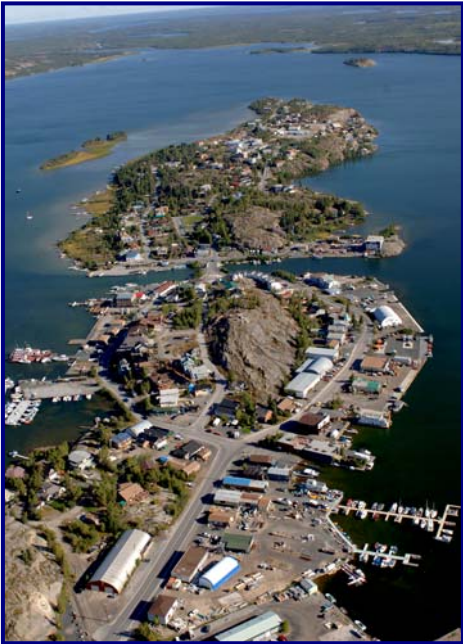


SMART GROWTH DEVELOPMENT PLAN

CITY-WIDE QUESTIONNAIRE RESULTS



City of Yellowknife



May 2008



Photos by: Jiri Hermann

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EXECUTIVE SUMMARY

Smart growth is an urban planning and transportation perspective advocating long range sustainable planning and development. Its aim is to achieve a unique “sense of place” through concentrated mixed-use development, a diverse range of housing and employment choice, alternative modes of transport (transit, pedestrian and cycling), and equitable distribution of infrastructural development costs. The smart growth initiative is timely for Yellowknife given the national demographic trends, a growing infrastructure deficit, and strong citizen interest in the quality of life and growth and development of the City.

Preparation for the *Yellowknife Smart Growth Development Plan* (the *Plan*) commenced in 2006, with formal endorsement from City Council in the 2007 Municipal Budget. Additional funding support was provided through various grant programs provided by the Federation of Canadian Municipalities (Green Municipal Fund), Indian and Northern Affairs Canada, (Targeted Investment Program), and the GNWT Department of Education Culture and Employment (Historic Places Initiative).

The work breakdown structure for the *Plan* consists of five broad components: Public Involvement, Land Use and Urban Design, Energy and the Environment, Transportation, and Economic Development. *The City of Yellowknife Questionnaire Survey* (the *Questionnaire*) falls under the Public Involvement component as a preliminary consultation element to assist in building community understanding, consensus, and direction around the *Plan*.

The *Questionnaire* was designed in the context of a 50 year development *Plan* to a population of approximately 45,000 with a focus on a core built-up area (Old Town, Downtown, and Old Airport Road). The design began in May of 2007 with a review of prior planning studies and initiatives and identification on a broad range of planning issues. Subsequent interdepartmental review, the survey was reviewed by Ipsos Reid, endorsed by Council, before pilot testing on ten residents from the Community. In September some 7,700 surveys were mailed out and by the end of October a total of 865 surveys were completed and returned for a standard statistical significance level of 95%.

The *Questionnaire* results demonstrate the majority of respondents (96%) are between the ages of 20 and 64 years of age, with an average residency in Yellowknife of 17 years. Although a majority of respondents prefer to live in a single-detached dwelling 83%, based on Census data it is evident that nearly half of residents in Yellowknife are renters. The housing affordability challenge is demonstrated by a respondent indicated income between \$100,000 and \$150,000 (the 2005 Census household average is of \$117,000) and the average CMHC projected 2007 sale price of \$292,000. Based on these figures there is some 25% of households which cannot afford a mortgage beyond \$200,000.

From a Land Use and Urban Design there is strong support for the revitalization of Old Town, Downtown, and Old Airport Road through themed land use and design initiatives. Culture and heritage, the natural environment, pedestrianism, and the mixed use developments were highlighted as a means to theme these primary study areas. The public strongly supports streetscaping, architectural standards, and commercial design requirements as a means to

improving the curb appeal and comfort of the streets. Priorities for streetscaping improvements include cleaning litter, landscaping, façade improvements, and decorative paving for sidewalks.

With reference to transportation, the public identified parking, bus service, road and sidewalk conditions, and alternative modes of transport as major city-wide issues. With specific reference to the primary study areas, respondents rated various transportation elements with sidewalks, pedestrian safety, cycling safety, and traffic flow being primary concerns. With transit identified as one of these concerns, respondents suggested more frequent service, subsidized (cheaper) fares, greater coverage, and longer hours (weekends and evenings) as a means of encouraging ridership.

