

TOWARDS A GROUNDED THEORY OF
URBAN ATTACHED HOUSING DESIGN FOR FAMILIES:
Balancing Lifestyle Perceptions with Sanctuary Needs

by

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Abstract

As Canada becomes an increasingly urban nation, a growing number of people have begun to express concern over the social and environmental costs of suburban development. Despite these concerns, detached suburban housing remains the preferred form for most families. This research uses a qualitative approach to develop an improved understanding of the housing needs of second generation+ Canadian families with pre-school aged children. A home provides sanctuary, lifestyle opportunities, and is an important financial investment for young families today.

This understanding of the needs behind family housing preferences made it possible to propose an emergent grounded theory of attached housing design. While it is essential to satisfy a family's sanctuary needs, it the rich public realm of a good urban environment that compensates for the loss of private space and would attract more young Canadian families to urban living. The three core findings of this research are:

- families with an urban lifestyle vision are the most likely to perceive urban attached housing as an appealing alternative;
- family housing should be concentrated on quiet streets close to vibrant community and retail amenities to enable this lifestyle;
- satisfying a family's need for sanctuary through the provision of sufficient and appropriately laid-out interior space is key to increasing the appeal of attached housing alternatives.

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1.0 Introduction

As North America continues to urbanize, a growing number of academics as well as everyday citizens have started to express their concerns over the nature of our urban growth. The compact cities of the pre-industrial revolution have been replaced by low-density bedroom communities, strip-malls, and office/industrial “parks”. A pre-Sept 11th Pew Center poll indicated that this low density “sprawl” was the leading concern in the United States over more familiar issues such as education, crime, and employment (Chen, 2000).¹

Critics claim that the location and layout of these suburban neighbourhoods necessitates excessive automobile usage. They argue that this results in traffic congestion, air quality problems, storm water runoff contamination, and perhaps most significantly, global warming (GVRD, 1999) (Alexander, 2001) (Gillham, 2002). Others assert that these neighbourhoods are socially destructive, depriving their residents of distinctive places and isolating them from each other and the concerns of the greater community (Duany, 2000) (Kuntsler, 1996) (Engwicht, 1999) (Freeman 2001). In his book *Bowling Alone*, Robert Putnam documents the decline of civic engagement by citing statistics that indicate decreasing voter turnout, a decline in participation in community organizations, and less involvement in community events. He attributes these changes to a number of factors, significant amongst them is suburban sprawl (Putnam, 2000).

Despite the widespread nature of these concerns, there is an enormous amount of controversy over this issue and the common solutions proposed. At the heart of the debate is a paradox that can be summarized by a common lament of professionals working in this field, “The only thing people hate more than sprawl is density.” Detached, single-family homes are the preferred form of housing in North America. While no one “likes” traffic congestion and air pollution, the suburbs *appear* to offer the best living environment, especially for families with children.² The houses are affordable, spacious and private; the yards and parks are green; the air is clean; the streets are safe; the schools are good; and the neighbours are friendly.

It is a contemporary case of the Tragedy of the Commons. In Hardin’s parable, the village public land for grazing of livestock is devastated by overuse (Hardin, 1968). Each individual acts rationally in his self-interest by grazing as many animals as he can but the land cannot sustain this practice and eventually the “commons” are destroyed, becoming useless to everyone. In this case, the places we love to call home may not be sustainable.

Despite the popularity of detached suburban housing, my personal experience led me to question the universality of this preference and reasons for it. While I happily grew up in a typical suburban neighbourhood in a small Western Canadian city, my adult experience drew me to urban living. I grew to love cities too. When my wife and I decided to have children, we did not want to surrender our urban lifestyle and the conveniences it offered. We sought an affordable home suitable for raising a family that was located within a diverse and supportive community. In addition, we wanted to be able

¹ While much of the literature and statistics quoted in this research are American, the focus is on Canadian cities. This American bias in the resource material results from the size of our neighbour to the south and the fact that sprawl is more pronounced in American cities. Some of the differences and the reasons for them will be mentioned in the pages that follow. Never the less, Canadian cities are experiencing similar problems and reactions to urban growth.

² Current housing preference research indicates detached housing and consequently the suburbs dominate family housing choice more so than for any other main demographic group. Colin Ward refers to the suburbs as the “nursery of the city” and many people associate suburban living with children, “soccer mom’s”, etc (Ward, 1990). As an interesting note, the other predominant suburban icon that was identified in this research was the barbeque.

to walk for groceries, coffee, or see a movie. We failed to locate any acceptable homes in Vancouver despite the compromises we were willing to make. In the end, we pooled our resources with a number of other families and households in a similar predicament to form a development company and eventually build our own urban townhouse/apartment condominium complex.

I recognize that this approach would likely be too arduous and financially risky for many families to repeat but sharing it is relevant to this research. It acknowledges my personal biases and establishes the background for an important assumption on which this research rests. *This assumption is that the creation of suitable urban housing alternatives would help to slow urban sprawl by attracting more families to live in the city.*

This research is an effort to begin to understand the underlying needs behind family housing preferences. This understanding is used to propose a qualitatively grounded theory of urban, attached housing design that would be affordable and appealing to middle class families today. It does not claim to be proof of anything; it is a step towards understanding.

This dissertation begins with a review of the literature on family housing preferences and the forces that influence them. It then moves to explain why a grounded theory approach was selected to address the research questions and how this methodology was applied to guide sampling, interviews, and data analysis. Next it presents the theory of design that began to emerge from the interview data and its analysis. This theory describes the role of perception in our preferences and looks at these preferences in terms of lifestyle visions and sanctuary needs. The conclusions describe the characteristics of families that might be attracted to urban attached housing, neighbourhood characteristics that created urban lifestyle opportunities that may appeal to families, and important design elements of private homes to satisfy a family's need for sanctuary. The recommendations primarily indicate that this research is only a beginning and suggest areas where future research might be productive.

One last introductory point is to clarify my intended meaning of some commonly used words in this dissertation:

"Family" is used exclusively to refer to households with dependant children. This is done for simplicity and is not intended to infer that other family structures are any less desirable or recognized.

"Urban" refers to any neighbourhood, regardless of whether it is located in the central city or a surrounding municipality, that has a density sufficient to effectively support public transit and contains a mix of uses within walking distance. To stress the point that these places can occur in regional town centres, they are occasionally referred to as "mixed neighbourhoods", where "mixed" infers both a mix of land uses as well as a socio-economic diversity of residents.

2.0 Literature Review

This effort to understand how to make urban attached housing more appealing to families began with a review of Canadian housing preference research. The findings of this research suggested a number of additional areas relevant to family housing choice that guided additional reading:

1. What kind of housing and neighbourhoods do Canadian families want and why?
2. What forces have historically influenced housing choice?
3. What are the contemporary forces at work that would support or challenge the assumption that there is an unsatisfied family market for attached urban housing?
4. What has the research that directly tests this assumption determined to date?
5. Does the literature provide any insight into what an appealing urban attached housing option for families would look like?
6. Is there a theoretical framework that would be useful in understanding the implications of family housing preferences on the design of attached urban housing?

This literature review has been structured around these six questions and not around the individual studies that inform them. This format presents all of the literature relevant to each topic in one location to clarify where there is agreement and contradiction within the existing research. Most of the significant studies that inform this thesis address more than one of these questions. As a result, many studies are referenced numerous times leading to the impression that the researcher is “jumping around” from study to study. Jumping from study to study was deemed less confusing than jumping from topic to topic.

Locating current literature on the housing preferences of Canadian families with children proved to be a challenging exercise. Consultations with the UBC librarian who specialized in this area revealed that housing preference research has not received significant academic attention (supposedly due to funding) since the early 1980's. While the literature on Canadian housing preferences formed an important foundation for this literature review, a number of significant studies and books from American sources were also used to provide additional insights. An understanding of the differences between Canadian and American cities, summarized in Section 2.2: Historical Forces of Change, ensured that these American sources were used in an appropriate context.

In the interests of brevity, the extensive literature on utopian theories and movements such as the Garden City Movement (Howard, 1965) and the New Town Movement (Bloom, 2001) are not discussed. Similarly, while the contemporary debate regarding the relevance, purpose, and means of the Smart Growth (Gillham, 2002) and New Urbanism movements (Duany, 2000) inform the context of housing choice today, the literature on these issues has only been included where it directly relates to housing preference.

2.1 Current Family Housing Preferences

The Canadian Mortgage and Housing Corporation's study *Housing the New Family: Reinventing Housing for Families* specifically explored the housing and neighbourhood preferences of Canadian families with children (Johnson, 1995). In this study, 450 family households in the three major metropolitan regions of Canada were surveyed regarding their housing preferences and potential reactions to higher density living. Of the 152 participants representing the Vancouver metropolitan

region, a large majority (89%) *ideally* preferred a detached house.³ The attributes that were most widely regarded as “extremely important” to families included:

1. a safe dwelling unit
2. a safe neighbourhood
3. privacy
4. sufficient indoor space
5. outdoor space

A related study on consumer receptivity to sustainable community design conducted in a Calgary suburb indicated that suburbanites prefer to be close to a good school; to live in an upscale, well maintained neighbourhood; to have a safe community; and to be close to parks and amenities (Perks, 1996). The results from this study were not broken down demographically but it is assumed that they generally reflect family housing preferences.

The Greater Vancouver Regional District's *Report on Telephone Survey of GVRD Residents on Attitudes Towards Ground-Oriented, Medium-Density Housing* focused specifically on housing preferences in the Vancouver region (Boutilier, 1996). This telephone survey involving 606 residents of the GVRD used multivariate analysis of the preference responses to determine the trade-offs people would be willing to make in their housing decision. In general, the most important factors driving residential choice in this research were “privacy/control” concerns attributed to a fear of undesirable “intrusions” by neighbours. People were afraid of the “loss of control over one’s personal life entailed in ... strata association situations.” Overall, freehold ownership was the most desirable housing characteristic.

These generalized, aggregate results are limited in their usefulness in describing the preferences of specific groups. This GVRD study did not present the responses of families with children separately but instead “clustered” all the participants into groups displaying a high degree of consistency in their housing preferences. Family respondents were predominantly, but not entirely, grouped in the “Families and Schools: Suburban” cluster. The factors that dominated the housing preferences of this cluster included:

1. privacy
2. non-strata
3. active community life
4. schools
5. private garage

Details of the housing preferences of the various participant “clusters” are presented in Appendix I.

These three current Canadian studies confirm that detached suburban housing is the preferred form of housing for families with children today. They also suggest a number of related housing characteristics that are important to families. While there is general consistency in their findings, some important housing characteristics were not universally reported, suggesting that the questions and methods used in each survey may have influenced the results.

³ It is interesting to note that the Vancouver area respondents had the strongest preference for detached housing: the weighted national average was 80% and Montreal had the weakest preference at only 71%.

2.2 Historical Forces of Change

In Oliver Gillham's current and comprehensive *The Limitless City: A Primer on the Urban Sprawl Debate* (Gillham, 2002) he provides a good overview of the historical forces that have shaped our cities and consequently our housing choices. He begins by explaining that prior to the industrial revolution, the majority of people lived in rural areas and were employed in agricultural production. Cities were necessarily compact and contained a mix of uses within walking distances. Housing choice within the city was constrained by personal mobility and employment locations.

Gillham explains that rapid urbanization began during the industrial revolution. With the economic shift away from agriculture, rural people moved to the cities in pursuit of work in the factories. By 1920, there were more people living in the cities than on farms. Housing was built quickly, with little concern for quality, to accommodate this rapid population growth. In addition, the urban environment became polluted by industrial waste. As a result of these two factors, living conditions in cities were crowded, noisy and did not provide inhabitants adequate access to light or fresh air.

In addition to these problems, industrialization also created new housing opportunities resulting from advances in transportation technology (and infrastructure). Gillham describes how railway suburbs enabled the wealthy to escape the city to live in elaborate mansions in a "park like setting" establishing suburban living as an indication of economic success. Soon afterwards, streetcar suburbs began to cluster within walking distance of newly installed streetcar lines. He stresses that these middle class communities remained dense by today's standards with small lots and a large number of two and three family homes.

While Henry Ford introduced the mass produced automobile just before the First World War, Gillham explains that it wasn't until after the Depression and the Second World War that the car began to significantly alter the shape of our cities. The freedom of personal mobility offered by a car established detached housing within an automobile suburb as the predominant form of urban growth. Other significant changes that supported this evolution included:

- the separation of incompatible uses through zoning
- innovations in housing production techniques/technology
- the influx of large numbers of veterans returning to begin families
- roadway improvements, most notably the construction of the US Interstate system
- changes to mortgage lending practices in the U.S. and Canada that favoured detached housing and suburban neighbourhoods over attached housing and urban neighbourhoods (Baxter, 1984)
- failed efforts at urban renewal

While there were many contributing factors, urban land economists argue that the movement of the middle class to the suburbs was an inevitable evolution in housing preference resulting from the advent of the automobile, an increasingly affluent middle class, and the availability of cheap land (Helsley, 2000).

In Gillham's historical summary, retailers followed their middle class customers out of the urban core. As the economy shifted to a service and information economy, the advantages of remaining in the central city were outweighed for many employers by the affordable land and office space, access to the

new freeways, and the relatively low tax rates offered in the suburbs. He concludes by observing that with these changes, our compact cities evolved into polycentric, largely low-density metropolitan regions consisting of large areas of segregated land uses.

One final point regarding the historical forces that have influenced housing preferences is the difference between Canadian and American cities. American cities have considerably more sprawl than their Canadian counterparts due to racial conflict and differences in school and transportation funding,

James Kuntsler describes the American context in his book *Home From Nowhere*. With the advent of mechanized cotton picking, racial conflicts began to play a significant role in American housing choice as African Americans moved to the major urban centres in the northern U.S. to seek work. As middle class Caucasians moved to the suburbs to avoid these conflicts, public school funding decreased in urban municipalities. The resultant decline in quality educational opportunities contributed to additional “white flight from urban blight” (Kunstler, 1996).

The other significant difference was the construction of the American Interstate highway system, arguably the largest public works project in the history of the world. The decision to extend the freeways into urban centers has had a significant impact on mobility and consequently sprawl (Gillham, 2002). Road infrastructure continues to receive considerably more spending in the U.S. as tax on gasoline is specifically earmarked for this purpose as opposed to being allocated to general revenue as it is in Canada.

In summary, detached suburban homes evolved as the preferred housing form in response to unsatisfactory urban living conditions, innovations in transportation, the availability of affordable land, and the demographic predominance of two parent, single income families with multiple children. In plain language, the advent of the automobile has enabled middle class families to leave the city for the suburbs where they can own their own home in an appealing residential neighbourhood.

2.3 Contemporary Forces of Change

The preceding review of the suburban evolution indicates that housing preferences are not static. They evolve along with social, economic, and technological conditions. The literature suggests a number of contemporary contextual changes that *may* increase the desirability of well designed attached housing for families with children. Laura Johnson summarized these forces in the executive summary of her CMHC research into family housing (Johnson, 1995):

The Canadian family is undergoing significant socio-demographic change, and these changes have implications for family housing needs. In recent decades, the family has been marked by changes in structure and role definition. The so-called traditional family – breadwinner father, homemaker mother and their children – now accounts for only a minority of Canadian families. The dual-earner family has become the norm. The proportion of single parent, mostly mother led families, is rising. Today’s families are under increasing stress as they juggle work and family demands. The built environment is one untapped source of support for today’s over-extended families.

Delores Hayden has written considerably about the changes in family structure that have occurred since the suburban pattern of development was established. In her book *Redesigning the American Dream: The Future of Housing, Work, and Family Life* she references research that indicates that unpaid “nurturing work” typically requires sixty hours per week for a family of four (Hayden, 1984).

The CMHC study into housing preferences determined that housework and a lack of time (for a variety of desirable activities) were the leading sources of pressure on today's Canadian families. Housing features that reduce time demands such as easy access to amenities (work, transit, and retail) and not needing to drive children around were identified as being "extremely important" by one third or more of the respondents (Johnson, 1995). Similarly, in the GVRD study the predominant complaint amongst dissatisfied residents currently occupying detached houses was the commute (exceeding one hour). For the participants who preferred attached housing, reduced maintenance was the most significant factor (Boutillier, 1996).⁴

As has been indicated, *increasing commute times and traffic congestion* contribute significantly to these pressures.⁵ As our cities continue to expand, affordable detached family housing becomes further and further from the Central Business District. Correspondingly, commute times to this major employment centre increase. Despite the fact that considerable employment growth is occurring in the suburbs (Mieszkowski, 1993), overall traffic congestion and driving times are increasing (DOT, 1999). Even in our contemporary, multi-nucleated metropolitan regions, a low-density segregated land-use pattern requires increased automobile usage when compared against a more compact and integrated form of growth (Newman, 1989).

The increased time pressures resulting from the shift to dual income families and longer commutes are not the only contemporary forces that may affect housing preferences. Two other factors might be that people are waiting longer before starting a family and they are having fewer children. If "homebuyers are often purchasing lifestyles" as suggested by the Urban Development Institute (Urban Development Institute, 1993, p36), the fact that urban residents have more time to become accustomed to an urban lifestyle before the arrival of children may increase the appeal of urban housing options. In addition, smaller families may be more willing to accept the reduced private living space associated with an attached urban housing option.

A final factor that may influence family housing preferences is the growing desire for "*community*". It has been suggested that our contemporary fast paced lifestyles and the growing number of technology and information oriented careers are creating an increased desire for contact. In the CMHC study, one third of the respondents indicated that a strong neighbourhood feel was "extremely important". One of the most frequently cited benefits of attached, urban housing was increased community for children (Johnson, 1995).

One of the central criticisms of suburban sprawl is that it destroys community by reducing face-to-face encounters. Sprawl critics assert that while most people leave their home for a specific destination it is

⁴ Note that these results were not sorted according to household type and therefore may not be reflective of families in specific.

⁵ While no research was located indicating that global warming and other negative environmental impacts of the automobile have any significant impact on housing preferences, this issue does support the relevance of this research. The UN Intergovernmental Panel on Climate Change has determined that anthropogenic greenhouse gas emissions largely resultant from the burning of fossil fuels are affecting the global climate. They warn that this is the most serious environmental problem facing mankind and will have severe consequences for human and ecosystem health unless these emissions can be reduced substantially (IPCC, 2001). Personal motor vehicles and other transportation related sources account for 49% of all anthropogenic greenhouse gas emissions in the Lower Fraser Valley of British Columbia (GVRD, 1999). In addition, the use of automobiles directly affects air quality and human health. While there is contradictory research on the potential for increased densities and mixed uses to significantly alter the number of trips or vehicle miles traveled (Bae, 2000) (O'Toole, 2001) (Swartz, 2002) (Gillham, 2002) (Southworth, 1997) etc., changes of this nature would at least make increased transit and walking possible.

the countless unplanned encounters that occur while people are out that form the foundation of community (Jacobs, 1969) (Engwicht, 1999). The separation of land uses and the disconnected street network in suburban neighbourhoods decrease the opportunity for unplanned encounters by requiring most trips to occur in an automobile. In addition, by failing to provide rich and inclusive public spaces, suburban “destinations” such as strip malls and regional shopping centres in themselves fail to support a vibrant community (Kuntsler, 1996).

These critics will frequently cite quantitative research such as that conducted by Lance Freeman on “The Effects of Sprawl on Neighborhood Social Ties” (Freeman, 2001) that confirms the isolating tendency of contemporary suburbs. In this study, Freeman demonstrated that while neighbourhood density itself bore no impact on neighbourhood social ties, the proportion of individuals who drove to work alone had a strong and significant negative impact on the likelihood of developing these ties. He concluded that “developing more transit-oriented neighbourhoods would likely enhance neighbourhood social ties”. Related research evaluating two well-established New Urbanist communities found that residents felt a greater sense of community and walked to their daily destinations more frequently than compared to residents of traditional suburban neighbourhoods (Southworth, 1997).⁶

If desire for community is playing an increasing role in family housing preference, empirical studies of this kind *should* signal an unmet market for attached, urban housing. Uncertainty arises from the numerous ways in which people appear to define community as well as from the contradictory perceptions of where community is most likely to be found in today’s cities. In his book, *American Dreamscape* (Martinson, 2000) Tom Martinson argues that the statistics fail to tell an accurate story and that suburban critics fail to recognise the diversity of forms that community can take. In his introduction he suggests that the suburbs provide “a rich network of social interaction ... (which) is usually *the* identifying characteristic of such communities.” He explains that community can exist even without specifically designated places. In the suburbs, community life takes place at home, in the yard, at church, at school events, at service club meetings, etc.

While distinguishing between public and community life, Michael Brill points out that in modern times these interactions occur in places not usually considered by suburban critics such as at shopping malls and sports arenas (Brill, 2001). An additional twist arises as some suburban defenders acknowledge a decrease in place based community but argue that our increased mobility and communications technology more than compensate for this loss by enabling us to form “interest communities” with those people whom we share something in common (Gordon, 1997).⁷

⁶ It is important to point out that many of the studies into New Urbanist communities are not unequivocal endorsements of this planning approach. Southworth qualifies his findings by observing that the neotraditional neighbourhoods in his research were still largely dependant on their metropolitan region for employment, services, and retail stores.

