

GREENWAYS, PROPERTY DEVELOPERS AND THE USE OF INCENTIVES

MECHANISMS TO INCENTIVISE AUCKLAND'S PRIVATE PROPERTY
DEVELOPERS TO ALLOW PUBLIC ACCESS THROUGH THEIR LAND
FOR GREENWAY DEVELOPMENT

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Abstract

Greenways, linear forms of open space commonly referenced as ‘corridors of benefits,’ are increasing in popularity across Auckland. However, Auckland’s history of urban growth via suburban development has led to pedestrian and cyclist connectivity issues. Auckland Council has therefore developed Local Board Greenway Plans to encourage greenway development, with the aim of mitigating certain negative effects of suburban development, whilst responding to Auckland’s growing aspiration for connected networks which encourage active modes of transportation. However, the New Zealand Walking Access Commission and Auckland Council have both identified private landownership as a potential barrier hindering greenway implementation. This research therefore aims to answer the question of how incentives can be utilized as a mechanism to encourage Auckland’s private property developers to allow public access through their land for greenway development.

To answer this research question, a three-phase research design was developed. The first phase undertook a desktop exercise looking at current policy approaches to see what policy support is available for greenways and what potential barriers exist. The second phase involved three case studies to evaluate the provision of greenways through the actual development process. Finally, a range of semi-structure interviews and online surveys were undertaken to explore the issues surrounding greenways and how developers could be incentivised to incorporate greenways in their developments.

The research findings highlighted that Auckland’s planning framework acts as a barrier hindering greenway implementation; a finding enforced following the analysis of three development case studies. The interviews and questionnaires built upon this, with developers enforcing that poor communication and a lack of guidance and innovation on behalf of Auckland Council is hindering greenway development. However, developers identified that various incentives are likely to offset these barriers and encourage greenway implementation, with financial and regulatory incentives identified as the most effective mechanisms. Moreover, Auckland’s developers also held a strong sense of internal motivation to act for the public good and provide greenways, however, regulatory barriers are noted as restricting a developer’s feasibility to do so. It is anticipated that these findings can be used to further understand Auckland’s greenway barriers and developer behaviour. Consequently, this research can assist with the transition of Auckland's Local Board Greenway Plans from idealistic paper-based documents into a network of well-connected greenways transcending Auckland's built form.

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List of Abbreviations

Auckland Council	AC
Auckland Transport	AT
Auckland Unitary Plan (Operative in Part)	AUP(OP)
Comprehensive Development Plan	CDP
Environment Court	Court
New Zealand Walking Access Commission	NZWAC
Pedestrian and cyclist connectivity	Connectivity
Private property developers	Developers
Regional Policy Statement	RPS
Resource Management Act 1991	RMA
Transferrable Rural Sites	TRS

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1.0 Introduction

Auckland, like many new pacific rim world cities have urban planning policy approaches seeking to manage urban growth and to direct future growth towards brownfield and transit locations away from the urban fringe (Allen at al., 2018). In Auckland's case, such policy approaches have been in place since the first adopted Regional Scheme in 1973 (New Zealand Productivity Commission, 2015). However, implementation has been problematic (Beattie, 2014; Allen at al., 2018). This has led to majority of Auckland's growth taking place in greenfield locations, frequently taking the form of single stand-alone dwellings.

Auckland's urban growth has placed pressure on the cities public green spaces, agricultural land, and the natural environment. Additionally, this pattern of suburban development has led to pedestrian and cyclist connectivity issues (Dixon and Dupuis, 2002; Rowe, 2012). Today however, society recognizes the importance of a connected network which encourages active modes of transportation such as walking and cycling. Therefore, mechanisms which encourage these activities and contribute to the feeling of community are welcomed amongst Aucklanders.' Greenway networks, which fulfil the above, offer a solution to address Auckland's car dominated urban form and its associated environmental and community impacts (Conine et al., 2004; Keith, 2016).

Greenway's are a relatively new concept in New Zealand (NZ), however, the concept has been present since the late 1980's. As considered in detail in Chapter 2, a specific definition of greenways does not exist in both practice and academic literature. However, Auckland Council (AC) defines greenways as *"a corridor of open space that is managed for environmental and recreational benefits"* (Auckland Council, 2012, p. 6). Given the wide-ranging nature of greenways, AC has established four categories detailed in Table 1 below. Of these, this dissertation will focus on local paths through streets and local paths through open spaces. Express Paths and Trails, as the other forms of greenways, are however deployed on a regional scale are not relevant to this research due to the local approach taken.

Table 1: Auckland Council Greenway Classifications

<p>Local Path – Street</p> <p>On-street local connections where pedestrians are accommodated on the footpath and the roads contain traffic calming techniques or low traffic volumes. This environment creates a safe space for cyclists without the need for separate cycle infrastructure.</p> 	<p>Local Path – Open Space</p> <p>Off-road local connections through parks, reserves, and any form of open space within a city. When combined with local street paths, these two forms of greenways create a comprehensive network of local linkages.</p> 
<p>Express Path</p> <p>Express Paths provide faster movement corridors than Local Paths. They provide cross-city connections linking regional and local centres via paths for pedestrians and cyclists separated from vehicles.</p> 	<p>Trail</p> <p>Trails are primarily used for recreation and are commonly located in rural or bush settings. Trails commonly connect to Local or Express paths; however, they may also allow for horse-riding alongside walking and cycling in rural areas.</p> 

Source: Stevens (2018) *table content retrieved from Auckland Council (2017)*

Despite AC's recent adoption of greenways, the establishment of linear forms of open space in The United States of America (U.S) can be traced back to Ronald Reagan's President Commission on American Outdoors which specifically advocated for Greenway Planning. This national greenway direction of 1987, which envisioned a living system of greenways providing people with access to open spaces near where they lived, lead to the birth of America's, and subsequently the global, greenway movement. The birth of the greenway movement in the U.S. was a direct response to provide access to locations where public access was previously seen yet had been hindered as greenway access was not properly considered when urban expansion took over farmlands (Fabos, 2004).

Although linear corridors of open space were evident pre-1987, the greenway movement resulted in the development of comprehensive Greenway Plans, a planning strategy unseen prior to the 1980s (Fabos, 2004). Historically, natural corridors such as rivers or old transportation corridors were converted into green networks. However, following the 1980's, greenways have significantly evolved into a wide-spread form of green infrastructure which encompass multiple purposes and benefits (Jang and Kang, 2015) not only in the U.S., but also in NZ. In Auckland's context, greenways are predominantly used to enable and encourage people to use methods of active transportation, such as walking and cycling, by providing a network of connected pathways separated from busy roads. They may not provide the quickest route to get from place to place, however, greenways have the benefit of offering leisurely local connections (Auckland Council, 2017). However, as AC attempts to implement a comprehensive greenway network, the New Zealand Walking Access Commission has identified private landownership as a barrier hindering greenway implementation, an issue explored in this dissertation.

1.1 Purpose of the Research

As Auckland is experiencing increased population growth, detailed policy responses are required to respond to associated environmental and social challenges urban growth can create (Dixon and Dupuis, 2002). In relation to greenways and public open space, AC is asking its 21 Local Boards to develop Greenway Plans for their board areas. Their aim is to provide a safe and pleasant environment for walking and cycling, while also improving ecosystem health and access to recreational opportunities. This is shown with the Hibiscus and Bays greenways plan in Figure 1. The primary objective of this plan is to provide a comprehensive greenway network linking housing areas, employment hubs, open spaces and other places of interest together (Auckland Council, 2017).

Figure 1: Proposed Hibiscus and Bays Greenway Map



Source: Auckland Council (2017a)

The proposed linkages in Figure 1 are predominantly shown across public land, however, there is also a requirement for their provision on private property. In these instances, it is intended that access be achieved through the use of *“easements or land acquisitions would need to be negotiated on a voluntary basis with the relevant landowner, or an alternative route found”* (Auckland Council, 2017a, p. 20). As part of this dissertation, incentives will also be explored as mechanisms which can be used to implement Auckland’s Local Board’s Greenway Plans. As incentives will be analysed to encourage property developers to allow public access through their land, it is appropriate to effectively understand the meaning of an incentive. Incentives can be defined as anything which encourages an individual to perform a desired action (McDonald, 2018); a concept further investigated in Chapter 2.

The New Zealand Walking Access Commission (NZWAC) have sponsored this research and have identified private property developers as a sub-category of private land owners who are potentially hindering greenway implementation. As a result, private property developers (developers) have been

considered as part of this work. The NZWAC has also identified that Auckland's peri-urban areas are experiencing a high degree of greenway fragmentation. However, it is proposed to focus on both brownfield and greenfield developments across Auckland, opposed to exclusively peri-urban areas, enabling a broader analysis of developer incentives/barriers to be carried out. It is argued that these research findings can also be relevant to Auckland's peri-urban areas given the range of factors considered.

Finally, the implications of recent Environment Court Case, *Matakana Coast Trails Trust v Auckland Council* [2017] is considered. This case highlighted the importance of pedestrian and cyclist connectivity through the subdivision process and considered that the lack of connectivity was an adverse effect under the Auckland Unitary Plan (Operative in Part) (AUP(OP)).

1.2 Research Question

This led to the following research question:

To discover methods which could incentivise greenfield and brownfield property developers, to allow public access through their land for the implementation of greenways.

1.3 Aim and Objectives

Aim

The purpose of this research is to explore and evaluate a range of incentives which would encourage greenfield and brownfield property developers to allow public access through their land for the implementation of greenways.

Objective 1

Identify the existing barriers which hinder property developers from allowing public access through their land.

Objective 2

Examine the level of connectivity in Auckland's contemporary developments, understand what connectivity barriers Auckland's property developers face, and explore what forms of incentives could encourage developers to provide further connectivity.

Objective 3

Evaluate the strengths and weaknesses of each incentive and recommend which incentives are most suitable to encourage private property developers, operating across the Auckland region, to allow public access through their land for the implementation of greenways.

1.4 Dissertation Outline

The dissertation will begin with a literature review to examine the concept of greenways, understand developer behaviour and identify the effectiveness of various incentives (Chapter 2). In Chapter 3, the methodological approach used to collect primary and secondary data and to analyse the consequent findings are presented. Subsequently, the field work and data collection are considered, where Auckland's planning framework is analysed in Chapter 4, followed by an evaluation of three development case studies in Chapter 5. Finally, the results from a range semi-structured interviews and questionnaires with Auckland's developers are considered in Chapter 6 to gain an understanding of what incentives could encourage greenway development. Chapter 7 will discuss the implications of the research findings, drawing conclusions on how greenway barriers can be overcome and the effectiveness of the explored development incentives.

2.0 Literature Review

The literature review below is broken into two sections beginning with an examination of the literature surrounding greenways and what these could cover. This is followed by a consideration of incentives and potential barriers hindering greenway implementation around the issues of private landowner/developer behaviour. The literature review is structured in this manner due to the distinctive nature of the three topics. Each topic is subsequently combined in the literature review's conclusion where the significance of the relationship between each component is presented.

2.1 Greenway Literature

As considered in Chapter 1, greenways are can be defined as linear forms of open space which have the capability of connecting communities, enhancing recreational opportunities and protecting ecological resources (Crompton, 2001). However, apart from practice based literature predominated undertaken by local government, there appears to be little written in the academic literature in NZ's context. Therefore, this review will focus on the literature covering North American and United Kingdom perspectives.

2.1.1 Greenway Benefits

The international literature in this area is significant and raises the following arguments:

Bio Physical

Environmental protection and ecosystem management are significant benefits derived from greenways. Ahern (1995), Teng et al. (2011) and Conine et al. (2004) highlight the unique nature of greenway planning as the spatial concept generates connected environments and reduces the potential adverse effects from fragmented ecosystems. Greenways can therefore act as ongoing ecological corridors which stitch various habitats together, whilst they are also used as a tool to preserve open space and provide effective waterway buffering.

Community and Wellbeing

Greenways can stimulate a vast range of community benefits including providing scenic routes designed to accommodate joggers, walkers and cyclists. Additionally, greenways are referenced as “corridors of benefits” (Keith, 2016, p. 17) and can improve one's mental health, reduce stress and help tackle

obesity levels when utilized as modes of transportation (Keith, 2016; Webera et al., 2017; Moore and Shafer, 2001; Palardy et al., 2018).

Economic

Crompton (2005) and Chung et al. (2018) have shown that park density and proximity to open space has a positive contribution to land and property values. However, Payton and Ottensmann (2015) agree that this can depend on the neighbourhood context and park classification. For example, some neighbourhood parks can lead to a slight decrease in property values, however, proximity to greenways can be associated with a positive increase in property value. The literature on the relationship between park proximity and property values is therefore varied and one should not assume a positive relationship between the two variables.

City Design

Walmsley (1995) and Ahern (1995) have shown that greenways can enhance the legibility in various landscapes and highlight that they have long been classified as a form of regional design. Greenways are regarded as providing strong patterns in a landscape which create a natural corridor and distinctive feature in a city. The presence of such a distinctive linear form subsequently contributes to how one experiences an environment and orientates themselves.

2.1.2 Greenway Implementation Challenges

Private Property Rights

As considered above, the benefits of greenway's can be vast. However, a consideration of challenges for their implementation must be addressed. Ahern (1995) and Fabos (1995) argue that land ownership is a key component in the planning process which in turn raises the issue of private property rights which can be assigned to land. Ahern (1995) highlights that landowners can perceive greenways as encroaching on their private property rights and refers to the views of U.S. based political think-tank (Wise Use Movement) to highlight this point. This group has openly opposed greenway planning in the U.S. through challenging the planning process predominately on the grounds of unwarranted government involvement on private land. This point is also expressed by Chung et al. (2018) and Eyler et al. (2008) who consider the role of private property and the challenges these can present to the effective implementation of community desired planning outcomes. Eyler et al. (2008) furthermore highlights the complicated and often forceful nature of land-acquisition policies.

While this dissertation is not an evaluation of the issue of private property rights, given the scope of this topic, this issue must be acknowledged as serious barrier to effective greenway implementation. Moreover, this also raises the issue of effective community engagement over the benefits of greenways.