The economic development theme demonstrates the existing attractiveness of the three primary study areas and the reasons why respondents visit them. Respondents rated various redevelopment anchors that would serve as effective catalysts for community revitalization with a commercial marina, artist cooperative, shopping, library, convention centre, and central plaza identified as priorities. To facilitate such initiatives respondents strongly support a proactive approach on the part of the City for land assembly with particular emphasis on strategic parcels in Old Town and Downtown. Finally to encourage revitalization, respondents indicated strong support for the provision of financial incentives for site and building improvements, brownfield remediation, heritage, and intensification of residential housing.

Based on the themed results of the *Questionnaire* a series of recommendations were made in the areas of Public Participation, Housing, Land Use and Urban Design, Transportation, the Environment, and Economic Development. A summary of key highlights from the recommendations are as follows:

- Continue to promote public participation through publication of preliminary consultation reports and marketing, establishment of Smart Growth Committee, employment of unique consultation techniques, and encouragement of greater involvement from youth and First Nations.
- Encourage diversification of housing market through partnerships with CMHC and NWT Housing Corporation, identification and assembly of strategic parcels, provision of housing intensification incentives, and strategic investment allocation of Land Development Fund.
- Formulate a cohesive land use and urban design strategy which includes themed streetscaping and “gateway” design initiatives, commercial architectural and site design standards, mixed use developments, public art, and targeted redevelopment anchors.
- Develop a Transportation Master Plan which addresses existing and projected traffic demand, public on- and off-street parking, promotion of alternative transportation (pedestrian, cycling, and transit), traffic calming and control, and waterfront access.
- Promote enhancement and protection of the natural environment through establishment of minimum landscaping standards for subdivisions and development, working with community associations and landscaping companies, designation of protective zoning standards for environmentally sensitive areas, development of a holistic and integrated

litter control program, and encouraging advancement of building energy efficiency by promoting EGNH-80 and LEED.

- Promote economic development and revitalization through neighbourhood branding, creation of marketing materials, establishment of a Land Development Policy to encourage strategic land assembly, establishment of an integrated development incentive program, facilitation of public private partnerships (i.e., BID), and promotion of redevelopment anchors to serve as revitalization catalysts.

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1. INTRODUCTION

Smart growth is a holistic planning approach that is inherently integrative to the decision-making process. Principled on mixed use development, pedestrianism, transit, revitalization, environmental protection, and quality of life, it is intent on optimizing the trade-offs and impacts of transportation, land use, and development decisions. For these reasons smart growth continues to gain validity and popularity as an alternative to conventional urban development (i.e., “sprawl”).

The City of Yellowknife *Smart Growth Development Plan* (the *Plan*) is a long range growth and development strategy seeking the integration and application of sustainable (“smart growth”) planning and development principles. Funding support for the development of the *Plan* was provided in the 2007 municipal budget with the Terms of Reference formally endorsed by Council in April 2007. Additional support for the creation of the *Plan* was provided through various grants programs provided by the Federation of Canadian Municipalities (Green Municipal Fund), Indian and Northern Affairs Canada (Targeted Investment Program), and the GNWT Department of Educational Culture and Employment (Historic Places Initiative).

The *Plan* framework is made up of five major components: Public Involvement, Land Use and Urban Design, Transportation, Energy and Environment, and Economic Development. A further breakdown of these components into more detailed planning elements creates a unified strategy for the development and redevelopment of Yellowknife. The first of the components - Public Involvement – seeks to garner continued participation throughout the *Plan*’s development. This component will aim to foster understanding of the application of smart growth principles in Yellowknife while also building community consensus around various planning issues.

The *City of Yellowknife Smart Growth Questionnaire Survey* (the *Questionnaire*) is the first in a series of consultation stages employed to assist in directing the formation of the *Plan*. Within the “smart growth” framework, it is necessary to develop an understanding of public perceptions on the city’s existing layout, urban form, land use mix, character and appeal, connectivity, and development/redevelopment opportunities. In this sense the *Questionnaire* objective is to gauge public opinion and impressions of Yellowknife, more particularly what they value and what needs improvement in the context of ongoing growth and development.

