Nelson Richmond Intensification Study

Stage 1 - Pathways

Prepared for:
Nelson City Council &
Tasman District Council

By
Boffa Miskell Limited
Jerram Tocker Barron Architects Limited

September 2007

Boffa Miskell

contents

purpose of the study

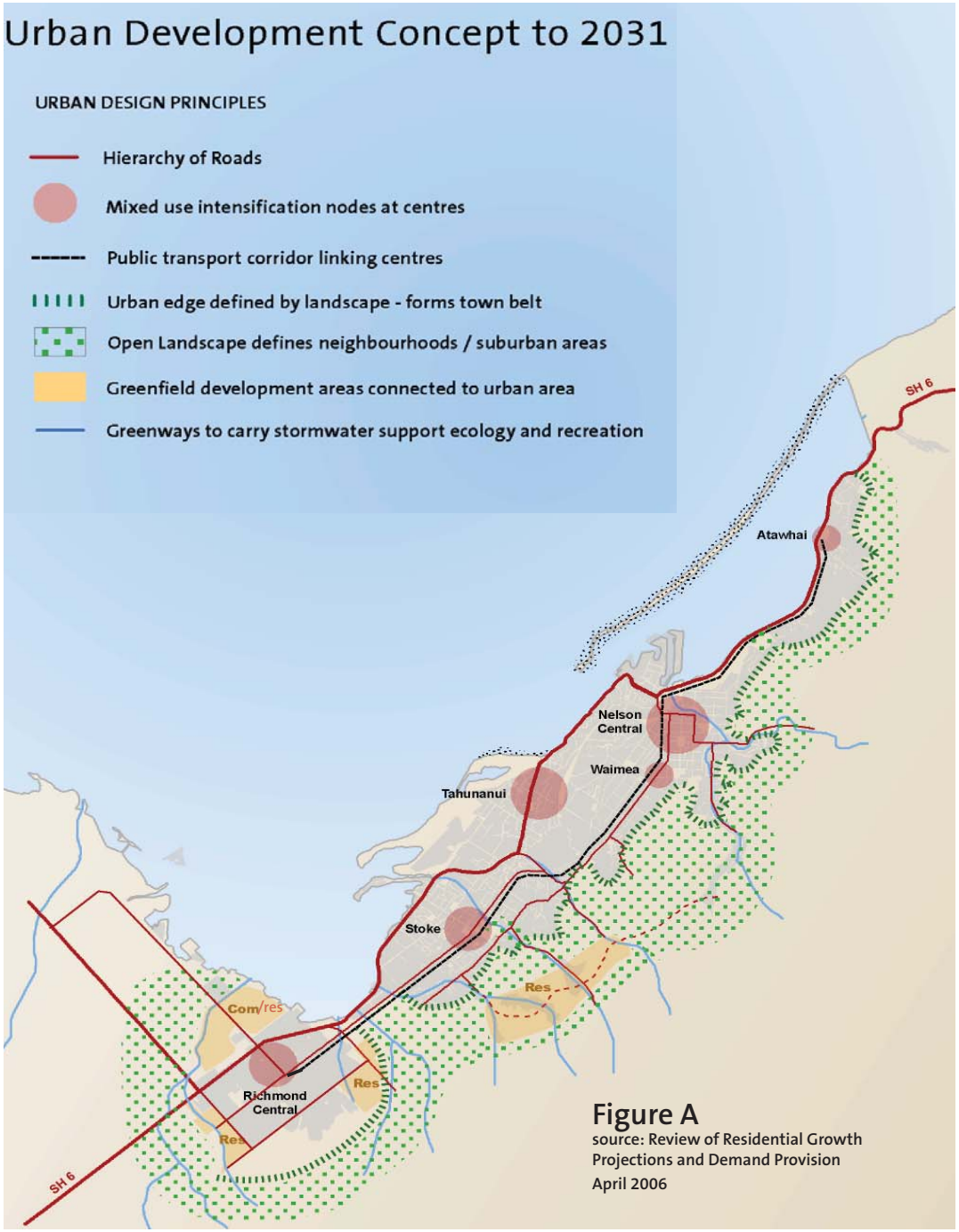


Figure A
source: Review of Residential Growth Projections and Demand Provision April 2006

Nelson City and Tasman District Councils have both developed strategies[1] for accommodating projected growth in population and households, as well as the attendant business and other demands this growth will bring. The region will need to accommodate a projected 9000 new households by 2026. The key objective of this project is to identify what the councils should do to enable and encourage urban intensification.

Some of the current and potential challenges that the Nelson/ Richmond region faces are as follows:

- limited greenfield land for expansion
- a bipolar urban form with a narrow transport corridor
- existing urban development 'strung out' along the transport corridor
- a lack of housing affordability
- a lack of existing housing choice
- reliance on private cars as main form of transport
- conflicting aspirations for land use

The Nelson/Richmond growth strategies recognise these challenges and seek to address them through urban intensification (increasing the number of people living within the existing urban footprint to make more efficient use of land) while also enabling some edge growth as 'greenfields' development[2](Figure A describes diagrammatically the broad strategy).

Growth strategies for Nelson and Richmond have identified urban intensification as a preferred option for managing growth for the following reasons:

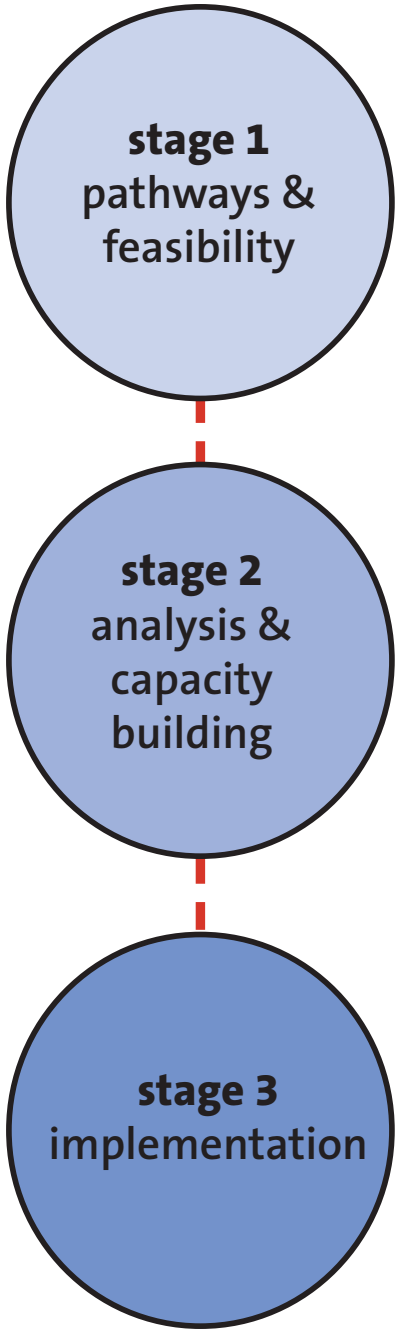
- Intensification offers efficient use of infrastructure where there is existing capacity.
- Intensification is an efficient use of scarce land resources.
- There is a large body of national and international research supporting intensification as being more sustainable and good planning practice.
- Intensification is in line with the trend to smaller households and supports public transport options.

Concurrent with this study, the Nelson to Brightwater Transport Corridor Study is being conducted. The integral relationship between demands on road infrastructure and suburban sprawl must be acknowledged. The constraints on the current roads and the cost implications of improving them must be considered in the context of further growth and the added strain this would put on existing roads if the region continued to sprawl rather than intensify.

Quality intensification can provide a greater diversity of housing and an opportunity for more affordable housing options. Where intensification is focused around amenity and transport nodes, the urban environment can promote alternatives to private car transport by linking work, leisure and living places. Intensification, as part of a broader urban renewal strategy, can provide opportunities to improve the vitality of local communities.

As part of this study, further investigation will be undertaken to ascertain the feasibility and extent of intensification (from currently lower to medium densities). It is important to recognise that only relatively small parts of the urban areas will be suitable and it is important that lower density housing is maintained to provide this type of living environment for the many people who value it.

- 1 Refer to Nelson Urban Growth Study 2006 and Richmond Development Study 2003.
- 2 Greenfields means currently rural land at the town edge



The intensification study has three stages.[1]

Stage 1

Stage 1 of the study forms the subject of this report. The purpose of Stage 1 is to investigate and recommend a 'pathway' (or pathways) to assist the two Council's to realise their strategy to accommodate increasing household growth by intensification. It does this by assessing the feasibility of urban intensification (what are the challenges?), analysis of options and identification of a preferred pathway forward.