Land Use Trade-Off and Funding

In addition to the issue of property owners challenging greenways, there is the increasing issue of land scarcity and balancing greenspace with urban development. Jang and Kang (2015) present this as a primary constraint to greenway development along with Chung et al. (2018 p. 6.) which states, “*a municipal leaders’ eagerness to maximise their economic gains from land development puts public green space in a disadvantageous position.*” Unfortunately, this approach to land use is also mirrored in the private sector, entrenching the issue of greenspace as a trade-off which must be balanced against a range of other planning and development issues. Eyler et al. (2008) furthermore highlights greenway funding as a dominant implementation barrier. Although much of the money for greenway development is traditionally supplied from the federal government in the U.S environment, there is continuously competing demands for this government funding. However, even following the success of initial funding, maintenance remains as a persistent issue. The perceived risk of a pathway rapidly deteriorating highlights the need for on-going funding for maintenance to enable effective greenway management.

In the NZ context, if these are not ‘self-funded’ through the development process, that is, agreed to be provided by the developer through the development process, there is limited funding opportunities available from local government to purchase and develop greenways.

2.1.3 Greenway Implementation Opportunities

Jang and Kang (2015) highlight how greenways are increasingly recognized as a strategy to enhance sustainability and liveability while increasing the amenities of any given location. Implementing greenways can additionally be much easier than implementing a regular neighbourhood park due to its linear nature. Walmsley (1995) and Conine et al. (2004) consider how there is an opportunity to implement greenways along narrow strips of land which are not appropriate for residential or commercial development; such as along abandoned railroads, following river corridors, and through unused right of ways. A more recent report by Chung et al. (2018) enforces this, presenting that elongated strips of land are ideal for greenway development despite their existing condition. Furthermore, riparian land is undeveloped due to flooding risks, however, such a liner strip is a prime

greenway location. Chung et al. (2018) state, "*speaking of environmental amenities like rivers, greenways are often not developed from scratch but are about showcasing resources we already have,*" p. 10; highlighting that there is a broad range of development locations.

3.1.4 Greenway Perceptions

Adjacent landowners are more likely to negatively perceive a greenway in comparison to the wider community (Keith, 2016; Eyler et al., 2008; Ivy and Moore, 2007). Each of the above authors highlight a range of adjacent landowner concerns including the fear of crime and potential property damage, trespassing concerns, privacy issues, and concerns that rising property rates will push them out of their neighbourhood. Following this trend, adjacent landowners are understandably more pessimistic regarding the benefits of greenways in comparison to landowners in the wider environment. In addition to negative perceptions, Fabos (1995) presents that there are strong counter-movements against greenways expressed by a strong minority view, posing as a huge barrier to greenway implementation.

Nevertheless, support for greenways is continually growing as concluded by Chung et al. (2018), Crompton (2001) and Jang and Kang (2015). Chung et al. (2018) believe that ongoing greenway enthusiasm is due to many towns correctly perceiving that greenways draw people to an area and bring a place into life; with this positively correlating to an increase in economic activity. However, as considered above, there is ongoing resentment over the trade-offs associated with greenways and reduction in profitable land. It is therefore highlighted that to attain community support, green networks must benefit an area economically opposed to exclusively providing community and wellbeing benefits. Economic agendas of actors in the development process are again enforced by Crompton (2001) and Jang and Kang (2015), both of which highlight landowner perceptions that greenways increase property values. Although this is not necessarily the case, this perceived economic gain increases landowner support and helps balance out negative perceptions of safety and crime.

2.1.5 Greenway Literature Gap

Following a review of greenway literature, it is evident that there are numerous greenway benefits, fluctuating implementation barriers, ranging greenway perceptions, and a scarce amount of greenway implementation opportunities. However, a gap in greenway literature is evident in relation to overcoming greenway implementation barriers, especially in the NZ context. From this it could be concluded that the actions of landowners could be identified as a primary barrier hindering greenway

implementation. As a result, the second half of the literature review will cover landowner behaviour and incentives.

2.2 Incentives and Private Landowner Behaviour

2.2.1 Incentives

The purpose of an incentive is to entice an audience into generating the outcome desired by the incentive supplier (McDonald (2018)). Therefore, an incentive is essentially a means to achieving an end. Existing literature on incentives predominantly addresses the business sector. This is highlighted by Zimbalist (1989), Brumm (1992), McDonald (2018) and numerous other researchers which each present similar findings on how incentives can be successfully utilized by an employer to generate improved outcomes. However, when it comes to the development sector, incentive literature is multifaceted. Onuoha et al. (2018) and Zhong et al. (2009) reference how incentives have been implemented to increase the provision of energy efficient buildings, Zeidel (2010) demonstrates how incentives have aided in addressing affordable housing and Harpel (2016) supports how economic development can be achieved via attracting businesses through various incentives. Despite incentives being deployed to stimulate various sectors of development, there is a gap in the literature in relation to public access and developer incentives, especially in the NZ context. Therefore, the subsequent literature has been analysed to uncover the various forms of incentives and their consequent outcomes, all of which could be transferable into the property development context.

Incentives are recognized as multifaceted and complex mechanisms, however, Zimbalist (1989) simplifies their complexity via classifying incentives into two categories, material and nonmaterial. Material incentives refer to tangible rewards, with financial benefits the most commonly recognized example of this. Nonmaterial incentives, however, refer to acting a certain way due to various circumstances, feelings, or thoughts. Moral incentives, such as when a party is motivated to act for the common good without an immediate material reward, is a leading example of a nonmaterial incentive. In addition to Zimbalist's basic classification, Tavares-Lehmann (2016) builds upon this through conveying that incentives can be distinguished according to six essential characteristics. The purpose of an incentive, its target criteria, level of discretion, timing, basis of reward, and instalment format; highlighting the essential nature of each element when developing an effective incentive.

As governments have long been utilizing incentives as an effective mechanism to align their objectives with industry's, various forms of incentives have been developed in an attempt to generate desired results. Tavares-Lehmann (2016), Howley et al. (2010), Pitt et al. (2009), and Buckely (2008) convey the

important role financial incentives have in achieving desired outcomes. A financial incentive primarily refers to grants, loans, subsidies or financial assistance to encourage actions; a form of material incentive which is largely welcomed and frequently generates reliable outcomes. Fiscal incentives are likewise commonly used and are similar in nature to financial incentives. Tavares-Lehmann (2016), Oden and Mueller (1999) and Yusof et al. (2012) each praise fiscal incentives due to their success rates and ease of implementation. Tax incentives are the most widely used fiscal incentive, functioning via a recipient receiving a lower taxation rate and consequently improved future profitability rates. Fiscal incentives are considered the most commonly used form of incentive in both developed and developing nations, a direct consequence of financial resources deemed unnecessary. Regulatory incentives are additionally referenced by Tavares-Lehmann (2016). Regulatory incentives must be administered by local or national governments and desired outcomes are commonly achieved when implemented. The overlooked notion of moral incentives and intrinsic motivation is furthermore conveyed by Yusof et al. (2012) and Ryan and Deci (2000), relating closely to the concept of nonmaterial incentives presented by Zimbardo (1989). However, besides these articles, the presence of moral incentive literature is insignificant.

Despite the numerous forms of incentives, success ratings vary depending on contextual circumstances and whether an incentive is comprehensively developed. Tavares-Lehmann (2016) and Yusof et al. (2012) enforce four key attributes of a successful incentive. Incentives must be simple, unbiased to ensure a win-win result for all stakeholders, must provide an adequate benefit for the participating party and a lengthy duration is essential to secure support. Each of these aspects will therefore be thoroughly considered when proposing incentives to Auckland's developers in attempt to understand which incentives could encourage greenways.

2.2.2 Property Developer Behaviour

The availability of literature linking private property developers and incentives together is scarce. Therefore, a review has been conducted into the behaviour of developers to further understand their underlying motives and perspectives, offering an insight to how developers may respond to certain development incentives. As literature on NZ developer behaviour is also scarce, this review is based on U.S. perspectives. Guy and Henneberry (2002), Knight (2011) and Ennis (1996) convey how a developer's primary concern is to accumulate profit. A developer intends to achieve this aim via constructing buildings which contain a realised value which exceeds the developments costs. However, despite financial gain as a primary development motive, this does not imply other developmental

factors are disregarded, nor does it mean that all developers are exclusively profit driven. Coiacetto (2001), Ryan and Deci (2000) and Knight (2011) acknowledge that profitability is essential in the development game. However, each author highlights the parallel presence of a developer's moral considerations and actions to achieve socially beneficial outcomes. Therefore, developer perspectives are varied and they must not be regarded as a homogenous group.

Beyond the necessity of profit, Knight (2011) highlights that developers enforce the importance of maintaining social networks and nurturing links with Council officers. Although these considerations are regarded as important as they inherently benefit the developer, this behaviour offers an insight to how developers achieve their goal of profitability; highlighting that greed and discourtesy is an assumption which cannot always be made.

Coiacetto (2011) sums up the diversity of developers through conveying that a developer's behaviour will vary depending on various locational contexts, a firm's size, the form of development they are involved in and the underlying motives they hold. Consequently, planners must take various approaches and be mindful that certain strategies may encourage one developer, however, they may discourage another. Therefore, planners must negotiate and interact with developers on an individual basis, bearing in mind the extent of developer diversity. The complexity of developers as portrayed by Coiacetto (2011) is repetitively supported throughout the literature. However, Ennis (1996) conveys that although developers are primarily concerned with commercial benefits, rather than legal or moral considerations, if an incentive is offered, the incentive can help encourage a developer to take on associated risks and go beyond the concept stage and bring a project into reality. Therefore, despite profitability concerns, incentives are recognized as encouraging developers to alter their behaviour and generate alternative outcomes.

2.2.3 Rural Landowner Behaviour and Public Access

There is a large body of literature published on rural landowner behaviour and public access, predominately from the United Kingdom which addresses the views of rural farmers as a barrier to rural recreation. However, despite this stance, a reoccurring theme is evident which conveys how many rural landowners are willing to provide public access through their land on the condition that there are adequate financial incentives. Mulder (2006) and Howley et al. (2010) enforce this, conveying the importance of financial incentives as landowners experience various burdens and have numerous concerns regarding public access on private land. Property rights and liability concerns are conveyed by Buckley et al. (2009) and Gentle et al. (1999), while financial burdens are enforced by Buckley (2008)

and Mulder (2006), highlighting that public access does not contribute to a landowners' profitability, it rather hinders profitability as there is an inherent cost in the provision of walkways.

Despite a large proportion of rural landowners supporting the provision of public access if a significant incentive was provided, either in the form of compensation or grants, Church and Ravenscroft (2008) and Buckley et al. (2009) highlight another reoccurring theme. Their findings convey that if landowners are interested in providing public access, they are likely to do so, either with or without compensation. A landowner which does not require compensation is likely to experience benefits in the form of increasing the sense of community and receiving satisfaction from their contribution to enhancing the social fabric of their community. However, if landowners negatively perceive public access through their land, these landowners are unlikely to be incentivised despite sizeable rewards. Although these findings are specific to rural areas in the United Kingdom, the underlying motives and perspectives can likely be translated to NZ's context, presenting the numerous barriers which must be overcome to enable public access on private land.

2.3 Conclusion

The first half of the literature covered the various benefits, opportunities and constraints, and perspectives surrounding greenways. The latter half of the review assessed various forms of incentives and subsequently explored literature on private landowner behaviour; intending to uncover how landowners may respond to incentives. The first half of the literature review presented a gap in the literature regarding how to overcome greenway implementation barriers, with private landowners identified as the primary barrier, especially in NZ's context. This mirrors the NZWAC's findings, which directed this research towards investigating how to overcome private landownership as a barrier hindering greenway connectivity.

Beyond greenway literature lacking content on how to overcome private landowner barriers, private landowner and incentive literature furthermore lacked information on property developers and connectivity incentives. However, the literature did connect rural landowners, greenways, and possible incentive schemes. Despite this, there is a gap in the literature regarding developers, incentives, and public access/greenways, of which this research will focus on. Therefore, this dissertation aims to address the gap in the literature and answer the question of, how can Auckland's developers be incentivised to allow public access through their land for greenway development?

3.0 Methodology

3.1 Research Design and Strategy

To consider the research question, a three-phase research design was developed using a range of qualitative techniques. The first phase undertook a desktop exercise looking at the current policy approaches, both statutory and non-statutory, to see what policy support are available for the provision of greenways and what potential barriers exist (Chapter 4). The second phase involved three case studies to evaluate the provision of greenways through the actual development process (Chapter 5). Finally, a range of semi-structure interviews and online postal surveys were undertaken to explore the issues surrounding greenways for property developers (Chapter 6). These interviews and surveys considered the potential drivers and challenges for their implementation and how incentives could be included in the development process to encourage greenways. Each of these three phases are considered in detail below.

Policy Evaluation

In this phase, an analysis was undertaken to identify the current policy approaches encouraging the provision of greenways and the potential lack of greenway connectivity throughout the Auckland region. This analysis proved to be difficult, as considered in Chapter One, greenways are not defined within any of NZ's statutory planning documents, including the AUP(OP). Greenways are alternatively only defined in non-statutory Local Board Plans. This creates potential difficulties when seeking to consider their implementation in practice through the statutory planning process. However, the definition explored in Chapter One refers to 'pedestrian and cyclist connectivity' (connectivity) and these terms therefore formed the basis of the policy assessment. However, it is interesting at this point to note that the AUP(OP) does not refer to or encourage the provision of greenway networks. Subsequently, an analysis was also undertaken to identify existing incentive schemes in Auckland's planning framework. This consequently highlighted viable incentive exemplars which could be adjusted to encourage development connectivity across Auckland.

Case Studies

The three case studies were selected following their recommendation from a Resource Consent Team Leader at AC. These case studies were recommended based on their connectivity concerns raised during the resource consent process and the diverse context of each example. Through analysing the three case studies, an accurate understanding of Auckland's planning framework was gained, an understanding which would likely be inaccurate if exclusively one case study was conducted. To analyse

each case study, the relevant resource consent files were obtained. This included the applicants Assessment of Environmental Effects (AEE), relevant Site Plans, and AC's Notification and Decision reports. All documents were stored in AC's internal system; however, all information is publicly available on request.