Authentic public consultation, like quality design, is an iterative process best achieved by employing various methods and mediums. Building perspective and understanding on a broad and complex issue like smart growth cannot be achieved in one consultation stage. The information gathered from *Questionnaire* provides a basis for more targeted discussions and further definition of the relevant issues around smart growth in the Yellowknife context. This report thus serves as a means to build further understanding and consensus around the issues, rather than the definitive public opinion from which to base all of the *Plan*’s future policies, programs, and strategies.

Subsequent consultation stages will serve to verify, supplement, or revise the perspectives and assumptions resulting from the *Questionnaire*. These stages include Focus Group Sessions, Metroquest (an interactive consensus building growth management modeling software tool), Community Design Charrette(s), and Public Forum(s). From the above, the Focus Group Session Report will be presented concurrently with the *Questionnaire* results. These two

elements will serve to assist the *Smart Growth Development Plan Steering Committee* in the ongoing development of the *Plan*. The latter consultation stages will occur under the guidance and direction of the *Committee*.

2. PLAN AND QUESTIONNAIRE SCOPE

As a 50-year future growth and development strategy the *Plan* is broader in scope than prior City planning initiatives. Based on a population of 20,000 and current growth rates of 1.6%, it is projected that Yellowknife will reach a target population of close to 45,000 within this period.¹ Creating realistic growth and development scenarios from such long-range forecasts entails integrating vast amounts of information to create a practical vision. Authentic public participation and well-defined smart growth principles are essential ingredients to formulating a vision, sufficiently detailed, to sustain an action-oriented strategy.

With a 50-year implementation horizon and a 45,000 target population it is evident that significant build-out will occur during the life of the *Plan*. A conventional development model for this period would double the geographic area of Yellowknife's built-out area, while a smart growth approach would result in greater intensification and a more concentrated urban form. In either instance, future lands within municipal boundaries and beyond will inevitably be significantly impacted during the forecast period.

The above factors were considered in setting the information gathering priorities for the preliminary consultation stage. In the case of the *Questionnaire*, there was a greater focus on the core area, more specifically, Downtown, Old Town, and Old Airport Road. Concentration on this "primary study area" serves to build upon obvious smart growth strengths and principles, such as mixed-use development, intensification, revitalization, pedestrianism, transit oriented design, and so on. Formulating a public perspective on these issues in the early stages is essential to the more difficult process of establishing policies, programs, and initiatives to confront the associated challenges.