Stage 2

Stage 2 is to undertake in-depth analysis and assessment to identify locations for intensification and define specific actions required for implementation.

Stage 3

Stage 3 is to implement the work programmes.

In respect of timing the pathways section notes a staged process and some indicative time frames.

Stage 1 of the project has followed a process of background research, identification of local barriers to intensification and a workshop with other NZ local authorities, developers, government agencies and council staff to discuss barriers and actions to address these[2].

The preferred pathways were formulated and applied in a test run with a Nelson and Richmond location to show what could be achieved through the application of the pathway steps. Two types of intensification sites were considered in the case studies. These were as follows:

- **Town Centre/Nodal site - redevelopment of a site**
- **Suburban site - incremental development of small sites**

1 Refer to Nelson-Richmond intensification project brief 26 January 2007
2 Notes are available as required

what is intensification?

Towns traditionally (or hypothetically) have a cross section that shows a transition of residential development densities from highest in the town centre through to lowest (or even zero) at the rural edge. This can be described by the 'transect' below. The transect describes that at the town centre there is a mixed use approach which enables residential and commercial development at the greatest intensity (say 30+ dwellings per hectare) which could be called 'high' density through to the town house type (say 15-25 dwellings per hectare) through to 'lower' densities at the edge. (NB: Densities shown as gross densities.)

The current transect for Nelson and Richmond shows less of the range described above. There is very little residential activity in the centre, and a large section of the transect in the lower densities. The aim of the intensification study is to understand the pathways to encourage proportionally more development in the medium to high density range in the context of Nelson and Richmond.

transect diagram

TOWN CENTRE
HIGH DENSITY
MIXED USE
- 30+ dw/ha

MEDIUM DENSITY
RESIDENTIAL
- 15-25 dw/ha

STANDARD
RESIDENTIAL
-10-20 dw/ha

LOW DENSITY
RESIDENTIAL
- 5-10 dw/ha

RURAL
RESIDENTIAL
- <2 dw/ha

A. Mixed use

Mixed use development combines commercial and residential functions in the one building (commercial at ground level creating an active street edge with residential above). Located in the town centre, the mix of uses brings more vitality to the central streets both during and outside commercial hours. Residents in these areas have the convenience of good access to retail and community facilities and local businesses have increased patronage. Maximum height of 4 storeys.

B. Apartments

Apartments can offer a smaller/low maintenance housing option and cheaper heating/service bills through improved thermal performance of the structure. In this context apartments are residential from top to bottom. They may tend towards a more central location, but can also be appropriate where there are larger open spaces or can use topography to address scale and visual effects. A maximum height of 3 - 4 storeys ensures that residents can maintain a relatively close relationship with the street.

C. Terrace/town house/duplex

Dwellings are joined together by a shared party wall in a terrace or semi detached form. A garage may be part of the structure. Open space on site is limited to a small private courtyard, balcony or a shared garden. Terrace house types have benefits of low maintenance and cheaper heating/service bills. They suit people wanting a reasonable sized house, but less space outside to look after. Maximum height of 2-3 storeys.

D. Small detached houses

Single detached dwellings in a garden setting. Open space may be shared between houses or a small private yard for each individual house. May provide a more affordable option than a standard suburban section and suit smaller sized households. This is a common model for retirement villages. Maximum height 1-2 storeys.

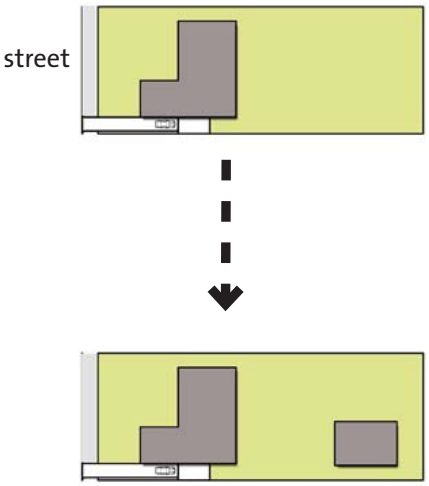
E. Accessory dwellings

Accessory dwellings are small buildings that share a section with the principle residence. They may take the form of the 'granny flat' for multi-generational family living but could also be used for home offices or rental accomodation to provide home and income on one site. Maximum height 1-2 storeys.

intensification: types of development

A key to the feasibility of intensification will be to enable a range of development types to happen. These are shown diagrammatically below. One approach to intensification is the development of a single site. This may involve removal of an existing dwelling and replacement by several new ones or by 'infill' where the existing house remains and another is added to the site. Another way to intensify an existing site is to add an accessory dwelling, such as a 'granny flat', to share the site of an existing house. Where there is single site redevelopment, then incremental intensification will occur across a suburb. Where a number of sites are amalgamated to form one large development site, comprehensive redevelopment may occur. Greenfield locations allow for a third type of intensification - that a more intensive pattern of development occurs at the time of subdivision.

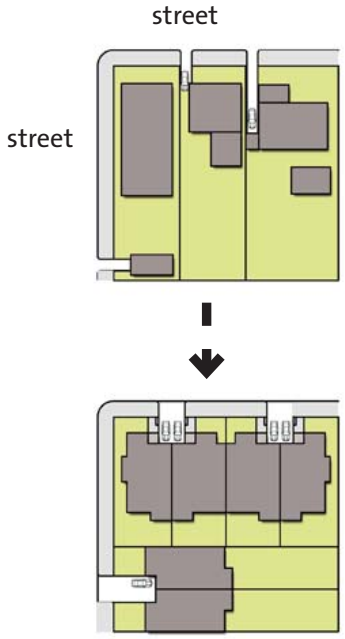
Single site development



1 house on an existing site

Intensification of an existing site by addition of an accessory dwelling

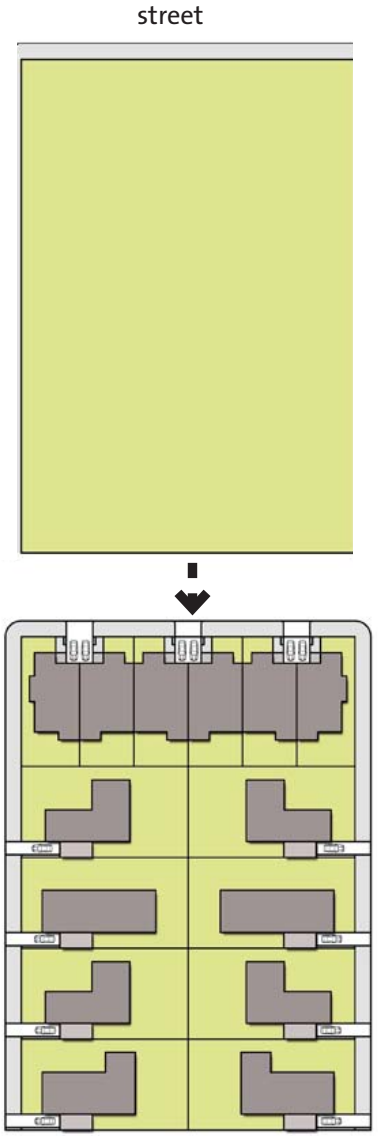
Comprehensive redevelopment



Amalgamate existing sites

Comprehensive redevelopment giving a more intensive housing solution

Greenfield development



Existing greenfield site

Development providing a mix of housing types & sizes

how can quality intensification be achieved?

In tandem with the intensification objective, it is imperative to both Councils that the development is of a high quality and the pathways recognise this. Increasing the density of a suburb will not automatically improve the 'liveability' of a suburb unless careful attention is paid to the quality of the environment.

Quality is imperative because the impact on the quality of life of residents of poor quality development is considerably greater at more intensive levels of development than it is for lower densities. However, it is noted that even at lower densities, developments derived by average and blanket standards have produced lowest common denominator blandness in many places.

General principles of quality intensification that will influence 'liveability' are described on the following pages under the headings:

CONTEXTUAL

COMMUNITY

COMPACT

ACCESSIBILITY

ECOLOGICALLY RESPONSIBLE

DIVERSE

Figure A.
The roof forms and fencing in this townhouse complex pick up on the local suburban details.

Figure B.
The medium density housing is indistinguishable from the suburban houses in this context.

Quality intensification can be achieved when new developments are designed to fit within the local context.

The local context may be defined by the natural and built environment and the climate of the area.