⁷ Arguments of this nature fail to satisfy many suburban critics. They lament that contemporary suburban neighbourhoods are built to target narrow socio-economic markets and are frequently sold for their exclusivity. The resultant community does not create the opportunity for face-to-face contact with a diversity of neighbours resulting in environments that:

- fail to build tolerance and empathy, leaving the next generation ill prepared for the diversity inherent in North American culture and the global economy (Engwicht, 1999);
- isolate the residents from the problems of the greater community and therefore decrease the will and resources to resolve those problems (Baxandall, 2000) (Kuntsler, 1996) (Rusk, 1995);
- result in decreased civic engagement evidenced by the decreases in voter turnout, community participation on neighbourhood association committees and PTA’s, and involvement in community events and local club meetings (Putnam, 2000 as referenced in Gillham, 2002).

Richard Sennett observes that diversity is challenging. Isolation from these challenges is part of what makes suburban homes attractive to their relatively affluent inhabitants (Sennett, 1970).

It is clear that people define community in different ways. The way that a family understands community might affect their perception of where this intangible quality is to be found. It is impossible to generalize where families perceive community to be located but the literature does appear to support the assumption that attached, urban housing may be increasingly attractive to *some* families due to their perception that it provides a stronger sense of community.

To sum up, the literature describes a number of forces that may currently be working to influence family housing preferences. While these forces are not all aligned, the literature does suggest that increasing time pressures, older parents with an established urban lifestyle, smaller families, and an increased desire for community all support the assumption that there is an unsatisfied family market for attached urban housing.

2.4 Research into the Appeal of Urban Attached Housing

There is a body of research that specifically explores the assumption that there is an unsatisfied family market for attached urban housing. Family respondents in the CMHC study were presented with a forced trade-off question asking them to choose between a medium-density, ground-oriented unit in a community with many amenities and a detached house in a community with few amenities. When forced to choose between these two options, 31% of Vancouver respondents with household incomes greater than \$70,000 per year and 35% of those that currently reside in detached homes selected the medium density, high-amenity community option (Johnson, 1995).⁸

Similar results were discovered in a visual simulation study conducted in the San Francisco area to assess the market potential for denser, mixed-use communities in Northern California. This study determined that while 95% of the participants preferred single family houses over multi-family developments, they would be willing to accept higher densities if amenities such as transit, parks, and retail were provided. Contrary to previous studies which indicated that singles and seniors were more accepting of higher densities, the researchers were surprised to note that participants with children were equally willing to accept higher densities (Cervero, 1998).

The *Residential Preferences, Growth Management, and Urban Policy* (Pearce, 1994) study sponsored by the City of Seattle reached a similar conclusion using a very different approach. This research used marketing methodology called conjoint analysis to understand the potential “market” for higher density housing when complemented by improved public amenities.⁹ In particular, it explored the potential market appeal of medium density housing in “urban village” neighbourhoods.

In general terms, the Seattle study determined that “households with children are much less likely ... to choose to live in an urban village, *unless* city schools are equal to suburban schools and townhouses are available” (*italic stress not in original text*). Despite its American context, this study’s findings are relevant where they highlight family responses and they correct for the main differentiating contextual

⁸ By contrast, 61% of all Montreal families surveyed preferred the higher density/higher amenity option when forced to choose between it and a low density, low amenity option.

⁹ In conjoint analysis, participants rank bundles of object attributes (in this case housing and neighbourhood attributes). By analyzing the rankings of different combinations of attributes, researchers can determine the relative importance of any single attribute. This method is seen as more realistic than conventional surveys as it enables an analysis of trade-offs instead of generating a list of ideal attributes.

factors between Canadian and American cities. In one part of the study, the Seattle researchers corrected for these differences by imposing the following conditions:

- urban townhouse availability;
- good city schools and low crime;
- strong community in urban villages;
- no affordable city detached houses available;
- urban villages designed to include a sense of openness and lots of greenery.

Under these contextually correcting conditions, 73% of families with children preferred to own a single-family house, but 5% would rent in the city, 4% would live in condominium buildings, and 15% would prefer to live in a townhouse. This indicates that if good urban attached housing were available in a convenient, attractive, safe setting with a strong sense of community, one quarter of families with children would prefer this to detached suburban housing.¹⁰

The GVRD study further contributes to the quantitative data suggesting that there is an unsatisfied demand for urban attached housing (Boutilier, 1996). Recall that in this study, responses were not grouped demographically but were instead clustered according similar preference patterns. The housing preferences of all family participants were *not* represented in the "Suburban Cluster". The preferences of the next largest group of families were better represented by the cluster of responses typified as desiring a "Big Kitchen: Convenient Location". When forced to consider the realistic trade-offs involved in their housing choice, this cluster actually preferred an attached home to a detached one. While the study did not indicate what percentage of families had preferences better typified by the "Big Kitchen: Convenient Location" cluster, it was clear that not all families prefer detached suburban housing when considering the trade-off's involved.

This section of the literature review has summarized the results of studies that directly address the assumption that there is an untapped family market for attached, urban housing. The research to date appears to support this assumption. What the literature on housing preference fails to explore are the design and planning details that would be required to satisfy this market segment.

2.5 Urban Attached Housing Design Considerations

The City of Vancouver's *High-Density Housing for Families with Children Guidelines* do not directly address family housing preference but they do provide a well researched summary of site, building, and unit design objectives for family housing in high density neighbourhoods (City of Vancouver Planning Department, 1992). These guidelines, developed based on independent local research, effectively summarize the recommendations detailed in *Housing as if people mattered: site design guidelines for medium-density family housing* (Marcus, 1986), a seminal text on the design of higher density family housing.

In addition to some general recommendations on good high density housing design, the Vancouver guidelines specifically address site and design issues by suggesting that:

¹⁰ Racial distribution was not included in the neighbourhood attributes based on a pilot study that strongly indicated that race was not an issue. Researchers were surprised by this result and attributed it to people responding in a politically correct fashion, but did not have the resources to investigate further.

- good family housing provides effective access to community services and appropriately designed community and recreational amenities such as schools, play areas, day care facilities and grocery shopping;
- new housing should be compatible in appearance to surrounding neighbourhoods;
- any given project should have sufficient family units to provide playmates for children and family units should be grouped together in an appropriate location;
- the project establishes a clear "hierarchy of space" with a minimum amount of semi-public space so as to maximize privacy and enable individualization and resident control of the semi-private spaces which are restricted to the public;
- children's on-site common spaces should be easily supervised from private units or their outdoor spaces;
- common indoor amenity space be provided where private units are too small to enable desired indoor activities;
- sufficient parking be provided to meet both residents' and visitors' needs that is both secure and accessible;
- individual units for families should have at least two bedrooms, the spaces should be designed to accommodate a variety of uses, "conflicting" uses should be separated, and generous storage for toys etc. should be provided at the entry with supplemental storage nearby;
- visual and acoustic privacy of units and their private outdoor spaces are essential to residential satisfaction and should be maximized through design;
- every family unit requires a small private outdoor space (1.8m x 2.7m).

In *The Housing Game: A Survey of Consumer Preferences in Medium-Density Housing in the Greater Vancouver Region*, the United Way's Social Policy and Research Department conducted a "trade-off game" style survey to determine the factors impacting the satisfaction of residents of ground-oriented, attached housing (Bell, 1974). While the 755 participants came from all demographic groups, 81% represented families with children.

Many of the results from this United Way research repeat what other, more current studies have found but there were some interesting additional observations.

- The most important factors affecting satisfaction with the medium-density housing development were visual privacy, a child friendly environment, and soundproofing. It should be noted that the projects were studied before the introduction of the Condominium Act. Consequently, issues of dealing with a strata council were not raised, but a strong desire to be involved in management decisions was indicated.
- There was a high degree of dissatisfaction with the failure to provide or maintain recreational facilities. "It appears that families consider recreational facilities as an extension of their dwelling unit where ... their unit does not provide adequate inside space for children to play or adults to pursue hobbies." While this study noted the importance of semi-private "development" amenities, it did not address how well conveniently located public amenities might also satisfy underlying needs.
- The study observed that outdoor space was extremely important to families but failed to explore the trade-off willingness between private, semi-private, and public outdoor space.

As discussed earlier, the families in the GVRD study that composed the likely market for attached, urban housing belonged to the cluster of respondents referred to as "Big Kitchen: Convenient Location". This cluster is distinguished by its desire to be close to parks, recreation centres, work,

major roads and the Skytrain (see Appendix I for preference details of all the clusters in the GVRD study). In terms of the design of their specific residence, they valued a large kitchen and a garage. In the same study, when explaining their reason for preferring an attached, urban home over a detached Valley house, participants cited proximity to work, downtown, and amenities.

2.6 Focus on Needs

The literature reviewed describes a number of desirable housing characteristics for families:

- Control over personal affairs
- Privacy
- Safety
- Indoor and outdoor space
- Parking
- Strong sense of community
- proximity and quality of amenities such as schools and parks

In addition, the literature confirms the strong preference that families show for detached housing. This finding is not surprising, especially considering the ability of detached housing to provide many, if not all, of these desirable characteristics.

At the same time, it is also possible to imagine these same characteristics being provided in attached, urban housing, especially within Canadian cities where problems of crime, race, and school quality are not nearly as prevalent as they are in many American cities. There are numerous indications within the literature that some families with the means to live in a detached, suburban home might be interested in attached, urban housing providing if it had good amenities nearby and was located in a good community.

A better understanding of these characteristics would be useful in informing the design of an alternate form of housing that would appeal to families with children. Barrie Gunter provides a tool for understanding the desirability of housing characteristics in his book *The Psychology of the Home* (Gunter, 2000). This book, based on a review of research from around the world, recognizes that for most families the place where they live is more than just a house; it is their home and it serves to meet a variety of physical, social, and emotional *needs*. Gunter uses Maslow's Hierarchy of Human Needs to provide a useful theoretical framework for understanding people's housing choices. Similarly, in *Designing the City: Towards a more sustainable urban form*, Hildebrand Frey (Frey, 1999) uses Maslow's work to provide a structure for understanding different urban forms, in this case comparing not their desirability but their sustainability.

Maslow's Hierarchy of Needs, illustrated in Figure 1, grew out of his work to synthesize the body of research into human motivation (Maslow, 1954).¹¹ In his work, "need" encompasses more than just our physiological needs such as food, water, clothing, shelter, etc but acknowledges progressively higher order needs such as safety/sanity, belonging, esteem, and ultimately self-actualization. Within this hierarchy, lower level needs take precedence over higher-level ones. In other words, we must be

¹¹ Maslow's hierarchy is one of the most widely cited theories of motivation. William Huitt (Huitt, 2000) summarizes a number of subsequent models that largely support Maslow's work and vary only in the details.

fed and safe before we will worry too much about being accepted or understanding why the sky is blue.

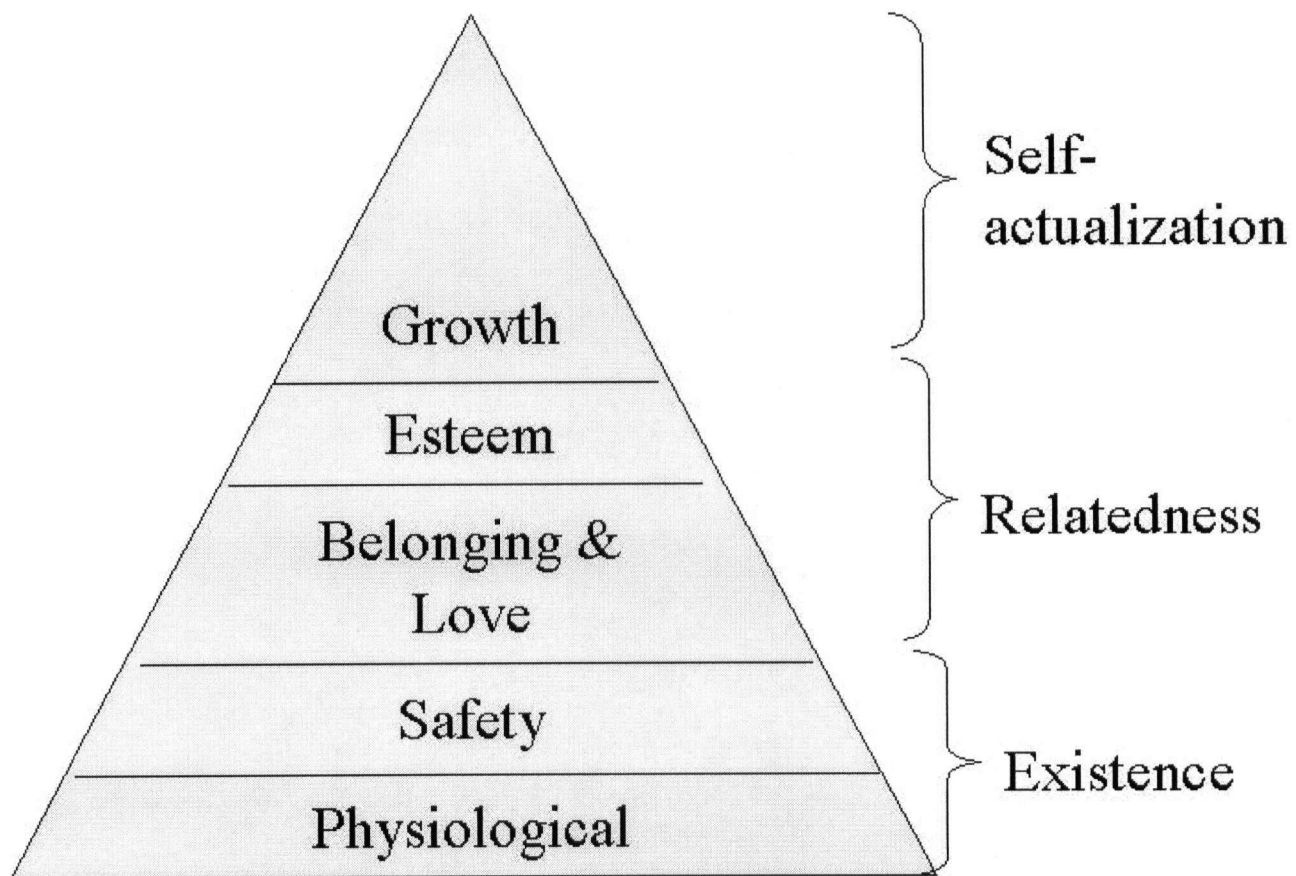


Figure 1: Maslow's Hierarchy of Human Needs

This structure of understanding motivation could be useful in developing a theory for the design of a new model of housing. By understanding the needs that underlie desirable housing characteristics, it should be possible to formulate new housing and neighbourhood configurations to satisfy those needs and appeal to families with children.

3.0 Methodology

3.1 The Research Questions

The literature on family housing preferences indicates that a significant minority of families might be attracted to an attached home with easy access to a wide range of amenities. No information was provided to distinguish these families from the majority. It did identify a number of desirable housing characteristics but did not attempt to develop an understanding of the needs behind those preferences. Nor did it explore the appeal of alternate designs to satisfy those needs.

To better understand the potential for creating urban housing opportunities for families, this research will attempt to answer the following questions:

What neighbourhood and design characteristics of urban attached housing would best meet the needs of middle class families so as to make this housing more attractive to them?

What needs underlie family housing preferences, particularly for suburban families?

What characteristics distinguish families who would be likely to consider an urban attached housing alternative when a detached suburban option is viable for them?

This research involved discussions with ten urban and suburban families about their housing preferences in order to formulate a theory of housing and neighbourhood design. Many of these interviews used presentation boards that visually described alternative housing forms as a tool to elicit more in-depth responses and to gauge participants' reactions to various design elements. The resultant data were analyzed qualitatively using grounded theory methods as described by Strauss and Corbin (Strauss, 1998).

To assist the reader in understanding how the research questions were addressed, the methodology is detailed in five sub-sections. It begins by explaining the decision to use a qualitative, grounded theory approach to gather and analyze data. Next, it describes the general and evolving character of the interviews themselves. This is followed by a description of the participant profiles including why and how they were recruited. Then the process used to analyze the interview data is outlined. Finally, a short description of the alternative housing forms that were presented in many of the interviews is provided.

3.2 Selecting a Grounded Theory Approach

A number of approaches were considered to address the research questions. As the focus of this research was, essentially to inform the design of an innovative new product to satisfy an existing need, the selection of a research methodology was guided by the practices typical in market research. This field suggested two main approaches for consideration: quantitative conjoint analysis or qualitative focus groups/interviews. While conjoint analysis is a powerful tool, it is best employed in conjunction with qualitative methods when exploring broad subjects in order to provide depth and descriptive detail. In addition, for statistically valid conclusions it requires time and financial resources that exceeded those available for this research.

A qualitative approach was selected for its utility in exploring the underlying needs behind families' housing preferences and their responses to a number of alternative designs. Market research for the development of new "products" uses qualitative approaches to understand casual relations and the underlying factors that result in specific patterns of quantitative results (Miles, 1994) (Robertson, 1996). These approaches are used to obtain a detailed understanding of emotions and needs that are difficult to extract using quantitative methods. A qualitative approach often provides a novel way of understanding the phenomena under observation (Strauss, 1998). These characteristics make a qualitative methodology well suited to addressing the research questions. Steinar Kvale directly describes the utility of qualitative approaches for market research:

"In a consumer society, an extensive knowledge of the experiences, meanings, feelings, desires, and lifestyles of the consumer is essential for the design and marketing of consumer products. In consumer research it is important to get behind the surface meaning and tap the more hidden, symbolic meanings it has for potential consumers" (Kvale, 1996 P70).

Within the realm of qualitative analysis, the grounded theory approach advanced by Strauss and Corbin (Strauss, 1998) provides a systematic set of procedures to develop an inductively derived theory of a phenomenon that is grounded in the data. This provides a useful tool for the development of a theory of design because not only are the concepts relating to the phenomenon generated but so are the relationships between those concepts.

Grounded theory research evolves from the general to the specific and then back to the general. Early interviews are loosely structured and participants are selected based only on general criteria (e.g. a family with children that owns a house). These interviews are analyzed and the important concepts that emerge inform the selection of additional participants as well as the focus of the following interviews. Data from subsequent interviews provides descriptive details of the important concepts and the relationships between them. As the research progresses and the relationships between the concepts are better understood, more general concepts are sought to provide structure and unity to the emergent theory. With this evolution in understanding, early interviews are re-checked to ensure consistency with the more mature ideas that have emerged. In this way, a theory "grounded" in the data emerges that is robust yet informative.

A number of other quantitative and qualitative research approaches for addressing these questions were also considered. Table 1 summarizes these approaches, references examples, and outlines the reason for their ultimate rejection.

Table 1: Other Research Methods Considered

Method	Example	Reason for Rejecting
Heuristic attribute pricing is a quantitative approach favored by economists where preference is expressed by behavior.	<ul style="list-style-type: none"> • <i>Households and Housing: Choice and Outcomes in the Housing Market</i> (Clark, 1996) 	<ul style="list-style-type: none"> • Preferences limited by current options available thereby limiting innovation
Preference or Attitude Surveys are a widely used quantitative approach.	<ul style="list-style-type: none"> • <i>Housing the New Family: Reinventing Housing For Families</i> (Johnson, 1995) 	<ul style="list-style-type: none"> • Useful in ranking different attributes but fails to indicate trade-off willingness • Preferences identify “ideal” situations but are unconstrained by competing considerations and costs
Conjoint Measurement Survey is a quantitative market research tool used to understand how people make trade-offs where participants rank or compare bundles of attributes.	<ul style="list-style-type: none"> • <i>Residential Preferences, Growth Management, and Urban Policy</i> (Harris, 1994) 	<ul style="list-style-type: none"> • data intensive and best used in conjunction with a qualitative approach made it beyond the resources of this research • Conjoint preference responses of individual family member “unlikely to result in valid and reliable measurements of residential preferences.” (Molin, 1999)
<p>Trade-off Games are typically used as a quantitative method where product attributes are priced and participants are only given a limited budget to force trade-off decisions.</p> <p>Initially a qualitative adaptation of this approach was attempted for this thesis.</p>	<ul style="list-style-type: none"> • <i>Trade-off Games as a Research Tool for Environmental Design</i> (Robinson, 1987) 	<ul style="list-style-type: none"> • Rigidity of structure was not compatible with a grounded theory approach • Operationalizing and pricing non-physical housing attributes led to an overly complex interview structure • Test participants focused on assigned prices and space measurements, limiting insight into their decisions

3.3 Interview Evolution

The Grounded Theory approach articulated by Strauss and Corbin (Strauss, 1998) guided the selection of interview participants, the format of the interviews, and the analysis of the data gathered in those interviews. Consistent with this approach, interviews and data analysis occurred concurrently. Important themes or the relationships between themes that emerged from the analysis of earlier interviews influenced the direction and focus of subsequent ones. As such, the nature of the interviews evolved as the research progressed.