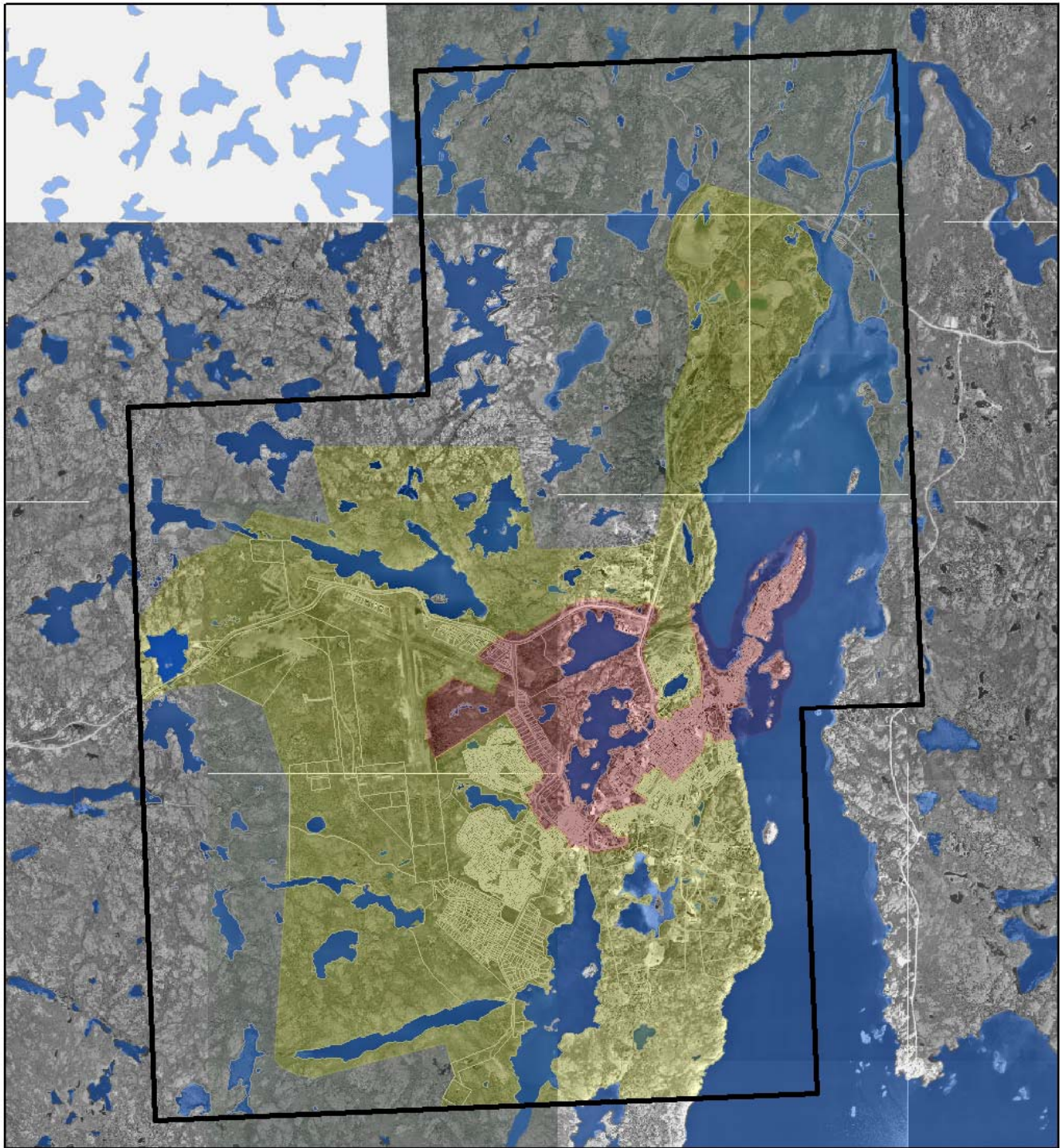
The "secondary study area" consists of built-up lands directly adjacent the core area lands. The land use make-up of this area consists primarily of low density residential neighbourhoods, industrial zoned lands (Kam Lake), abandoned mines, the airport, and pockets of passive/active recreational space. Although the *Questionnaire* did not seek the same level of input from respondents on urban design and revitalization initiatives for these areas, it did seek input on issues relating to housing, transportation, waterfront development. As the *Plan* develops it is envisioned these areas will receive more attention in terms of greenfield and brownfield development and redevelopment opportunities, land uses, pedestrian connectivity, and transportation.

The "outlying area" consists almost exclusively of greenfield (undeveloped) lands on the periphery of the City's built up area. These lands, including lands beyond municipal boundaries, will be assessed in the context of environmental conservation, passive and active recreation, transportation, and long-range development. The strategy will be contingent upon public consensus with regards to the social, economic and environmental trade-offs between core area intensification versus greenfield development.

The three areas are broadly illustrated and delineated in Map 1 (page 5) with the primary area consisting of 10.5 km², secondary area 57.9 km², and outlying area 68.2 km². Although each area is presented with distinct boundaries, they are closely integrated and of equal importance

¹ The *General Plan* applies economic events to baseline population growth from 2002-2019 to arrive at a growth rate of 1.6% (City of Yellowknife, *General Plan 2004*, Section 6, pages 95-97).

from a smart growth perspective. Subsequent consultation sessions such as *MetroQuest* will demonstrate the interrelationship of these lands and the economic, social, and environmental trade-offs and impacts of relevant long-range growth and development policies.



<p>CITY OF YELLOWKNIFE SMART GROWTH PLAN</p>	<p>Map 1: Study Areas</p>		<ul style="list-style-type: none"> Municipal Boundary (136.6 km²) Primary Study Area (10.5 km²) Secondary Study Area (57.9 km²) Outlying Study Area Within City Limits (68.2 km²)
<p><small>DRAWN: NIMTSCHE DATE: JANUARY 17, 2008 FILE: #_Study_Areas_19.mxd</small></p>		<p>0 625 1,250 2,500 Metres</p>	



3. METHODOLOGY

Many participatory planning methods can be used to engage and involve the public in the formation of a long-range development plan (i.e., surveys, focus groups, charrettes, forums, etc). Each approach brings its own strengths and weakness as a communication and public engagement tool. The community involvement strategy for the smart growth initiative is designed to employ numerous methods to effectively build broad understanding, consensus, and support. The mail-out *Questionnaire* was chosen as the first step in the consultation process as a cost-effective means of collecting data from a large sample (city-wide), while simultaneously introducing the community to the smart growth concept.