To ensure a quality outcome, designers of new developments must take the time to understand the visual characteristics that define the local built environment and respond to these in a site specific manner that enhances the existing context. Thorough analysis of the site of the proposed development and its surrounding context will be required to achieve this understanding. A contextual approach does not mimic the existing context but acknowledges where there are qualities that create a cohesive pattern to a streetscape and respects this neighbourhood character in the new design.

Contextual homes also respond to the specific climate of the site. By understanding sun orientation and the direction of the prevailing winds, a contextual development will ensure that houses are designed to maximise winter sunlight for winter heating (by optimising north faced glazing) and natural ventilation for summer cooling.

The natural environment is acknowledged and enhanced by contextual housing. Residences are responsive to natural site features (topography, creeks, views, sea). By designing to suit the topography, cut and fill may be minimised to avoid ground disturbance and visual impacts. Through optimising these natural features in the design, each development is tailored to suit the specifics of the site rather than having a 'one size fits all' approach.

Contextual homes also respect their existing neighbours by considering the potential loss of amenity that the new development may create. They try to minimise the overshadowing and overlooking of existing windows and private open space of neighbouring houses.

Figure A and B show examples of medium density housing in the Nelson/ Richmond area which fits well into the suburban context, through the use of suburban roof forms, suburban detailing and landscaping.

Figure A
The Fort Dorset Housing in Seatoun, Wellington

Quality intensification, which utilises good urban design principles, can encourage greater community participation. Where there is a strong visual connection between the housing and the street, people feel safe, so encouraging more pedestrians and a greater sense of community. Windows orientated towards streets and public spaces allow passive observation from houses improving safety and giving a greater sense of inclusion and responsibility for the neighbourhood. Front fences which are low and front facades which are orientated towards the street assist this.

Building heights should be limited to a maximum of 3 to 4 storeys, so that residents can maintain a relationship with the street and housing is at a more human scale (than tall apartments). Heights should also be appropriate for their context (for example, a greater height would be potentially more appropriate in the centre of Nelson than the suburbs).

Quality intensification incorporates urban design features that make residents feel safe. By following the CPTED (Crime Prevention Through Environment Design) principles, development may be safer and provide more opportunities for social interaction. Gated communities where residents live in seclusion from the broader community should not be promoted. Instead housing should be designed to promote social connection and inclusion in neighbourhoods.

Access to passive and active open space and quality urban environments can help mitigate the impact of increased residential intensity by providing valued recreational opportunities. Public parks and gardens can provide for active recreation, a place to socialise and make connections, or somewhere to relax and revive. Towncentres should provide for a diversity of open space use. A hierarchy of quality outdoor spaces can be provided from a private courtyard or balcony, a communal garden shared by a number of apartments/terraces to a public park. A balance is created between private outdoor spaces for reclusion and public open spaces that encourage involvement and participation. Town centres should have public spaces that are engaging, interesting places to be, that help define the local identity and where people enjoy spending time.

Fort Dorset housing in Seatoun, Wellington is a good example (it has received several awards) of how a well designed new development can meld with an existing community through an holistic urban design approach. It was designed to respect and extend the existing street pattern in Seatoun Village, opening it up to previously blocked sea vistas. Two private lanes lead off a newly extended local street, one to the new school and kindergarten, and the other to the coastal reserve. At its end, a carefully designed boardwalk leads through landscaped dunes to the sea itself. Many of the houses have windows facing the streets creating a strong visual connection between these residences and the street.

Figure A.
Compact townhouse development in Brunswick, Melbourne.

To achieve urban intensification through the creation of high and medium density developments, requires a different, more compact type of house than the standard suburban dwelling.

The average dwelling size has increased substantially in Tasman and Nelson since 1990. This is a national trend. This trend has had implications for housing choice and affordability. Larger houses are unaffordable for low income earners. Compounding the problem, the lack of new supply of smaller houses has led to prices of smaller houses remaining higher than they would otherwise be due to the high demand for them.[1]

Compact houses are generally more affordable to build than large houses[2] and have cheaper running costs (heating, cooling, lighting).

Compact houses use fewer natural resources in their construction and less energy to heat/cool since the internal volume is smaller. Therefore they have a far smaller ecological footprint than large houses.

Compact houses can be well designed to use interior space efficiently so that residents maintain a high level of amenity despite the smaller size. Compact houses must attain a high standard of acoustic and visual privacy while still retaining outlook and sunlight through good design and quality construction.

A good example of an innovative compact development are two townhouses recently built in Brunswick, Melbourne (See Figure A). An existing two bedroom house on a 341sqm lot was replaced by two townhouses and a studio. Efficient planning of internal spaces has maximised the potential of the site without compromising the livability of the dwellings. A series of courtyards have been used to maximise sunlight and ventilation to rooms. The location, close to public transport and amenities, and the provision of on-site bicycle storage and a home office, eliminates the need for a private vehicle. Therefore the area normally allocated to carparking/garages has been utilised as private outdoor space.

1 Centre for Housing Research, 'Affordable Housing in Nelson, Tasman and Marlborough: Taking Action', August 2006

2 The exception would be if the materials and construction techniques of a small house were a more expensive type. However, given the same materials/ construction methods, a smaller house would be more affordable since it uses less materials and takes less time to build.

Figure A
Sketch from 2007 Johnsonville Town Centre Draft Plan - showing bus depot

There are strong positive links between intensification and transportation. Intensification can offer viable transport alternatives to the private car (walking/cycling/public transport) by providing greater accessibility of work and amenities to households.

Providing households the convenience of living close to work and facilities through intensification around commercial/retail nodes, encourages walking and cycling to work. Intensification encourages increased residential population at town centres, which act as transport nodes, increasing the viability of public transport as an alternative to car travel.[1]

By comparison, if growth of households occurs at the edges of cities, these new households are car dependant for transport, significantly increasing road congestion. The bipolar transport corridor of Nelson and Richmond puts constraints on the existing road system to cope with the further traffic that would be generated by significant growth of households on the edges of the cities. As well as reducing traffic congestion, there are other benefits of a model of development that discourages car usage through providing viable alternatives (walking/cycling/public transport).

Providing more homes within walking distance of amenities through intensification, can have a positive effect on street life and local community. The shorter distance to facilities encourages more walking, creating a safer and livelier streetscape.

Intensification around nodes is particularly advantageous for residents with no access to a car or the inability to drive (particularly children and the elderly). Public facilities, shops, parks and playgrounds can be accessed by foot, allowing these residents greater independence and equality.

There are recognised health advantages for a community where walking and cycling become part of peoples' daily lives as a form of unstructured exercise. If people live within walking distance to facilities, there is more incentive to walk as part of the daily activities, making exercise a regular part of life rather than a planned activity.

There is a positive environmental impact of increasing opportunities for walking,cycling and public transport as transport modes as it can reduce traffic and pollution.

The recent WCC Johnsonville Town Centre Draft plan looked at increasing density within 10 minutes walk of the rail station/town centre to improve public transport usage. The plan also looked at the relationship between the poor existing urban design and the lack of priority given to pedestrians and how this might be improved.

1 The local public transport system is discussed in detail in 'Nelson and Tasman Public Transport Study',June 2004

ECOLOGICALLY RESPONSIBLE

Figure A. Subiaco, Perth

An ESD (Ecologically Sustainable Development) approach means that the environmental impact of decisions regarding the design of buildings and landscaping are considered during the development. Design approaches are utilised which minimise the environmental impact of the development.

ESD considers the impact of the construction of the building including: the embodied energy of materials, the impact on biodiversity of material selection and the toxicity of the materials, waste minimisation including the ability to recycle or reuse materials and modular building systems that reduce construction waste. An ecologically responsible development also considers the life cycle of the building including its water and energy usage over its life and how this may be minimised.

ESD buildings incorporate passive design to reduce their reliance on mechanical heating or cooling. Buildings are passively designed take advantage of natural energy flows to maintain thermal comfort. Mechanical heating/ cooling systems (if needed in an ESD building to supplement natural systems) are chosen with consideration for their environmental impacts, including air pollution and energy usage. An energy efficient house has reduced running costs and lower environmental impacts (including impacts on air quality).

A development may have a positive environmental impact by increasing opportunities for walking and cycling as transport modes, thereby reducing the 'carbon footprint' of the place. A development may also improve the local environment by planting species that increase local biodiversity.

The housing area of Subiaco in Perth, Australia provides cycleways and the use of trees for passive shade/cooling. The terrace houses use canopies and verandahs for management of sun and provide sufficient security to allow windows to be left open.

Figure A & B.
Two recent developments in Nelson which have retail on the ground floor and residences above.