The first three interviews explored family housing preferences in a general and semi-structured fashion to enable families to reveal the factors and issues that were important to them in their housing selection. Questions explored the family's residential history, their reasons for moving, and what they were looking for in a new home and neighbourhood.

The concepts that emerged from the content analysis of these initial interviews combined with the information on family housing preference obtained during the literature review were examined in terms of Maslow's Hierarchy of Human Needs (Maslow, 1954). By understanding these concepts and preferences in terms of the needs they described it was possible to select five existing urban attached homes in the Vancouver region that appeared to satisfy those needs using different built forms and settings. Poster board presentations, discussed in detail in Section 3.6, were developed for each of these five attached alternatives to the detached house.

The next six interviews began with a brief exploration of the participants' housing history and preferences before moving onto a consideration of the housing alternatives boards. Participants were asked to examine the alternatives presented on the boards and discuss what they liked and disliked about each one. The cost of desired changes were estimated and they were asked to choose their favorite alternative.

Participants were then asked to imagine and describe various "living there" scenarios for this favorite alternative. These scenarios were used to explore themes that had emerged in earlier interviews. Examples of interview questions include: "You've just returned from a stressful day at work; how would you unwind if you were living here?" and "Describe what you picture yourself doing with a bored child on a Saturday afternoon if you lived here?" Encouraging participants to imagine themselves in a specific home enabled them to describe their perception of the merits and problems associated with such a choice in detail. These interviews concluded with an attempt to determine how likely the participant(s) would have been to select this alternative if they had been aware of it when they were making their most recent housing purchase.

The tenth and final interview did not employ the attached housing alternatives boards. Instead, it was used as a check of the theory that had emerged in the previous interviews. In addition, it explored the participant's vision of a good environment for children in some detail. This important concept had emerged in the very first interview but lacked descriptive detail up until this point.

3.4 Participant Sampling and Recruitment

The ten data collection interviews, involving fifteen participants, took place over a period of six months.¹² Five of the interviews were with couples and five were with individual adult family members. Participants had between one and two children ranging in ages from a few months to seven years. Most interviews occurred at the participants' homes and lasted between one-and-a-half to three hours.

The focus of this research was to develop a theory of attached urban housing design that would appeal to families with children who might otherwise choose to buy a new home in the suburbs. Eight of the ten interviews involved families currently living in the suburbs of Vancouver. The bulk of these suburban interviews (six of the eight) involved families currently living in detached homes in the Cobblestone neighbourhood of the Westwood Plateau in Coquitlam, BC. The research largely focused on this neighbourhood for three major reasons:

- Housing prices were comparable to attached, urban housing alternatives (purchase prices ranged from \$269,000 to \$300,000 with present values estimated to be in the mid to high \$300,000's).
- The housing form and the neighbourhood pattern were "typically" suburban. The houses in this neighbourhood had attached garages in front and the street pattern was based on cul-de-sacs feeding local collector streets.
- The developer, Parklane Homes, was willing to assist in recruiting desirable participants by providing a list of purchasers who had previously lived in Vancouver. These participants were desirable as they were considered more likely to be willing to consider attached, urban living in exchange for increased amenities as suggested in previous research.

While there were other locations which matched the first two criteria, this was the only neighbourhood identified that had a sufficient quantity of ex-urbanites (23) for research recruitment.

Five of these six Westwood Plateau interviews were with families recruited from the Parklane list. All homeowners on the list were mailed a letter describing the research and advising them that they would be contacted by phone to see if they would be willing to participate. Of those homeowners who could be reached by phone, only those who spoke clear English and indicated they had children were invited to participate. This loose language filter simplified the research by minimizing language and cultural misunderstandings. In addition, it was assumed that participants from non-western cultures (notably Asian and East Indian in the Vancouver metropolitan region) would likely have very different tastes and housing needs leading to a separate research undertaking altogether.

Only one of the six Westwood plateau families was not recruited from the Parklane list. One of the couples interviewed earlier in the research was asked for assistance in recruiting a family who had always lived in a suburban setting. The family they referred satisfied this criterion and enabled a

¹² Readers unfamiliar with a grounded theory approach may question if 10 interviews were sufficient to generate a theory. Strauss and Corbin suggest that data collection continues until "within the limits of available time and money, the researcher finds that no new data are being unearthed. Any new data would only add, in a minor way, to the many variations of major patterns" (Strauss, 1998 p292). While the number of interviews required to achieve data "saturation" varies greatly, it was suggested to the researcher a typical range is fifteen plus or minus ten. The ten interviews that ground this theory ranged from one and half to three hours and each required approximately twenty hours to analyze. While additional data would have enriched the study, limitations to the applicability of the results have been identified.

comparison of their attitudes, experiences, and desires to the urbanites and ex-urbanites that comprised the bulk of the study participants.

The two suburban interviews that did not involve families from the Westwood Plateau included a couple currently living in West Vancouver and a single father currently living in Coquitlam. The former had moved from a Gas Town condominium to their detached West Vancouver home. They were selected because they represented an ex-urban couple with considerable financial resources and they lived in a neighbourhood notably different from the Westwood Plateau. They were previously known by the researcher and recruited directly.¹³

The second suburban participant from a neighbourhood other than the Westwood Plateau was unique to the study in that he was a single parent and a tradesperson. He currently lives in a Coquitlam townhouse and was recruited while working on the floor of the researcher's home. This was the final interview and did not involve the Urban Alternatives Boards. The discussion focused on the concept of a good environment for children and verified the previously developed concepts.

In addition to these eight interviews with suburban families, two interviews were conducted with participants from families currently residing in the Concorde Pacific neighbourhood of downtown Vancouver. These interviews provided important insights into what was appealing about urban living for these families. They also helped to identify family characteristics that might favour an urban living decision. These participants were recruited with posters put up by the Vancouver Childcare society at their three downtown childcare facilities.

These ten interviews were sufficient to develop and confirm a basic theory of attached housing design for middle class Canadian families with young children. Recruitment efforts to include urban families not living in the downtown core and those with older children were not successful within the time available.

It is important to note that only a limited number of participants from other cultures were included in the study:

- One Westwood Plateau participant (with perfect English) indicated that he and his wife had been raised "Western style" by parents who emigrated from Hong Kong. His responses were not exceptional except for the indifference this suburbanite exhibited towards owning a yard.
- Another Westwood Plateau participant had emigrated from Japan with her Canadian husband. When they were interviewed, her responses were limited by her English skills. Interestingly, their housing choice always reflected his preferences where differences existed.
- One participant had emigrated from England and one couple had English parents. The latter were distinguished only for the importance placed on a large formal dining room.

In summary, the data for this research were obtained by interviews with ten families with pre-school aged children. The majority of these participants were of Canadian heritage and had moved from the city of Vancouver to one of its surrounding suburbs. Contrasting and comparing the attitudes and

¹³ To guard against bias, the coding of this interview was reviewed for the emergence of exceptional or non-conforming concepts. The first exceptional finding from this interview resulted from their experience living near the Downtown East Side. One of the reasons for their move was to escape from the drugs, crime, and noise that they considered a bad environment for children. The other exceptional finding from this interview was the wife's surprising comfort with having children share a bedroom.

experiences of this group with a limited number of participants from different backgrounds helped to define the characteristics of the focused sample. Because the sampling intentionally focused on young middle-class Canadian families, caution should be exercised in generalizing the findings beyond this group.

3.5 Data Analysis

Interview transcripts were analyzed using grounded theory techniques to identify important concepts and the relationships between them. The software package *Atlas.ti* (Muhr, 1994), designed specifically for this purpose, was used as a tool to facilitate the content analysis and theory building.

The analysis involved identifying and marking important comments from the interview transcripts. These quotes were labeled with a title(s) to indicate the more general concept(s) that the quote helped to describe. Figure 2 is a page of sample data and its related early concept labeling. Note that some early concepts turn out to be irrelevant to the theory and others become elements for more general concepts.

A series of questions and tests were posed for each concept to discover alternate possible interpretations of their meaning and significance. These alternate interpretations served two functions. First, they occasionally provided important insight into other possible causes, manifestations, and outcomes relating to the concept being developed. These other possibilities were then explored in subsequent interviews. In addition, the identification of alternate interpretations was used to flag important statements that appeared to have significant but implied meaning. Participant call backs were used to clarify the interpretation of these statements, especially when they appeared consistent with the researcher's biases towards the desirability of strong community, mixed uses, residential density, and alternative transportation options.

As the research progressed and important concepts emerged, the relationships between the concepts were explored diagrammatically. Arrows connecting the concepts on a given diagram included a brief description of the relationship between them such as: x is a cause of y, or x is an element of y, etc. The software, *Atlas TI*, ensured that the relationship between two concepts remained consistent within the theory even when these concepts appeared on a new diagram exploring a separate theme. Figure 3 is an example of a concept map developing the connections between the concept of "pods (private outdoor space) desirable" and other related concepts. By relating concepts to one another and in ensuring that these relationships remained consistent, concepts were redefined and larger themes emerged.

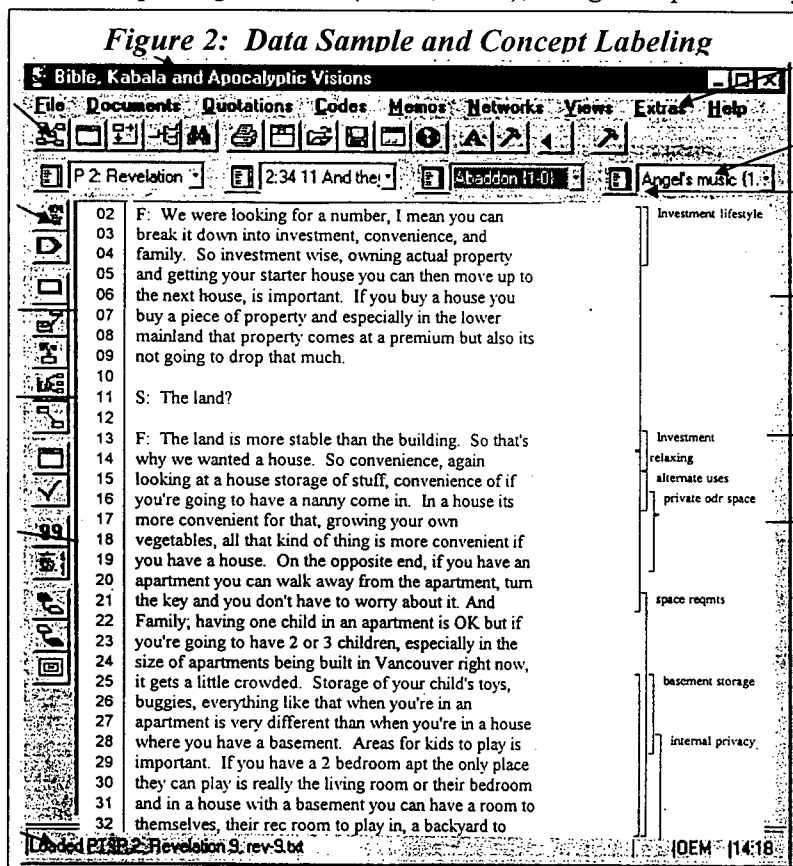


Figure 3: Sample Concept Map

```

graph TD
    NP[Need for Peace] <--> UC[Undesired Contact]
    NP == work stress
    NP == spacious feeling
    NP --- NoRush[No Rush]
    NP --- RA[Relaxing Activities]
    NP --- NFN[need for nature]
    UC <--> SH[strata hazard]
    UC --- PDS[privacy of ODS]
    UC --- noise[noise]
    UC --- PID[privacy of IDS]
    SF[spacious feeling] --- SS[storage space]
  
```

Table2: Axial Coding Paradigm - Identifying Relationships between Concepts

21

In summary, the paradigm facilitated theory building by developing and understanding of the emergent central themes that included their casual conditions and outcomes.

The resultant theory of housing needs and design were based on these central themes. The validity of the theory arises from its "grounding" in the data. The emergent theory was based upon concepts that arose from the body of data and had to be consistent with the results of *all* the interviews. Any inconsistencies between the theory and the data (or literature results) were exceptions requiring explanation.

3.6 Five Urban Attached Alternatives

Five urban attached alternatives to the suburban single-family house were selected and featured on presentation boards. These urban alternative boards were used to test the appeal of different built form and neighbourhood configurations. Preliminary analysis of the early interviews and housing preference research indicated that there were four general needs that had to be satisfied in the selection of a place to live for families:

- lifestyle opportunities
- a relaxing environment
- a family friendly environment
- financial considerations

The five alternatives selected, and the information provided on the boards, were intended to present participants with a range of different built forms and neighbourhood settings to satisfy these four general needs. Two of the alternatives selected offered only two bedrooms. While it was presumed that a larger unit would better satisfy family housing needs, no larger units could be identified that provided the same unique characteristics as those featured. For all of the alternatives, participants were encouraged to suggest changes that would make the option more appealing to them, keeping in mind that more space would cost additional money (price increases were roughly calculated in the interviews by interpolating from the square foot cost of the unit as presented).

The present value of the alternatives ranged from \$250,000 to \$370,000 based on developer provided information or recently assessed market value. This range was comparable to the estimated market value of the houses in the Westwood Plateau neighbourhood where most of the participants were recruited. Units below this price range were considered unlikely to appeal to suburban families based on their size and neighbourhood context. Alternatives above this price range were considered unattainable to the bulk of the participants and would fail to force participants to make realistic trade-offs when describing desirable housing forms.

All five were considered urban as they were within walking distance of a wide assortment of parks, retail opportunities, public amenities, and transit. In addition, all were a short commute to the central business district with commute times ranging from walking distance to a 20-minute drive. A brief description of each is included on the following pages to illustrate the range of lifestyle possibilities they embodied.

1. Courtyard Townhouse/Apartment Cluster: Cranberry Commons Cohousing¹⁴



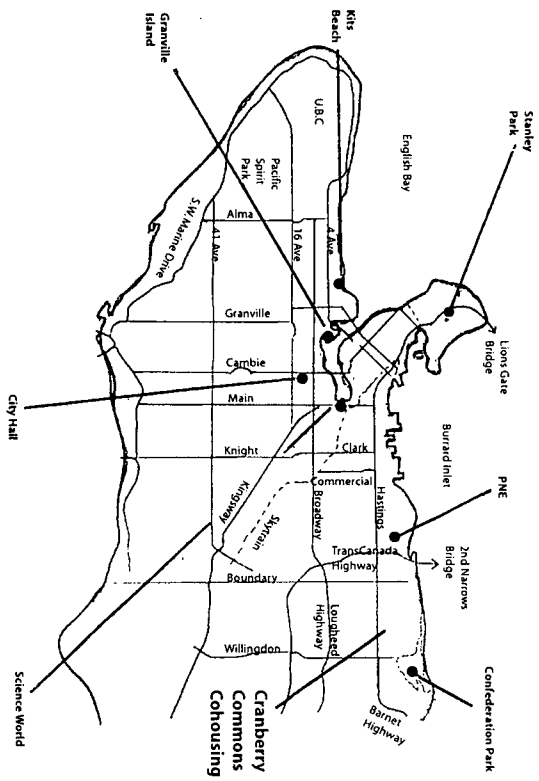
This was the only alternative featured that was not within the Vancouver city limits. It was a 1270 square foot, three-bedroom townhouse in a 22-unit strata development clustered around a child friendly courtyard. This unit was featured due to its location in a more “working class” neighbourhood, its inclusion of a large amount of indoor strata “common space” (such as a guest room and workshop), and the availability of the courtyard for secure outdoor children’s play. Within three blocks were two elementary schools, a library, a recreation centre with an indoor pool, a community centre, and a large regional park that included extensive playground and teen friendly amenities as well as a large forested area. Private outdoor space consisted of a large front patio, but a similar unit with a small private yard was an option within this development. Parking was within a secure, underground parkade.

2. Heritage In-Fill

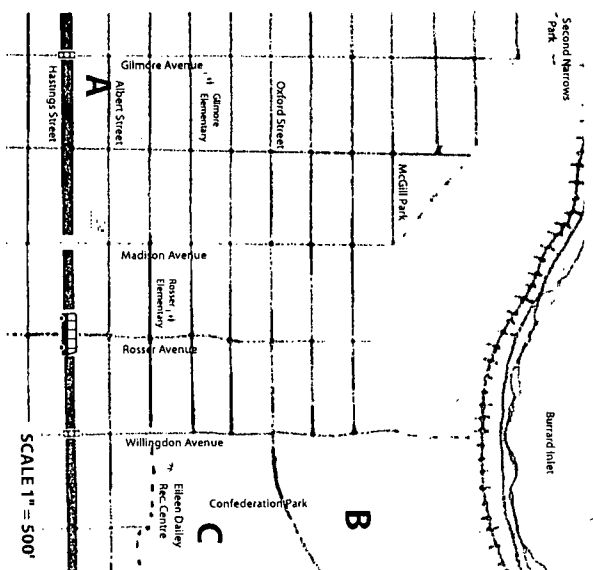
The smallest alternative was an 1100 square foot, two-bedroom unit that occupied the ground floor of a heritage style house in the Mt. Pleasant neighbourhood of Vancouver. This unit was featured as it most closely resembled a single-family home in appearance and setting, and because it was part of a small, four unit strata. It was located across the street from a school and was within a block of a playground, outdoor pool, childcare and a community centre. “Private” outdoor space consisted of a front porch and the exclusive



¹⁴ The fact that the researcher lived in this housing complex necessitated that all the presentation boards were complete and easy to understand. This eliminated the need for verbal commentary that might have prejudiced participants’ responses. Participant questions were permitted to facilitate comprehension and to maintain a relaxed interview ambience but responses were limited to objective facts versus subjective opinion. Readers will gain additional confidence that no bias was introduced by including this project by the fact that this alternative was typically one of the least favorite amongst those respondents who seriously considered an attached urban alternative.