Interviews and Questionnaires

Participant and Study Area Justification

The study group for this dissertation includes all scale private property developers (developers) who operate across the Auckland region. The form of development a company does is not essential to this research, however, all developers had to be involved with brownfield or greenfield developments across Auckland region if possible. Furthermore, the subdivision chapter of the AUP(OP) references connectivity, whilst zoning chapters do not. Thus, to understand the connectivity provisions of the AUP(OP), developers who are subdividing their land are of relevance, whilst developers involved with projects on single lots are not as connectivity is not an issue. Furthermore, as many developers own and subdivide brownfield and greenfield sites, this establishes a large study area ensuring there is an abundance of developers as potential research participants.

This research required data from developers of all scales to gain a comprehensive understanding of developer behaviour and motives. Small family run businesses or developers who may not have employees but are developing or subdividing their own large block of land, were classified as small-scale developers. Development companies with under 15 employees were classified as medium-scale property developers, and developers with over 15 employees were classified as large-scale development companies. To recruit developers of each size, the below methods were used. It must be noted that the identity of all participants was kept confidential to increase the likelihood of participant's responding. Participants were additionally not required to have any prior experience with greenways.

Participant Recruitment

To recruit questionnaire participants, questionnaires were sent out to developers of all scales who have experience in greenfield and brownfield developments across Auckland. Therefore, in order to recruit developers which fit this criteria, a comprehensive list of relevant developers had to be constructed. To generate this list, a combination of the Yellow Pages and developer databases were used to identify all developers operating across Auckland. Subsequently, each company's website was analysed to assess their previous projects and the company's description; with the intention of identifying whether a company has experience in brownfield or greenfield development. However, these recruitment methods were unattainable to recruit small-scale developers as they commonly did not contain

websites. To overcome this barrier the NZWAC and multiple AC Resource Consent Team leaders recommended several small-scale developers. These recommendations included developers which were 'interested' and 'unfazed' by greenways, ensuring the participants were not bias towards greenways. These small-scale developers were subsequently added to the established list of medium and large-scale property developers which were identified using the methods detailed above. Following the establishment of a list of relevant developers, the online questionnaire was emailed to every developer/development company on the list.

To recruit interview participants, snowballing methods were used. However, the method of direct recruitment was initially utilized to select the first 3 interviewees. The established list of relevant developers, which was used to recruit questionnaire participants, was subsequently modified to classify developers into the three size categories; small, medium and large-scale developers. The size of each developer was determined from the presence of employee lists on developer websites and through utilizing recruitment tools such as the Localist which provided additional information about developers. However, small-scale developers were already identified prior to the 'lists' formation. Following the identification of small, medium and large-scale developers, two developers were randomly selected from each size category and were subsequently contacted via email, asking for their participation in this research. Two developers out of each size category were selected to increase the chance of receiving a response. However, if no response was received within a week, two more developers were selected from each category until a developer offered to participate.

During the initial interviews with each scale developer, snowballing methods were utilized. Each participant was thus asked to recommend a similar scale developer which may willing to participate in this research. This method of snowballing was subsequently used to recruit the remainder of the interview participants. It is identified that there was the potential for participant crossover to occur as all developers were contacted for the questionnaire, some of which were again contacted for the interview. However, the likelihood of individual participant crossover was unlikely as companies contain multiple employees and different employees are expected to participate in questionnaires and interviews.

Data Collection

Questionnaires and interviews were utilised as methods of collecting qualitative data. Questionnaires were structured to contain four primary categories; 1) overview questions, to understand a developer's scale and form of development as questionnaire responses were anonymous, 2) financial incentives, 3) regulatory incentives, and 4) moral incentives (see Appendix 1 for the questionnaire). Interviews were,

however, structured in two parts. The first part contained open ended questions different from the questionnaire, while the second part overlapped with the questionnaire's three incentive sections (see Appendix 2 for interview questions). As interviews were conducted as a conversation between the two parties, these enabled developers to elaborate when desired. This allowed a further understanding of why certain answers were given and to explore the motives and perspectives of each interviewed developer. Interviews therefore provided additional insights which were not attainable via the online questionnaire. Due to the nature of this research, utilizing qualitative data was considered most appropriate as data on behaviour, motives and personal perspectives formed the basis of this research. Therefore, the nature of the data could not be appropriately reflected through quantitative methods.

3.2 Data Analysis

Following the collection of qualitative data, the methodological approach used to examine the data was narrative analysis. This approach is supported by Reissman (1993), Bamberg (2011), and Ferrari (2015) which convey that narrative analysis can enable a comprehensive understanding of a topic to be developed through the analysis of an individual experiences, motives and perspectives. Narrative analysis thus enabled reoccurring themes to be highlighted following the interview's and questionnaires, allowing effective incentives to be distinguished. The questionnaire data highlighted how developers commonly perceive connectivity, what forms of incentives they favour, and what barriers they frequently encounter. As the interviews contained many overlapping questions with the questionnaire, they thus presented similar results. However, narrative analysis allowed the additional data attained from interviews to further support questionnaire responses. This was achieved as a developer's personal story, experiences, and in-depth responses were captured to further elaborate on questionnaire data.

Following an analysis of the interview and questionnaire data, this was subsequently compared to Auckland's planning framework connectivity barriers and the case studies. Subsequently, through contrasting these various forms of data, it allowed an understanding of why connectivity is often marginalised in Auckland and what incentives could be utilized to potentially overcome these barriers. Furthermore, this Auckland specific primary data was additionally compared to global secondary data on developer behaviour and public access barriers attained from the literature review. Consequently, through contrasting these forms of data, it allowed conclusions to be drawn between Auckland's unique context and global research on connectivity and developer behaviour. Therefore, the research question

was subsequently answered by identifying likely mechanisms to incentivise Auckland's private property developers to provide further connectivity through their developments.

3.3 Research Limitations and Ethical Considerations

This research will be undertaken through using qualitative data, investigated via narrative analysis, to understand the perspectives of various developers. Narrative analysis, an extension of interpretive approaches used within social sciences, is however critiqued as containing certain limitations. Subjectivity and contentiousness are primary concerns conveyed by Williams (2000) and Hurworth (2011), effecting whether research findings can be generalised. However, as detailed above, narrative analysis is essential to gain rich data through understanding the experiences, motives and perspectives of various actors (Bamberg 2011; Ferrari, 2015); necessary information which must be obtained to draw detailed conclusions and appropriately answer the research question.

It is likely that additional research limitations may relate to the transferability of global examples and literature to NZ's context. This is likely due to the country's unique preferences, culture, and suburban development pattern. Furthermore, ethics approval was required from the University of Auckland Human Participant Ethics Committee, ensuring participants were recruited in an appropriate manner and ethical standards were not breached when interviews and questionnaires were undertaken. The ethics reference number is 021785.

4.0 New Zealand's Planning Context

4.1 Private Property Rights

Bromley suggests that in NZ's context, land-ownership and private property rights are commonly perceived as absolute. Bromley (1988) defines private property rights as an individuals "*right to property under socially acceptable uses*" p. 15. However, private property rights are based on the premise of exclusion. Therefore, 'others' or 'non-owners' must refrain from hindering or preventing socially acceptable uses to occur (Bromley, 1988). Consequently, the possession of private property rights is typically identified as the primary barrier hindering public access in NZ's context. This is attributed to private property rights providing the owner with the right to exclude others from using a resource, of which, land is primarily the target (Campion and Stephenson, 2010).

Campion and Stephenson (2010) highlight that likewise with the UK, private property rights are indicated as hindering NZ's strong culture of rural recreation. In the early 1990s, public access to privately-owned natural areas was feared as being in decline. The popular belief that the public attained the right to access the countries precious waterways and coastal environments became incorrect; with 30 to 50 percent of this land in private ownership. Nevertheless, when public land proved inadequate for recreational access, NZ held a strong tradition of rural landowners allowing public access over their land by permission. The longevity of this tradition was however at risk in the early to mid 20th century. Whilst agricultural intensification grew, rural landowners lobbied for strong legal rights of exclusion to protect their land as an economic investment. Therefore, NZ's tradition of *de facto* access (i.e. with the permission of the landowner), was in decline. However, this reduction in public access was not exclusively a result of agricultural intensification and associated regulations. Urbanization and planning practices were equally to blame, as public access was not properly considered as agricultural land was progressively converted into urban development (Campion and Stephenson, 2010).

Today, NZ's concept of private property rights are established through the Resource Management Act 1991 (the RMA), with these rights vigorously upheld whenever in threat. Therefore, as New Zealanders place a high importance on private property rights, despite the historic culture of *de facto* access, a desire to increase public access directly contends with private property rights. Consequently, understanding the common perspective in NZ, of 'my land is my right,' will aid in investigating how incentives could be used to encourage landowners to allow public access through their land for the implementation of greenways.

An analysis has been conducted into Auckland's planning framework to assess how pedestrian and cyclist networks, and therefore greenways, are either encouraged or hindered through planning legislation. Pedestrian and cyclist connectivity have been specifically analysed as greenways are typically referenced as linear forms of open space which primarily accommodate pedestrians and cyclists (Auckland Council, 2012). Therefore, although greenways are not specifically referenced in Auckland's statutory planning framework, greenways are highly relevant when pedestrian and cyclist connectivity (connectivity) is referenced.

The Resource Management Act 1991

The RMA is NZ's principal planning legislation for management of NZ's physical and biophysical resources. The underlying purpose of the RMA is to promote the sustainable management of NZ's natural and physical resources such as land, air and water. The RMA establishes a hierarchal approach, where National Policy Statements set out the relevant national issues which are refined at the regional and local level through regional and district plans, noting that district plans are required to give effect to the relevant regional issues set out in the Regional Policy Statements. In Auckland's case it has a Unitary Plan, which contains both regional and district planning functions (Resource Management Act 1991).

The Auckland Unitary Plan (Operative in Part)

The AUP(OP) is AC's statutory plan governing the Auckland region. The AUP(OP) is developed under the RMA and acts as the city's Regional Policy Statement (RPS), District and Regional Plan. Auckland Council is therefore responsible for developing objectives, policies and methods, through the Unitary Plan, to achieve the integrated management of the effects of the use, development and protection of land use activities and subdivision. The hierarchical nature of NZ's planning framework furthermore requires Auckland's Unitary Plan to give effect to the National Policy Statement. This is achieved via the AUP(OP)'s various chapters giving effect to the AUP(OP)'s RPS, which in turn gives effect to the National Policy Statement (Auckland Council, 2018).

An analysis of the AUP(OP) has been undertaken below to assess its provisions in relation to connectivity. Of the AUP(OP)'s 14 chapters, Chapter B, Regional Policy Statement and Chapter E, Auckland-wide, are of relevance.

Chapter B Regional Policy Statement

The RPS chapter of the AUP(OP) identifies nine issues of regional significance. Of these regional issues, Infrastructure, Transport and Energy and Natural Resources, are two out of the nine chapters which regard connectivity. Chapter B3, Infrastructure, Transport and Energy, Objective B3.3.1(1)(e) requires that effective, efficient and safe transport is provided which *“facilitates transport choices, recognises different trip characteristics and enables accessibility and mobility for all sectors of the community”* p. 3. Policy B3.3.2(4)(b) additionally enforces that transport infrastructure shall be designed, located and managed to *“provide effective pedestrian and cycle connections”* p. 3 (Auckland Council, 2018a). Furthermore, Chapter B7, Natural Resources, Policy B7.3.2(5)(d)(i) conveys that subdivision shall be managed to *“maintain or where appropriate enhance: navigation along rivers and public access to and along lakes, rivers and streams”* (Auckland Council, 2018b, p. 3).

Beyond the encouragement of connectivity analysed above, the remaining sub-chapters of the RPS have minimal regard to connectivity issues such as greenways. Despite this, as the RPS chapter of the AUP(OP) encourages connectivity, these higher-level provisions strongly convey that connectivity will be achieved across Auckland. Therefore, detailed below are the provisions in the Auckland-wide chapters of the AUP(OP) which are designed to enforce the RPS outcomes and achieve connectivity.

Chapter E Auckland-wide: E27 Transport

This chapter has the purpose of supporting and managing the effects on the operation and development of Auckland’s integrated transport network. The AUP(OP) states that this chapter *“provides for public transport facilities and walking and cycling facilities, which may be located outside the road network”* p. 1. Furthermore, it is also enforced that *“off road pedestrian and cycling facilities are also provided for to complement facilities located in the road network”* (Auckland Council, 2018c, p. 3). Chapter E27 Transport contains two provisions which strongly enforce the above and thus the importance of pedestrian and cyclist connectivity. Objective E27.2(2) states that *“an integrated transport network including public transport, walking, cycling, private vehicles and freight, is provided for”* p. 3. Policy E27.3(2) furthermore requires *“major proposals for discretionary consent to prepare an integrated transport assessment including provision for pedestrians, cyclists, public transport users, freight and motorists”* (Auckland Council, 2018c, p. 4). Connectivity, particularly off road connectivity such as greenways, is consequently enforced through the above transport policies.

Chapter E Auckland-wide: E38 Subdivision Urban and E39 Subdivision Rural

Despite subdivision acting as the crucial stage of development where connectivity is either enhanced or foregone, the objectives, policies and rules in Chapter E38, Subdivision Rural, fail to reference

connectivity (Auckland Council, 2018d). This shows a potential disconnection between the desired plan outcomes for connectivity in the RPS and the AUP(OP)'s methods to achieve this outcome. Nevertheless, this lack of connectivity is not mirrored in the urban subdivision chapter. Policy E38.8(10) of the urban subdivision chapter requires that subdivisions provide *“street and block patterns that support the concepts of a liveable, walkable and connected neighbourhood”* p. 3. Furthermore, it is additionally enforced that a road network shall achieve the following: *“(i) is easy and safe to use for pedestrians and cyclists; (ii) is connected with a variety of routes within the immediate neighbourhood and between adjacent land areas; and (iii) is connected to public transport, shops, schools, employment, open spaces and other amenities”* (Auckland Council, 2018e, p. 3). Therefore, as demonstrated above, Policy E38.8(10) is the single provision in the AUP(OP)'s subdivision chapters referencing connectivity.