Currently the majority of housing in Tasman and Nelson is detached freestanding single household dwellings.

Intensification can allow for a greater diversity of housing to suit a range of incomes and household structures. This includes housing that is:

- *more affordable* for low income earners
- *low maintenance* for homeowners that do not want or are unable to maintain a large home/garden
- *small* for single person or small households
- *supported housing* for disabled/elderly
- *communal housing* for households that want to share some (open space/ laundry/ cooking) or all of their facilities
- *medium density* to allow more people to live close to public facilities, public transport nodes and amenities
- *high density/mixed use* in central business districts

The activities in centres that may be currently dominated by shopping can be broadened to include a wide range of services over longer hours including public facilities (such as libraries), healthcare facilities, service-based commercial activity (repairs, sales, administration) and small business. Innovative development supports the town centre as a hub or node of activity and restricts out-of-centre development. Housing is intensified in and surrounding the town centre to provide greater patronage of existing and new facilities/retail.

Ground floor retail with housing above may be provided in town centres to create an active street edge and different living environments. Residents in apartments over shops have the advantage of the close proximity to services and retail and may enjoy living in the hustle and bustle of the city. Retail and commercial businesses thrive on the increased business opportunities of having such close proximity to customers. Often residents living in apartments in mixed use town centres make greater use of cafes and restaurants for entertaining (partly to compensate for smaller private living spaces), increasing the patronage of local businesses.

Figure A and B demonstrate developments in Nelson where retail has been provided on the ground floor, providing an active street edge and apartments are located above this, giving a different housing option from the standard suburban house.

The key challenges and opportunities to intensification in the Nelson and Richmond context are described below. These challenges relate to not only the achievement of intensification but the achievement of quality in the resultant environment.

These have been identified through a process of discussion with other local authorities, a workshop with developers and other agencies, and local knowledge. The tables below describe the challenges and opportunities and give a commentary regarding implications for feasibility.

Following these tables is a suggested pathway (a series of steps) to enable Council to move towards (successful - ie that it happens and happens well) intensification.

QUALITY OF LIVING ENVIRONMENT

LEADERSHIP

COMMUNITY

LAND AVAILABILITY

URBAN LIMITS

MARKET PERCEPTIONS

LOCAL EXAMPLES

Quality of Living Environment challenges	Comment on options and feasibility.	*Examples*
It is imperative that the quality of the environment is maintained and enhanced by the proposals for more intensive development. Without the buffer of space around a house and the open or planted landscape that a standard suburban lot allows, more compact development requires a more considered design approach to achieve a quality environment. The success lies in public and private space relationships (i.e. more use of public space for amenity –recreation/views/outlook than reliance on private space), good building design (i.e. different architecture than a standard house), possibly with one developer of a block (i.e. different models for housing than the standard). There will be the underlying issue (and opportunity to help pay for it) potentially of infrastructure that is required to be upgraded to enable intensification to occur. A high risk is that just letting or encouraging higher density development without controlling quality through regulations or giving guidance, will create poor quality environments.	An important aspect of Council's role in the environment and quality is through the Resource Management Plans. There are aspects of these rules which affect quality It will be important to identify areas where intensification is appropriate and spatially defined in the RMPlans. This will avoid affecting areas with less capacity to absorb the change (like heritage areas for example) or require more careful management on development in these areas. The current rules in the RMPlans are also problematic for intensification. In general they are aiming to repeat current residential environments and stand alone houses on separate lots. Accordingly rules discourage: joining buildings together, reduced parking, smaller outdoor areas or higher site coverage. The case studies have highlighted some of these rule issues. An audit of the rules is a good pre-cursor to understanding what aspects would need to change to facilitate quality intensification. It may be that these rules need to be 'tweaked' rather than overhauled. Council will need to have a set of criteria to inform what types of environments are appropriate for intensification (Refer to Appendix 2) to ensure that when development proposals for areas that may not be identified initially come up, there is a way to assess them. An option for Council is also to have a higher threshold of rule regime for intensification with a suite of guidance and or (voluntary) design panel assistance to enable Council to decline consent to poor quality and to guide positively the new intensification development. This would be feasible, but will require careful management and explanation as to the benefits to assist acceptance in the development fraternity. An associated issue for Council will be to consider the demands for public space to offset the lesser private space provision. The careful analysis of intensification areas will need to include what new open space might need to be provided if it does not currently exist in sufficient areas or types. The same situation exists for other infrastructure such as wastewater and water supply and perhaps roads in some instances. There is an important linkage to the Corridor Study where transport modelling was based on the achievement of a level of intensification within the existing urban system. Any changes to this strategy of intensification will create greater traffic issues requiring greater public investment in road infrastructure.	*Christchurch New Brighton study sought to understand the density implications/options graphically to enable community understanding and capacity to absorb change as part of consultation.* *Tauranga City has undertaken a comprehensive assessment of the effects of proposed intensification areas.* *Wellington City Council has introduced Plan Changes recently to address character areas and to guide infill quality.* *Queenstown District Council (and other Councils like Auckland City, Manakau and Hamilton) have introduced design panels to provide voluntary (i.e. it is not mandatory to use it) review of projects. This has assisted and is now widely accepted locally as a useful tool to assist in achieving quality results in development.* *Other towns have codes to protect the amenity of existing houses or heritage areas.*

Leadership challenges	Comment on options and feasibility.	*Examples*
There will be a need for leadership from Council to help direct intensification positively. Part of that leadership will be facilitating the whole range of people that can make intensification happen well – developers, designers, regulators, communities. Part of it will be from the top to give support to officer decisions about development and its quality. In order to be able to lead, there needs to be a local understanding of quality urban design and good developments and a desire to make it happen through actively promoting this quality. The Nelson design community will also be interested in the direction Council take with this and could provide an opportunity to support Council directions.	An option for Council is to appoint at a political and officer level a team to lead the intensification direction. This may be the current Working Party? There may be a need for a strand of work that has its own work programme internally. Leadership in terms of getting local examples going is an option. This may be about connecting developers with landowners. It is also important for Council to take leadership in getting all the internal processes in place to not frustrate good intensification – compatible standards and recognition of good operators would help. It is a feasible option for Council to increase urban design knowledge through internal training and signing of urban design protocol. An option for Councils will be to appoint an urban designer/urban planner. This could conceivably be a shared resource between Nelson and Tasman.	*The mayor of Auckland and other politicians (in Wellington for example) have made a stand on urban design as a key aspect of their political leadership.* *There are many (over 100) organization signatories to the protocol now many of which are Councils.* *Urban design training is common in many Councils, and the need to have all officers, politicians and the development/construction industry involved is important for a consistent approach and relationship building. An example of where this has been successful is the Kapiti District Council, Waitakere City Council and Hamilton and Franklin City Councils.*

Existing Community challenges	Comment on options and feasibility.	*Examples*
There will be a change to some existing communities from intensification. As part of the process of determining the locations for intensification, there will need to be consideration of the possible effects on the existing community. These impacts may include increased cars parked on the street or increased demand on local infrastructure and services. There could potentially be some displacement of people living in areas where intensification occurs, if areas gentrify or change significantly. This may be in the form of 'financial crowding out', where rates go up due to rising property values, forcing people with low incomes (eg. Pensioners) but high capital assets (houses) to move to somewhere new where they don't have established support structures. As house prices rise, renters on low incomes could also be forced to move to areas where benefits and amenities may be less accessible (outer suburbs). Speed and size of influx of newcomers to a community may affect the local character and community cohesion of an area. .	At those locations where intensification is to be promoted, it will be important to have Council led consultation with those communities to assist the process of understanding and to enable changes to intensification areas or management. This will not be easy in some places and requires a thorough consultation programme to be prepared and conducted. For the development locations, it is appropriate for Council to consider mechanisms by which the development can benefit the people affected (the existing residents). For example improved amenities (libraries, pools, open spaces) to allow for the increased demand on these services. Some of these aspects will require upgrading as part of intensification. If residents of development areas were able to purchase back new housing in return for putting in land this would be a helpful model for some people that might be otherwise displaced. Council could consider offering credits to developers that take this approach. An appropriate step for Council will be to develop a consultation programme around its proposals for intensification that engages with local professionals and the development community. By engaging the local professionals early on in the process, there are opportunities to work alongside them to enhance the local environment. Charrettes are one means of engaging the community with designers in a collaborative process to generate ideas for an area's development.	*Tauranga City Council conducted a social impact assessment to address potential social impacts likely to result from a policy change to residential intensification in the study areas (The Te Papa Peninsula and Mount Maunganui Peninsula).* *Auckland Regional Council investigated the social implications of housing intensification in the Auckland Region.* *Auckland City Council conducted a social assessment of Newmarket to assess whether the existing infrastructure was prepared for growth.* *Christchurch City Council held a five day charrette 'The Christchurch Central City South Planning charrette' as part of its Central City Revitalisation Project.*