Regional Context



Neighbourhood Context



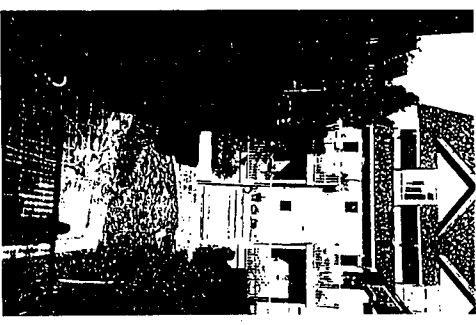
A Hasting Street Shops



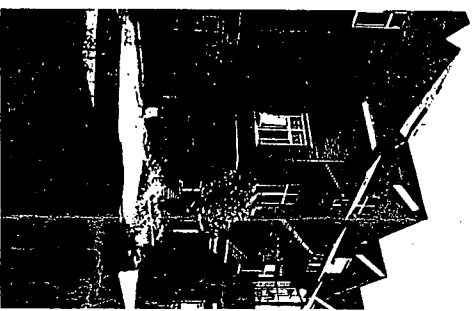
B Confederation Park trails



C Confederation Park playground



2 Courtyard from the roof deck



3 Courtyard from back of unit



4 Street view of unit

A Place for Families

Unit is supplemented by extensive common spaces specifically designed with children in mind (including secure courtyard and children's playground)

- Confederation Park (3 blocks away) includes:
 - recreation centre with indoor pool and waterslides
 - playground with water play park
 - playing fields
 - skateboard and roller hockey parks
 - library

A Place to Relax

Mountain views from 2nd and 3rd floors
End unit means only one shared wall and windows on three sides

Confederation Park includes a large forested area

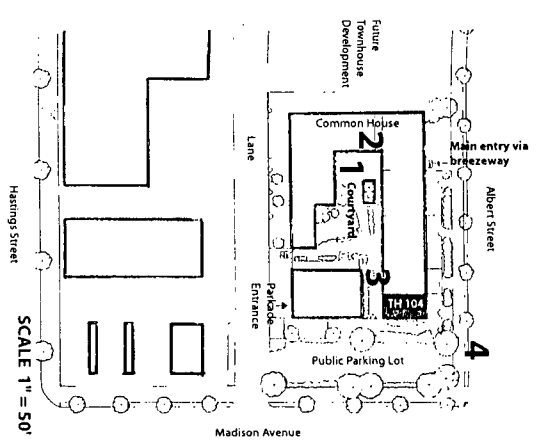
Your Lifestyle

- Large front patio
- Common spaces include:
 - fully equipped woodworking shop
 - pottery kiln
 - library
 - large kitchen/dining area for large parties
 - guestroom

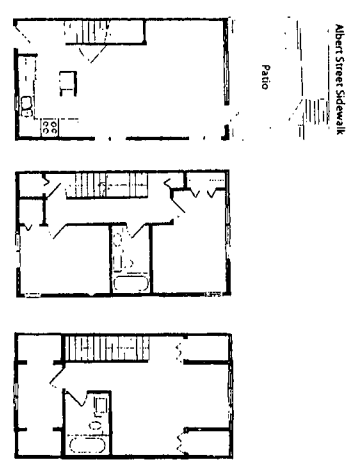
Financial Sense

- Solar panels and energy efficient design reduce monthly utility costs
- Media coverage of cohousing and a waiting list of interested purchasers facilitate resales without the services of a realtor

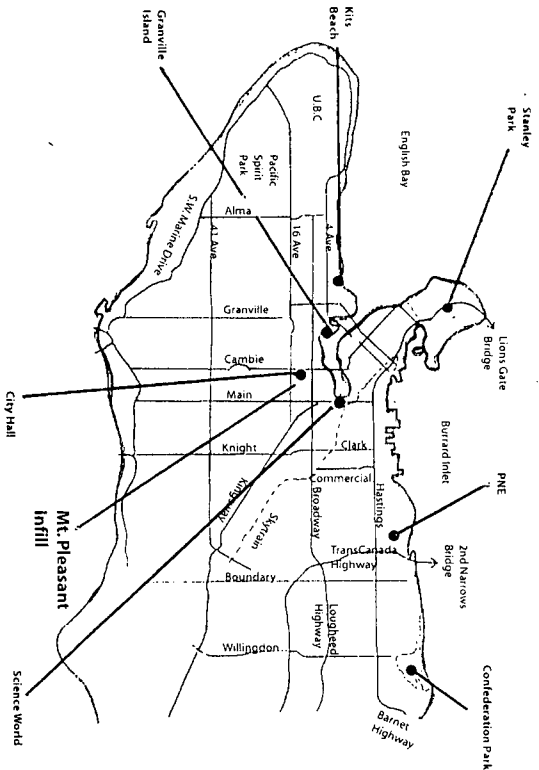
Development is designed and run to encourage interpersonal interactions and connections



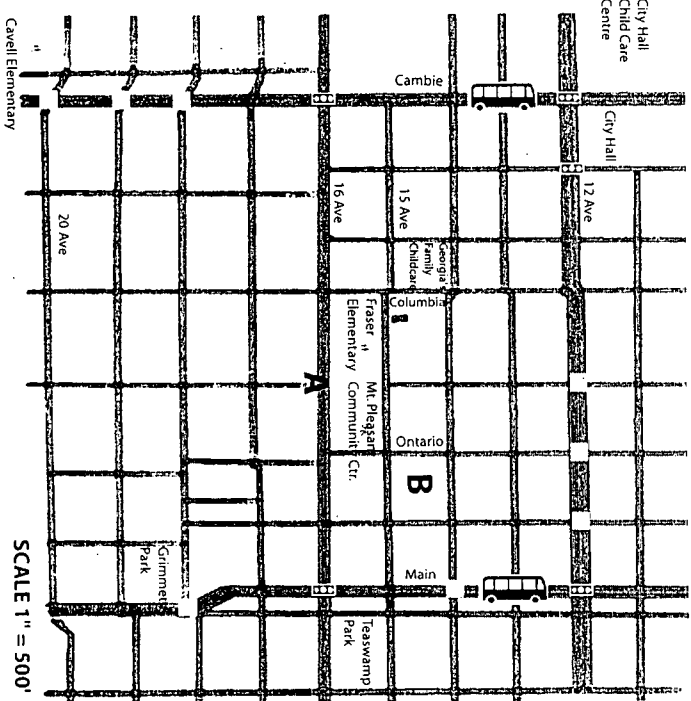
Project Plan



Unit Floor Plan



Regional Context



Neighbourhood Context

Mt. Pleasant Infill

3 unit heritage style house with coach house

Main level unit with front yard and porch



1 Coach House (left) and side of heritage house



2 Front of Heritage House and Yard



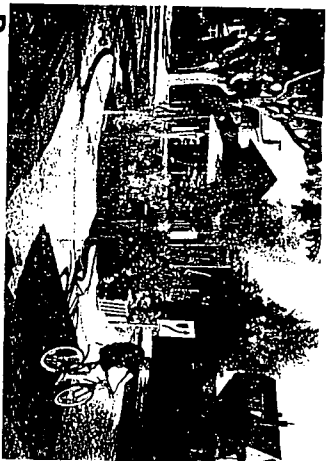
3 Side-yard walk to Garden and Coach House units



4 Front sidewalk



5 Carport and garage at rear of Coach House



B Neighbourhood traffic calming and gardening



A Mt. Pleasant Community Centre Pool

A Place for Families

Main floor unit includes porch and fenced front yard for outdoor play and activities

Right across the street from an elementary school, playground, community centre, and public outdoor swimming pool

A Place to Relax

Quiet tree-lined streets in a neighbourhood of heritage homes and well maintained gardens

Light from all four sides

Easy access to work and regional attractions/amenities

Your Lifestyle

Yard and porch great for gardening and entertaining

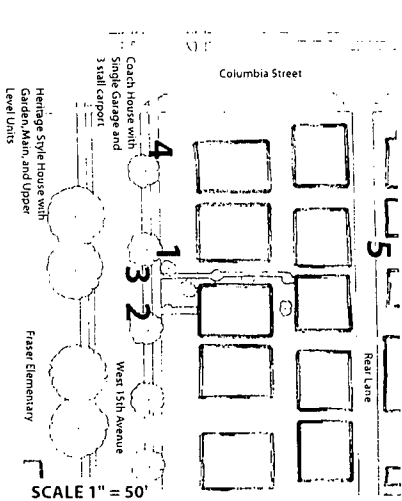
4 unit strata minimizes external controls

Walk to great shops and restaurants on Main or Cambie

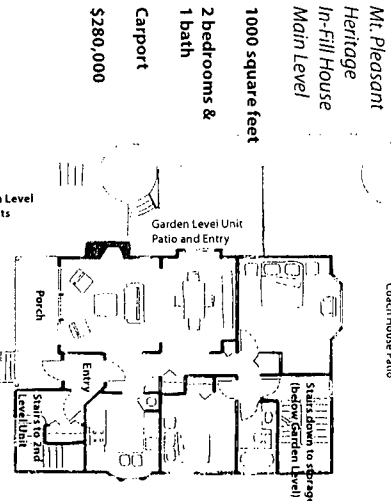
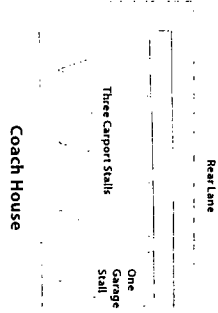
Financial Sense

No new single family neighbourhoods are being created in the city but demand continues to increase for this style of housing

Reduce monthly expenses by \$850 by selling a car



Project Plan



Unit Floor Plan

use of the front yard. Covered parking for one vehicle was provided by a detached carport off the back lane.

3. Classic Row House: The Red Bricks

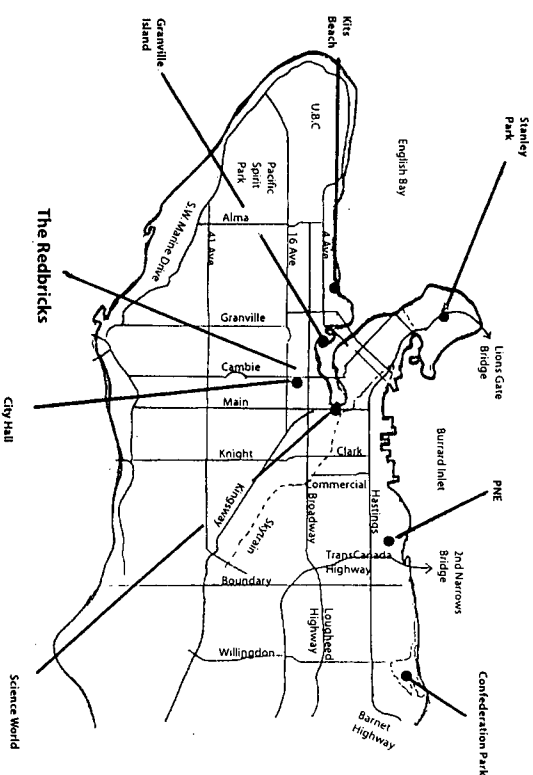


The quintessential townhouse featured was a 1300 square foot, three-bedroom townhouse that was one of eleven similar, street oriented units. While this was an attractive and distinctive unit (the only one with an attached garage) it was initially not going to be used as it failed to provide any viable outdoor play space in the immediate vicinity. Its private outdoor space was a small front yard and the nearest playground was five blocks (and one busy street crossing) away. It was ultimately included because it was such a universal attached housing form but distinctly different than all the other alternatives used.

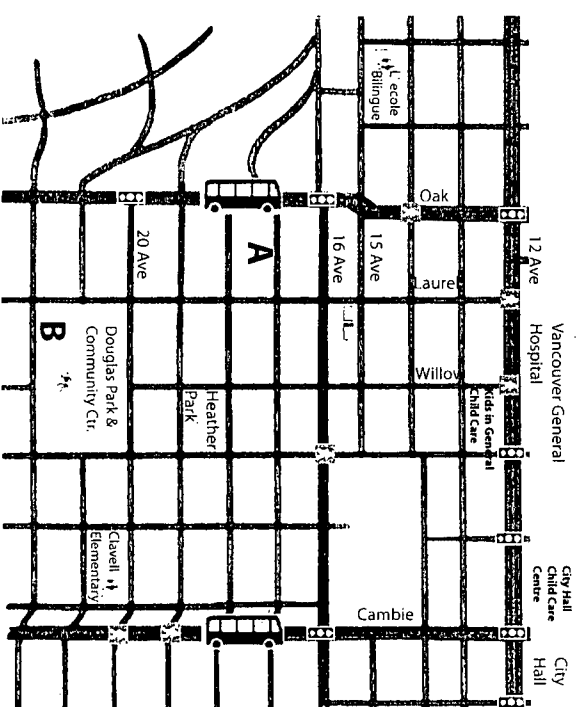
4. Cityhome on Pedestrian Greenway: The Arbutus Walk

This 1100 square foot, two bedroom and den cityhome was located in a 70 unit, mixed use development on the Arbutus Lands; a large, centrally located urban site with a wide greenway park through its centre and quiet internal streets. The unit fronted a quiet residential street but the opposite face of the building was on a busy commercial street. The nearest playground was one block down the greenway. One more block beyond this playground there were large playing fields and a popular community/recreation centre that included an ice hockey rink.





Regional Context



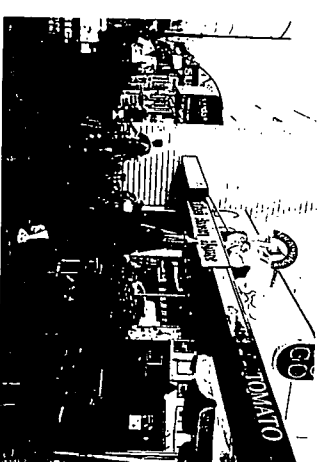
Neighbourhood Context



1 Front yard



2 The Redbricks



A Oak Street shops



B Douglas Park Play Ground



3 View from rear lane



4 View from street



5 Front sidewalk

A Place for Families

Douglas Park (5 blocks south) includes playground, play fields, day care, and a community/recreation centre

3 bedroom design enhances interior privacy

Easy access to regional family attractions

Choice of schools with walking distance

A Place to Relax

Quiet tree lined streets

Light from three sides

End unit maximizes privacy with only one shared wall and no one above or below

Easy commute to work

Your Lifestyle

Small strata (11 units)

Private garage

Ground floor bathroom could be converted to alternate use

Walk to local shops like:

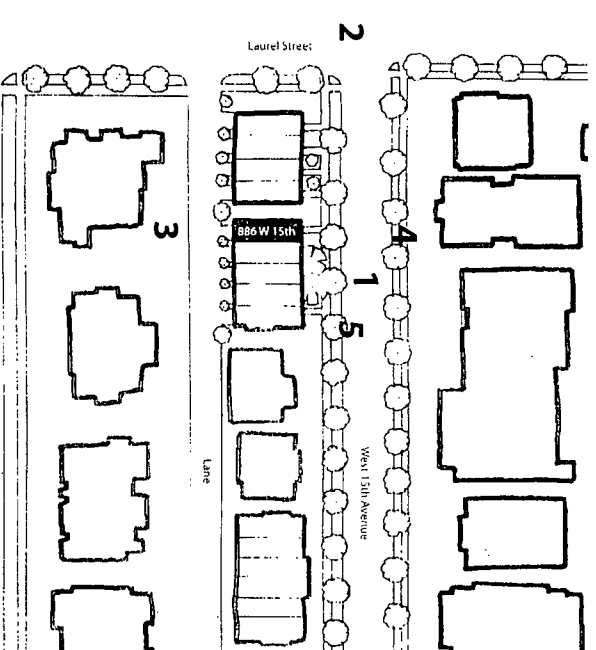
- Choices Market
- the Park Cinema
- Kino's jazz lounge
- many others

Financial Sense

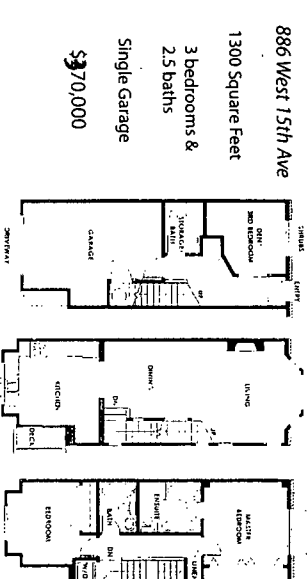
Proximity to major employment centres (City Hall, Broadway offices, and Vancouver General Hospital) facilitates resale

Relatively affordable unit leaves money for investment, travel, or recreation

Reduce monthly expenses by \$850 by selling a car



Project Plan



Unit Floor Plan

SCALE 1" = 10'

1st Floor

2nd Floor

3rd Floor

The Redbricks

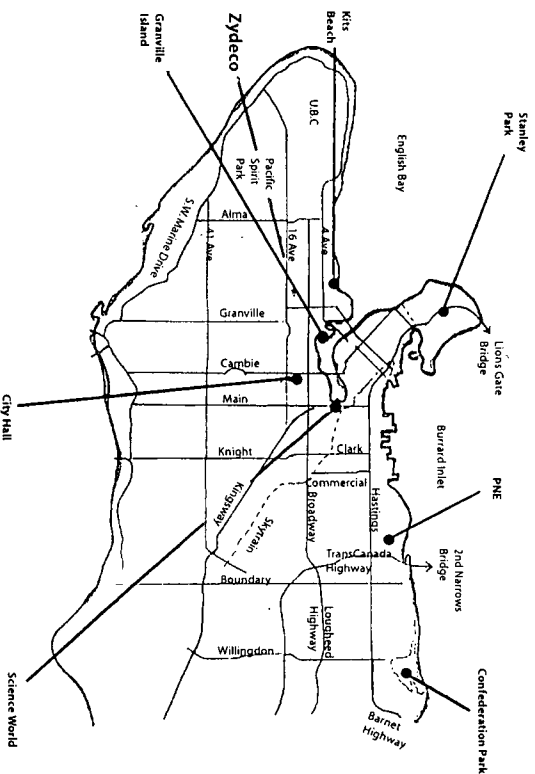
11 unit "boston style" rowhouse development

Street oriented, end townhouse

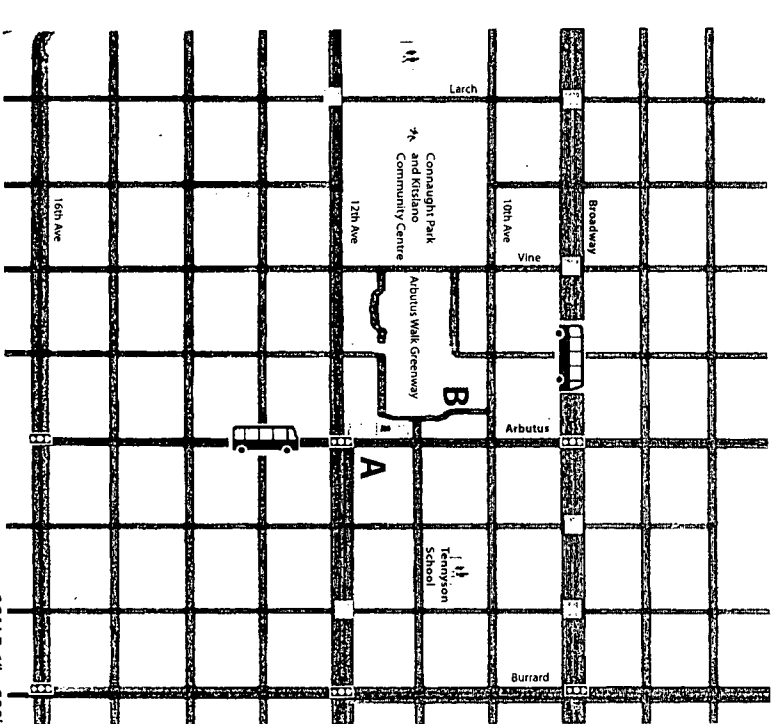
Urban Alternatives For Families

UBC Resource Management and Environmental Studies
Masters Thesis Research
Urban Alternative 3/5
Sean Pander

2002

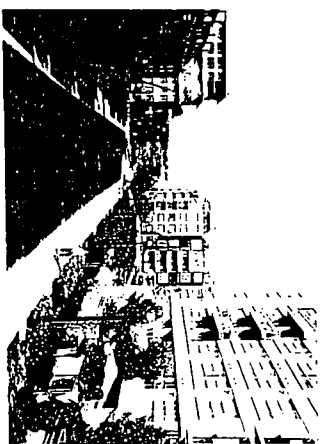


Regional Context



Neighbourhood Context

SCALE 1" = 500'



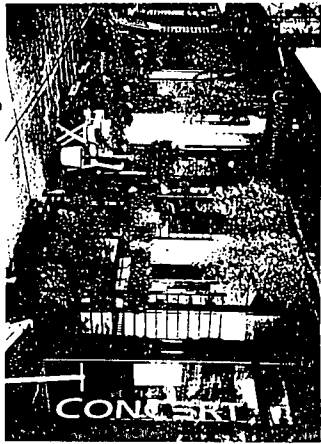
Looking along greenway toward Connaught Park



2 Patio



3 Street view of unit



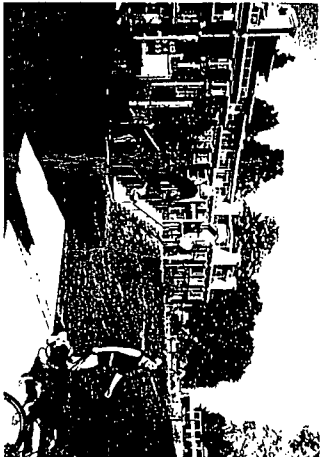
4 Arbutus Street Shop



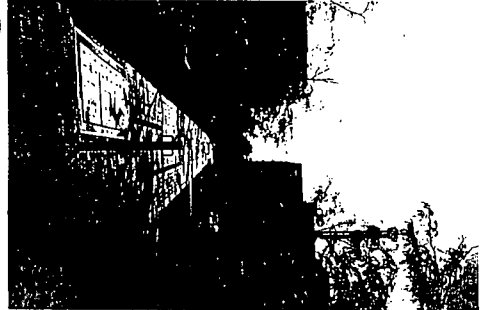
5 Typical Arbutus Lands street



A Arbutus Street view of Zydeco



6 Kettle Yard playground



B Typical Arbutus Lands walkway

A Place for Families

A Place to Relax

Playgrounds, playing fields, recreation centre, and hockey rink are a traffic free walk up the greenway
Arbutus Lands streets are for local traffic only
Easy access to regional family attractions

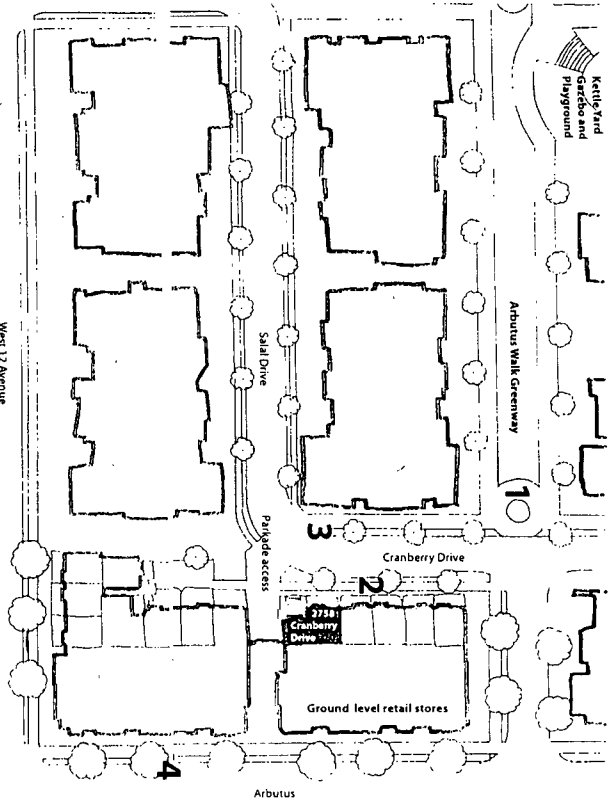
The greenway side of the Arbutus Lands are well insulated from the noise of the city creating a quiet and well landscaped setting
Easy commute to work

Your Lifestyle

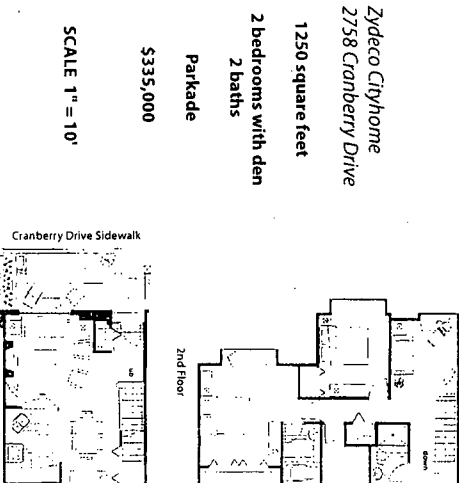
Greenway is a popular walking and people watching location where you can meet and get to know your neighbours
Walk to local shops on Broadway or Arbutus like:
- Benny's Bagels
- La Petit France Cafe
- Regal Begal Grill
- and many more!