Despite the above analysis, both subdivision chapters do, however, contain policies requiring esplanade reserves. Policy E38.3(24) states *“require esplanade reserves or strips when subdividing land adjoining the coast and other qualifying water-bodies”* (Auckland Council, 2018e, p. 5). This policy, taken from the urban subdivision chapter, is equally mirrored in the rural subdivision chapter. However, it implies that only subdivisions adjoining the coast and other qualifying water-bodies are required to provide connectivity in the form of public esplanade reserves or strips. Additionally, standards relating to esplanade reserves and strips specify that a minimum of a 20-metre-wide esplanade reserve is required for subdivisions of less than 4 hectares. However, if a subdivision exceeds 4 hectares, there is no requirement to provide an esplanade reserve. Therefore, no public connectivity is required in subdivisions over 4 hectares; despite the likelihood of them bordering public amenities such as lakes, streams and rivers (Auckland Council, 2018d; Auckland Council 2018e).

AUP(OP) Overview

As NZ's planning framework contains a hierarchical structure, the AUP(OP)'s various chapters shall give effect to the RPS through their objectives, subsequent policies, and rules. Therefore, as the AUP(OP)'s chapters contain policies which reference connectivity, they subsequently appear to achieve the RPS's connectivity objectives. However, upon closer examination, there appears to be a disconnect between the AUP(OP)'s higher and lower level policies. Each policy analysed above commonly lacks rules to support desired connectivity outcomes, raising enforceability issues. Nevertheless, despite this, all developments requiring resource consent must remain consistent with the AUP(OP)'s objectives and policies, giving little weight to the Plan's rules. However, it can be concluded from the above analysis that although connectivity policies are evident, these provisions are minimal considering the size of the plan. Furthermore, when policies are evident, they appear to be loosely written, again raising potential enforceability issues and potentially not giving effect to Auckland's RPS.

Matakana Coast Trails Trust v Auckland Council [2017] Case

The *Matakana Coast Trails Trust v Auckland Council* [2017] case highlighted the need to ensure site connectivity was maintained as part of the rural subdivision process. In this case, the Environment Court (Court) decision brought direct attention to the AUP(OP)'s policy approach towards connectivity considered above. The Court's decision stated that the AUP(OP)'s connectivity provisions, as an integrated whole, "*support a strong preference for connectivity, including off road pedestrian and cycling facilities as part of a transport network*" p. 19. The case also stated that connectivity is a theme evident throughout the AUP(OP) and the failure to provide connectivity was an adverse RMA effect. Consequently, the *Matakana Coast Trails Trust v Auckland Council* [2017] case set a strong precedent that the development process must ensure a level of connectivity. Therefore, despite the AUP(OP) lacking connectivity rules and containing loosely written connectivity policies, this case enforces that these policies must be upheld and result in connected developments.

Auckland Transport and New Zealand's Subdivision Standard 4404:2010

In addition to Auckland's statutory planning framework, the subdivision process is guided by additional non-statutory development documents. Auckland Transport (AT) is the organization in charge of Auckland's transport services, overseeing the city's transportation network, including road network, pedestrian and cycling routes and public transportation services. However, despite their position as Auckland's transport agency, AT's approaches are silent on any requirement to enforce connectivity as part of their Code of Practice (Auckland Transport, 2013). Furthermore, New Zealand Standard for Land Development and Infrastructure 4404:2010 sets out the subdivision standards which apply across NZ. However, despite the significance of this document and its influence on the nation's built form, it lacks any concrete provisions which require developments to legally provide for connectivity (NZS 4404:2010). Therefore, due to the absence of connectivity provisions in AT's Code of Practice and under the NZS 4404:2010, the responsibility of providing connectivity is left exclusively up to the provisions of Auckland's Unitary Plan.

Planning Framework Conclusion

Following an analysis of the relevant sections of Auckland's planning framework, non-statutory planning documents overlook the need for connectivity. Furthermore, it is identified that although the AUP(OP) contains connectivity policies, these appear loosely written and are disconnected from its supporting rules. Therefore, although developments must fulfil the AUP(OP)'s connectivity policies, connectivity appears problematic to enforce through the AUP(OP). This leads to an apparent disconnect between the AUP(OP)'s lower level policies, which appear unable to enforce connectivity, and the higher-level objectives of the RPS which anticipate connectivity. However, following the *Matakana Coast Trails Trust*

v Auckland Council [2017] Environment Court case, a percent was set, enforcing the importance of the AUP(OP)'s connectivity provisions. Therefore, when viewed alone, it appears that developers could provide minimal levels of connectivity under the AUP(OP). However, following the Environment Court case, this apparent outcome is overturned.

4.3 Development Incentives

Auckland's planning framework has furthermore been analysed to identify incentive schemes which operate across the region. Although not all incentives have been analysed due to time constraints, the below assessment will allow a greater understanding of what incentives are acceptable in Auckland's context, how they are deployed, and their likely effectiveness.

Auckland Unitary Plan (Operative in Part) Bonus Floor Area Ratio

The AUP(OP)'s City Centre Zone explicitly encourages buildings to be designed in a certain way, contain activities, or include features that provide a benefit to the public. Standard H8.6.11 includes a 'Bonus floor area ratio' if a development provides benefits for the public. The plan indicates that acceptable public benefits may include: through-site links, the provision of works of art, and providing public open space. Consequently, if a development meets specified standard requirements, it can consequently benefit from gaining additional floor area; the only incentive of its kind to be included in the AUP(OP) (Auckland Council, 2018g).

Transferable Rural Sites

Under the AUP(OP) landowners of rural lots are encouraged to protect Significant Ecological Areas on their land in return for Transferable Rural Sites (TRS). This is executed in the plan via the owner of a large rural section either protecting a minimum of 5 hectares of indigenous vegetation, or protecting a minimum of 5,000m² of wetland. In return for this 'good deed' of protection, the landowner will receive one TRS; with the more land protected, the more TRS's a landowner can receive. The way in which this encourages landowners of large rural lots to protect Significant Ecological Areas, is by the market sale of TRS's to landowners exclusively in the Rural – Countryside Living Zone. Consequently, the landowner who protected vegetation (donor site) receives a financial benefit for carrying out environmental protection. Meanwhile, landowners in the Rural – Countryside Living zone (receiver site) purchase TRS's and can therefore use this to subdivide their land into smaller lots than usually permitted (Auckland Council, 2018d).

Auckland Council Heritage Incentives Framework

AC has developed a Heritage Incentive Framework with the intention of supporting best practice in the protection and management of natural, historic, and Māori cultural heritage. The framework identifies a range of incentive tools of financial and non-financial natures. Financial incentives range from targeted rates remissions, to individual landowner grants. Non-financial incentives include providing technical assistance to landowners, subsidised resources, and awards for commendable heritage protection. The provision of a board range of incentives enables property owners, the targeted incentive recipients, to find an incentive which is most attractive for their circumstances. The Heritage Incentive Framework was established to be implemented through AC's Long Term Plan and strategically aligned with the heritage objectives of the Auckland Plan and Local Board Plans. The Framework's integration with other statutory and non-statutory documents has supported its appropriateness and likewise increased its likelihood of success (Auckland Council, 2015).

Incentive Overview

Following a review of Auckland's planning incentives, the above examples portray how incentives can be included in both statutory documents, in the case of the AUP(OP), and via the introduction of non-statutory incentive frameworks. However, the above analysis has identified that Auckland lacks any form of connectivity incentive. Although the analysed number of incentive schemes may be insignificant and industry specific, the above incentive approaches form a basis of what forms of incentives could be utilized when encouraging connectivity. This analysis coupled with the literature review's findings on property developer behaviour and incentives, will consequently assist in shaping the questionnaire and interview questions to gather primary data.

5.0 Development Case Studies

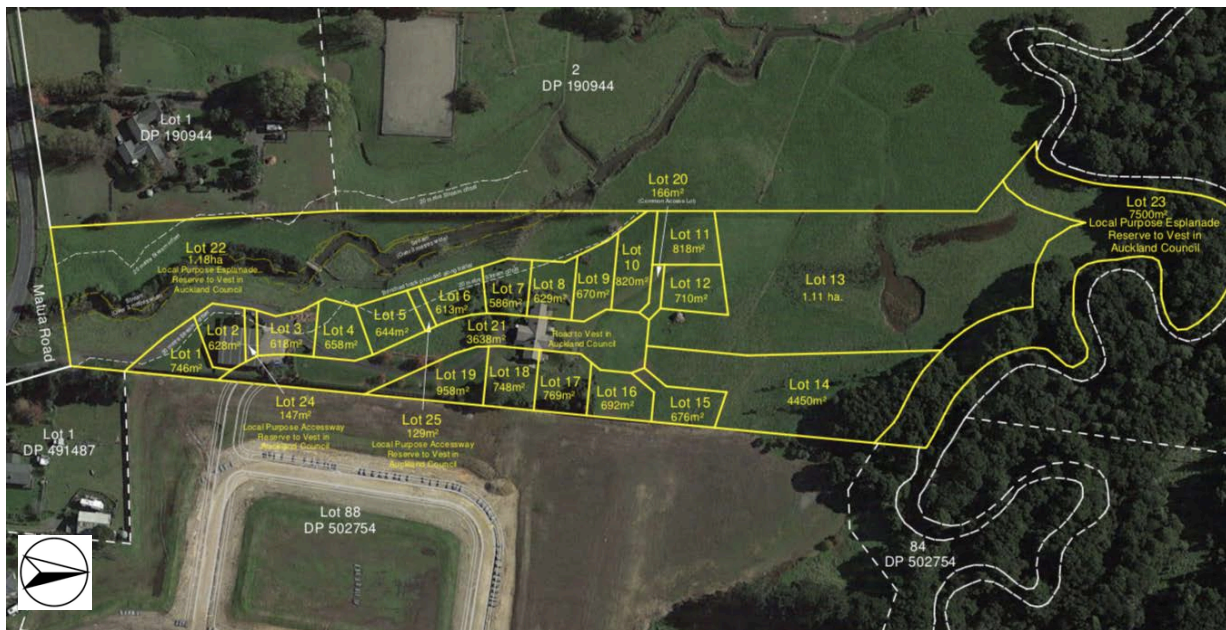
Following the identification of potential connectivity barriers in Auckland’s planning framework, the below case studies have been analysed to further understand how the AUP(OP)’s connectivity provisions translate to developments and consequently shape Auckland’s connectivity. The following case studies have exclusively been looked at from the perspective of connectivity due to the complexity of each case study and time constraints.

5.1 236 Matua Road, Huapai (March 2018)

Applicants Proposal

Huapai is a suburb of West Auckland which is experiencing an unprecedented amount of population growth and ongoing residential development. The applicant requested resource consent to create 19 residential lots, 17 of which will be low density residential lots and 2 rural living lots. The site is zoned Residential – Single house zone and Future Urban zone under the AUP(OP). The proposal is viewed as a natural extension of the recently completed Kauri Grove development which is located directly east of the site. As part of the proposal contains subdivision below 4 hectares with sites adjoining an aquifying water body, the AUP(OP) requires the establishment of an esplanade reserve where the sites line the water body; the only provision of its kind in the AUP(OP) requiring connectivity. Following this statutory requirement, nearly 2 hectares of the site will form part of the esplanade reserve, all of which will be vested to AC to maintain following the subdivisions completion (Cabra Developments, 2017).

Figure 2: Approved Scheme Plan



Source: Cabra Developments (2018)

As shown in Figure 2 above, the site is elongated in shape and runs from Matua Road at the south of the site, towards the Kumeu River at the sites northern boundary, with an additional watercourse running along the western boundary. The applicants AEE, which is the primary document explaining the proposal and addressing how any adverse effects will be avoided, remedied or mitigated, moderately addresses the need for connectivity. The proposal involves the establishment of two esplanade reserves, each lining separate water bodies, and subsequently fulfilling the esplanade reserve requirement under the AUP(OP) (Cabra Developments, 2017).

The esplanade reserve running through the west of the site, identified as Lot 22 on the Scheme Plan, contains a reduced average width of 18.2 meters on the eastern side of the watercourse. Consequently, this reserve fails to meet the AUP(OP)'s standard requirement of a 20-meter esplanade reserve on each side of a waterbody. To compensate for this shortfall, the applicant proposes that certain areas of the western side of the reserve will significantly exceed the 20-meter requirement reaching up to a width of 43.7 meters. Additionally, the applicant further offered to contribute on a cost sharing basis with AC towards the construction of a metalled track through the reserve in Lot 22. These two compensation actions proposed by the applicant to offset their standard infringement were both accepted by AC. These compensation measures are exclusively related to the western reserve, as the developments second esplanade reserve which adjoins the Kumeu River referenced as Lot 23, complies with the 20-meter requirement (Cabra Developments, 2017).

Connectivity is provided for in the proposal via the provision of public access to the western esplanade reserve in Lot 22, achieved via two separate 6-meter-wide connections from the street. Therefore, the western esplanade reserve is highly connected to the residential development in addition to containing a paved path from an agreed cost sharing scheme between the applicant and AC. However, this connectivity is not mirrored in the northern esplanade reserve. This reserve, referenced as Lot 23, presently lacks any form of public access. Consequently, the development is segregated from the areas wider trail links which line the Kumeu River and boarder the proposed, yet unconnected, esplanade reserve (Cabra Developments, 2017).

Figure 3: Modified Scheme Plan Highlighting Esplanade Reserve Connectivity



Source: Stevens (2018) basemap from Cabra Developments (2018)

Auckland Council's Notification Report

Despite AC agreeing to the western esplanade reserves shortfall in Lot 22, as the developer's financial contribution to constructing the esplanade path and exceedance of the 20-meter standard in other areas produced sound benefits; AC was, however, displeased with the lack of connectivity to the northern esplanade reserve (Lot 23). AC's Notification Report, which assesses the effects of an applicant's proposal, identified a shortfall in connectivity. It was noted that AC pushed for connections to the northern esplanade reserve, however, the applicant refused to provide these connections. Consequently, it was concluded by AC that the developments connectivity to the northern reserve will be limited until the land to the north-west of the site is developed and the esplanade reserve is extended. Therefore, although an esplanade reserve is proposed along the Kumeu River, seemingly contributing to the areas amenity, the residential development contains no direct access to this public asset (Auckland Council, 2018h).