The *Questionnaire* design commenced in May of 2007 with a review of prior planning studies and reports relevant to the long-range growth and development of the City. Questions were designed to clarify public opinion on specific planning issues and principles. Although there were a few open ended questions, the majority were closed-ended taking the form of yes/no, multiple choice, or a rating scale. Questions went through several renditions based on intra- and interdepartmental review before being forwarded to Ipsos Reid, a professional marketing and polling company. Ipsos Reid provided recommendations on wording, layout, and readability to improve the reliability and validity of responses.

Subsequent review and acceptance of the *Questionnaire* and *Focus Group* questions by Council on August 8, 2007, the survey was pre-tested with ten residents from the community. The pre-testing stage provided the opportunity to garner citizen feedback on the content and general direction of the *Questionnaire*. The comments provided served to further clarify misleading or confusing questions, reduce technical jargon, and improve the organization of questions. Subsequent this stage, the final draft of the *Questionnaire* was produced and printed for release.

A total 7,674 questionnaires were printed and mailed out on Monday, September 24, 2007, to households and businesses in the community. Prepaid postage return envelopes were included with the surveys to encourage the response/mail-back rate. The deadline for the *Questionnaire* to be completed was October 15, 2007, even though surveys were accepted until early November. In total, 865 completed questionnaires were returned to the City representing a return rate of 12%.

Based on this return rate and the standard statistical significance level² of 95%, the City can be 95% confident that the overall questionnaire results are within $\pm 3.5\%$ of their true values. It is noted, however, that while there were 865 questionnaires returned, some individual questionnaires may have incomplete answers to questions. For this reason, each question can be assigned a specific margin of error associated with 95% confidence as shown in Appendix B.

With the majority of the survey consisting of closed-ended questions, most responses could be quantitatively measured and analyzed. Coding categories were established with the results inputted and tabulated in a Microsoft Excel spread sheet. The remaining open-ended questions allowed for a more qualitative exploration of ideas around various planning issues. These questions were analyzed from a much more general perspective with their themes and ideas described herein with less reliance on quantitative support.

² Significance level: “The threshold probability to be considered statistically significant”
(<http://ericksonmr.com/blog/2007/07/01/research-tip-what-is-statistically-significant-anyway>)

4. THEMED RESULTS

The themed results from the *Questionnaire* are divided into five broad categories:

- 1) Respondent Demographics
- 2) Land Use and Urban Design
- 3) Housing
- 4) Transportation
- 5) Economic Development

These results provide a brief summary of demographic factors before exploring several broad areas relating to smart growth in Yellowknife. The following information serves to develop the recommendations which follow, and together with concurrent and subsequent consultation components, will influence and determine the overall policy direction for the final *Smart Growth Development Plan*.

4.1 Respondent Demographics

In evaluating the tabulation of responses from a questionnaire, it is beneficial to have an understanding of some general demographic characteristics of respondents. A brief overview of factors such as age, income level, home ownership status, serves to identify respondent characteristics. Along with understanding reasoning for some opinions and comments, this overview assists in identifying sectors of the population which may be over or under represented. Such inherent bias can be found in any survey approach and its recognition herein reveals gaps for future smart growth consultation components.

4.1.1 Age and Length of Residency

Illustrated in Table 1, the majority of respondents (96%) were between the ages of 20 and 64 years of age with the largest proportion of respondents between the ages of 35-49 years. There were no respondents under the age of 20 and 4% of respondents were 65 years or older. The relative large number of respondents between the ages of 35 to 64 years compared to Yellowknife’s 2006 census population counts is noted. Since the survey was targeted toward households (renters and owners) and business owners, this likely reflects household structure and the number of households and businesses led by this demographic.

Table 1: Age range of respondents

Age Range	Proportion from Questionnaire	Proportion from 2006 Population Counts
Under 20 years	0%	29%
20 – 34 years	23%	25%
35 – 49 years	42%	28%
50 – 64 years	30%	15%
65 years and older	4%	2%

The length of time a person has lived in Yellowknife is a good indicator of how familiar they are with the city, how much knowledge of the city’s history they possess. Based on the responses collected, the average time that the respondents had lived in Yellowknife was 17 years and the

average time at the current address of 8 years. This information is indicative that the majority of respondents are familiar with Yellowknife, giving further weight to their opinions and perspectives.