Financial Sense

Arbutus Lands neighbourhood consists of all new, higher-end developments
Reduce monthly expenses by \$850 by selling a car



Project Plan



SCALE 1" = 10'

Unit Floor Plan

Zydeco on the Arbutus Lands
70 unit mixed use development on greenway
Street orientated cityhome

Urban Alternatives For Families

UBC Resource Management and Environmental Studies
Masters Thesis Research
Urban Alternative Z/5
Sean Pander
2002

The private outdoor space was a small patio in the front of the unit. Parking was provided in a secure underground parkade.

5. Podium and Point Tower with Courtyard: 888 Beach

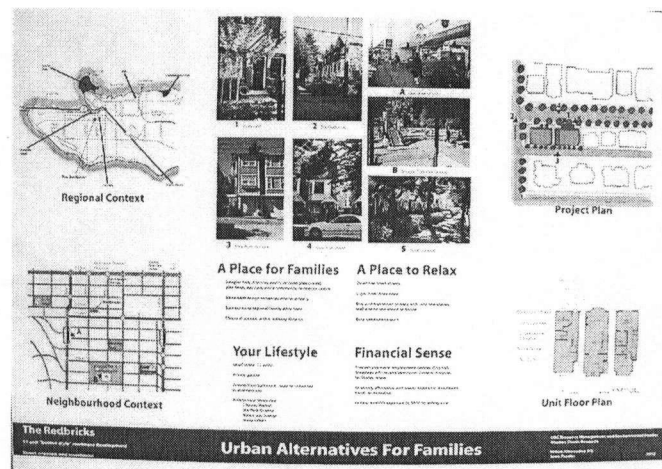


This 1100 square foot, two-bedroom cityhome was located in a 220-unit podium and point tower development; a form characterized by its low “podium base” and one or more small footprint towers. This particular example was located on the downtown peninsula of Vancouver adjacent to False Creek and the very popular seawall. Directly across False Creek and easily accessible by Aqua Bus was Granville Island with its market, shops, and children’s attractions. Traveling via the seawall, this

development was one block from the beach and only a few blocks away from the lively Yaletown section of the city that has diverse retail shops as well as a large urban park and well-known community centre. The featured unit faces away from the water but is across the street from a modest but attractive park. The unit backs onto a large, well-landscaped internal courtyard. The private outdoor space is a fair sized patio on the courtyard side. Parking is provided in a secure underground parkade.

A consistent layout was used for the presentation boards. They all included:

- a map locating the alternative within the city and highlighting the location of landmarks and regional attractions;
- a map showing the neighbourhood context of project including transit routes, schools, parks, community centres, and daycare facilities;
- a plan/map of the development project where the featured unit was located. The plan/map ambiguity arose from the importance of using the same scale from board to board despite the widely varying physical sizes of the projects themselves.
- A unit floor plan that also showed the private outdoor space and included text describing the square footage, number of bedrooms and bathrooms, and the estimate current value.



- a collection of between seven and eight outside photographs taken to create an impression of the unit, the project, and local amenities. To guard against potential biases or misrepresentations that can occur when using photos in research, the photos and their layout were vetted by two of the researcher's thesis committee members before their inclusion on the boards.
- Four short text sections describing how the alternative satisfies each of the four primary "needs of: a family oriented place; a good lifestyle; relaxation; and financially practical. The financially practical section of the text highlighted why resale of the unit might be expected to be easy and pointed out the cost savings that could be realized by making due with one less car.

3.7 A Summary of the Interview Results

A brief summary of the interview participants and the broad themes that emerged from the interviews is presented in Table 3. This overview is presented not in effort to summarize all the results but to give the reader a general sense of the participants, the fundamental factors behind their housing preferences, and their responses to the attached alternatives (where they were used).

Table 3: Summary of Interview Results

Participant Description	Children	Reaction to Alternatives	Housing Preference Notes
Young couple moved from residential neighbourhood in Vancouver to WWP. He was attracted to urban living.	one infant	Not used.	The investment potential was critical. She had dreamed of owning a spacious feeling house.
Wife from an established urban couple living in Yaletown.	two	Not used.	Urban living offers a wide diversity of family activities. Short commute means more time with the kids.
A racially mixed couple move to WWP from Japan. Her english was weak and his desires dominated choice.	one child	Not used.	He is a suburbanite: kids to run around with many friends; "it's away"; and a good investment. She would have preferred the city to be close to other Japanese people and food.
Financially successful young couple move from the crime in Gastown to West Vancouver to start a family.	one infant	Greenway is appealing. Podium and point courtyard is relaxing. Favorite is classic row house: it's bright, more adaptable, and mature trees feel like home.	Both have a strong urban lifestyle vision but her home must be a quiet, green sanctuary.
Wife from young doctor couple grow to love urban living in their Yaletown condo.	one infant	They love Yaletown but Podium and Point alternative is too far from amenities. Classic row house offers great space, adaptability, internal privacy, and quiet street in a good urban neighbourhood.	Original move to condo was an investment and commute compromise but they grow to love urban living.
Life long suburbanites move to WWP from bad high rise strata experience.	one child	None appealed strongly but classic row house would work best if garage was in front and had a private backyard.	Strong perception that the diversity of a cities is unsafe. Strong suburban lifestyle vision of home improvements, BBQ's, and quiet homogenous neighbourhood.
Young couple move from Yaletown to WWP to start a family and be close to parents.	one toddler	A toss up between the space and adaptability of classic row house and the Yaletown lifestyle of podium and point.	She's flexible. He desires a shorter commute/adult urban lifestyle AND space for kids to run freely. With one child urban might work but they want two.
Husband from young couple living in WWP but thinking of moving further out to realize capital gains.	one infant	Likes lifestyle in podium and point tower: good neighbourhood close to seawall, great courtyard, but too small for more than one child. Likes classic row house adaptability and garage for storage but too far from parks.	His weak urban lifestyle vision can't compete with their financial limitations/needs and desire to store stuff.
Husband from couple with Chinese heritage that moved to WWP from Yaletown.	one toddler	Podium and point tower offers best value for money and lifestyle that would appeal strongly to his wife. Likes quiet, private street of infill and attached garage of classic row house.	He has neither urban nor suburban lifestyle vision. Wife likes Yaletown. Kids fine in the city. Perceived value for money, privacy, and attached garage important. Would give it a try.
Single father moved from UK to Coquitlam townhouse because he grew up in a village and was not familiar with Vancouver.	one child	Not used.	Reduced commute time and urban lifestyle appealing to him. Can imagine kids in the city but school quality (new, small class size) important.

note that WWP = Westwood Plateau

4.0 Towards a Grounded Theory of Urban Attached Housing Design

Despite the fact that the participants in this research were remarkably similar in many respects, formulating a coherent theory of attached housing design for young families was not a simple task. Both urban and suburban participants in this research were enthusiastic about their current housing choice, indicating that there is no single “best” housing or neighbourhood design solution. What differentiated the two groups were not their housing and neighbourhood needs but their *perceptions* of how these needs could be satisfied in a given environment.

Participants described a wide range of desirable housing characteristics but the reasons they provided for their current housing choice and for their preferences amongst the five attached housing alternatives indicated that there were three underlying needs to be satisfied. The words of both urban and suburban participants revealed that family housing choice is an attempt to balance the needs for an enjoyable *lifestyle*, for *sanctuary*, and for *financial success*.

This emergent theory of attached housing design is divided into five themes. The first theme describes some of the insightful moments in the data analysis that lead to the realization that housing choice is a product of individual *perception*. The second and third themes form the core of this theory and describe how the needs for a rewarding *lifestyle* and for *sanctuary* can be satisfied in attached urban housing. The fourth theme explains that while the need for *financial success* and security was clearly a factor in housing choice, it was beyond the scope of this research to explore how the design of attached housing could impact its investment potential. There is a final sub-section is a brief discussion of the other factors that the literature and experience indicated *may* be significant in housing choice for families but were not sufficiently detailed in the data to incorporate into this theory.

4.1 The Power of Perception

The opportunities and challenges of any given place are as much a product of perception as they are of the place itself.

Our perceptions of a place, based on our direct and indirect experiences, enable us to envision both the opportunities and challenges that it presents. In this research, only participants that had enjoyed living in an urban setting prior to the arrival of children were attracted to living there once they had started a family. A key moment in understanding the power of perception and the core needs that underlay housing preferences came when this researcher was forced to realize that his own perceptions regarding children's play were not universally ~~shared~~.

The Source and Role of Perceptions

Our perceptions are informed by both our direct and indirect experiences. Direct experience comes from personal exposure to ideas, situations, etc. Even though this experience is “lived”, the resultant perception often remains subjective due to limits in the scope of the experience or because it only partially applies to the current situation. Indirect experience is experience that is shared with us through the stories of our family, friends, and coworkers. We also gain indirect experience from our culture, through both the media and entertainment sources such as movies and song.

These perceptions shape how we see places and people; we naturally gravitate towards the familiar. One of the most basic sources of fear and stress is the unfamiliar, not because it is truly dangerous but

because it raises uncertainties (Gray, 1987). For the majority of middle class Canadians, it is difficult to imagine raising a child in an attached urban home. Prior to becoming parents, our perception of what children do and what they need is likely to be strongly influenced by our own suburban upbringing. As one participant put it, "we just ran around until the street lights came on and then we all went home." Lacking an alternative vision and seeing many obstacles to re-creating that way of life in the city, we prefer to raise our children in a detached suburban home.¹⁵

Further contributing to the predominance of our suburban preferences are the cultural messages or our indirect experiences of cities as noisy, crowded, dirty, and/or dangerous. This research did not explore participants' indirect experiences in detail nor did it attempt to document cultural messages regarding urban or attached housing living. This researcher's personal experience suggested that the bulk of our culturally transmitted indirect experience about urban living is negative, in no small part influenced by the context of American cities.

An Urban Lifestyle Vision

One of the most immediately evident findings of this research was that the quantity and quality of time participants had lived in mixed neighbourhoods before having children was strongly correlated to their attraction to doing so with a family. The participants who had never lived in a mixed neighbourhood had absolutely no desire to do so with children. They had strong negative perceptions of the urban environment and were the only participants that expressed a *strong* desire to live in neighbourhood where their neighbours would be very similar to themselves. They were genuinely baffled as to why someone who could afford to live in their neighbourhood would not choose to do so:

"Everybody wants this (suburban living). If they can afford it, even single people want to live in a house... Always having to explain to your kids every time you encounter someone that doesn't fit and conform with what they're used to, it's just more and more stress on the parent. That's why people *flee* the urban centres. Even if you grew up there, you know it's just not right. It's not the best way to live."

Their perception of the city was informed by their experiences of traffic commuting into work, the crime stories of their co-workers, and presumably by the media.

Conversely, those who had lived in a mixed neighbourhood for many years before having children remained there when they began their families. Urban living had become part of their identity and they could not imagine moving to the suburbs. It was interesting to hear how one urban participant's vision of a dream home morphed with her urban living experience. Originally she and her husband had been enthusiastically seeking a detached home but circumstances forced them to settle for an urban condominium. After living there for over five years, their vision of a "dream home" had morphed into a ground-oriented townhouse on the Yaletown seawall.

The participants that were genuinely interested in attached urban housing alternatives all developed an *urban lifestyle vision* from direct experience. They made it very clear that their willingness to forgo the benefits of detached suburban living was based on their perception that an urban environment offered benefits that were equally or more desirable. These participants not only perceived urban

¹⁵ The struggle to perceive something unfamiliar as appealing was evident even on the advisory committee guiding this research. There were frequently widely different perspectives between one committee member who was raised on a farm but had been living in the city without children for years and another who lived happily in the suburbs with his family.

neighbourhoods as familiar and safe but they also perceived them as offering desirable lifestyle opportunities.

Misperception and Insight

Two of the biggest surprises that this researcher encountered in this study were also very enlightening. The first significant unexpected result was the strong appeal that the very dense Yaletown neighbourhood held for many families; while it was marginal in satisfying their sanctuary needs, it embodied the desirable urban lifestyle that would entice them to consider an attached urban housing alternative. It provided a very desirable diversity of recreational, retail, and community amenities in a pleasant pedestrian environment.

The second surprise was a seminal moment in the development of this theory. It occurred when it became apparent that the classic row house "The Redbricks" was either the favorite or second favorite alternative for every participant that viewed the boards. This alternative was originally not even going to be included in the study as it failed to provide what was initially perceived by this researcher as an essential element for family housing: immediate access to a safe outdoor play space for children.

Other alternatives such as the townhouse courtyard development or the cityhome on the pedestrian greenway offered better outdoor play opportunities for children in the immediate neighbourhood. The near neighbourhood of the podium and point tower alternative offered better and more varied urban lifestyle opportunities. While there were other positive characteristics, the strength of the Red Bricks appeal was the capacity of its internal layout to provide a sense of internal privacy and adaptability. The immediate neighbourhood was as a tree-lined street that evoked relaxing images of quiet, privacy and a sense of "home". This row house unit and its immediate environment provided a sense of *sanctuary* that was clearly essential to families. At the same time, participants with an urban lifestyle vision perceived the near neighbourhood as providing them with the requisite diversity of urban opportunities and amenities.

Combined, these insights into perception and need provided the skeleton for this theory of attached housing:

- An urban lifestyle vision, typically acquired through direct experience prior to the arrival of children, is important in order for families to be interested in attached housing in a mixed neighbourhood.
- To encourage families to compromise on their private realm, attached family housing should be located in neighbourhoods with an attractive public realm that provides convenient access to a diversity of recreational, retail, and community opportunities.
- Attached housing must provide families with a sense of sanctuary.

With this skeleton in place, the relationship and hierarchy of the all the important concepts that had developed during the data analysis started to become apparent. The responses of participants from interviews where the boards were not used were consistent with this newly conceived structure and provided a deeper understanding of family needs and alternative ways in which they may be satisfied.

4.2 Lifestyle

The nature and diversity of lifestyle opportunities in a good urban environment are what will attract more families to attached urban living.

For most people, their home must satisfy more than just their needs for shelter and safety. It also plays a significant role in what Maslow would refer to as their relational and growth needs. Humans are social beings and our acceptance by, and relationships with, others are important to us. In addition, when a person's other needs are sufficiently satisfied, humans strive for emotional, physical, intellectual and even spiritual *growth* (Maslow, 1998). Our recreational activities, our hobbies, and our community involvement all play an important role in this growth. In this research, our personal approach to satisfying these relational and growth needs are collectively referred to as our lifestyle.¹⁶

Participant descriptions of their *lifestyle* at home and in their neighbourhood suggested that this need can be divided into three categories: hosting family and friends; developing community relationships; and play. Regardless of its built form or location, our home plays an important role in our closest relationships and must enable us to comfortably host our family and friends. What fundamentally distinguishes an urban lifestyle from a suburban one is the character and conduct of our community relationships and the opportunities for adult and children's play. *Fundamental to the appeal of an urban lifestyle, are the diversity of relational and recreational opportunities that the neighbourhood provides.*¹⁷

4.2.1 Hosting Family and Friends

Regardless of its built form or location, a person's home plays an important role in their close relationships. An important lifestyle consideration that participants incorporated in their housing decision was how well suited it was for *hosting*: connecting with their immediate family, other important family members, and friends. In particular, the preparation and sharing of food as well as the provision of a guest room were frequently mentioned activities that a desirable home needed to be able to accommodate.

Participants stressed the importance that the layout of their home played in maintaining *family contact* and facilitating the supervision of children. It was important that family members could pursue many components of their different daily routines without being isolated from each other (the need for internal privacy is discussed in Section 4.3.3: Relaxing). An "open" floor plan was universally desirable in providing a strong connection between the kitchen, dining area, and the "family" room. This layout made it possible for the family to remain together when one parent was preparing or cleaning up after the evening meal while the other was watching the news or playing with their child.

¹⁶ In Maslow's theory of human motivation, esteem needs come before these growth needs. While even a basic understanding of marketing indicates that esteem needs play a significant role in many purchasing decisions, this research did not directly address these esteem needs. The reasons for this are explained in Section 4.5 – Other Potentially Important Factors.

¹⁷ This theory's focus on lifestyle opportunities as a major factor in housing choice is supported by the literature. For example, in *The Housing Game: A survey of Consumer Preferences in Medium-Density Housing in the Greater Vancouver Region*, researchers found that when suburban residents were confronted with "real life" trade-offs, they remained highly committed to suburban living. Contrary to this, urban residents confronted with the same trade-offs indicated a higher willingness to occupy an attached home in order to remain in the city. The study hypothesized that "lifestyles may be the underlying factor influencing consumer choice of location" (Bell, 1974, p16).

Similarly, such a floor plan enabled one parent to do many of the household chores and supervise their child simultaneously.

Hosting friends for dinner was another important social activity, especially for suburban participants. A large kitchen and/or an open floor plan creates a large space for sharing a meal and enables visiting to continue even during meal preparation and clean-up. This layout is important even for social events not based around a meal. As one participant described it, "People tend to go to the kitchen at parties." The importance of this layout appears consistent with the GVRD research into medium density housing that discovered that second only to suburbs in family housing preferences were homes that are distinguished by a big kitchen and convenient location (Boutilier, 1996).

Many participants indicated that their relationships with their own parents and siblings played a significant role in their housing choice. Often new parents find they share more in common with their original families and many participants described turning to them for support and advice in raising their family. For many participants with family living in the Vancouver region, the location of these relations played an important factor in their location choice.

Similarly, many participants, especially those without family living nearby, indicated that *accommodating out-of-town family* (or friends) was important to them. Most suburban participants described having, or planning to add, a guest room. One of the key attractions of the classic row house alternative "The Red Bricks" that participants described was the third bedroom and bath on the ground floor, separate from the rest of the home. They all envisioned using the extra room to accommodate overnight guests (and their luggage) and many mentioned that its separation from the rest of the house was important to minimizing the disruption that such visits can entail (see Section 4.3.3 for a discussion of the importance of internal privacy).

4.2.2 Community Relationships

While the home plays an important role in providing a setting for close family relationships, at least equally significant is the function of the neighbourhood in creating opportunities for more casual, community relationships. In addition to satisfying the universal need for playmates for one's children, also important to the desirability of a home is the perception that the community provides opportunities for relationships with other adults with shared interests. The urban participants in this research have clearly established that a good urban environment can meet both children and adult community relationship needs. The challenge in attracting additional families to the city is making these opportunities more evident and familiar.

Participants in this research took their role as parents seriously. Providing a good environment for their children was one of the most significant factors in their housing decision. Common to all participants' descriptions of such an environment was the presence of *playmates* and friends for their children. Participants perceive that playing with other children was important for their own child's happiness and healthy social development. Additionally, the presence of young playmates provided a valued break from fulfilling this role themselves.

A neighbourhood's perceived potential for providing *opportunities for adult relationships* was also important, but typically less so. Easily accessible adult relationships within the neighbourhood are a sanity lifeline to parents who are staying at home to raise their children. In addition, relationships with neighbouring adults, particularly other parents, are valued as they provide an important source of childrearing advice and support. As the reader might predict, the importance of these relationships was

inversely related to the participants' mobility and network of established relationships. For example, one participant who worked away from the home and had sporting interests placed less importance on these relationships than did his wife, who spent most of her time at or near home raising their son.