Although AC encouraged the development to provide connectivity to the northern esplanade reserve, the outcome which lacked such direct pedestrian connectivity, was deemed appropriate. The reasoning for this stems from the presence of pedestrian connections to the northern esplanade reserve from Fruitlands Road, located 400 meters from the development. Consequently, it was concluded by AC that the proposed subdivision will result in a street network that is legible, connected, and will encourage walking and cycling; with any adverse effects being less than minor (Auckland Council, 2018h).

Overview

From analysing this case study through the lens of connectivity, the development can be broadly considered as relatively well-connected for pedestrians and cyclists. This is a result of connectivity being provided to the western reserve, despite no direct connectivity provided to the northern reserve. As highlighted above, the developer decided not to provide public access to the northern reserve, yet, as the effects of not providing for connectivity was considered as less than minor by AC, no connectivity was enforced. This outcome is a direct consequence of the AUP(OP)'s weak connectivity provisions, despite the 'non-complying' activity status of the development which gave AC full discretion to assess the proposals effect.

Additionally, the Rodney Greenway Plan (Kumeu, Huapai, Waimauku, Riverhead), which is applicable to the area, anticipates greenways where the developments northern and western esplanade reserves are proposed (Auckland Council, 2016). Therefore, the development is in accordance with this non-statutory document, despite the lack of access to the northern esplanade reserve. However, Rodney's Greenway Plan was not referenced in the applicants AEE, nor was it regarded in Council's decision process. Therefore, the assumption can be made that greenway plans are often overlooked at the development stage, posing an issue for future greenway connectivity.

5.2 99 Great North Road, Warkworth (March 2018)

Applicants Proposal

Great North Road, otherwise known as State Highway 1, transcends the satellite town of Warkworth located north of Auckland. Despite the site's location adjoining Great North Road, the site is accessed via Victoria Street, a residential road which will be extended to service the subdivision. The applicant proposed to subdivide the 2.1-hectare site in the Residential – Single House zone into 28 residential lots. Figure 4 below presents the applicants proposal, with Victoria Road being slightly extended and named Lot 30. However, to gain access to the rear lots, the subdivision includes an access lot which is proposed to be jointly owned, shown as Lot 29. Although the development does not include vehicle

connections to Great North Road, the applicant did propose pedestrian access running along the western boundary of the site connecting Victoria Street to Great North Road. It was agreed that a footbridge would later be provided by AC to connect the development and its surrounding area to the Warkworth Showgrounds which are located across the busy highway (OPC, 2017).

Figure 4: Applicant’s Proposed Scheme Plan



Source: Buckton (2017)

Auckland Council’s Notification Report

Despite the applicant proposing pedestrian access along the edge of their development to connect the neighbourhood to Warkworth’s surrounding amenities, this 1.8-meter-wide footpath to be vested to AC, was inadequate considering the sites layout. AC recommended that the proposal be amended to provide public pedestrian access down the access lot which would create a safer pedestrian link encompassing passive surveillance; this is opposed to providing a narrow walkway behind the development. AC’s justification for recommending changes to the development was due to the access lot already extending to boarder Great North Road, with only slight access adjustments required. The Rodney Local Board also enforced the importance of the development providing a safe connection to Great North Road. AC’s Notification Report quotes the Rodney Local Board stating, “walking and cycling

connections to the State Highway and the Warkworth Showgrounds from Victoria Street are extremely important to allow residents and school children to move around easily and safely and to prevent the necessity for people to use their cars and add to the traffic congestion problems around this area” p. 28-29. Efficient and safe connectivity through the site was therefore highly advocated for by both AC and the Local Board (Auckland Council, 2018i).

Once the applicant received these recommendations, it was agreed that public pedestrian access will be provided along the jointly owned access lot, as shown below in Figure 5. The final proposal therefore provided public pedestrian access via a pedestrian easement over Lot 29 and the instalment of a footpath on the western side of the access lot. Road connections between the jointly owned access lot and State Highway 1 remain absent, with this positively effecting the safety of the pedestrian environment (Auckland Council, 2018i). It shall additionally be noted that the development’s location is not regarded in the Rodney Greenway Plan (Puhoi to Pakiri) which is applicable to the area (Auckland Council, 2017b).

Figure 5: Approved Scheme Plan



Source: Buckton (2018)

Overview

This case study highlights how good outcomes can be achieved through the planning process when developers are open to implementing AC's recommendations. However, despite the provision of public pedestrian access, the issue of legibility is raised (Auckland Council, 2018i). Will the privately-owned access lot, which contains a public pedestrian easement across it, be visually perceived by the community as public? If not, will signage be implemented to encourage public access? Or, is this an example of public access being provided for, yet highly discouraged due to the visual appearance of a private access way?

5.3 102-130 Pinecrest Drive, Hobbs Bay (November 2017)

Applicants Proposal

Hobbs Bay is a relatively new suburb located on the Whangaparaoa Peninsula north of Auckland. The applicant's proposal concerned the construction of an apartment building containing 76 apartment units, in the form of three tower blocks, which would stand six storeys in height. The subject site sits on the edge of Fairway Bay Marina, an artificial harbour which is located directly west of the site. The proposal, as depicted in Figure 6 below, highlights the approved site layout with the apartments bordering the water's edge (Cato Bolam, 2017).

Figure 6: Approved Site Plan



Source: Woodhams (2017)

Connectivity was identified as an important consideration early in the resource consent process. The topic of public pedestrian access was regarded as important as the northern boundary of the site faces an area of public open space containing a stormwater pond and walking path connecting Hobbs Bay to Gulf Harbour's Town Centre. Furthermore, the southern boundary of the site contains an unformed legal road which provides a pedestrian linkage to Hobbs Bay Wharf. These pedestrian links which surround the site are referenced as the 'Fairway Bay Walkway' (Cato Bolam, 2017). Therefore, the subject site had the potential to contribute to the areas pedestrian network via a link which could transcend their site, offering direct pedestrian connectivity from the hub of Hobbs Wharf to Gulf Harbour's Town Centre.

Although the applicants AEE does refer to connectivity, it largely focuses upon justifying how the site is not required to provide waterside connectivity. The AEE references the areas existing Esplanade Waver Agreement, specifying that no esplanade reserves are required along the Fairway Bay Marina harbour edge. This agreement was made following the approval of Hobbs Bay's Compressive Development Plan (CDP) which was granted consent in 2007 and has since lapse. This CDP presented an approved plan of how Hobbs Bay was to be developed, lacking any indication of pedestrian access being provided across the subject site. Consequently, the applicant proposed to locate the apartments directly on the water's edge with no provision of an esplanade reserve (Cato Bolam, 2017).

Despite this lack of waterfront connectivity, the applicant references how their proposal will provide pedestrian connectivity in the future through following Fairway Bay's Concept Report. This report is another futuristic plan of the area, however, one which has not lapsed as is the case with the CDP. It indicates that a pedestrian and cycle path is planned to connect an anticipated childcare centre on the east of the subject site to the surrounding Fairway Bay Walkway. In addition to this anticipated connection, the proposal does provide a pedestrian link connecting the development to the public Fairway Bay Walkway. However, this is not considered a public connection as it directly links private land to a public pathway (Auckland Council, 2017c).

Despite this present lack of public pedestrian access, the applicant does propose to upgrade the Fairway Bay Walkway to the north of the site which links to Gulf Harbour's Town Centre. The applicants AEE continues to state the various amenities provided by the existing Fairway Bay Walkway, enforcing that it offers public access to the water's edge, the beach, shops and a pontoon walkway to access moored boats (Cato Bolam, 2017). However, this walkway is part of the Fairway Bay Concept Plan which is yet to be fully implemented, presently provides a poor level of amenities, and will not be enhanced by the apartment proposal. Therefore, the proposal exclusively offers to upgrade the northern section of the

Fairway Bay Walkway and fails to add to the networks connectivity and provide the amenities they reference in their AEE (Auckland Council, 2017c). It shall additionally be noted that the Hibiscus and Bays Greenway Plan which is applicable to the area, does not reflect Hobbs Bay's modified environment containing the man-made marina basin. This greenway document is thus not considered relevant in this case study (Auckland Council, 2017a).

Auckland Councils Notification Report

AC's Urban Design Specialist raised considerable concerns regarding the lack of public access along the western edge of the site which borders the water. This is justifiable as it is noted that despite the Esplanade Waver Agreement, AC may still assess the effects of not providing public access along the coastal edge. Figure 7 below displays how an extensive pedestrian network is provided for around the water basin, however, this connectivity is blocked by the proposal. The primary concern raised by AC's Urban Design Specialist, is the development's shortfall of not incorporating public pedestrian access along the water's edge and therefore fails to provide a connection between the northern and southern section of the Fairway Bay Walkway. In summary, the development undermines the strength and legibility of the coastal pedestrian network and additionally exacerbates the private domination of the water's edge. Furthermore, another significant issue was that the proposal will prevent any future opportunities to incorporate public pedestrian access along the water's edge (Auckland Council, 2017c).

Figure 7: Fairway Bay Walkway Connectivity



Source: Auckland Council (2017d)

Overview

Despite AC's significant Urban Design concerns regarding connectivity and privatization, the applicant refused to amend their application to address these issues. The applicant's justification was that their proposal meets the areas CDP and is following the provisions of the Esplanade Waiver Agreement. Consequently, by following these provisions, the applicant was not required to provide any public access along the water's edge. It was concluded in AC's Notification Report that although such public access would provide a considerable public benefit, the proposals absence of a pedestrian link through the site would result in effects which are at worst minor (Auckland Council, 2017c).

This decision was largely influenced by the sites proximity to Pinecrest Drive, where a pedestrian footpath is evident and presently connects the northern and southern areas of the Fairway Bay Walkway. However, because of this development, the Fairway Bay Walkway no longer follows the water's edge, nor does it remain as a safe and separated path for pedestrians and cyclists. Pedestrians and cyclists are subsequently forced to use the footpath on Pinecrest Drive when traveling from the northern section of the Fairway Bay Walkway to the south, resulting from private development fragmenting their connectivity network (Auckland Council, 2017c).

This case study enforces how public benefits are commonly traded off. In this case, not only due to the AUP(OP)'s ineffective provisions, but also due to existing connectivity agreements. However, despite the Esplanade Waiver Agreement, AC maintained the ability to assess the effects of not providing public access along the coastal edge. Nevertheless, the provisions of the AUP(OP) appeared insufficient and failed to enhance the quality of the areas pedestrian and cyclist network against the developer's private interests.

5.4 Conclusion

The above case studies convey how the AUP(OP)'s connectivity provisions often result in fragmented public space networks which fall short of holistically connecting developments with their surrounding amenities. However, in the cases where connectivity was provided for, these connections fell short of adequately responding to their communities needs or generating safe and legible public connections. Furthermore, when Greenway Plans were applicable to a development, these documents appeared to be disregarded, posing an issue for future greenway connectivity.

Overall, a reoccurring theme emerged, where developers found various methods to receive consent without appropriately fulfilling the AUP(OP)'s connectivity policies. Connectivity, as anticipated by the

AUP(OP), was consequently largely unseen. Therefore, it appears that many of the AUP(OP)'s connectivity policies are written too loosely and connectivity cannot be appropriately enforced under the AUP(OP). Conversely, as previously identified, the *Matakana Coast Trails Trust v Auckland Council* [2017] case set a precedent enforcing the connectivity policies of the AUP(OP). Connectivity is thus mandatory. However, there appears to be a lack of knowledge amongst developers and AC planners to abide by and enforce this court decision, as evident in the post 2017 case studies where connectivity outcomes were marginalised.

Despite the planning framework's requirements, the question remains, why do some developers incorporate AC's recommendations into their development and amend their proposal for the public good, while others fail to regard AC's advice? Additionally, what do developers consider as barriers to providing further connectivity, and consequently, how can these be overcome? In attempt to address the issue of development connectivity, interviews and questionnaires will subsequently be undertaken with developers across the Auckland region. This will aim to understand why developers commonly don't provide extensive connectivity and how this can be overturned. Developer incentives will subsequently be analysed, uncovering their potential to encourage further public access and enable comprehensive greenway networks to be developed.

6.0 Interview and Questionnaire Data Collection

Interviews and questionnaires were carried out over a period of three weeks using the methods detailed in the Methodology. A total of 38 questionnaires were sent via email and 8 responses were received. Of the 8 responses, 2 respondents classified themselves as small-scale developers, 4 were medium-scale developers and 2 were large property developers. Additionally, a total of 8 interviews were conducted, 3 with small-scale developers, 3 with medium-scale developers and 2 with large development companies. Interviews were specifically conducted using a relatively even number of developers in each size category. This approach was taken as the research intended to identify potential differences between developers of various scales. These differences were expected due to varying forms of development dealt with, the scale of their projects, and the experience levels of different scale developers; with these factors influencing their interview responses. However, the questionnaire methodology was not limited to receiving an even number of responses from developers of each scale.

Interviews were structured to gain an initial understanding of a developer's greenway perspectives. Subsequently, developers were asked to identify common connectivity barriers, elaborate on why these issues may be evident, and explain their effect on developmental outcomes. Consequently, developers were asked to indicate which financial, regulatory and moral incentives they are likely to be incentivised by. These three categories of incentives mirror the questions asked in the questionnaire. Therefore, as this content overlaps, the questionnaire results are combined with this section of the interview data.

The results below are structured to first present the connectivity barriers identified exclusively in the interviews. Subsequently, the combined findings from the interviews and questionnaires highlight which incentives are likely to encourage greenway implementation amongst developers. Within each incentive category, the various mechanisms are arranged in order of effectiveness. Data collection via questionnaires largely provided information exclusively on how developers would respond to various incentives, with often no justification provided. Therefore, the justification behind an incentives likely shortfall or its effectiveness, was gathered via the open-ended interview questions. Consequently, a comprehensive understanding of an incentives effectiveness was developed, a result of developers openly expressing their opinions, enforcing them with examples, and relating them to Auckland's planning framework.

