti RE500 epoxy resin. The inside angle would be tied to the three jack trusses with 200x300 cleats and 2/M16 bolts. The roof diaphragm would require a weatherproof covering if it was left exposed for more than six months.

The North and South wall to truss connections will need to be strengthened with a continuous 200pfc channel installed to the underside of the bottom truss chord with toes down. The pfc should be fixed to the brick wall with M16 through bolts with 200sq x 16mm plates on the opposite brick face at 1m centres. It should also be fixed to the trusses with two M16 bolts installed vertically up through the bottom truss chord. We also recommend installing a 12mm thick H3.2 CCA treated plywood diaphragm with 60x2.8mm stainless steel nails at 50mm centres to sheet edges and ends and 150mm centres within the panel, the purlins to the roof trusses would need to be reinstated to allow the diaphragm to be installed.

The existing first floor would need to be tied to the wall below using a 150x150x10 steel angle bolted to the wall using M16 bolts set 300mm into the brickwork with Hilti R1500 resin at 400mm centres and to every joist using one M16 coach screw per joint. We also recommend installing a 21mm thick H3.2 CCA treated plywood diaphragm with 60x2.8mm stainless steel nails at 50mm centres to sheet edges and ends and 150mm centres within the panel.

7.4 Option 4: Retention of the existing building with a replacement roof

This option is similar to option 3, but a replacement roof, gutters and rainwater system would be provided to waterproof the building.
8.0 CONCLUSION

From our inspection of the building, and the information provided to us we believe the building has suffered severe damage in the 2010 to present earthquake sequence. There are four possible Engineering solutions to make the building safe, ranging from full demolition, partial demolition, retention as is to retention and weather protection. These are described in more detail in section 7 above.

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Yours Faithfully,
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STATE OF THE ART: INTEGRATING PUBLIC ART WITH THE REBUILD AND RE-IMAGING OF THE PUBLIC REALM

CHRISTCHURCH CENTRAL BUSINESS DISTRICT

Practice Pathway: ARCHITECTURE
Degree: MASTERS OF ARCHITECTURAL PROFESSIONAL
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