Through a combination of their personal and cultural experience, Canadian families are all familiar with the opportunities associated with suburban living for forming and conducting neighbourhood based relationships. Suburban participants in this research described relationships focused around the private home and shared "family" interests. Their children formed friendships with the neighbors' children while playing in the cul-de-sac and these relationships continued to grow here as well as in the backyards and homes of participants and neighbours alike. Adult relationships developed through the children, while washing the car, or across the back fence. A sense of community for the suburban participants in this research was not grounded so much in a specific place but more in a type of place, one that was almost exclusively occupied by families. This concurs with Martinson's thought that "Suburbs are less a physical place than a state of mind" (Martinson, 2000, introduction xxiv).

One significant challenge in attracting families to attached housing in mixed neighbourhoods is that the formation and development of neighbourhood based relationships in these settings is less familiar and therefore the opportunities are more difficult to perceive. Attached urban housing typically lacks the familiar buffer spaces that enable relationships to develop gradually. There are frequently no back decks or yards, no cul-de-sacs or front driveways, and it is unlikely that a significant number of the immediate neighbours have children or share a significant interest in their upbringing. To someone who has never lived in the city or even those who have lived in the city but have no experience with children in the city, it can be very difficult to confidently envision relationships for either the children or adults in this environment.

Just because these opportunities for relationships are not as familiar does not mean that they do not exist. Urban participants described numerous rewarding and important relationships that began at neighbourhood prenatal classes, in the park, at the daycare, or at the community/recreation centre. Part of the urban lifestyle vision is encountering friends, acquaintances, and even interesting or friendly strangers while traveling to or visiting familiar nearby amenities. These descriptions underscore the importance of easily identifiable "family" focal points within the urban neighbourhood; places where it is evident that children come to play and learn.

The *urban* participants also perceived that a *diversity* of relationships were important for both themselves and their children. They expressly described a desire for their children to form friendships with children from other cultures and other socio-economic backgrounds.

"I think living in a diverse area, I think it is great for my kids ... The people that live next door have a little girl just a bit older than K but don't speak any English. K was jabbering away ... and we could see the little girl had no idea what she was saying ... K remembered from being at school how to say 'hello' in Chinese and ... well, that was one of the biggest grins that you ever saw!"

They valued their own neighbourhood relationships with individuals who did not share their child-raising interests such as a friend from a class at the community centre, a coffee shop regular, or even a local merchant. These associations appeared to ground the urban participants in their specific neighbourhood, expanding their perception of home beyond the walls of their unit and underscoring the role of public (or retail) social spaces.

4.2.3 Play

According to Maslow's Theory, once we are confident that we will be fed, safe, and have emotionally fulfilling relationships, we will pursue growth activities such as sports, hobbies, community involvement, and continuing education; in short, play or leisure activities. Fundamental to the desirability of an urban environment for families is its ability to provide a wide diversity of distinctive opportunities for both adult and children's play. Adults that have lived in an urban environment recognize the benefits that urban living might offer them. The challenge is that many of the activities for children are very different than the familiar opportunities provided in a suburban setting. This can make it difficult to confidently imagine a rewarding lifestyle for children living in attached urban housing.

Play – The Suburban Lifestyle

Suburban participants' descriptions of their lives, especially those working outside the home, suggested that after their weekday commute there was little *time* for anything other than preparing dinner and getting the children ready for bed. While participants indicated that they might watch the news, do some yard work, or read briefly, none indicated or described any activities that involved going anywhere away from their private home. Suburban participants described their weekends as largely filled with entertaining at home, reading, watching TV, doing chores, or working on home improvement projects.

Many suburban participants described the play and growth opportunities for children as a very significant reason for choosing to live in the suburbs. While some described the value of "new schools" or the possibility of sending their child to the neighbour's house to play, they all discussed and focused on the importance of just "letting the kids run around outside" with other children. In addition to being perceived as relatively safe from traffic and strangers (see Section 4.4.1: Safety), the physical environment provided a large amount of immediately accessible and easily supervised outdoor space. While some participants described their children playing in the backyard, they were all very enthusiastic about the cul-de-sac as an environment where all the children could get together and play a diversity of games with loose and informally shared adult supervision.

The suburban lifestyle described by these young families mainly focused around the relatively large private realm. It is difficult to imagine replicating this way of living for middle class families in a more urban environment; land costs are comparatively high and the increased densities combined with the presence of "destinations" results in a greater number of strangers. One of the central assertions of this theory is that attracting families to attached housing in this context requires our urban environments to offer an appealing alternate lifestyle vision.

Play - Commuting

One of the most predictable differences between urban and suburban living that was confirmed by participants was a reduced commute to and from work. The majority of the adults in the participant families involved in this research worked in the central city of Vancouver, primarily, but not exclusively, in the central business district or along the Broadway corridor. For participants currently living in the city, a short commute was an important lifestyle attribute. These participants described relatively rich family and personal lives even on weeknights.

"I think it (urban living) is having quality time with your kids ..."

Surprisingly, *a reduced commute played only a minor role in the appeal of the attached housing alternatives to the majority of the suburban participants*; it was a significant attraction for only one

suburban participant. Could potential commute times be too abstract to make the emotional impact that marketing experts say is at the heart of purchasing decisions?

One of the attractions of the neighbourhood where the bulk of the research participants lived was that getting into Vancouver did not require any bridge crossings and therefore commute times were an acceptable and predictable 45-55 minutes. In general, participants were not overly concerned with their commute and described the high occupancy vehicle lane, the scenic Barnett Highway, and the pleasures of the West Coast Express commuter rail line as making their trips to and from work "tolerable". The GVRD study on attached housing specified commute times *over one hour* were the source of considerable dissatisfaction for suburban home owners, but not enough for many of them to consider an attached alternative closer in (Boutilier, 1996).¹⁸

Play - An Appealing Urban Lifestyle

Individual participants who were seriously interested in attached housing options in mixed neighbourhoods were attracted to the urban lifestyle that this would enable. While most wanted their immediate surroundings to be quiet, low traffic, and "green", they described an appealing urban lifestyle as one that was distinguished as being close enough to a diversity of vibrant retail, community, and recreational amenities to be able to enjoy walking to them easily.

"The walk is relaxing. I have my usual ritual where I pick my son up from daycare and we go for a little walk on the seawall, end up at the grocery store and pick up our fresh produce for the night's meal and walk home."

This simple quote from one of the urban participants highlights the importance of walking as recreation and that daily "chores" can become relaxing when combined with pleasant activities. She implies that she enjoys having the time to take advantage of nearby retail (especially "full service" groceries), recreational, and community amenities. These elements were common to all participants' descriptions of an appealing urban lifestyle. The one important element of an urban lifestyle vision that was not reflected in this simple statement was the importance of vibrant environments full of a diversity of people. Understanding the elements of this urban lifestyle is key to designing desirable mixed neighbourhoods.

Common to all descriptions of a desirable urban lifestyle was *walking*. The ability to access amenities and conduct personal business on foot is appealing because it provides several key opportunities:

- It facilitates desirable, unplanned contact with friends or strangers (as described previously under community relationships). While participants emphasized the desirability of contact with others when they described amenities they would visit, it is reasonable to assume that the increased opportunities for contact offered by walking were also desirable.
- It offers the potential to enjoy fresh air, sunlight, natural beauty such as trees or water, and some non-strenuous physical activity.
- One can move at a pace appropriate for the enjoyment of the retail and social environments.

¹⁸ While one suburban participant had originally stated he and his wife would *never* entertain commuting across a bridge, in a follow-up visit months later he mentioned that they were considering moving further out. When asked about this surprising change, he explained that they were moving to capitalize on their home's appreciation and that "you can get used to anything".

- Urban and suburban participants alike described walking as a pleasant leisure activity that they could share with their children.

Peter Owens provides an academically grounded theory on the design characteristics of an appealing pedestrian realm in his article "Neighbourhood Form and Pedestrian Life: Taking a Closer Look" (Owens, 1993). Central to his theory of the design of pedestrian environments is visual diversity, street activity, buffers from (or limits to) traffic effects, and elements for physical comfort such as shade trees and resting spots. Participants also described the natural beauty of Vancouver as an attractive pedestrian element with frequent references to a relaxing walk along the seawall or the pleasure of taking the Aquabus to Granville Island.

While a pleasant walking environment is important, a *diversity of desirable amenities* is also central to a positive urban lifestyle vision. These destinations provide the retail, recreational, and community amenities that augment the reduced private realm of attached urban housing. While parks, schools, and daycares were all important amenities, a good urban environment was distinguished by the access it provided to retail amenities and community centres.

One urban participant who loved Yaletown was only marginally attracted to the podium and point tower alternative because it was too far away from this neighbourhood to satisfy their vision of an urban lifestyle. In particular, it was too far from the full range of groceries that many participants noted as desirable.¹⁹ She explained that you can walk further with just a child than you can with a child and groceries. While Choices and Urban Fare grocers were noted as important contributions to the livability of the Downtown environment, other urban settings instead provide a concentration of a diversity of smaller grocery stores. In addition, Starbucks, a popular coffee chain, was also regularly mentioned as a desirable local amenity.

While participant descriptions of a desirable urban environment all explicitly described the importance of walking and of a diversity of amenities, many also implied, but did not elaborate upon, a third critical element: *vibrancy*. A number used the word "hubbub" to describe the appeal of Yaletown. One urban participant commented, "We like all the activity. We love seeing all the people walking by." Participant reactions to various neighbourhoods discussed in the interviews provided some clues to this critical final element in their urban lifestyle vision.

Not all mixed neighbourhoods are successful in providing this vibrancy. While some participants described suburban town centres as providing many desirable retail opportunities normally associated with urban neighbourhoods, these centres did not satisfy their urban lifestyle vision.

"If you're buying a townhouse, you have to be in *town*. A suburban townhouse is a contradiction in terms."

The few participants who were asked about the potential of an attached home closer to the nearest town centre, Newport Village in Port Moody, indicated that this option would hold little or no lifestyle appeal and might only be considered if the homes were notably less expensive than their present detached ones. A visit to the Village revealed a diversity of shops and a pleasant built environment for

¹⁹A simplistic but relatively reliable predictor for an urban lifestyle vision might be how often people envision shopping for groceries. Most people with an urban lifestyle vision imagined getting fresh produce almost daily. When discussing why parkade parking was undesirable, participants without an urban lifestyle vision almost inevitably "defined" themselves as shopping for groceries at a discount store much less frequently.

pedestrians. This researcher attributed the failure of this environment to appeal to participants to the fact that this centre lacked the vibrancy of urban ones in both the diversity and quantity of other pedestrians. In addition, the walk to this centre lacked interest and crossed a wide and busy roadway.

In addition, many participants noted that while one of the research alternatives, Cranberry Commons, was conveniently located close to a variety of retail amenities, the section of Hastings Street near where it was located similarly failed to satisfy their vision of an urban lifestyle. Participants cited the traffic and the nature of the retail opportunities to explain its lack of appeal. This researcher has observed that while there are a great variety of shops along this section of Hastings Street, they do not have interesting window displays or outdoor seating and pedestrian traffic is too sparse to result in a “hubbub”. It also suffers from long pedestrian crossing times, sparse street trees, a lack of appropriate proportions, and there are no public institutions or spaces to activate the area.

David Engwicht provides a detailed and colorful description of vibrant urban streets in *Street Reclaiming: Creating Livable Streets and Vibrant Communities* (Engwicht, 1999). People watching, the diversity of characters, and the volume of pedestrians are all central to activating public spaces.

Play – Children in an Urban Setting

The participants in this research appeared to take their responsibility for the healthy and happy upbringing of their child quite seriously. Suburban participants all cited the need for more space and a good environment for children as key reasons for moving to the suburbs. The key ingredients that were commonly described by suburban participants were playmates (already discussed), good schools, and a safe and easily supervised place to “run around”. While the suburbs provide us with a safe and familiar setting for raising children, can cities also be good environments for children?

Participants were clear that the proximity of a good school was a consideration in their housing choice but they provided surprisingly limited descriptive detail on how they evaluate “good”. The age and tidiness of a school were the most common indicators of a good school.

“We drove and took a look at it and it’s nice. No graffiti on the walls, no burned out cars in the parking lot, so we got the impression it would be nice.”

The discrepancy between the supposed importance of schools and the lack of detailed comments is discussed in Section 4.5.

One of the most challenging issues confronting participants attracted to urban living was confidently imagining their *child playing* in that environment. For many suburban participants, an environment that enabled loosely supervised and unstructured outdoor play for children was central in their housing decision. This researcher had originally expected that attracting families to attached housing in mixed neighbourhoods would depend on re-creating these same opportunities using some variation of either a secure courtyard or pedestrian greenway design. The data made it apparent that he had been limited by his personal perception of play based upon his own suburban childhood.

Participants with a strong urban lifestyle vision also placed significant importance on outdoor play opportunities for children. Only their perception of play was different. When describing their image of children’s play in an urban environment, these participants were either involved in the play activity or at least present. They indicated that good and accessible public outdoor spaces for children’s play were sufficient to satisfy this important need. While many indicated that a small private yard or a child

friendly and secure courtyard would be nice, these were not essential features. For the suburban participants with an urban lifestyle vision, this was a necessary compromise.

What became apparent only after reviewing the data on commuting was that the urban participants had a fundamentally different perception of children's play. Their vision of a good environment for children was not one of "kids running around" with only loose supervision. For them, *an urban lifestyle was having the time and opportunity to share a wide variety of activities as a family.*

This surprising result must be qualified by the reminder that the participants only had pre-school or young school aged children. Those suburban participants with an urban lifestyle vision struggled to imagine life in the city with adolescent children.

"... by the time you hit a certain age, you start to be an individual and you want to do things on your own ... without your parents hanging around."

This introduced uncertainty in their attraction to the attached housing options. They suggested that if a good attached home were available at the right price then they might have been tempted to "try it for a few years and see what happens". This is much easier to do in a hypothetical situation than a real one.

Perhaps one of the most significant challenges in attracting families to attached housing in a mixed neighbourhood is creating and supporting the impression that these places provide good opportunities for children's growth.

4.3 Sanctuary

Housing design that provides a sense of sanctuary is essential in attracting families to attached homes in mixed neighbourhoods.

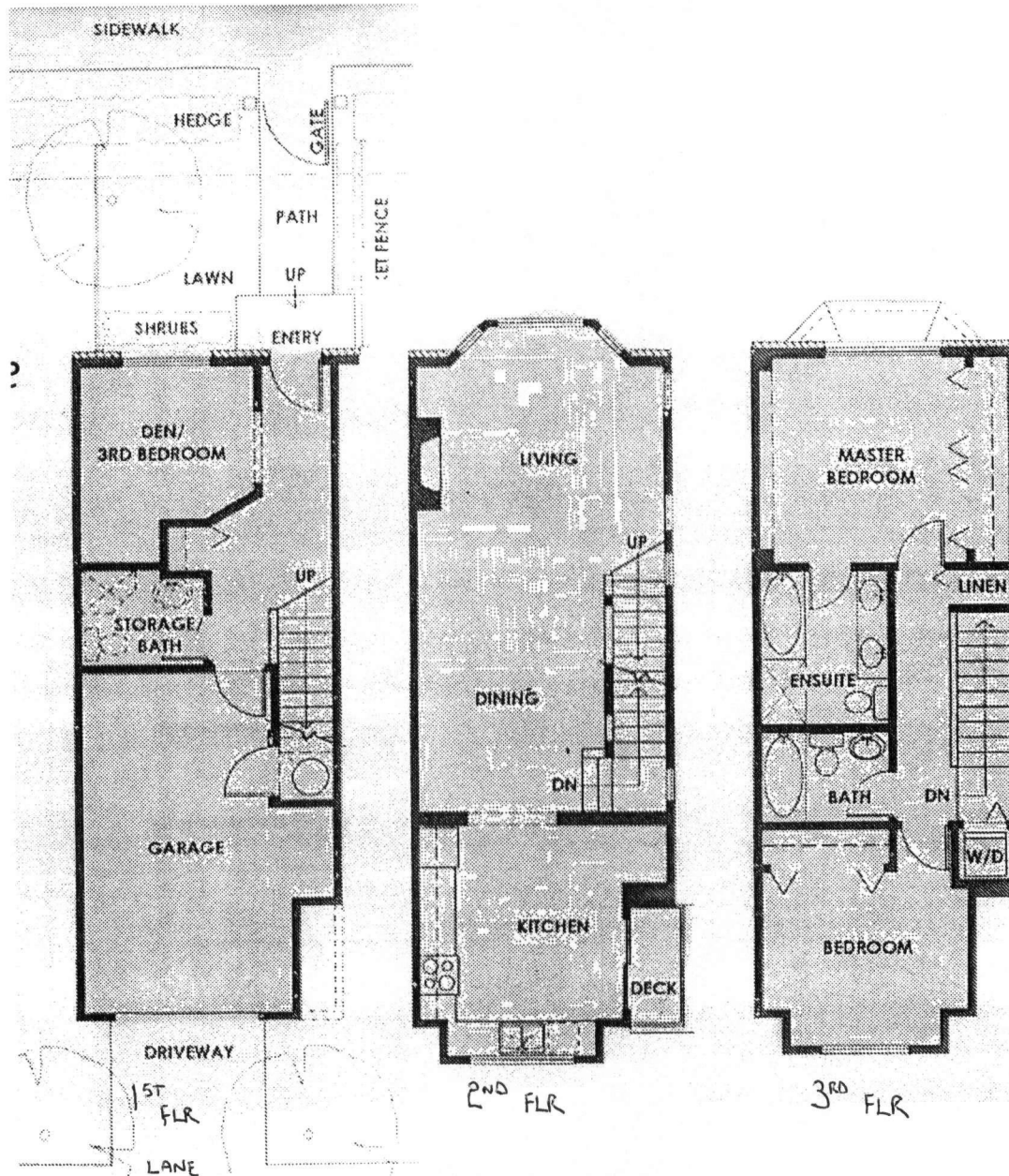
The need for a safe, stable, peaceful, private realm where family members are free to do as they please has significant implications for the design of appealing, attached homes. This result is consistent with Maslow's hierarchical theory of motivation and needs that proposes that after physical survival needs are satisfied, the most basic need is for safety ...and sanity.

The importance of satisfying sanctuary needs was highlighted by the surprising appeal of the classic row house alternative "The Red Bricks". The strong appeal of this alternative was based on its layout as shown in Figure 9. The elements that made this a participant favorite included:

- a third "bedroom" and bath on the ground floor that are separate from the main living area;
- an attached garage;
- a relatively spacious and open main living area;
- a separation between the master bedroom and the second bedroom provided by two bathrooms;
- and a quiet, tree-lined street.

These elements combined to provide a home that many participants perceived as satisfying their need for sanctuary: a relatively *safe* environment from traffic; a sense of *certainty* arising from the adaptability of its layout; and a *relaxing* environment based on its internal privacy and its relatively open feeling.

Figure 9: Classic Row House Floor Plan



4.3.1 Safety

By definition, a sanctuary is a safe place. In general, the design of the private realm is central in creating a sense of sanctuary but the neighbourhood context can also play a significant role. Participants in this research did not express any concerns about family safety within either their current homes or any of the attached housing alternatives presented.²⁰ Similarly, participants with an urban lifestyle vision did not express any concerns regarding adult safety outside of the private home. While these same participants envisioned accompanying their children to outdoor play activities, for some

²⁰Concerns about thefts from and vandalism to private automobiles in unsecured or parkade parking did arise but are discussed in Section 4.4.4.

this was viewed as a necessary compromise. This sub-section contributes to a better understanding of the perceptions of children's safety; improvements to our urban neighbourhoods would likely expand the family market for attached housing.

When considering a neighbourhood, participants were primarily concerned about the risks to their children posed by traffic and strangers. One of the reasons suburbs in general and cul-de-sacs in particular are so attractive to families is that they control these risks by design. The relative remoteness of the suburbs, their low population densities, and the scarcity of through roads and destinations within the neighbourhood all combine to limit traffic and to make it easy to identify the limited number of strangers likely to be present.

Suburban participants also described community attributes that made their neighbourhood feel safe. Many participants were attracted to their neighbourhood specifically because they perceived that it was developed to attract young families. They believed that this would help them to get to know their neighbours and develop a sense of community. In particular, they were largely aware of the characteristics that enabled a special sense of community to develop around cul-de-sacs: a limited number of households and a clearly defined, commonly used, central space. One family intuitively recognized the role of small front setbacks and narrow road designs in creating a community feel. Not only did this sense of community enable the neighbours to trust one another, the fact they were mostly families also contributed to their sense of safety in that they believed there was a shared sense of responsibility for the welfare of the children.²¹

While the 22-unit townhouse/apartment courtyard alternative Cranberry Commons did provide most of these characteristics and participants viewed the courtyard space as a safe and attractive play space for children, it was not a highly desirable alternative to any of the participants for other reasons.²² The courtyard in the 220-unit podium and point tower alternative "888 Beach" was not viewed by participants as a good location for children's play. The number of units that could access the courtyard and the presence of open water made this an unsuitable environment for loosely supervised children's play. Participants believed that if supervision was required then they were more likely to go to one of the nearby public parks where there was more space, better amenities, and more children to play with.²³

The modified road pattern and the pedestrian greenway of the Arbutus Lands alternative were described by participants as desirable neighbourhood features. Despite the fact that these features were not viewed as reducing the number of strangers in the area, their role in reducing traffic and traffic speeds were still very desirable. Similarly, 888 Beach's location on the seawall was seen as offering

²¹ These characteristics largely describe Oscar Newman's concepts of *community of interest* and *defensible space* (Newman, 1980) (U.S. department of Housing and Urban Development, 1995). Application of Newman's theories to established neighbourhoods have been shown to be effective in reducing crime and presumably increasing neighbourhood attractiveness (as reflected in increased housing prices).