Land availability challenges	Comment on Council options and feasibility.	*Examples*
There will be a range of options needed to provide the housing supply expected in growth projections. Within the existing urban areas, many of the locations that could be suitable for intensification have an existing subdivision pattern of smaller lots. To enable comprehensive redevelopment lots need to be accumulated into areas of sufficient size to encourage medium density development – need for amalgamation. Alternatively there may be larger land holding in the urban areas which could be targeted (such as Council owned parking areas, existing Council housing, or old larger facilities (like Ngawhatu for example) and possibly changing zoning on some land. Given the need to have a flexible approach for intensification within the existing urban area, it will be important to provide for single site intensification. This may mean removal of an existing dwelling and replacement by several new ones or 'infill' where the existing house remains and another (perhaps smaller unit) is added to the site. Greenfield locations have the advantage that the lots may be larger and a more intensive type of development could be advanced at the outset without the need to amalgamate lots or the need to address the site constraints of an existing section. It would also be appropriate that the subdivision layout at lower densities in these new greenfield areas provide the opportunity for intensification in the future by placement of buildings to the side and a connected pattern of street networks.	Key to the feasibility of intensification will be to enable a range of ways to enable it to occur. Comprehensive Intensification Intensification of existing urban areas will be encouraged by a strategy that targets this to particular locations where there is the capacity to absorb the change on this larger scale. It is envisaged that this will take time (and so may have less immediate feasibility) as the opportunities to accumulate sites into an area large enough to develop is a long process. Also the analysis required to ensure that a considered, quality approach to intensification occurs will take time. Direct actions by Council will include District Plan changes to target certain locations (following determination of where is appropriate). It would also be possible for Council to act as an 'accumulator" and purchase sites in preferred development areas for on-selling or joint ventures with others. If Council already owns land in preferred development areas, it would be feasible for them to explore joint venture development with a reliable development company where the risk is with the developer and Council receives part of the benefits in return for the land component. Single site development will best be facilitated by identification of criteria for determining appropriateness (for those outside town centre nodes) and enabling through District Plan changes to signal the locations and the requirements to achieve quality outcomes. Rules such as set backs, reduced on site parking (1 park per unit), on site open space minimums ($35m^2$ is common), overlooking and overshadowing of neighbouring properties, would need to be addressed. A minimum lot size to enable an appropriate form of development is also suggested – the issue of incremental development and addressing side boundaries will determine what size site is required. If buildings are allowed to be built to the boundary then greater efficiencies are possible. This approach for site by site consideration is feasible as it can largely be achieved through existing tools such as the Resource Management Plan and will enable on-going site by site build up of intensification over time. The challenge will be managing the incremental effects on place quality. Greenfield locations require no moves to enable intensification other than the underlying rules in the Resource Management Plan. It is already feasible to have intensification in greenfield such as Richmond South given the compact density rules. It would be an option to strengthen the requirements for enabling future intensification through subdivision design.	*Tauranga City Council have identified intensification areas, but little action has occurred yet.* *Waitekere City has a development company approach which does this and Christchurch is also operating this way.* *Christchurch City has taken this approach with the old markets site.* *Wellington City Council – Promoting quality of Place – a targeted approach to infill housing in Wellington City (May 2007)describes its' strategy for intensification.*

Urban Limits challenges	Comment on options and feasibility.	*Examples*
Continuing to provide for the increased urbanization of rural land at the edge of town (greenfield development) means that there is less incentive or requirement to make better use of the existing urban area by intensification. However, the ability for some greenfield land development needs to be provided to give housing choice.	There will be a decreasing incentive to make more efficient use of the existing urban land if the towns are enabled to grow at the edge. There are also known to be significant effects on the transport network from continuing growth at either end of the existing urban form (the dumbbell of Nelson town centre at one end and Richmond centre at the other). In respect of Council actions, there is already a strategy currently through NUGS and RDS to limit greenfield growth and a tie in to the Transit/NCC/TDC Corridor Study. Nelson City Council has more land constraints than Richmond, yet given their proximity and shared transport network, they need to be consistent in regulations. A combined resource management plan approach (at least perhaps for the combined urban area) is an option. Another option for both Councils is to coordinate development contributions (over time by recognised annual planning processes) to make it more expensive for development at the edge, to recognise increased infrastructure costs of greenfields versus intensification. A regional approach must be considered to ensure that greenfield development doesn't just move to surrounding towns, where it is 'easier' or cheaper for development, with consequent transport implications. Council actions required will be to strengthen and maintain this at a policy level in both Resource Management Plans (the TRMP has some new policy to this extent in respect of Richmond). A regional approach will be needed by the two Councils to address policy and levies consistently. This is feasible for the two Councils through the joint Working Group body. There also needs to be buy-in and leadership by Council to maintain this approach. It is important to ensure that the community is aware of the social and transport implications and infrastructure costs of greenfields versus urban intensification and why Council is supporting intensification.	*The Wellington City policy of maintaining city limits was a feature of District Plan – growth that has occurred is directed to the transport corridors. Tauranga and Kapiti have also taken this approach.* *The three Councils of the Wairarapa have prepared a joint District Plan, to recognise the common issues and to ensure a coordinated planning approach between them.* *This regional approach has been achieved in Christchurch and Tauranga for example where several councils have combined to develop a consistent strategy for growth provision.* *For example: It was the awareness that the urban sprawl could cover twice the present area when the population doubles by 2050 that concentrated Aucklanders' minds to agree on an intensive model.*

Market Perception challenges	Comment on options and feasibility.	*Examples*
The concept of intensification was highlighted and received positive responses from consultation on NUGS and RDS. The concept of housing choice appeared to ring true for people. In Nelson that 'market' needs quantification (i.e. older smaller households, students, young professionals, small families?). There is a perception of Nelson culture of open space/family living/ sun and natural as opposed to what intensification of living may be perceived as – 'high'density/cheek by jowl, crowded, reducing existing amenities and increasing on street car-parking issues and traffic. It will be a challenge to change this perception of medium/high density from a negative to positive perception. There are examples of medium density from the relatively recent past in Nelson (e.g. so called 'sausage' flats) as well as poor recent developments which will have coloured people's perception of what this type of development can achieve.	Council will need to take a lead role in lifting people's perception or understanding of what intensification (i.e. medium density) looks like and the benefits it may offer. This can be through general information as well as design competitions, displays and seminars. The benefits of intensification need to be communicated – what would happen if Nelson/Richmond continued to sprawl out? Explanations of the effects on transport, infrastructure, loss of open space, costs of sprawl vs. intensification. A profile or market analysis of who may wish to live in an intensification area needs to be understood. It would be feasible for Council to undertake this through independent survey. The issue with this feasibility study is that there may be a low level of familiarity with quality medium density projects locally, which may influence the research. However it would still be helpful to do this research, and it will be important for the early stages of the intensification project.	*At New Lynn, Auckland there was concern about creating "slums" – a survey demonstrated that the new residents of the intensive housing had higher average incomes.* *There is some useful comparative analysis in various texts (e.g. costs per km for car travel v other modes – Australia – Kenworthy[1])* *Adelaide City Council- Affordable ESD housing competition and Taupo Design Competition addressed opportunities for redevelopment and used these locally to raise awareness of innovative design.* *Tauranga City Council is actively promoting good urban design to the public through initiatives like 'Inspire Tauranga 2007' - Urban Design Week.* *Many councils publish innovative development case studies on websites as have the Ministry for the Environment.*

[1] Newman and Kenworthy (1999), *Sustainability and cities: overcoming automobile dependence.* Island Press, Washington.