Guidance and Communication

A common theme which emerged following the interviews was the issue that AC lacked any guiding greenway connectivity principles. In addition, the different agendas held by AC's Parks and Engineering departments were pinpointed as an issue causing great confusion. The significance of this was enforced as Respondent A stated, *"developers are making up what they perceive to be 'best practice' as they go"*. Therefore, when this uncertainty is coupled with conflicting messages from various departments within AC, developers conveyed that varying connectivity levels are inevitable and network fragmentation is unavoidable. Nevertheless, numerous developers recognised that a clear set of connectivity priorities and the introduction of 'best practice' examples would be a simple solution to address ongoing uncertainty. Respondent B stated, *"we have not found any exemplary developments so we tend to only have original thought and some exemplary urban designers."* Respondent C furthermore made a concluding remark enforcing that, *"if greenways were at the forefront of Council's thinking they would be much easier to implement."* It was therefore evident that consistency and a greenway framework was desired amongst all developers.

Developer Perspectives and Neighbouring Developments

When this lack of guidance is combined with the fact that developers are not a homogenous group, while urban designers and planners furthermore have varying perspectives, agreements become incredibly time-consuming. This point was raised several times and is referenced as further exacerbating connectivity uncertainty. Consequently, diverse connectivity outcomes are said to be evident as 'best practice' is unclear. Furthermore, an additional barrier was highlighted, however, this time referencing the built form rather than the actors involved. It was frequently mentioned that when a new development borders' traditional car orientated residential development, connectivity outcomes are hindered. However, despite the significance of this ongoing difficulty, this barrier was identified as a factor of development which must be overcome, opposed to an excuse for poor connectivity.

Maintenance and Vested Assets

Maintenance and purchasing land for parks was frequently identified as a significant frustration amongst medium and large-scale developers. Presently, AC purchases the parks provided by a developer. However, a reoccurring theme emerged that developers believe walkways and greenways are utilized at a level which well exceeds the use of pocket parks, and thus, *"AC should also purchase these public assets"* (Respondent B). Furthermore, persistent maintenance issues were frequently

highlighted. Developers thus hold a firm stance that ongoing maintenance delays must be addressed before further connectivity is provided, as additional greenways will only exacerbate the tireless maintenance issue.

Lack of Innovation

Shared streets were furthermore highlighted as a form of greenway favoured by many developers. However, AT enforces specific requirements which must be fulfilled prior to accepting a vested road. Therefore, despite a developer's innovation and desire to enhance the public realm through shared street greenways, developer's convey that AT's lack of innovative standards have hindered the widespread implementation of certain forms of shared streets.

In summary, developers convey that crucial connectivity barriers relate to AC lacking well-defined connectivity priorities, the diverse nature of development professionals, AC's prioritization of parks over greenways, and AT's lacking an innovative development approach. Therefore, to overcome these barriers, the following incentives are identified as viable methods to encourage further greenway implementation. An incentives effectiveness is either attributed to overcoming connectivity barriers or offsetting connectivity frustrations with desirable benefits.

6.2 Financial Incentives

A developers underlying agenda is to generate profit (Knight, 2011). This primary objective is conveyed throughout North American literature, and consequently, financial incentives are referenced as the superior form of incentive. However, as NZ is geographically separated whilst containing numerous cultural differences, financial incentives were not consistently regarded as the ultimate form of incentive.

Development Contributions

Discussions surrounding development contribution remissions gained the most traction of all financial incentives amongst medium and large-scale developers. Each developer indicated that they were highly likely to be encouraged by this financial incentive, with certain developers additionally building upon this, suggesting alternative uses for their compulsory development contributions. Specifically referencing park development contributions, a developer's mandatory contribution goes into a bucket and frustrations subsequently begin to mound as developers feel detached from the benefits of their contributions. A result of funding not necessarily being spent in the local community. Consequently, a proposed solution to this detachment was developers offering to implement greenways throughout

their developments. Developers subsequently suggested that the financial cost from their community contribution shall be deducted from their parks contribution payment. Strong support towards altering the development contribution system was enforced by Respondent C who stated, *“I would pay more contributions if it was going into our development as I would see the immediate benefit,”* continuing by conveying that they would go to the extent of doubling their contribution if it was spent in the immediate community. Despite this positive response to development contribution remissions and alterations amongst medium and large-scale developers, this incentive was, however, not as relevant to small-scale developers. Nevertheless, a rates remission was indicated as being a comparable incentive which is likely to gain significant traction amongst small-scale developers and landowners.

Purchasing Land

An alternative incentive supported by medium and large-scale developers was their openness to sell a small strip of land in their development for the purpose of public greenway connectivity. When asked if this land could be purchased for a lower or negotiable price as it would benefit the residents of their development, the general consensus was that a below market price would be accepted, within reason. Developers, however, indicated that they would be even more supportive of this approach if the buyer, whether it be AC or another organization, was committed to providing connections in a specified timeframe. This point was repetitively enforced as developers desire pathways to be developed prior to their development reaching the market, otherwise, this incentive would lose its credibility. Conversely, small-scale developers were not as open to this incentive as they were commonly rural landowners looking to subdivide their land with the belief that this would compromise their future development options and preferred to remain in control of their land.

Grants and Subsidies

The availability of grants or subsidies to assist with the financial costs of implementing greenways was indicated as a viable incentive by all developers as there is presently no assistance available. Small-scale developers were moderately likely to be incentivised by this as financial assistance would be beneficial due to the size of their business. Medium and large-scale developers, however, also equally favoured this incentive despite indicating that the financial benefit would be insignificant. Their justification for favouring this incentive was that it would reassure developers that AC is supportive of greenways; a necessary message to assist in overcoming greenway uncertainty.

Awards

When suggesting the possibility of an annual major industry award, whether it be monetary or recognition, for developments with the highest standard of greenway connectivity, conflicting

responses were received. This was not indicated as a viable incentive by small-scale developers as it would not be highly applicable to their developments. Responses from a pool of medium and large-scale developers also highlighted that the incentive would likely be ineffective as greenways are not implemented for recognition. Additionally, the idea that developers wouldn't alter their behaviour for an award was equally conveyed. Although this was the dominant response, several developers did enforce the importance of recognition. The benefits of recognition were identified as being more important than simply enhancing a company's image and contributing to their marketing. Respondent E would praise the introduction of greenway awards as *"it would showcase the benefits of greenways and lead to better recognition and stronger support for their implementation."*

Property Value Increases

Despite a developer's perspective on greenways, all developers agreed that implementing greenways would materially enhance the overall market value and profitability of their development. Small-scale developers indicated that an increase in profitability would moderately to highly likely incentivise them. Medium to large-scale developers indicated that greenways almost always add value to their development and thus favoured their implementation. However, medium and large-scale developers justified that although they benefit from financial gains, greenways are not provided for this reason alone. Respondent C commented, *"we need to future-proof our options,"* while Respondent D enforced, *"providing greenways is simply the right thing to do even if it is not used as a marketing strategy."* Nonetheless, despite the financial benefits, the present planning system which lacks any incentives was referenced as hindering the implementation of greenway's as establishment costs are significant.

6.3 Regulatory Incentives

Density Incentives and Additional Land Titles

Although regulatory incentives are deployed through the planning framework, the justification behind their appeal is their direct association with financial gain. All developers expressed their full support for the introduction of density incentives as a planning mechanism to encourage greenways. The appeal for small-scale developers related to receiving additional titles if greenways were provided, an incentive which presently exists when protecting a section of bush. This incentive was enforced by small-scale developers as they believe *"the benefits of providing a greenway well exceed that of protecting a section of a bush"* (Respondent E), questioning as to why this incentive isn't already included in the AUP(OP). The response from medium and large-scale developers was equally as positive. Their justification

stemmed from the fact that density incentives, such as subdividing sections into smaller lot sizes or permitting greater height limits, would *“offer more flexibility and generate better outcomes”* (Respondent F). Widespread support for this incentive was expressed as developers acquire immediate benefits, while positive community outcomes are equally guaranteed, with all parties thus benefiting.

Fast-tracking Consents

As many developers highlighted the shortfalls of the consenting process, this presented an opportunity to encourage greenways whilst relieving systematic frustrations. It was identified that if AC attained the ability to fast-track development consents if greenways were proposed, medium and large-scale developers would be highly incentivised by this as time delays are very costly. Small-scale developers were, however, largely uninterested in this incentive. Despite issues surrounding the unfair nature of this incentive being raised, majority of the participants, whether they were incentivised by this mechanism or not, acknowledged that fast-tracking consents is definitely a tool AC should use to encourage desired outcomes. Numerous medium and large-scale developers furthermore agreed that it would, in fact, be unfair to process two consents at the same time if one contained numerous community benefits and one did not.

Resource Consent Fee Reductions

Again, utilizing the consenting process as an incentive, small-scale developers considered that if the consenting process was less costly, for example, a fees reduction if developments contained greenways, this would highly incentivise small-scale developers. However, both medium and large-scale developers indicated that fees are not a significant issue due to the size of their developments. These developers alternatively related their common frustrations back to inefficient timeframes, entrenching their support for fast-tracking consents.

Environmental Trade-offs

As the positive effects from greenways are wide-ranging, the idea that these positive benefits could compensate for certain developmental impacts, was an incentive which gained minimal traction. This was attributed to developers of all scales not intending to generate negative impacts to trade-off. However, despite this dominant perspective, developers did indicate that allowing trade-offs would increase development flexibility and enhance a developments outcome, while furthermore conveying that AC has an open mind. A open-minded approach to development was considered necessary as Respondent B stated *“it would allow common sense to prevail, resulting in better outcomes for all.”* Although flexibility and open-mindedness were expressed as important, this incentive which revolves around environmental offsets as a form of development flexibility, was not considered effective.

Resource Consent Assistance

Two incentives highly regarded by small-scale developers related to resource consent assistance. Whether this assistance was for preparing an Assessment of Environmental Effects or receiving free urban design and connectivity advice to assist with the location and design of greenways; both forms of assistance were highly likely to incentivise small-scale developers. The underlying reasoning for this stemmed from the uncertainty around what AC wanted, and thus, Council assistance would allow clarification on this. Furthermore, small-scale developers which classified themselves as landowners developing their own site, did not have an extensive network of planners and urban designers to draw on. Respondent C stated, *“recruiting this level of expertise is very costly and any assistance is favoured.”* Alternatively, due to the scale of medium and large developers, they were very unlikely to be incentivised by resource consent assistance. This was attributed to their companies either permanently employing urban designers and planners or containing contracts with consultants. Either way, these developers had access to the skills required and were uninterested in receiving further assistance.

6.4 Moral Incentives

A moral incentive refers to external motivation to act for the common good without an immediate material reward (Yusof et al., 2012). Moral incentives are a form of nonmaterial incentives, unlike financial and regulatory incentives explored above, and have been utilised to further comprehend the underlying motives of participating developers.

Developing for the Public Good

Despite a developer's scale, the nature of their projects, a development's location, and which incentives they favour, majority of the developers indicated that they are inclined to provide connectivity beyond what is obligatory. A trend emerged that small and medium-scale developers, who have ties to the area they are developing, feel a strong responsibility to provide greenways for the public good. However, despite community motivation being a factor for many developers, this pressure is not the sole reason behind providing well-connected developments. The pride in *“leaving something behind that stands a test of time as a good place to live”* was Developer E's primary motivation to incorporate greenways; a mind-set evident in many participants. Furthermore, developers commonly recognized the societal shift from car orientated developments towards a built form which prioritizes walking and cycling. Additional greenway motivation stemmed from this understanding of contemporary societal needs.

Developers thus desired to provide developments which catered to modern preferences and enhance their sale prospects.

Conversely, large-scale developers did not appear to hold this strong feeling of responsibility for the public good. This was attributed to their detachment from the area they were developing, and although this correlation was not absolute, a clear trend was evident. These developers subsequently justified their stance by referencing the significant costs associated with greenways and a lack of credit when comprehensive connections were provided. Large-scale developers, however, attained alternative motivation to generate desirable outcomes. Contrasting to the idea of providing for the public good, large-scale developers alternately focused on reputation enhancement. Therefore, despite varying motives, the spatial result of high-quality public connectivity was beneficial and thus desired by all scale developers.

Easements

The idea of easements as a mechanism to permit public access is continually viewed with scepticism. Small-scale developers or landowner developers were incredibly open to allowing easements over their land for no material gain. However, scepticism was evident as liability issues were frequently identified as an overarching barrier. Developers held the position that liability must fall back on AC, otherwise, permitting an easement was referenced as overly risky. Nevertheless, landowner developers did favour the concept of easements due to their longevity. Developer F stated, *"if I provide an easement it is a legal commitment and is there forever;"* further elaborating to convey that there is no immediate pressure to develop the land, increasing their favourability towards easements. However, despite small-scale developer enthusiasm, medium and large developers were not as accepting. Beyond exclusively liability concerns, the responsibility of maintaining the easement was furthermore raised as a significant issue in suburban contexts. This contrasts to the peri-urban and rural context of small-scale developers where maintenance issues were largely unmentioned. Consequently, easements were rarely provided by medium and large-scale developers and were thus viewed as an ineffective technique to permit public access in suburban areas.

6.5 Interview and Questionnaire Summary

Overall, developers highlighted that Auckland's primary connectivity barriers relate to AC lacking well-defined connectivity priorities and the lack of innovation and flexibility shown by AC and AT; both of which could be immediately addressed. As predicted, various scale developers also responded differently to various incentives. A strong trend emerged where small-scale developers were

predominantly incentivised by mechanisms not of interest to medium and large-scale developers; with this finding applicable both ways.

Small-Scale Developer Incentives

In a financial sense, small-scale developers were primarily incentivised by rates remissions and moderately incentivised by grants and subsidies to assist with greenway implementation costs. Furthermore, an increase in property values from the presence of greenways was additionally a highly motivational factor. However, despite the financial gain associated with greenways, initial implementation costs are significant. Therefore, this implementation barrier must be overcome prior to financial gain being referenced as an effective incentive.