²² The neighbourhood failed to provide a sufficiently appealing urban environment to warrant surrendering the square footage and private yard a similarly priced house in the suburbs could offer. In addition, the layout was viewed by some as "too communal", overly compromising their sense of privacy. Addressing these concerns and providing the same amount of private and semi-private space in a more desirable neighbourhood could be difficult to do without significantly increasing either the cost or scale of the development.

²³ Conversations with the concierges in a number of these podium and point towers indicated that despite the presence of play space and playground equipment in the courtyards of these buildings, children rarely played there. Participants familiar with these courtyards indicated that they seldom if ever used them for children's play, preferring instead to use the nearby public parks. Participants felt that the number of unknown neighbours and the presence of water features in these courtyards necessitated the supervision of children's play.

families access to both outdoor play space and a movement route to other amenities that was free of traffic. One participant described traffic concerns as greater than those presented by the presence of strangers: a momentary lapse was unlikely to result in any harm by a stranger's hand, especially in a well used area, but the same could not be said about traffic.

While this researcher had expected to explore design changes that would enable loosely supervised outdoor play, participants that were interested in urban living indicated that children's safety concerns would largely be addressed by direct supervision. Despite this finding, the desirability of unsupervised play for young children amongst suburban participants suggest that improvements to mixed neighbourhoods could be effective in attracting greater numbers of families to these settings. These improvements might take the form of street modifications intended to reduce both vehicular traffic as well as through pedestrian traffic by visually signaling to strangers that they are entering a "semi-public territory".²⁴

4.3.2 Certainty

Another important element of sanctuary that people appear to factor into their housing choice is a feeling of certainty and stability: the confidence that decisions made today will remain good decisions in an unpredictable future. Research participants described or implied two elements to this sense of certainty. First, participants all described the importance of space flexibility in enabling them to pursue and deal with future opportunities without having to move.²⁵ The second element of this certainty was less explicit but involved a hesitation to choose an option with unknown financial or emotional risks.

The housing feature that participants described as enabling them to pursue potential future opportunities without having to move was *space flexibility*. It was a major reason that suburban residents provided for why they desired a larger house and it arose repeatedly when participants were evaluating the attached housing alternatives. The most important potential future opportunity that participants described was having more children. Many had not decided how many children they would have but they wanted to ensure that future family growth could be accommodated without requiring them to move. Participants were explicit that more children meant that more bedrooms would be required but there was also an unexplored undercurrent that a larger family may need more space in general. Associated with this uncertainty over final family size were the storage requirements for the outgrown baby clothes and toys that *may* be needed in the future. One family estimated that 400 square feet in their basement was dedicated to storing baby stuff against the possibility of an additional child.²⁶

In addition to the growth of the family, there were a number of other potential space demands that participants factored into their housing choice. When discussing the use of their existing basement or the desirability of the flexible programming enabled by the lower floor in the classic row house

²⁴ It would be interesting to explore the benefits and barriers to street conversions to parks such as has occurred in Vancouver's downtown West End or into "woonerfs", Dutch style streets shared between children playing, limited parking, low speed vehicles, and pedestrians.

²⁵ While the core of this element of the theory is an emotional desire to be rooted, participants also described the financial costs of having to move as well as the upheaval and stress that is involved. To clarify this sense of certainty, it was not a fear of having to move but the desire to be able to choose freely if and when to move. One family that chose their current house because they could grow into it was actively considering moving to "cash-in" on the current housing market increases.

²⁶ Storage of these baby things as well as bulky sports gear and tools were frequently cited aspects of the benefits of a secure, private garage.

alternative, families envisioned a number of potential uses shown in Table 4 ranging from most to least frequently mentioned.

Not only is extra space required for these, its layout and location are also important. For these uses, it was important that the extra space was clearly separate from the family's private living space.

An additional future possibility that a couple of families described as factoring into their neighbourhood choice was that of changing jobs. Not only did these families consider access to their current place of work, they also considered the probable location of future employment opportunities. Their neighbourhood choice provided them acceptable access to both so that they would not create future pressures to relocate their home.

Table 4: Desirable Alternate Uses of Extra Space

- a home office that would enable clients to visit without requiring them to pass through the private family space;
- a rental suite to supplement income in case one of the parents decided to stay at home with their child or children;
- a nanny's suite.

In addition to this ability to deal with potential future opportunities, participants also described or implied a desire to *avoid unforeseen changes* or demands. A number of suburban participants were questioned as to why they purchased a new house as opposed to an older. In essence, a new house was stable from the start; the layout and features that were desired were already present and the fact that it was new suggested that there would be no unexpected repairs. By avoiding the need to renovate and by eliminating the possibility of unexpected repairs, families were confident that there would not be any unexpected costs and no extra demands on their time. Those families who purchased in expectation of having their first child in the near future were particularly careful of avoiding unexpected time demands, not knowing what parenting might require of them.²⁷

Less explicit but equally relevant was the appeal of *familiar places* and lifestyles. Participants typically showed more enthusiasm for the attached housing alternatives in neighbourhoods that they were familiar with. In addition and perhaps very significant to this theory was how the enthusiasm for attached alternatives always dampened somewhat as questioning probed further into the future. While they could easily describe visions of their adult lifestyle in a vibrant, mixed neighbourhood five or ten years from now, their confidence in the appropriateness of an urban lifestyle waned as they pictured their children moving past their pre-school years. Doubts seemed to emerge with their increasingly vague descriptions of what their children might be doing with their leisure time in those same future timeframes. We are most comfortable with the familiar and most participants lacked direct or even indirect experience of nine year olds in an urban environment.

Certainty is an important element of sanctuary. The provision of a flexible and sufficiently large interior space creates a sense of certainty and is a very important element of this theory of attached housing design. What cannot be addressed by design are the uncertainties that arise from the unfamiliar places and situations.

²⁷ While many envisioned landscaping improvements and remodeling work such as finishing the basement, these were "safe" optional activities that could be deferred if time or financial resources were limited.

4.3.3 Relaxation

We must be able to escape the pressures and stresses of our lives and relax in order for our home to satisfy our need for sanctuary. Here we will focus on general environmental conditions such as privacy, quietness, a spacious feeling, opportunities to enjoy nature, and personal convenience that participants described as affecting their ability to relax and enjoy the peace of their home. Relaxing activities associated with housing choice were described previously in Section 4.2: Lifestyle.

Internal and External Privacy

According to the literature, one significant but poorly described attribute of detached housing that makes it so appealing to homeowners is privacy. Within this research, privacy is defined as freedom from visual and audio intrusions. This includes privacy from disruptions originating both within and outside of the unit.

Internal privacy becomes a concern when there are incompatible, simultaneous uses that families wish to be able to accommodate or when there are overnight guests within the home (as was discussed in Section 4.3.1: Hosting Family and Friends).

Housing features that were viewed as enabling the desired internal separation included:

- separating activities on different floors
- a bathroom located between adult and children's bedrooms
- a separate "activity" room(s) for office work and/or children's play.²⁸

External audio or visual intrusions on the family's private space can potentially be even more stressful than internal disruptions. Traffic noise and neighbours

looking in were both mentioned as situations to be minimized if a home was to be seen as relaxing. Surprisingly, even long time suburban participants indicated that these classic threats to privacy could be adequately addressed in an attached housing situation. Locating the development on a quiet urban street appeared to address traffic noise concerns and no concerns were raised about the noise resulting from a shared wall.

Built forms such as a cityhome or heritage home where there would be people living above the family raised concerns for some participants. These did not appear to be significant as these issues were only mentioned when discussing the drawbacks of an attached alternative that was clearly disliked for other reasons.

Visual intrusions into the family's private space, while undesired, were a relatively minor issue and one present even in the suburb where most of the participants lived. In that neighbourhood, yards

Table 5: Incompatible Internal Uses

<i>Noisy activities that need to be separated from ...</i>	<i>Quieter activities</i>
Loud dinner parties or Intimate adult activities	Sleeping children
Noisy and boisterous play	Conversation
General household activity	Tasks requiring concentration (such as writing a dissertation)

²⁸ Where separate children's play rooms were not possible, having storage space for the clutter of their toys was seen by some as important to creating a relaxing environment.

backed onto one another and the hilly topography had some houses overlooking others. A couple of families observed that the decision to purchase a new house versus an older one involved the acceptance of less visual privacy because of the smaller lots and immature trees. They described how privacy was enhanced by offsetting units, landscaping, and the use of blinds: all strategies applicable to an urban environment. Some participants even described Alexander's concept of intimacy gradients or the consideration of how spaces were ordered from public to private (Alexander, 1977). Participants did not express concerns about visual privacy into the home when discussing the attached housing alternatives.

Spaciousness and Access to Nature

A feeling of spaciousness and immediate access to nature were both frequently mentioned attributes important to creating a relaxing environment and contributing to a sense of sanctuary.

Most of the suburban participants indicated that they had more space than they required and could imagine finding a smaller home attractive provided that it still felt open.²⁹ While a smaller space might have been acceptable, many specifically indicated that it required good natural light to not feel cramped. In addition, an open floor plan was seen as making a smaller space feel big. One couple described opening up the doors to their deck in order to "open up a room" during a party. Another couple speculated on the importance of the main living area's visual connection to an attractive and open outdoor space. These comments are not to infer that space was not important, but participants appeared to intuitively understand that "openness" is a feeling that can be created by good design.³⁰

The private outdoor space required to satisfy adults' needs for relaxation were relatively modest but positioning and broader design context had important implications for the success of these spaces. A small backyard or a patio large enough to comfortably accommodate a barbeque, a small table with some chairs, a few planter boxes, with room to put down paddling pool was viewed as a great private outdoor space in an urban context. Private outdoor spaces that were located at ground level on a public street or busy semi-private courtyard were significantly less attractive and less useful than ones located to the back of a unit or on a quieter semi-private space. Using public or semi-private open spaces and landscaping, such as the courtyards in podium and point tower developments, to enhance the openness and the visual appeal of these limited private outdoor spaces also contributed to their appeal.

While outdoor spaces satisfying these descriptions were seen as very desirable, the popularity of the classic row house alternative demonstrated that the design of the interior space and the character of the neighbourhood played a larger part in the desirability of attached urban housing. Some participants indicated that a smaller space adequate for a single reading chair, a barbeque, and room to stand and enjoy a glass of wine would suffice for their needs provided it was quiet, attractive and that larger public parks were easily accessible.

²⁹When suburban participants were asked to imagine living in a home one third smaller than what they currently occupied most of them did not think this would be problematic. Those asked indicated that they would have purchased a smaller home of a similar design at a correspondingly reduced price had one been available in their neighbourhood. When asked to speculate on the minimum acceptable size of an attached home in an urban neighbourhood, responses ranged between 1300 and 1500 square feet.

³⁰ This research was not designed as an architectural exploration of making small space feel larger than they are. These concepts have been better covered previously. For additional information, refer to *A Pattern Language* (Alexander, 1977) or the popular coffee table book *Creating the Not So Big House* (Susanka, 2001).

In addition, numerous participants commented on the desirability of a quiet, well-landscaped street. While detached homes in a new suburb notably lack mature trees, providing them in an urban context is potentially more important in creating a pleasant and human scale realm. Participants indicated that they associated street trees with residential neighbourhoods. One participant who was attracted to the podium and point tower cityhome alternative lamented that it would be hard to “feel at home” there because the unit’s façade looked too urban (reflective glass). Previous research has suggested that making attached housing resemble the familiar forms and styling of detached homes is important to their acceptance.³¹

While outdoor space plays a critical role in a good environment for children, participants with an urban lifestyle vision indicated that they envisioned public spaces as satisfying this need (as was discussed in Section 4.2.3: Play).

4.3.4 Personal Space & Freedom

One final element contributing to a home’s feeling of sanctuary is how well it enables the resident family to express themselves freely and to run their household as they see fit. While most of the activities participants described as making their unit feel like home would be possible in a strata building there was a negative perception that strata councils interfered with homeowner freedom.

Those participants who were directly asked, “What makes this place feel like “home” to you?” all described how they had manipulated their environment to their own tastes and desires. Many had painted, changed the flooring, removed wall sections, landscaped, built a deck, etc. Just being able to plant a few flowers or herbs was very important for some people.

Those participants who lived in a suburban environment but had an urban lifestyle vision were all surprisingly willing to surrender their larger outdoor improvement activities so long as they were free to manipulate the spaces that they did have.³² For a place to feel like a person’s sanctuary, it is critical that they are free to decide what happens there and to manipulate it to express their own tastes and personality.

The Perception of Strata Developments

“We work really hard to earn our money ... and I don’t want some stranger that we don’t even know making decisions for me on our home or yard. It is our blood, sweat, and tears for that kind of money.”

The literature, and in particular the GVRD study on attitudes towards ground-oriented medium density housing (GVRD, 1996), indicated that freehold ownership was a very important housing characteristic for residents in the region. While early interviews (that did not incorporate the attached housing

³¹ Despite instructions to participants to disregard the styling and finishing of the attached alternatives, many could not help but comment on the importance of these factors. Heritage styling appeared to be very appealing. It is possible that the Cityhome on Greenway and the Townhouse/Apartments on Courtyard alternatives did not receive fair consideration by participants in this study based on the photograph of the units’ front entries. Some participants observed that the former looked “institutional” and the latter seemed like an affordable housing cooperative. In contrast, the bricks of the classic row house alternative were very appealing and no doubt contributed to its appeal despite the instructions to disregard these elements.

³² One disadvantage of attached, urban housing that was not mentioned in the data but arises from the researcher’s personal experience is the frustration of not having a single room inside the home that an individual family member is free to decorate and change as they desire without a discussion with their spouse.

alternatives boards) with suburban participants appeared to support these results, later responses suggested a different conclusion.

Many participants raised concerns about living in a strata building.

- Carrying groceries, children, and baby/sports gear from the parkade was viewed as overly inconvenient. One participant who had lived in a high rise condo noted that having to ride an elevator to get to his unit at the end of a long work day felt impersonal and compromised his connection to home.
- Strata fees were perceived as a poor value and there was general unhappiness regarding how this money was spent, particularly within the maintenance budget
- Participants felt a sense of responsibility to attend strata meetings that were frustrating because of the pettiness of many of the decisions and the diversity of people and interests involved.
- Some participants perceived that their freedom to customize their individual unit would be unacceptably curtailed.
- At the time that many participants were purchasing their homes, there was widespread concern about the “leaky condo” problem in the Lower Mainland.

While almost all participants raised concerns about strata living, a curious trend was observed when reviewing participant responses to the five attached housing alternatives. Interestingly, concerns about strata living only arose in response to an alternative that was unattractive for other reasons. When participants were considering an alternative that they found appealing, they would freely discuss what they did not like about it but none mentioned that it was a strata development in these circumstances. Marketing professionals often observe that people decide with their hearts and then use the facts to justify a decision.

While providing attached housing with fee simple title, as recommended in the GVRD study, might make this form more attractive to families, this research suggests that this is not a key issue.

A Summary of the Importance of Satisfying Sanctuary Needs

In what is frequently perceived as an increasingly complicated and stressful world, people need a safe place to retreat to and relax (Enchin, 2002). “Home” must be a quiet place of one’s own where a person can do as he or she pleases. Like all needs though, a sense of sanctuary is *perceptual* and must be balanced against other interests. Participants with an urban lifestyle vision indicated that their sanctuary needs could be satisfied in a smaller private realm provided that this space was augmented by convenient and attractive public spaces and amenities.

4.4 Investment

The investment potential of a home plays a major role in middle class housing choice.

A family’s need for a desirable lifestyle and a sense of sanctuary must be balanced against their need

Table 6: Characteristics Perceived to Enhance Investment Potential

- Own land fee simple.
- Buy a *relatively* affordable home in a prestigious neighbourhood.
- A neighbourhood where all homes are “kept-up” is important in re-sale.
- A big house provides better value and is easier to sell.
- Single-family lots located where you do not have to cross a bridge are limited and will always be in demand.
- Corner lots have better resale.
- In an ethnic neighbourhood, don’t purchase a home in an unlucky location such as the head of a “T” intersection.

to establish financial security and success. For many "middle class" families, a purchase of a home is their single biggest investment and creates a desirable "forced savings plan". In exploring the reason why families moved from their previous residence, the desire to begin building equity was one of the most common reasons provided. Some academics lament this commodification of housing but it is an undeniable reality of contemporary culture.

When discussing their housing choice, most suburban families mentioned a number of factors relating to its good investment value as being important considerations in selecting a detached home in the Westwood Plateau. One significant factor was the common perception amongst participants that detached homes were more stable investments that appreciated faster than condominiums. More than once, people shared the logic behind this perception: land appreciates and buildings depreciate. In addition, some opinioned that "they aren't creating any more single family lots in this neighbourhood." The Westwood Plateau is known in the region for the size and value of its homes. The particular neighbourhood where the bulk of the research participants lived was relatively unique in that the homes were on smaller lots and targeted a more modest middle class market than the rest of the Plateau. "It can't hurt my re-sale chances and value to have million dollar homes just a couple of blocks away".

A related phenomenon that is relevant to this research was the importance of "value for money", where an emotional perception of value was directly tied to the physical size of the house and its lot. Participants appeared to intellectually understand that location impacts housing cost but many did not *feel* that the attached housing alternatives represented good value. This was true even when the alternatives provided an acceptable layout in a desirable neighbourhood. One participant spoke for several when he remarked "I would *love* to live here (in an attached alternative) if it were \$50,000 cheaper."

While issues of perceived value play an important role in housing choice, this research did not explore these perceptions in significant detail nor did it attempt to develop a theory on how to modify them to improve the desirability of attached housing in a mixed neighbourhood. A more comprehensive exploration of families' perceptions of the potential savings that could be associated with urban living would be informative. For example, while roughly half of the participants envisioned themselves as single car families when considering their favorite attached alternative, the corresponding monthly savings did not appear to influence these participants' financial perception significantly.³³ Other participants did not see this as being a realistic opportunity for them due to their dislike of bus-based transit, their need for two cars based on their employment responsibilities, their perception that other monthly expenses such as entertainment or childcare would erode any potential savings offered by locating in an urban neighbourhood.

It is interesting to observe that participants with the least financial resources or the weakest income potential *appeared* to place the greatest value on a home's investment potential. It may not be a coincidence that the two urban participants in this research appeared to either have solid income potential or were already financially well established.³⁴

³³ The Canadian Automobile Association estimates that the monthly cost to own and operate a car in Vancouver is \$650/month plus parking (Smith, 2000). In a crude estimation of value, assuming a 6% interest rate and 25 year amortization, this monthly saving is equivalent to just over \$100,000.

³⁴ Participants' financial resources and potential were not explicitly discussed. Many participants provided indirect indications regarding their financial resources such as having to "really stretch" to afford their home versus "both my husband and I are doctors".

Despite the perceived investment and “value per square foot” advantages of purchasing a detached suburban home, a number of participants were attracted to the similarly priced but considerably smaller attached urban alternatives. The theory that has been developed is based upon participant responses to the housing alternatives at realistic market prices. These participants appeared to place enough value on neighbourhood characteristics to balance the reduced size of the private home and yard. While an improved understanding of financial perceptions is not required to support the theory, this additional knowledge could be useful in expanding the theory and increasing the appeal of well designed urban attached housing.

4.5 Other Potentially Important Factors

By definition, a grounded theory only includes those concepts that arise directly from, and are “grounded” in, the data gathered. Other information sources such as personal experience, informal discussions, and the literature can be used in the preparation of interview questions but cannot independently inform the resultant theory. In this research, these other information sources suggested that there are factors that influence family housing decisions that did not arise in the data. In particular, the role of esteem and the access to quality educational opportunities for children may both play a more significant role in family housing choice than this research has indicated.

Esteem

During the course of this study, this researcher had a number of discussions with prominent local architects, residential developers, and marketing professionals. One factor that frequently arose as central to their understanding of family housing choice but was not directly discussed in a significant manner within the literature reviewed and interviews conducted was “esteem”. Maslow’s work on human motivation (Maslow, 1954) suggests that esteem needs are more fundamental than growth needs and become centrally important once safety and relational needs are satisfied.