Local Examples challenges	Comment on options and feasibility.	*Examples*
There are few local examples of intensification that represent the quality sought and the range of housing types suggested. The perception (from local estate agents and developers) is that there is limited interest in the market. The exception is perhaps the retirement 'village' market which is representative of the type of higher density sought. There have been some poor examples of higher density construction in the past. It is important for the market to respond well to the new intensification initiative, that it is attractive to people and sells well – this will encourage more medium density developments to follow. Understanding the factors that motivate the purchasers to want to own properties at higher densities will be important to provide leads to the success factors.	The lack of good examples locally is a challenge that will continue to test the feasibility of intensification or at least retard its progress as a housing choice. An option for Council is to leave it to the market to come to its own conclusions about what will work or not. The risk with this is that it could be done poorly (without sufficient ability to guide this through the regulatory arm of Councils or having good examples to compare with). The other risk is that, other than retirement villages, there is no action by the market, because there is no product to show it works, and the issue of accommodating growth becomes more and more extreme and forces the edges of town further out. An option for Council to address the lack of local examples of possible types is to proactively find places where it would work well and then work with an experienced developer/landowner to make it happen. This could be Council as landowner, facilitator or financial partner. The most feasible path is probably Councils as facilitators – site finders and wheel greasers. It would be advantageous for Council to have some financial interest in the development to help maintain control over the quality of the development outcome and to enable it to advocate and demand certain qualities to be achieved for the public good. Landownership rather than direct capital injection is likely to be the more feasible path for Councils. High quality design must be explicit in the development brief or an architectural competition could stimulate local debate and innovative ideas. Another option to stimulate more local examples would be for Council, through the Resource Management Plans, to regulate for higher densities in some greenfield areas. This was tried in Richmond South with little success. Perhaps Richmond West would be an option as this is closer to the town centre. An option to stimulate or encourage local example would be to provide incentives for intensification. This may be through reduced rates or development contribution payment schedules being timed differently. Even a streamlined process for intensification development once developer has a proven track record – case manager approach?	. *City of Port Phillip (Melbourne) – Inkerman Oasis residential development -Council owned site exchanged with developer for building public/private mix of housing. Run as architectural competition. ESD best practice.* *It is common in developments (eg Addison in Auckland, Pegusus in Canterbury and many others) to prescribe more clearly the different areas for different product types within a large greenfield development. This tends to be volunteered by the developer rather than required by Council*

summary pathway to intensification

The summary below describes the proposed three strands for advancement towards intensification and notes the challenges/opportunities headings (from the previous pages) that have been addressed by them. It is proposed that all strands would be pursued in parallel and interlink. Each of the strands is expanded on in the following pages.

stage 1

Intensification feasibility study

- Define intensification
- Identify challenges/ opportunities for intensification
- Analyse how challenges may be addressed by a pathway
- Provide a case study of two places to illustrate how it can be done
- Conclude whether feasible or not

stage 2

stage 3

‘runs on the board’ path

To get some good examples on the ground

Targeted Advance: Proactive steps

- Site opportunity investigation
- Site analysis
- Define brief
- Determine role & process
- **Timing = 3 months - Dec 07**

Implementation: Examples on the Ground

- Establish team
- Manage process
- Celebrate built examples
- **Timing = 2 years - Dec 09**

challenges/opportunities addressed:

- local examples
- land availability

analysis path

To ensure that the locations for intensification are appropriate and quality is managed

Design quality: Analysis & Research

- Urban Area Investigation & Priority Selection
- Typology studies
- Market research
- Effects Assessment Priority Areas
- **Timing = 15 months - Dec 08**

Implementation: Quality control

- Align standards
- Design guidelines
- Resource Management Plan
- **Timing = 15 months - Dec 08**

challenges/opportunities addressed:

- quality of living environment
- existing community
- urban limits
- land availability

leadership path

To ensure that there is local direction and understanding and capacity for good decision making

Leadership: Capacity building

- Training
- Information availability
- Council processes
- Council strategies
- **Timing = 10 months - June 08**

Implementation: Awareness

- Infrastructure upgrades
- Design Panel
- Incentives
- Recognition of excellence
- **Timing = on-going**

challenges/opportunities addressed:

- leadership
- market perception

targeted advance: the proactive steps to establish some good built examples quickly

Site Opportunity Investigation 2

- Scope out a few sites that could be developed soon.
- eg.Council owned land in town centres or greenfield sites where some intensification will fit - latter is most feasible.
- Selection of locations needs to enable expedient advancement and willing owner with empathy for objectives

Site Analysis 2

- Analysis of chosen site to understand opportunities and constraints of site and its context
- Research the market and housing typology to suit specific site and site context
- Work out with owner (if not council) what the key elements and processes are.

Define Brief 2

- Define what quality and product required to be achieved (refer to definition in this report of intensification)
- Includes measurable qualities

Confirm Role+Process 2

- Confirm Council involvement - important for Council to have interest to influence the quality, but need to manage risk
- Decide best way to achieve brief/stimulate ideas and decide on 'fair' process eg. ROI/ Architectural competition?
- Council investment may be in different ways - land/time/cost share in development

implementing built examples as 'best practice' case studies

Celebrate built examples 3

- Celebrate built example widely to prove what is possible
- Conduct tours of development to illustrate features in detail
- Share knowledge about processes
- Repeat if successful in areas identified from analysis path.

Manage process 3

- Provide input to development design- Council as investor, partner, leader or regulator.
- Contractually engage as required

Establish Team 3

- Establish developer team (require designers with track record to suit) accordingly to role/process

design quality - analysis and control path

research and analysis to ensure quality design occurs in the 'right' areas

Urban Area Investigation 2

- Establish criteria as basis for determining where intensification should occur (eg refer Appendix):
- Undertake overall urban area analysis to identify locations suitable for intensification
- Feedback outcomes to other strategies like Nelson to Brightwater Corridor Study - implications re location/ capacity?
- Prioritise locations to proceed with further investigations

Typology Studies 2

- Investigate medium density housing types (typologies)
- Look at the examples that will suit locally
- Decide which typologies are appropriate in different locations

Market Research 2

- Work with local developers and real estate agents to understand the local potential for different housing/lifestyle options in different areas.
- Develop a profile for the person that will be interested and calibrate the locations and housing typologies to suit.

Effects assessment 2

- Investigate the potential effects in priority areas that may be considered appropriate for intensification
- Undertake consultation with the communities of interest
- Feedback to the decisions about priority areas and confirm locations to proceed further.

implementing design quality control

Resource Management Plans 3

- Establish the policy framework
- Make changes to RMP's to confirm priority locations for intensification
- Make changes to RMP's to encourage quality intensification in selected areas - refine and align Comprehensive Housing/ Compact Density provisions from RMP's as basis for selected areas
- Refine RMP's provisions as above for out of area intensification

Design Guidelines 3

- Develop Design guidelines to outline techniques, opportunities, and issues for each form of development.
- May be statutory or non statutory.
- Could cover subdivision, site design, building design, CPTED, and landscaping.

Align Standards 3

- Ensure all Councils' standards (eg. stormwater, road design) are reviewed to understand inconsistencies
- Develop new and adjust existing Design Standards for new developments to encourage a consistent high standard.

design capacity - leadership path

increasing the capacity locally to lead and manage a successful intensification process

2 Training

- Urban Design training of Council staff and construction industry (developers/builders/ surveyors etc.) to raise local understanding and build relationships.
- Appoint an urban design champion within Councils and sign up to NZ Urban Design Protocol
- Initiate local events to raise local awareness about intensification

2 Information Availability

- Provide easily accessible, comprehensive layers of information and resources through a GIS system on the web to supply information about strategic plans, infrastructure, public amenities, geographic and property information to assist developers.

2 Council Processes

- Establish cross disciplinary, integrated management of Council development processes, projects and assessments to ensure a comprehensive and consistent approach.
- 2 Councils to work together for a -sub regional approach

2 Council Strategies

- Develop Council strategies to lead to a consistent and high quality approach to development.
- Review NUGS & RDS as sub-regional and longer range strategy?

implementing leadership: creating awareness

3 Recognition of excellence

- Establish design awards that recognise innovative and high quality examples of intensification.
- Publish innovative case studies on Council websites

3 Incentives

- Develop incentives to encourage innovative intensification eg. fast tracking consent process.
- Lower rates for environmental initiatives that improve environment

3 Design Panel

- Assemble a Design Panel of local architects/planners/ landscape architects to review development proposals on a voluntary basis
- Panel to be used as a resource for developers, not an obstacle to development.
- All Council projects to have urban design review.

3 Infrastructure upgrades

- Plan infrastructure upgrades in areas where intensification is anticipated
- Budget for improved amenities in capital works allocations in areas where intensification is anticipated

case study one: generic site, tahunanui, nelson

SITE CONTEXT

The existing generic site is located adjacent to a large area of open space and beach. It is 5 minutes walk from a range of local facilities: the Tahunanui local shops, a library, local school, church and recreational facilities. It is on a collector road that is a key transport route including a cycle route, and near a bus stop. It is the perfect location for medium to high density housing.