Likewise with financial incentives, there were numerous regulatory incentives which gained support amongst small-scale developers. The advantage of receiving extra titles if greenways were provided was frequently regarded as the most effective form of incentive; a result of its correlation to immediate financial gain. Additionally, small-scale developers regarded a fees reduction, resource consent assistance and urban design advice as effective incentives. These developers were additionally highly encouraged by moral incentives to act for the public good. This was reflected in their openness to allow easements over their land, allowing public access as it would directly benefit their local community.

Medium and Large-Scale Developer Incentives

Despite which form of incentive was in question, medium and large-scale developers consistently held similar perspectives. Within the financial incentive category, modifying the development contribution process was identified as the most effective incentive. Whether this involved a development contribution remission, or even paying slightly more contributions if the funding was spent in the local community; developers were open to both system modifications. However, contribution remissions were favoured over the latter. Developers also indicated that they would be open to selling a small strip of land, at a below market rate for the purpose of connectivity, as it would directly benefit the residents of their development. Grants and subsidies were furthermore regarded as an effective incentive. However, this incentive was not favoured for its financial assistance, but rather as the grants would clearly communicate that AC and other organizations are supportive of greenways. Support for industry awards, whether they are monetary or recognition, was not widely received. Despite this, two developers did enforce the importance of recognition and the ability awards could have to showcase greenway benefits. Despite a developer's level of acceptance to the above financial incentives, all were encouraged to implement greenways, to a certain extent, as they recognize their contribution to increasing a development's market value.

Within the regulatory incentive category, density incentives and increasing permitted height limits were considered by far the most effective incentive. Nevertheless, the possibility of AC fast-tracking consents containing greenways followed closely behind. Medium and large-scale developers, however, contained dissimilar perspectives on moral incentives. Likewise with small-scale developers, medium-scale developers had an intrinsic desire to act for the public good, while large-scale developers alternatively indicated that they act to enhance their company's reputation. Despite a company's underlying motivation, all companies did however identify that they benefit by providing well-connected developments and thus strive for this outcome.

6.6 Conclusion

Following an analysis of the interview data, it was highlighted that developers commonly agree that flexibility and an open-minded approach to alternative development solutions are key attributes which AC and AT shall adopt. Additionally, this in combination with a greenway framework and 'best practice' guidance, were conveyed as immediate solutions to overcome persistent greenway barriers. The combined interview and questionnaire data presented that medium and large-scale developers are commonly incentivised by mechanisms not of interest to small-scale developers and vice versa. However, when assessing developers as a whole, financial incentives were regarded as most likely to encourage further greenway implementation, closely followed by regulatory incentives. Additionally, moral incentives, without direct material rewards, were highly influential as developers recognised the importance of contributing to the creation of well-connected developments.

Overall, developers were highly receptive to greenway incentives. This response was predominantly attributed to the present absence of development incentives and thus their openness to any mechanism which will generate improved outcomes and increase profitability. This research has therefore identified a menu of incentives which can be implemented in Auckland and are expected to encourage greenway development across the region.

7.0 Discussion

As identified by AC in their Local Board Greenway Plan's and by the NZWAC, private land ownership is a primary barrier hindering greenway implementation. In addition, an analysis of Auckland's planning framework has identified further connectivity barriers affecting greenway implementation. The initial objective of this research was to explore the use of incentives as a mechanism to encourage developers to allow public access through their land for greenway development. However, incentives have now been deemed necessary to achieve comprehensive connectivity, a result of the case studies highlighting connectivity issues with Auckland's planning framework.

7.1 Connectivity Barriers

Following an analysis of NZ's context, it was first identified that NZ has a history of priding itself on the enforceable nature of private property rights. The mentality of 'my land is my right' and the ability to exclude 'others' from private land, is embedded in the NZ culture. This persistent connectivity barrier was equally mirrored in the literature from the United Kingdom and U.S. (Buckely, 2008; Ahern, 1995). Therefore, gaining public access through private land directly contends with the very nature of private property rights, reinforcing the difficulty of greenway implementation.

NZ's planning framework poses further issues for the provision of public access. The hierarchical nature of NZ's planning framework intends to ensure the NPS's objectives are given effect to by the RPS's objectives, which are subsequently enforced by district and regional plans. However, the AUP(OP), Auckland's District Plan, Regional Plan and NPS, appears to present a disconnect between its higher and lower level policies. Therefore, although connectivity is referenced in the AUP(OP), the loosely written nature of the policies, and often lack of corresponding rules, has resulted with connectivity being overthrown. Connectivity, as anticipated by Auckland's RPS, is inadequately enforced through the AUP(OP)'s policies. However, the *Matakana Coast Trails Trust v Auckland Council* [2017] case remains significant, reinforcing the AUP(OP)'s often overlooked connectivity policies. Consequently, as the Court ruled that development must be in accordance with these policies, subdivision connectivity is enforceable through the AUP(OP).

There however appears to be a lack of planning knowledge around the requirement for connectivity, and therefore greenways, under the AUP(OP). Chapter 5, an analysis of three case studies, identified how each development either failed to provide subdivision connectivity, or when provided, it fell short

of its full potential; outcomes contrary to the AUP(OP) objectives. Therefore, although concrete conclusions cannot be drawn that developers and Council planners are largely unaware of the *Matakana Coast Trails Trust v Auckland Council* [2017] decision enforcing the AUP(OP)'s connectivity provisions, this appears increasingly likely.

Conversely, connectivity barriers identified in the interviews and questionnaires did not relate to the AUP(OP). This was an anticipated outcome as an unclear planning framework provides developers with additional flexibility and likely cost reductions. Developers alternatively enforced the issue of unclear communication between AC and developers, and AC's lack of well-defined connectivity priorities, as significant barriers hindering greenway development. However, the identified barrier of 'Auckland lacking greenway guidance,' has previously been addressed through the recent development of 21 Local Board Greenway Plans (identified in Chapter 1). Despite this, developers appear largely unaware of these informative documents and education surrounding their presence shall be enhanced. However, this issue of unclear communication between planners and landowners was likewise highlighted throughout the literature (Chung et al., 2018; Ahern, 1995); it thus appears to be an issue encountered globally.

Maintenance frustrations additionally emerged as a considerable greenway barrier following the interviews and questionnaires. Although developers appeared to believe that this was a problem unique to Auckland, literature suggested otherwise. The persistent issue of greenway funding and poor maintenance was likewise identified as a dominant barrier globally (Eyler et al., 2008; Chung et al., 2018). Despite this apparent global challenge, Auckland's developers held a strong stance that maintenance must be addressed prior to the provision of additional greenways, as this would only exacerbate the tireless maintenance issue. Auckland's developers, however, expressed additional frustrations which did not appear globally. Developers receiving conflicting messages from various departments within Council, and a lack of innovation and flexibility on behalf of AC and AT, were both highlighted as leading frustrations hindering connectivity. Therefore, these connectivity barriers appear to be unique to NZ and must subsequently be overcome to enable effective greenway implementation.

7.2 Case Study Findings

The AUP(OP) and the *Matakana Coast Trails Trust v Auckland Council* [2017] case are identified as key legal instruments enforcing connectivity across Auckland. However, the case studies highlight a great deal of confusion around the enforceability of connectivity. Additionally, although non-statutory documents are non-binding, the documents reviewed (AT's Code of Practice and NZ's Subdivision Code

(NZE 4404:2010)) furthermore overlook connectivity. Therefore, Auckland's statutory and non-statutory planning framework commonly results with developments lacking comprehensive connectivity.

The Matua Road case study presented connectivity in the form of a publicly accessible esplanade reserve, a result of the AUP(OP)'s requirement for public connectivity when developments adjoin an aquifying water body; the AUP(OP)'s only concrete connectivity provision. However, despite the establishment of an additional public esplanade reserve on the site, no public access was granted to this second esplanade reserve. This was a result of the developer not permitting public access between or across their residential lots, despite request on multiple occasions. Whether connectivity could have been enforced here would require another extensive assessment under the AUP(OP). However, incentives could be utilised in this instance, potentially enabling comprehensive public connectivity and thus an improved community outcome.

In the case of the Hobbs Bay apartment development, where no public connectivity was provided across the site, this fragmented the community's comprehensive connectivity network along the water body. This decision, although complex due to the existing Esplanade Waiver Agreement, allowed private domination of the water's edge and consequently prevents future opportunities to incorporate public pedestrian access. However, following the interviews and questionnaires with developers, if public access is provided, the planning framework offers no benefits to developers and they thus bear the full cost of these public assets. This sparks the question, if generous incentives were offered here, would they ultimately affect the outcome?

The Great North Road case study is an example of effective communication between AC and developers. The developer's original proposal, which contained poorly designed connectivity, was redesigned in a safe manner to provide a key connection to local showgrounds following extensive communication between the two parties. This level of communication and the corresponding outcome was regarded as uncommon in the interviews. Communication was conversely highlighted as a primary barrier hindering connectivity. Nevertheless, effective communication and corresponding improved outcomes are thus achievable. Therefore, ensuring effective communication between developers and AC, in addition to the use of incentives, is anticipated to generate beneficial community outcomes containing comprehensive connectivity.

Incentive Effectiveness

Despite Auckland's developers containing a strong desire to provide greenways for the public good or to enhance their reputation, both of which result in well-connected developments, developers, however, primarily favoured financial incentives. This was an anticipated outcome supported by literature as developers have an underlying desire to generate profit (Henneberry, 2002). Consequently, regulatory incentives were also highly regarded amongst Auckland's developers, a result of their direct link to financial gain through the planning process. The likely success of these two forms of incentives, financial and regulatory, can also be attributed to their simple nature, the likely win-win result for all stakeholders, and the participating party receiving an adequate benefit; necessary attributes for all successful incentives (Tavares-Lehmann, 2016). Moreover, literature additionally conveys the effectiveness of moral incentives and intrinsic motivation, however, highlights that they are commonly overlooked (Yusof et al., 2012). Conversely, Auckland's developers enforced their strong sense of intrinsic motivation to act for the public good without direct material rewards. Moral incentives can thus be identified as influential in Auckland's context.

Developing for the Common Good

At large, developers sought to generate well-connected communities which respond to contemporary trends. Therefore, walkable and connected developments, containing greenways, were identified as a high priority. Whether this outcome is a consequence of the aspiration to develop for the public good or to enhance a company's reputation, liveable communities were a desirable result. Likewise, greenway literature, predominantly from North America and the United Kingdom, identified the positive effect greenways have on increasing an areas liveability through positive social and psychological impacts (Jang and Kang, 2015; Keith, 2016). Auckland's developers therefore held perspectives mirroring those in 'greenway literature.' However, when exploring 'developer literature,' the sole factor of profitability was enforced (Henneberry, 2002), contrasting to the viewpoints of Auckland's developers as moral considerations were highly regarded. This finding, however, appears to contradict with the outcomes of Auckland's case studies.

A disconnect is evident between Auckland's case studies, where the common good was frequently overlooked, and the interview and questionnaire outcomes where developers frequently enforced their prioritization for the common good. These contradictions could result from the case studies not appropriately reflecting Auckland's developers, and consequently, further case studies should have been undertaken. However, this was unattainable due to time restraints. Alternatively, this disconnect

between the desire for idealistic outcomes, and the actual level of liveability and connectivity experienced in completed developments, could in fact be correct. Either way, before concrete conclusions can be drawn, it is recommended that this disconnect is further investigated.

Developer Disparities

The interview and questionnaire data, which highlighted that medium and large-scale developers are commonly incentivised by mechanisms not of interest to small-scale developers and vice versa, was predicted in the literature. Coiacetto (2011) explains that a developer's behaviour will vary depending on various locational contexts, a firm's size, the form of development they are involved in and the underlying motives they hold. Therefore, as small-scale developers contain different characteristics and largely conduct distinctive forms of development (subdividing their own large lot or developing small rural subdivisions), in comparison to medium and large-scale developers which have many similarities, a variety of incentives are required to generate desired outcomes. Fortunately, as the unique nature of each scale developer was regarded at the commencement of this research, the explored incentives consequently cater to Auckland's various developers. Therefore, this research highlights a range of greenway incentives which can be implemented in attempt to gain public access through private land owned by any scale developer.

7.4 Incentive Limitations

As identified throughout the literature, financial incentives are referenced as most likely to generate desired outcomes (Tavares-Lehmann, 2016). However, financial incentives require a significant amount of capital, highlighting a fundamental issue as greenway funding is limited. Nevertheless, Auckland's developers were not exclusively fixated on financial incentives. Regulatory incentives were likewise welcomed amongst developers and lack the requirement of direct financial compensation. However, the primary drawback with regulatory incentives is that preferred incentives, such as permitting smaller lot sizes, require a mandatory plan change to implement. To conduct this, considerable capital investment is required to employ highly skilled lawyers and planners to effectively integrate the desired mechanisms into the planning framework. Furthermore, the obligatory process of weighing up the costs and benefits on all parties is a timely process (Tavares-Lehmann, 2016). Despite this, a plan change to incorporate greenway incentives into the regulatory framework is identified as an effective long-term solution which shall be pursued.

Additionally, Auckland's developers conveyed that they recognised the importance of contributing to well-connected developments, thus, commonly holding a strong sense of intrinsic motivation to develop for the public good. Nonetheless, it must be noted that this form of moral incentive contains limitations. Moral incentives are based on the premise that they lack direct material rewards (Yusof et al., 2012). Consequently, Auckland's developers indicated that they are only influential to a point. Therefore, material incentives (financial and regulatory) are indicated as necessary to use in combination with moral incentives if comprehensive connectivity is desired.

7.5 Recommendations

- It is first recommended that education is enhanced surrounding the importance of the *Matakana Coast Trails Trust v Auckland Council* [2017] case which enforces the AUP(OP)'s connectivity provisions. Through informing developers and AC planners about the implications of this Court decision, connectivity outcomes are expected to improve through the correct administration of the planning framework.
- Secondly, it is recommended that connectivity barriers, as identified by Auckland's developers, are immediately addressed to minimise greenway frustrations and enhance connectivity outcomes. This shall be conducted prior to the administration of incentives.
- Thirdly, it is recommended that a cost-benefit analysis be undertaken, prior to investing in any incentive scheme, to ensure limited resources are efficiently and effectively allocated.
- It is additionally recommended that low cost and time efficient incentives are initially implemented to immediately incorporate greenway incentives into the property development industry. These incentives shall be introduced prior to incentives which require substantial financial investments and timely processes, such as a plan change which is alternatively recommended as an effective long-term solution.
- Finally, as this research held the primary objective of exploring incentives as a mechanism to overcome the barrier of private landownership hindering greenway implementation, it is recommended that the incentives identified as effective (see Section 6.5), are introduced. These incentives shall be implemented in conjunction with Auckland's 21 Local Board Greenway Plans.