The rapid growth of gated communities and the increasing marketing focus on creating an “exclusive” image for developments *suggest* that esteem may be fundamental to many people’s housing choice. Within the literature reviewed, these phenomena are a result of the commodification of housing and the retreat from the challenges (and opportunities) of personal engagement with the larger community. The esteem and ego implications of these trends were not discussed directly.

In these discussions with housing professionals they referred to the “aspiring middle class” and commented on how the location, design, age, and size of a home played an important role in reflecting the financial prospects and/or success of homebuyers. When they were explored directly within the interviews, the esteem implications of participants’ housing choices and preferences were primarily explained as investment decisions. The sensitive and complicated nature of esteem combined with the relative lack “refined” interviewing skills of this researcher made a detailed exploration of this concept beyond the already broad scope of this research.

Access to Quality Educational Opportunities for Children

Another factor that would seem to be significant in family housing choice but was not comprehensively addressed in the interviews was the access to quality educational opportunities for children. The GVRD survey inquiring into the attitudes towards ground-oriented, medium density housing indicated that school reputation was one of the top five housing characteristics sought by respondents who were attracted to suburban living (Boutilier, 1996). One well documented challenge in attracting middle class families to urban neighbourhoods in American cities is the significant

difference between the funding (and therefore quality) of urban and suburban schools. While the taxation and educational funding structure in Canadian cities make these differences less prevalent, the high ratio of English-as-a-second-language students in Vancouver public schools may be perceived by Canadian families as decreasing the quality of education available in these schools.

Suburban participants in this research indicated that being close to a good school was a factor in their housing decision but the only indicator of school quality that they described was its age and tidiness. One participant indicated that he perceived new (suburban) schools as being less crowded and as having more modern computer facilities available. On a similar note, another participant speculated that the socio-economic diversity of urban schools might discourage families from urban living, not because of school quality issues but because of the increased risk of drug-use. This participant indicated that he personally perceived that drugs were "probably" just as prevalent in suburban schools but his tone suggested there were some doubts in his mind.

When considering the urban attached alternatives, all participants commented on the desirability of having a school nearby. Many reflected positively on the options that indicated a bilingual school. None raised concerns about the quality of these urban schools. This absence of expressed concern might be attributable to political correctness, the absence of serious consideration to the details of school quality by new parents, or any number of other factors. Further research would be required to understand families' perceptions of school quality and the role it plays in neighbourhood preferences.

5.0 Conclusions and Recommendations

By using a flexible, qualitative methodology involving long interviews, this research has moved beyond identifying or even prioritizing desirable housing characteristics. It has provided a starting point for a better understanding of the underlying needs that inform housing choice. A home provides sanctuary, lifestyle opportunities, and is an important financial investment for young families today. This understanding has enabled the formulation of an emergent theory of design of attached urban housing for families.

Two big surprises in this research led to an important revelation. The first surprise was realizing that detached suburban homes are a rational choice for many families given the current options in urban and suburban housing. The suburban homes and the neighbourhood of most of the research participants effectively satisfied their needs for sanctuary while providing them with their desired lifestyle opportunities; it did not match the image evoked by some of the more rhetorical suburban criticisms.

The second surprise was the willingness of participants with an urban lifestyle vision to forgo private or even semi-private outdoor play space for their children if public space was easily accessible. While the suburban vision of loosely supervised children playing was appealing, urban participants described an equally attractive vision of having more time to share as a family.

Conclusion 1: An Urban Lifestyle Vision is Important

An urban lifestyle vision, shared by all the family decision makers (e.g. both parents), is important in order for families to consider an attached home in a mixed neighbourhood. It is the appeal of having time to take our children for a walk to visit the park and pick-up fresh produce on a weeknight, and the opportunity of meeting friends at a coffee shop or community centre that tempts families to accept a smaller private home and yard. In our current culture, this lifestyle vision is acquired prior to having children by a prolonged and enjoyable living experience in an urban setting. This experience creates the perception that the city is a safe place that offers a wide diversity of recreational, social, and educational opportunities.

Participants in this research who had positive urban living experiences were interested as individuals in an urban attached housing option. Despite this finding, I believe that only a few of the suburban families in this study would have seriously entertained an attached option if one had been available. In two parent households where both share in the housing decision, they both must have an urban lifestyle vision or the family will select the culturally more familiar detached suburban home and its associated lifestyle. This qualitatively confirms the work of Molin who concluded survey/conjoint analysis of individual preferences is a poor predictor of behavior where decisions are shared (Molin, 1999). Previous quantitative studies *may* have over estimated the short-term market potential of attached urban housing for families by surveying only one household decision maker.

Conclusion 2: Concentrate Urban Attached Housing for Families on Quiet Streets Close to Community and Retail Amenities

The nature and quality of the immediate and near neighbourhood appear to be fundamental to the appeal of attached urban housing. A quiet, well-landscaped street contributes to both a sense of home and sanctuary, but it is the near neighbourhood that compensates a family for its reduced private realm. The near neighbourhood provides families with a wide range of opportunities and settings to satisfy their relational, recreational, and educational needs.

Near neighbourhood elements that are important in attracting families with children to attached urban housing include:

- other children in the area;
- a safely and easily accessible park suitable for children's outdoor play;
- a pleasant pedestrian environment;
- community amenities such as a quality school, daycare, and community centre;
- vibrant and diverse retail street or area, especially one that includes a full range of groceries.

While regional recreational amenities and employment opportunities do not have to be in the near neighbourhood, their diversity and relative proximity is an integral part of the attraction of urban, attached living for families.

Conclusion 3: Families Require Adequate and Adaptable Indoor Space

While it appears a family's needs can be satisfied in an attached home that is smaller than a typical suburban house, it is important that a unit feels spacious and can adapt to meet changing requirements. An open floor plan or large kitchen, plenty of natural lighting, and visual access to attractive outside spaces all appear important in this regard.

Attached urban housing units with a minimum of two bedrooms and a den or three bedrooms would provide young families with highly desirable adaptable space. This space, especially if it can be separated from the main family living areas, would enable them to host overnight guests, separate incompatible uses, "hide" bulky children's toys, and accommodate future opportunities such as another child or home business. While families appear willing to accept less indoor space than is typical in a suburban home, the provision of at least one spare room is important to their sense of sanctuary.

Other private indoor spaces can help to satisfy these needs. Participants in this research indicated that the provision of private attached parking, while not strictly necessary, would increase the appeal of attached urban housing (even at additional cost). Such a garage space provides vehicle security, convenience, additional storage opportunities, and potentially could add additional flexible interior space if located and designed to do so. In addition, suburban participants indicated that they used their basement to accommodate many of the uses that required extra space. Providing basements, where feasible, in urban attached housing could also contribute to its appeal.

Conclusion 4: Modest Private Outdoor Space is Adequate

A modest but well designed private outdoor space is adequate for families with an urban lifestyle vision if the neighbourhood provides easy and safe access to a nearby public park for children's play. A small patio located away from public thoroughways or busy semi-private spaces can provide adults with an important outdoor space to relax, especially if the adjacent areas are well landscaped. While not sufficient for active play, a patio can also enable less physical activities for children and the "storage" of strollers, tricycles, etc.

If the private outdoor space is accessible from the main living area of the home, is well landscaped, and provides visual access to attractive semi-private or public spaces, it can also increase the spacious feeling of the private unit.

Conclusion 5: The Family Home is an Investment

For many young families just starting out, housing decisions can be significantly influenced by financial considerations and limitations. The perception that detached houses provide better investment value supports the popularity of detached housing even in cases where a family might be attracted to living in an urban attached home.

...

Recommendation 1: Creating Opportunities

Improving the quality of our urban environment is a fundamental step in making these places more appealing for families. The fact that there were surprisingly few well-qualified candidates when I was selecting the five urban attached housing alternatives indicates that there are opportunities for improvement in both private and public realms.

In order to attract a greater number of families with children, both private and public professionals working in housing related fields need to be more proactive in considering the needs of families in their designs and plans. In the Vancouver region, while there are obvious opportunities in the relatively empty lands around False Creek and at the edges of the suburbs, perhaps the greatest opportunities (and challenges) lay within existing neighbourhoods.

Recommendation 2: Focus Marketing on Urban Couples

Urban couples of childbearing age appear to be the most promising market for attached urban housing for families. They are the most likely to have an urban lifestyle vision, be employed in the city, have friends in the city, and be considering a family.

The use of the expression "young couples" was avoided in this recommendation because middle-aged urban couples that are just starting a family are more likely to have a strong urban lifestyle vision and the financial resources to be able to acquire an urban home that meets their sanctuary needs. In addition, the increasing popularity of urban attached housing amongst "empty nest" couples may indirectly benefit efforts to attract families with children to the city. The participants in this research frequently expressed the desire to live close to their own parents for childrearing support and to foster the child-grandparent relationship.

Attracting a wider family market to urban attached housing is ultimately required especially if we recall that "ex-urban" participants were relatively rare in new suburban developments. Attracting this wider market will require a shift in our cultural perception of desirable environments for children. Improving the design of appropriate housing and neighbourhoods for families could be complemented with other initiatives, such as continued support for urban social housing programs for families, to increase the visibility of families in urban environments. Greater numbers and visibility of urban families will increase the opportunities for other families to form an urban lifestyle vision. Even with this shift in perception, the longer a family lives in the suburban setting, the more challenging it may be to attract them to urban, attached housing. This is because their lifestyle and identity will become increasingly suburban, they will have established friendships and familiarity in their neighbourhood, and they will accumulate material belongings that they may not be willing to sell in order to "fit" into an urban attached home.

Recommendation 3: Additional Research

The literature on family housing preferences informing this research was surprisingly limited. The use of a qualitative, grounded theory methodology in this research was a relatively novel approach for this field. It was well suited to developing an improved understanding of the challenges and opportunities for creating improved urban housing opportunities for families. The limitations to the scope of this undertaking as well as the conclusions reached both suggest important directions for additional research. A similar qualitative approach complemented by well informed and focused quantitative methods for this additional research would both enrich this theory as well as provide it substantive proof.

- 3a) Research comparing the capital and monthly *cost implications* of urban attached housing against suburban detached housing could be useful, especially if it incorporated potential market mechanisms such as location efficient mortgages and time-of-day road tolling. If urban attached housing offers real savings, further research into how to make these savings salient could contribute greatly to increasing the appeal of urban housing.
- 3b) Research is required to understand the real and perceived *investment implications* of housing choice.
- 3c) While this study indicated that concerns about living in a strata building may no longer be as significant as they were previously, *fee simple ownership* was clearly preferred. Not only might a fee-simple townhouse be a more appealing form of ownership for families, it may also provide better investment potential (see 2B). A better understanding of the opportunities and barriers to fee simple townhouse developments would contribute to this body of research.
- 3d) A significant portion of the population in the Vancouver metropolitan region are of *Asian heritage* and may have a different perception of how to satisfy their family housing needs. As this study did not address this population, further research should be conducted to better understand how to increase the appeal of urban attached housing for Asian families.
- 3e) This research focused on young families but the perceived and real needs of *adolescent children* requires additional study.
- 3f) *Reduced commute times* did not appear to be a significant factor in the appeal of the urban attached housing alternatives in this research despite the positive benefits such a change implied for participants' lifestyle and relaxation opportunities. Additional research into the effectiveness of "marketing" a reduced commute could be useful in promoting urban attached housing.
- 3g) Suburban participants in this research were strongly attracted to cul-de-sac housing configurations for their low traffic volumes, limited number of strangers, high percentage of family home owners, and the semi-private role of the public "street". These characteristics provided space for outdoor play and fostered a sense of community with a shared interest in raising children safely and happily. These attributes do not have to be limited to suburban settings. While the lack of existing attached alternatives that provided these characteristics limited the capability of this study to probe the appeal of a similar "*street*" environment in an urban neighbourhood, a better understanding of the opportunities and barriers of alternative street configurations could be useful in attracting a wider range of families to urban attached housing. One acknowledged challenge in a free-market would be how to ensure a high percentage of family ownership in a given development.
- 3h) Surprisingly, most of the urban living experience of participants in this research was centered on the Yaletown neighbourhood of the downtown peninsula. For reasons unknown, recruitment efforts for urban participants from other neighbourhoods were unsuccessful and all, save one, of the suburban participants with urban living experience had lived in the Concord

- Pacific developments. Understanding this trend and the perceptions of participants with experience in *other urban neighbourhoods* would enhance this theory.
- 3i) Some of the participants observed that all of the alternatives presented in this research were *ground-oriented* and suggested that this was an unnecessary limitation.
 - 3j) This research focused on participants in a new suburban neighbourhood. It would be interesting to explore the neighbourhood character and appeal of *older suburban neighbourhoods*, especially as some participants indicated that they perceived a significant difference between new and existing suburbs.
 - 3k) A detailed understanding of the *demographic and transportation profiles* of suburban homebuyers would enable future research to focus on those specific groups that are the market for new suburban growth.
 - 3l) Further research is required into the appeal of different types of *semi-private indoor and outdoor amenity space*. Participants in this research indicated that the semi-private amenities typically provided in higher density housing holds little appeal in a public setting that provides similar and easily accessible amenities. The "competing" public spaces are typically bigger and more likely to provide contact opportunities for children and parents alike.
 - 3m) The literature suggested that the *quality of educational opportunities* for children played a major role in family housing preferences. The participants in this research were surprisingly undifferentiating regarding school quality. Additional research into young family's perceptions of educational opportunities and the role it plays in neighbourhood choice is required.

Researcher's Closing Remarks

This research has concluded that detached housing is a rational choice for families. It is a built form well suited to satisfy their sanctuary needs and can provide an appealing environment to pursue a family lifestyle. At the same time, this research has contributed to the understanding that urban attached housing can also be a rational and desirable choice for families with children. The fundamental challenge in increasing the relative attractiveness of higher density housing forms in mixed neighbourhoods is to change the perceptions of urban lifestyles for families. Incorporating an improved understanding of the housing needs of families into the planning and design of urban homes and neighbourhoods is an essential step towards changing these perceptions.

Despite the understandable appeal of detached housing, the underlying context of this research was that the current form and rate of suburban development is not socially or ecologically sustainable. There is a parable in Daniel Quinn's *Ishmael* about an aeronaut who builds a peddle-powered flying machine and launches himself off the edge of a high cliff (Quinn, 1992). The flight begins wonderfully, the aeronaut peddling comfortably as he "flies" through the air. "Isn't this fabulous," he thinks. As the ground beneath him begins to come closer and closer, he is unconcerned, "Everything has gone well so far and it's great to be free like a bird! I'll just peddle a little faster." The ground rushes nearer, the aeronaut peddles faster still ... and so it continues until *The End*.

Peddling faster is not the answer but changing perceptions towards attached urban housing is unlikely to significantly alter the rate of suburban growth on its own. It can only be one part of a concerted effort to address this underlying challenge. Recognizing that detached housing will continue to appeal to many families suggests that making these housing environments more sustainable is also essential. The amount of land dedicated to single family homes in Vancouver and the other municipalities in the Lower Mainland, combined with the continued growth of employment opportunities in the suburbs means that we need to improve the sustainability of both our existing and new single family neighbourhoods.

Appendix I: Housing Preferences in the GVRD

Cluster 3:
Families and Schools; Suburban
 (18.9% of weighted sample)

Distinguished by Seeking:

	#1	#2	#3	#4	#5	All
10f) schools that have a good reputation	2.48	3.02	3.86	3.77	2.48	3.17
9b) where people know each other & socialize together	3.41	3.47	3.65	3.47	3.44	3.49
9a) with young families and children in it	2.35	2.84	3.40	3.09	2.60	2.86

Distinguished by Not Seeking:

8m) windows that do not face neighbours windows	4.39	3.90	3.19	4.16	4.18	4.00
8k) trees and shrubbery around your building	4.74	4.26	3.12	4.36	4.25	4.18
8d) a security system already installed	3.49	3.03	2.99	3.88	4.09	3.54
8l) a scenic view	3.98	3.66	2.97	3.84	3.91	3.69
10e) full specialty shopping areas	2.91	3.28	2.82	3.69	3.95	3.33
9c) with lots of mature trees on the street	4.17	3.86	2.80	3.77	3.84	3.70
8c) a fireplace	3.68	2.74	2.68	3.62	3.25	3.27
10i) the SkyTrain	1.78	3.07	1.77	3.34	2.67	2.53
10d) downtown and the west side of Vancouver	1.97	3.09	1.73	2.73	1.95	2.29

Cluster 4:
Big Kitchen; Convenient Location
 (27.8% of weighted sample)

Distinguished by Seeking:

	#1	#2	#3	#4	#5	All
7a) owning instead of renting	4.57	3.58	4.21	4.76	4.77	4.45
7c) owning land not just share in strata association	4.31	3.08	4.06	4.43	3.82	4.05
10g) a park or recreation centre	3.08	4.03	3.52	4.12	3.64	3.67
8h) a garage	3.95	2.18	3.79	4.10	3.85	3.70
8i) a large kitchen	4.01	3.06	3.80	4.09	4.00	3.86
10c) where you or others in your household work	3.42	3.68	3.54	3.92	2.56	3.48
10j) major auto routes	3.12	2.68	2.96	3.92	3.47	3.31
10i) the SkyTrain	1.78	3.07	1.77	3.34	2.67	2.53

Distinguished by Not Seeking:

(none)

- #1 = Trees and privacy, secluded cluster
 #2 = Buses and downtown, urban cluster
 #3 = Families and schools, suburban cluster
 #4 = Big kitchen, convenient location cluster
 #5 = Retired, safe, easy, familiar cluster

Features and Benefits Sought by Each Cluster

(weighted sample)

	FAB Cluster					
	#1	#2	#3	#4	#5	All
Top Ten:						
7b) having your mortgage paid off.....	4.57	3.65	4.23	4.74	4.84	4.47
7a) owning instead of renting.....	4.57	3.58	4.21	4.76	4.77	4.45
9f) where privacy is respected above all.....	4.62	4.11	3.98	4.48	4.65	4.40
8k) trees and shrubbery around your building	4.74	4.26	3.12	4.36	4.25	4.18
7c) owning land not just share in strata association	4.31	3.08	4.06	4.43	3.82	4.05
8m) windows that do not face neighbours windows	4.39	3.90	3.19	4.16	4.18	4.00
9e) where Neighbourhood Watch active	3.99	3.67	3.65	4.14	4.25	3.97
8j) an outside entrance at ground level.....	4.13	3.13	3.59	4.12	4.14	3.89
8a) a lawn or garden of your own	4.20	3.54	3.53	4.14	3.66	3.88
8i) a large kitchen	4.01	3.06	3.80	4.09	4.00	3.86
Middle Group:						
8g) covered parking.....	3.95	2.49	3.53	3.95	4.19	3.71
8h) a garage	3.95	2.18	3.79	4.10	3.85	3.70
9c) with lots of mature trees on the street	4.17	3.86	2.80	3.77	3.84	3.70
8l) a scenic view	3.98	3.66	2.97	3.84	3.91	3.69
10g) a park or recreation centre	3.08	4.03	3.52	4.12	3.64	3.67
7d) living in lower cost home to spend more elsewhere	3.56	3.64	3.46	3.72	3.44	3.58
8d) a security system already installed.....	3.49	3.03	2.99	3.88	4.09	3.54
9b) where people know each other & socialize together	3.41	3.47	3.65	3.47	3.44	3.49
10c) where you or others in your household work.....	3.42	3.68	3.54	3.92	2.56	3.48
10e) full specialty shopping areas	2.91	3.28	2.82	3.69	3.95	3.33
10b) where your family and/or your friends live	3.00	2.90	3.37	3.44	3.91	3.33
10h) bus stops with frequent service	2.16	4.09	2.68	4.05	3.78	3.31
10j) major auto routes.....	3.12	2.68	2.96	3.92	3.47	3.31
Bottom Ten:						
10a) the neighbourhood where you live now	3.03	3.37	3.14	3.33	3.63	3.28
8e) more floorspace than you have now	3.18	2.98	3.43	3.86	2.50	3.28
8c) a fireplace.....	3.68	2.74	2.68	3.62	3.25	3.27
10f) schools that have a good reputation	2.48	3.02	3.86	3.77	2.48	3.17
8b) space for a home office	3.15	2.61	2.82	3.67	2.18	3.00
8f) a basement.....	2.78	2.12	2.87	3.56	2.45	2.87
9a) with young families and children in it	2.35	2.84	3.40	3.09	2.60	2.86
9d) where most people have same background as you.....	2.75	2.08	2.35	2.63	2.81	2.56
10i) the SkyTrain.....	1.78	3.07	1.77	3.34	2.67	2.53
10d) downtown and the west side of Vancouver	1.97	3.09	1.73	2.73	1.95	2.29
Weighted number of respondents per cluster:	136	78	109	161	94	578
Weighted percent of sample:	23.5	13.6	18.9	27.8	16.3	

#1 = Trees and privacy, secluded cluster

#2 = Buses and downtown, urban cluster

#3 = Families and schools, suburban cluster ➤

#4 = Big kitchen, convenient location cluster ➤

#5 = Retired, safe, easy, familiar cluster

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