PROPOSED CASE STUDY

The case study plan has the following features:

A RANGE OF HOUSE TYPES

- two storey terraces fronting a suburban street with rear garages.
- Stand alone and joined town houses to suburban street and centre of site.
- three storey apartments along a collector road.

Total = 82 dwellings
(Typical suburban subdivision for the same site = 19 dwellings)

CONNECTIVITY

The site is located in a very long block. The plan proposes new slow 'lanes' to allow greater connectivity across the site.

TRAFFIC CALMING

Landscaping and paving treatments designed to slow traffic and prioritise pedestrians on the site.

MAXIMISING SITE ASSETS

Houses have been sited to maximise northern aspect for winter sun. The three storey apartment on the collector road would look over the top of the two storey town houses and terraces maximising seaviews.

CASE STUDY COMPARISON

In considering the case study relative to the suggested pathways the following points are noted:

In respect of the intensification suitability assessment criteria (the site would score well (refer to the context description) relative to the headings noted in Appendix 2.

Within the Resource Management Plan (NRMP) rules there are currently constraints. Although the Comprehensive Housing provisions could apply (as discretionary) this discretion does not extend to site coverage or minimum site areas both of which would be contravened by the case study shown. Appendix 22 as it applies to Comprehensive Housing would also be difficult to satisfy in some respects such as off site amenity as it relates to existing streetscapes which would be fundamentally altered. This extends also to the assessment criteria (such as cumulative effects that fundamentally alter the character and amenity of the zone...REr22.4) which would be difficult to satisfy in this case.

There are however, some appropriate provisions in the Appendix 22 NRMP which would be useful and relevant for any new provisions to utilise and adapt as part of a new set of provisions to address intensification. These would be significantly assisted by knowing where in the urban area intensification is most appropriate to locate.

In respect of the standard residential rules there would be non-compliances with :

- Site coverage
- Minimum lot size
- Set backs from boundaries
- Height
- Car parking provision

SECTION A

SECTION B

Two storey terraces fronting street

Landscaping enhances the outdoor spaces and pedestrians are given priority on the site

Garages of the terraced housing front a rear laneway

PROPOSED CASE STUDY

This case study plan demonstrates how an existing suburban block could be intensified over time.

The plan has the following features:

A RANGE OF DEVELOPMENT TYPES

SINGLE SITE DEVELOPMENTS

- SITE A demonstrates a single site where the existing house has been removed and replaced with two townhouses.
- SITE B demonstrates a single site where an infill house has been placed at the front of the existing house.

COMPREHENSIVE REDEVELOPMENT

- SITE C demonstrates a comprehensive development of 3 detached suburban house sites to provide 6 new townhouses and a pocket park.
- SITE D demonstrates a comprehensive redevelopment of 2 detached suburban house sites and 1 vacant site to provide 5 townhouses.

MIXED USE

- SITE E demonstates first floor apartments over existing shops offering another housing choice.

IMPROVED PUBLIC AMENITIES AND SPACES AS PART OF INTENSIFICATION

A new pocket park has been provided as part of the comprehensive redevelopment of three lots, providing an amenity that can be shared by the broader community. Providing apartments over ground floor shops gives added security after hours to these premises and another form of housing.

generic block: existing

generic block: proposed

LEGEND
previously existing site boundaries
existing houses retained

CASE STUDY COMPARISON

In considering the case study relative to the suggested pathways the following points are noted:

The need for leadership and increasing awareness locally about the benefits of intensification will be important as the existing community will be affected. The need for the identification of appropriate locations for intensification will be important to take this from generic to a suitable model to apply to an actual location

The model does show some traits of a suitable location for intensification (refer to Appendix 2) including location relative to shops, ability to create open space, location on a collector road with easy access to public transport.

Within the Resource Management Plan (TRMP) rules there are currently constraints. Although the Comprehensive Residential Development provisions could apply (as restricted discretionary) this discretion is limited in its extent (ie it allows only up to 40% coverage and has minimum net areas). The assessment criteria (such as the extent to which the scale, design and appearance ....) will be compatible with the locality would be difficult to satisfy in this case.

There are however, some appropriate provisions in the Richmond South Development Area which would be useful and relevant to utilise and adapt for any new provisions for addressing intensification. These would be significantly assisted by knowing where in the urban area intensification is most appropriate to locate.

In respect of the standard residential rules there would be non-compliances with

- Maximum building coverage
- Minimum lot size
- Building Envelope – Daylight Over and Around
- Height

Townhouses showing a strong relationship with the streetscape.

Townhouses fronting the pocket park creating a safe and attractive recreation area.

The pathways proposed in this report address the challenges and opportunities (described on pages 14-20) that will be required to be met in order for intensification to be feasible. There remain some outstanding matters that are not able to be entirely addressed by the pathways work and fall to other Council or agency initiatives to follow through on. These other matters are set out below:

HOUSING AFFORDABILITY

The intensification study has identified affordability as an aspect of 'accessibility' and 'diversity'. As a function of providing housing choice by intensification, there are opportunities to improve affordability (due to more efficient land use). However, the matter of affordability is a complex one and the combinations of demand, construction cost, land cost relative to desirable locations such as centres, transport costs from cheaper land to job locations, and the continued maintenance of some level of affordability over time are just some of the issues to be addressed. The workshop for the project raised an example (Queenstown) where a trust had been established to maintain a percentage of new housing as affordable and the current Nelson Housing Trust may be a vehicle for considering an expansion of this model in the area.

COORDINATION

The prospect of intensification in the existing urban area will have many linkages to other Council and agency interests. This cannot be seen as project that is divorced from these other initiatives. For example, the decisions about asset investment (libraries, pools, roads, pipes) will need to be recalibrated once the project's next stage establishes locations where it is appropriate to intensify. Opportunities may exist in some areas to for urban renewal or infrastructure upgrades in conjunction with intensification. It is important that there are opportunities to cross reference between the various council initiatives and the intensification work into the future.

TRANSPORT

It is noted in the challenges and opportunities section that there is a strong linkage between the distribution of households and the transport system. The current Nelson to Brightwater Corridor Study assumes intensification at nodes along the highway and Main Road Stoke. If there is a different distribution and/or changes to the measure of intensification at each node used for the model, there will be a need to recalibrate the model accordingly (requiring a greater amount of road infrastructure to carry the extra traffic).

In conclusion it will be feasible in Nelson and Richmond to widen the choice in housing type by a process of intensification resulting in a larger number of medium and high density housing options. The beginning of this report (pages 4-5) describes the medium and high density housing types that could be appropriate for the Nelson Richmond area.

The challenges and opportunities to enabling intensification to occur in a positive way are multifaceted and a deliberate and supported strategy will need to be prioritised as sufficiently important to attract resources (time mostly) to achieve. However, there are excellent reasons to pursue intensification and to seek to overcome the challenges and reap the opportunities including:

- efficient use of land, reducing need to sprawl onto productive farmland and open landscape
- efficiencies in transport within the urban area
- increasing viability for public transport
- increasing range of housing choices
- increasing the potential for more affordability

The feasibility of intensification being a successful strategy of both Councils will be in:

(a) Having good leadership to ensure that from the very top of the organisations of Council, there is a will and ability to succeed.
(b) That there are good examples for people to see and that they are economically successful to help advocate for and compare to new development proposals.
(c) That there is a thorough analysis of the existing urban area to understand the most appropriate places for intensification to occur and to ensure that the impact of this intensification on the existing community can be carefully managed.

list of appendices

Appendix 1: List of relevant government policies and research

HEALTH IMPACT ASSESSMENTS/ SOCIAL IMPACT ASSESSMENTS

Greater Christchurch Urban Development Strategy 2006. Health Impact Assessment: Greater Christchurch Urban Development Strategy Options 2006: http://www.greaterchristchurch.org.nz/ RelatedInfo/HIARepot.pdf (1.54 MB).The aim of this HIA was to identify the potential impacts on health and wellbeing of two growth models for Greater Christchurch. There was a particular focus on air and water quality, social connectedness, housing and transport. A separate workstream focused on developing an engagement process with local Maori around the urban development strategy.

Manukau City Council and Auckland Regional Public Health Service 2006. Mangere Growth Centre Plan Health Impact Assessment: http://www.quigleyandwatts.co.nz/ Mangere%20HIA%20- %20FINAL.pdf (876 KB). The aim of this HIA was to highlight aspects of urban design that might contribute to a reduction of obesity levels in the Manukau district. There was a particular focus on the link between urban design, physical activity and nutrition, along with five other determinants of health.