8.0 Conclusion

As identified by AC and the NZWAC, private land ownership is a primary barrier hindering greenway implementation. Therefore, the purpose of this research was to explore and evaluate a range of incentives which would encourage private property developers, a chosen sub-category of private landowners, to allow public access through their land for the implementation of greenways. To undertake this research, qualitative techniques were used and a three-phase research design was developed. The first phase undertook a desktop exercise looking at the current policy approaches to see what policy support are available for the provision of greenways and what potential barriers exist. The second phase involved three case studies to evaluate the provision of greenways through the actual development process. Finally, a range of semi-structure interviews and online surveys were undertaken with developers, identifying greenway barriers and how incentives could be included in the development process to encourage greenways.

The research findings highlighted that developers encounter numerous greenway barriers which directly hinder connectivity outcomes. These barriers can be summarised as AC's unclear connectivity priorities, contradicting messages from various Council departments, and a lack of innovation on AT and AC's behalf. In addition, an analysis of Auckland's planning framework identified further connectivity barriers. The AUP(OP), Auckland's statutory plan, anticipates connectivity outcomes, however, connectivity is inadequately enforced as the objectives and policies are loosely written while corresponding rules are often lacking. Furthermore, there is an apparent disconnect between the AUP(OP)'s higher and lower level connectivity policies. This finding became evident following an analysis of three development case studies. Each development either lacked connectivity or presented mediocre connectivity outcomes; an apparent result of the confusion surrounding the planning framework. Therefore, the significance of the *Matakana Coast Trails Trust v Auckland Council* [2017] case became apparent, as it set a precedent enforcing the AUP(OP)'s connectivity provisions. However, as these assessed case studies occurred after this 2017 Court decision, yet commonly lacked adequate connectivity, this legal decision appears to have fallen under the radar of those involved in Auckland's development.

Despite the inherent connectivity confusion in Auckland's statutory framework, incentives were identified as an effective mechanism to encourage further greenway development. The research findings conveyed that medium and large-scale property developers were commonly incentivised by mechanisms not of interest to small-scale developers and vice versa. However, when assessing developers as a whole, financial incentives were regarded as most likely to encourage further greenway

implementation, closely followed by regulatory incentives. Additionally, moral incentives, without direct material rewards, were influential as developers recognised the importance of contributing to the creation of well-connected developments. Therefore, a range of incentives from each category can be implemented and successful outcomes are largely anticipated. Consequently, these incentives can contribute to transitioning Auckland's Local Board Greenway Plans from idealistic paper-based documents into a network of well-connected greenways transcending Auckland's built form.

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10.0 Appendices

10.1 Appendix 1: Questionnaire

Property Developer Incentives - Anonymous Questionnaire

Project Title:

Mechanisms to incentivise Auckland's private property developers to allow public access through their land.

Project Aim:

The purpose of this research is to explore and evaluate a range of incentives which would encourage private land owners, who are developing or subdividing greenfield and brownfield sites, to allow public access through their land for the implementation of greenways. This research will assist in answering the question of how greenways (pedestrian and cycle connections) can be improved across the Auckland region.

Instructions:

Below are three main question categories:

- 1) Financial incentives
- 2) Regulatory incentives
- 3) Social and lifestyle incentives

Please answer all the questions in each category and elaborate on your answer when the option is given.

General Questions

Note: Please select the answer which best relates to you/your company.

Question 1: What statement best describes the size of your company in New Zealand's context?

- a) Small scale developer/landowner
- b) Medium scale property developer
- c) Large scale property developer

Question 2: What is the primary form of property development your company is involved in?

- a) Residential or mixed use residential developments
- b) Commercial developments
- c) Industrial developments
- d) Other (please specify)

Question 3: What is your company's existing opinion around providing pedestrian and cycling connectivity in your development/s?

- a) We try to ensure a high/reasonable degree of pedestrian and cycling connectivity, despite the associated costs.
- b) We accommodate for pedestrian and cycling connectivity, but only to a point.
- c) We provide a minimum amount of connectivity, as having less pedestrian and cycling connectivity is more profitable.
- d) We do not consider this relevant or a major part of our business model.

Question 4: Which form of greenway is your company most likely to implement or support in your development/s?

- a) Greenway streets (a local road which contains low traffic volumes, traffic calming features, and is suitable for cyclists).
- b) Greenway paths (a path which is separated from vehicular traffic e.g. pedestrian paths or alleyways)
- c) Open space greenways (a path or useable connection through a park, reserve, or any form of open space).
- d) A combination of greenways
- e) Other forms (please specify)

Category One - Financial Incentives

Note: Please rank each question below on a scale of 1 – 5, with 1 being very unlikely and 5 being very likely.

Question 5: Would your company be open to selling a small strip of land in your development for the purpose of public accessibility?

1 2 3 4 5

Why/why not?

Question 6: As this land would be for the purpose of connectivity, benefiting the residents of your development, would you consider selling this land at a lower/negotiable price?

1 2 3 4 5

Question 7: If there were grants or subsidies to assist with the financial cost of putting in greenway's (such as compensation for the loss of revenue or profit, or partial funding to cover CAPEX costs such as paving and planting), would your company be more inclined to implement greenways?

1 2 3 4 5

Why/why not?

Question 8: From your own experience, how likely is it that implementing greenways (enhancing connectivity) would materially enhance the overall market value and profitability of your development?

1 2 3 4 5

Question 9: As greenways increase connectivity and accessibility in an area, they can potentially require less extensive road networks, saving on construction costs. Would this encourage you to implement greenways?

1 2 3 4 5

Question 10: If there was an annual major industry award (monetary or recognition) for developments with the highest standard of greenway connectivity, would this contribute to incentivising you to implement greenways?

1 2 3 4 5

Why/why not?

Question 11: Is it likely that a rates or development contribution remission (reduction) on your land/development, would make a material difference to your company's willingness to implement greenways?

1 2 3 4 5

Why/why not?

Category Two - Regulatory Incentives

Note: Please rank each question below on a scale of 1 – 5, with 1 being very unlikely and 5 being very likely.

Question 12: If a rule in the Auckland Unitary Plan (Operative in Part) enabled developers to subdivide sections into smaller lot sizes if they were to implement greenways (greenway paths *or* open space greenways, *not* greenway streets), would your company consider greenways?

1 2 3 4 5

Question 13: Would you consider greenways if the consenting process was less stringent? (Such as if Auckland Council allowed the positive implementation of greenways in a development to compensate for standard infringements).

1 2 3 4 5

Why/why not?

Question 14: If Auckland Council allowed a development which contained greenways with environmental benefits, to compensate for a certain level of environmental degradation, how supportive would your company be towards this incentive?

1 2 3 4 5

Question 15: If Auckland Council was to make the consenting process less costly for your development (for example a fees reduction), how likely would this incentivise you to implement greenways?

1 2 3 4 5

Question 16: If Auckland Council had the ability to fast track development consents if greenways were proposed, would this encourage your company to implement greenways?

1 2 3 4 5

Question 17: If Auckland Council or another company was to assist with the resource consent process if proposed developments contained greenways, would your company consider this as an incentive?

1 2 3 4 5

Question 18: If Auckland Council or another organization offered free urban design/connectivity advice to assist with the location and design of greenways, is this likely to encourage greenway implementation?

1 2 3 4 5

Why/why not?

Category Three - Social and Lifestyle Incentives

Note: Please rank each question below on a scale of 1 – 5, with 1 being very unlikely and 5 being very likely.

Question 19: Would you allow easements over a small amount of sections in your development to allow greater pedestrian access and connectivity?

1 2 3 4 5

Why/why not?

Question 20: If there was an Auckland Council approved list of the most liveable developments, with greenways a component of this, would the public acknowledgement and promotion of your development on such a list be an incentive for your company to implement greenways?

1 2 3 4 5

Question 21: As there are numerous benefits to a community from implementing greenways (*Cities Alive, ARUP, 2016*), how likely are you to implement greenways solely to enhance residential areas for the public good?

1 2 3 4 5

Question 22: Is being perceived as a favourable development company important to you?

1 2 3 4 5

Question 23: When neighbourhoods are more walkable and connected, it improves the economy through increased employment and spending. In Dublin, a redesigned pedestrian-friendly neighbourhood led to a 300% increase in employment, and in other studies pedestrians are shown to spend as much as 65% more than vehicle users (*Cities Alive, ARUP, 2016*).

Does information such as this, which is a good selling point for a development, increase the likelihood of your company creating a well-connected environment for pedestrians and cyclists?

1 2 3 4 5

Why/why not?

Overview Questions

Question 24: Following your answers to the above questions, which form of greenway would you be most likely to implement in your development?

- a) Greenway streets (a local road which contains low traffic volumes, traffic calming features, and is suitable for cyclists).
- b) Greenway paths (a path which is separated from vehicular traffic e.g. pedestrian paths or alleyways)
- c) Open space greenways (a path or useable connection through a park, reserve, or any form of open space).
- d) A combination of greenways
- e) Other (please explain)
- f) I'm still unlikely to implement greenways

Please explain your reasoning.

Question 25: Are there any other incentives not discussed which would encourage your company to further implement greenways in your development?

Approved by the University of Auckland Human Participants Ethics Committee on 09-Aug-2018 for three years. Reference Number 021785.

Property Developer Incentives – Interview

Project Title:

Mechanisms to incentivise Auckland's private property developers to allow public access through their land.

Project Aim:

The purpose of this research is to explore and evaluate a range of incentives which would encourage private land owners, who are developing or subdividing greenfield and brownfield sites, to allow public access through their land for the implementation of greenways. This research will assist in answering the question of how greenways (pedestrian and cycle connections) can be improved throughout Auckland.

General Questions:

- 1) What is the primary form of property development you/your company is involved in?
- 2) In what area of Auckland does most of your development take place?
- 3) Would you consider your company as a large actor in the property development market?
- 4) When you are doing a development/subdivision, are you usually inclined to provide pathways and pedestrian access beyond what is required? Why/why not?
- 5) When you are doing a development/subdivision, are you usually inclined to provide cycle paths or design your streets in a way which accommodate for cyclists? Why/why not?
- 6) Many people have a negative perception of cyclists and many developers are unfavourable towards cycling infrastructure. Greenways can however accommodate for both pedestrians and cyclists. Does the idea of greenways accommodating cyclists put you off the idea of implementing greenways? Why/why not?
- 7) What are the main barriers against creating greenway connections?
- 8) Are there certain locations in Auckland or types of developments where providing for pedestrian or cyclist connectivity is more difficult? Why is this the case?

- 9) Have you previously been incentivised to provide further connectivity in a development? If so how did this occur and what was the result?
- 10) What forms of incentives would encourage you/your company to provide for further public connections in your development/subdivision? Examples can be financial assistance or regulatory incentives etc.?

Financial Incentive Question Selection:

- 1) Would your company be open to selling a small strip of land in your development for the purpose of public greenway connections?
- 2) As this land would be for the purpose of connectivity, benefiting the residents of your development, would you consider selling this land at a lower/negotiable price?
- 3) If there were grants or subsidies to assist with the financial cost of putting in greenway's (such as compensation for the loss of revenue or profit, or partial funding to cover CAPEX costs such as paving and planting), would your company be more inclined to implement greenways?
- 4) From your own experience, how likely is it that implementing greenways (enhancing connectivity) would materially enhance the overall market value and profitability of your development?
- 5) As greenways increase connectivity and accessibility in an area, they can potentially require less extensive road networks, saving on construction costs. Would this encourage you to implement greenways?
- 6) If there was an annual major industry award (monetary or recognition) for developments with the highest standard of greenway connectivity, would this contribute to incentivising you to implement greenways?
- 7) Is it likely that a rates or development contribution remission (reduction) on your land/development, would make a material difference to your company's willingness to implement greenways?

Regulatory Incentive Question Selection:

- 1) If a rule in the Auckland Unitary Plan (Operative in Part) enabled developers to subdivide sections into smaller lot sizes if they were to implement greenways (greenway paths *or* open space greenways, *not* greenway streets), would your company consider greenways?

- 2) Would you consider greenways if the consenting process was less stringent? (Such as if Auckland Council allowed the positive implementation of greenways in a development to compensate for standard infringements).
- 3) If Auckland Council allowed a development which contained greenways with environmental benefits to compensate for a certain level of environmental degradation, how supportive would your company be towards this incentive?
- 4) If Auckland Council was to make the consenting process less costly for your development (for example a fees reduction), how likely would this incentivise you to implement greenways?
- 5) If Auckland Council had the ability to fast track development consents if greenways were proposed, would this encourage your company to implement greenways?
- 6) If Auckland Council or another company was to assist with the resource consent process if proposed developments contained greenways, would you/your company consider this as an incentive?
- 7) If Auckland Council or another organization offered free urban design/connectivity advice to assist with the location and design of greenways, is this likely to encourage greenway implementation?

Social and Lifestyle Incentive Question Selection:

- 1) Would you allow easements over a small amount of sections in your development to allow greater pedestrian access and connectivity?
- 2) If there was an Auckland Council approved list of the most liveable developments, with greenways a component of this, would the public acknowledgement and promotion of your development on such a list be an incentive for your company to implement greenways?
- 3) As there are numerous benefits to a community from implementing greenways (*Cities Alive, ARUP, 2016*), how likely are you to implement greenways solely to enhance residential areas for the public good?
- 4) Is being perceived as a favourable development company important to you?
- 5) When neighbourhoods are more walkable and connected, it improves the economy through increased employment and spending. In Dublin, a redesigned pedestrian-friendly neighbourhood led to a 300% increase in employment, and in other studies pedestrians are shown to spend as much as 65% more than vehicle users (*Cities Alive, ARUP, 2016*).

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