Tauranga City Council 2005. Smart Living Places Social Impact Assessment Report. Discusses the potential social impacts of intensification change.

Vallance, Perkins and Moore, 2002. The Effects of Infill Housing on Neighbours in Christchurch. Christchurch: Lincoln University.

Dixon and Dupuis, 2003. Urban Intensification in Auckland, New Zealand: A challenge for New Urbanism, Housing Studies Vol 18 No.3; pp 361 - 376. Discusses the quality of the built environment of the large-scale development at Ambrico Place in New Lynn.

Dixon and Dupuis, 2003. 'Gatedness' and Governance: Residential Intensification in Auckland, New Zealand, paper presented at the Gated Communities conference, University of Glasgow, 2003. Discusses the inadequacy of the Unit Titles Act (1972) and the effects-based planning system, where many medium housing developments do not require public notification to control the quality of intensification in Auckland.

Campion,A. 2203. A social assessment of Newmarket: an analysis of the existing social, recreational, educational and health infrastructure in Newmarket and how it is prepared for growth. Auckland, NZ. http: //www.aucklandcity.govt.nz/council/documents/newmarket/default.asp

Auckland Regional Council 2005. Social Implications of housing intensification in the Auckland Region: analysis and review of media reports, surveys and literature. Auckland, NZ. http://www.arc. govt.nz/auckland-region/growth/reference-section/growth-forum-publications/housing-reports.cfm

URBAN DESIGN STRATEGIES

Wellington City Council. Urban Design Strategy: http://www.wellington.govt.nz/plans/ policies/urbandesign. Developed in 1994 in A3 format with illustrations, this word-based document sets out a 2020 vision for Wellington.

Auckland City Council. Urban Design Strategy: http://www.aucklandcity.govt.nz/ council/documents/urbandesignstrategy/background.asp. Has been developed on the council's principles for the city's future, articulated in the 2003 growth strategy: http://www.aucklandcity.govt.nz/council/documents/growth strategy/default.asp. The purpose is to work towards the Council's goal to "enhance the quality of the built environment with forward-looking urban design" (from Auckland City's July 2002 strategic plan, Focus on the Future: http://www.aucklandcity.govt.nz/council/ documents/ focus/2003/default.asp).

Greater Christchurch Urban Development Strategy 2006. http://www.greaterchristchurch.org.nz/ This strategy focuses on achieving quality outcomes and taking a sustainable development approach to managing growth in the greater Christchurch area.

Hastings District Council 2005. Hastings Urban Design Strategy Study: http://www.hastingsdc.govt.nz/policiesandplans/huds/. Aimed at identifying urban development options and areas in the Hastings district to satisfy demand for new housing for the next 25 years.

Tauranga City Council 2006. Urban Design Strategy for Tauranga: http://content.tauranga.govt.nz/oldadmin/stories/102180/files/UrbanDesignStrategy.pdf (11 MB). A three-year plan aimed at promoting and enhancing high-quality urban design in Tauranga City. This strategy focuses on the involvement of stakeholders, developers and the community, and the elements of the physical environment that influence the quality of design.

list of relevant government policies and research

DESIGN GUIDELINES

Housing New Zealand Corporation. Housing at Higher Densities Design Guide. http://www.hnzc.co.nz/hnzc/dms/211FBC2BBE90A9A6A9D3BA8E790F1A51.pdf

North Shore City Council. Good Solutions Guide for Medium Density Housing. http://www.northshorecity.govt.nz/PDFs/Urban-design/Good-solutions-guide-medium-density-housing.pdf

Papakura District Council. Papakura District Plan- Section 3, Urban Papakura Part 16: Takanini Structure Plan Area. http://www.pdc.govt.nz/Documents/DistrictPlan/November%202006/PDC%20District%20Plan%20Section%20Three%20Part%2016%20Takanini.pdf

Rodney District Council. Rodney District Plan Design Guidelines. www.rodney.govt.nz/council/DistrictPlan/Variations/variation52/7_DesignGuideline.pdf

Waitakere District Council. Design Elements for Medium Density Housing. http://www.waitakere.govt.nz/AbtCit/ec/bldsus/pdf/ddg_SecB.pdf

Auckland City Council. Residential Design Guide for Developments in Residential Zones in Strategic Growth Management Areas 2001. http://www.aucklandcity.govt.nz/council/documents/design/docs/guidelines.pdf

Kapiti Coast District Council. Kapiti Coast Medium Density Housing Guide. http://www.kapiticoast.govt.nz/NR/rdonlyres/A0D70DC3-9A08-4820-B61E-F45B662DCA63/44637/KapitiCoastMediumDensityHousingBestPracticeGuide.pdf

HOUSING STRATEGIES

Housing New Zealand Corportation 2005. Building the Future: The New Zealand Housing Strategy. http://www.hnzc.co.nz/hnzc/web/research-&-policy/policy-&-strategy/new-zealand-housing-strategy/new-zealand-housing-strategy_home.htm. Discusses issues around housing supply, affordability, quality, home ownership/private rental sector. meeting diverse needs, within the context of the current New Zealand context.

Housing New Zealand Corportation 2005. Best Practice in Medium Density Housing Design. http://www.hnzc.co.nz/utils/downloads/172176FAF8F02E37F07072E797D13851.pdf Examines medium density housing as a typology to determine best practice in design for an affordable model for New Zealand condtitions, including a number of case studies from Auckland. Concludes that NZ medium density housing is highly varied, wide-ranging in quality and evolving in within a relatively deregulated environment.

Housing New Zealand Corportation. Housing at Higher Densities Design Guide. http://www.hnzc.co.nz/hnzc/dms/211FBC2BBE90A9A6A9D3BA8E790F1A51.pdf

DEMONSTRATION PROJECTS/ CASE STUDIES

EcoWater Demonstration Projects, Waitakere City: http://www.waitakere.govt.nz/AbtCnl/ pp/cussapreports/demproj_sum.asp. Describes eight demonstration projects within Waitakere City that represent best practice management solutions for a range of urban stormwater issues.

Ministry for the Environment 2005. Urban Design Case Studies: New Zealand Urban Design Protocol: http://www.mfe.govt.nz/issues/urban/design-protocol/case-studies.html. Showcases 16 great examples of urban design and development from across New Zealand. The Urban Design Case Studies demonstrate what can be achieved by good urban design.

Auckland Regional Council website. http://www.arc.govt.nz/auckland-region/growth/reference-section/growth-forum-publications/urban-design-case-studies.cfm

DEVELOPER SURVEY

Regional Growth Forum 2006. Developer Survey: Intensification in Auckland. Produced as input into the review of the Regional Growth Strategy. A summary of the responses to a developer survey that highlighting perceived constraints to intensification and incentives for intensification. Comparisons were also provided with the 1997 Developer Survey.

URBAN SUSTAINABILITY

Ghosh and Vale, Built Environments, Landcare Research, Auckland, NZ. Is Policy leading to improved sustainability at the local urban scale? Discusses whether urban growth strategies and environmental policies at national and regional levels are influencing urban transformations at the local scale. By studying 3 NZ and 1 international case study, conclusions were drawn that policies influence the particular form of local developments which generate significantly different contributions to environmental sustainability. The local policies of the Waitakere City Council encouraged the most sustainable outcomes in the Auckland region.

Waitakere City Council. The Sustainable Home Guidelines. http://www.waitakere.govt.nz/AbtCit/ec/bldsus/shsummary.asp An iniative by the Council to encourage quality sustainable design outcomes from new developments.

Appendix 2: Criteria for areas of change

Areas where intensification may be appropriate:

- within 10 minutes walking distance of town centre/local retail centre
- within walking distance of primary school or another community anchor, community facilities
- adjacent to or close by an existing public open space
- on a network of existing or potential passenger transport
- located on or near arterial or collector road
- within an area where infrastructure is sufficient or readily upgradeable
- within an area showing signs of change - such as older housing, periphery of retail centre
- within an area where intensification may assist in remedying existing poor condition - such as air emission, traffic impacts

Areas where intensification may not be appropriate:

- significant character or heritage qualities that limit the capacity for future growth
- environmental qualities that would be compromised by increased urbanisation
- limited access to transport, which is difficult to improve
- limited opportunities to create more community facilities, open spaces or services to meet increased demand
- difficult to provide or upgrade drainage infrastructure
- unstable or flood-prone land

These criteria can be expanded and then used to undertake a review of the urban areas of Nelson and Richmond to identify priority areas for intensification.