4.1.2 Household Size and Income

The average number of people living in the respondent household was 3 people in comparison to the 2006 census of 2.8. The majority of respondents’ household income, as presented in Table 2, was between \$100,000 and \$150,000. While this corresponds with Yellowknife’s 2005 median family income of \$117,023, the 2% of household respondents earning less than \$25,000 compares to the 9.5% of families in this income range.

Table 2: Household income

Income Level	Proportion from Questionnaire
Less than \$25,000	2%
\$25,000 - \$50,000	4%
\$50,001 - \$100,000	23%
\$100,001 - \$150,000	27%
\$150,001 - \$200,000	19%
Over \$200,000	10%
Prefer not to say	14%

4.1.3 Housing

A total of 76% of respondents own their current residence while 24% are renters in comparison to the 2006 Census which indicates that 53.7% own and 46.3% rent. Illustrated in Table 3, the majority (70%) of respondents live in a single detached dwelling, 18% live in apartments, with the remainder in townhouses, duplex or other. This compares with the 2006 Yellowknife Census where only 49.1% live in single detached, 29.4% in apartments, with the remainder in townhouses, duplexes or other. Table 3 further illustrates that the majority (83%) of respondents would prefer to live in a single-detached dwelling.

Table 3: Current and preferred housing type

Type of Housing	Current Housing Type	Preferred Housing Type
Apartment/condominium under 4 storeys	8%	2%
Apartment/condominium over 4 storeys	10%	5%
Townhouse/rowhouse	9%	5%
Single detached dwelling	70%	83%
Duplex	1%	1%
Other housing type	2%	3%
Don't know	--	1%

Although the survey determined 95% of respondents wanted to own their own home Tables 2 and 4 only partially reflect the affordability challenge in Yellowknife.³ From Table 4, some

³ The Canadian Mortgage and Housing Corporation (CMHC) defines housing affordability as being 30% of the before-tax household income.

15% of respondents are willing to pay less than \$200,000, 34% between \$200,000 and \$300,000, and 45% above \$300,000. Whereas according to the 2007 Canadian Mortgage and Housing Corporation report where it is projected the average home sold for approximately \$292,000 in 2007.

Table 4: Price willing to pay for housing

Housing Price	Proportion
Under \$200,000	15%
\$200,000 - \$300,000	34%
\$301,000 - \$400,000	27%
\$401,000 - \$500,000	13%
Over \$500,000	5%
Don't know	5%

As noted from Table 2 however, the income level of Questionnaire respondents is higher than the Yellowknife average. According to 2004 Census figures it was noted that 26% of families in Yellowknife earned less than \$60,000 per year. At the top end of this range it is estimated that a family could afford only a \$200,000 mortgage (assuming little or no debt), however those families earning \$40,000 or less (15%) would be able to afford no more than a \$120,000 mortgage. Based on such factors ownership may prove to be an increasing challenge for a significant number of households and families within Yellowknife. Similar challenges exist for lower-income sectors in the rental market where the 2007 projected rental market average for a typical two-bedroom apartment of \$1,435, an increase of 5% from \$1,365 in 2006.

Beyond price and tenure, a question asking respondents where they would most like to live was included. Respondents were asked to choose up to three areas in Yellowknife. Table 5 shows the responses and the main areas where respondents would prefer to live. The top two choices were Downtown and Frame Lake at 16%, followed by Range Lake, Niven Lake, and Old Town each at 12%. The least favoured area to live was Kam Lake which may be linked to the industrial zoning of the area.

Table 5: Where respondents would like to live

Area	Proportion	Area	Proportion
Range Lake	12%	Latham Island	8%
Frame Lake	16%	Old Town	12%
Kam Lake	3%	Tin Can Hill	9%
Niven Lake	12%	Negus Point	7%
Downtown	16%	Don't know	2%
Taylor Road Extension	4%		

4.2 Land Use and Urban Design

Highlighted in Map 1, the *Questionnaire* focus is targeted toward the primary study areas consisting of Old Town, Downtown, and Old Airport Road. Together these areas define the city core and thereby present the greatest opportunities for redevelopment and intensification. Building support for a smart growth initiative requires an understanding of the underlying

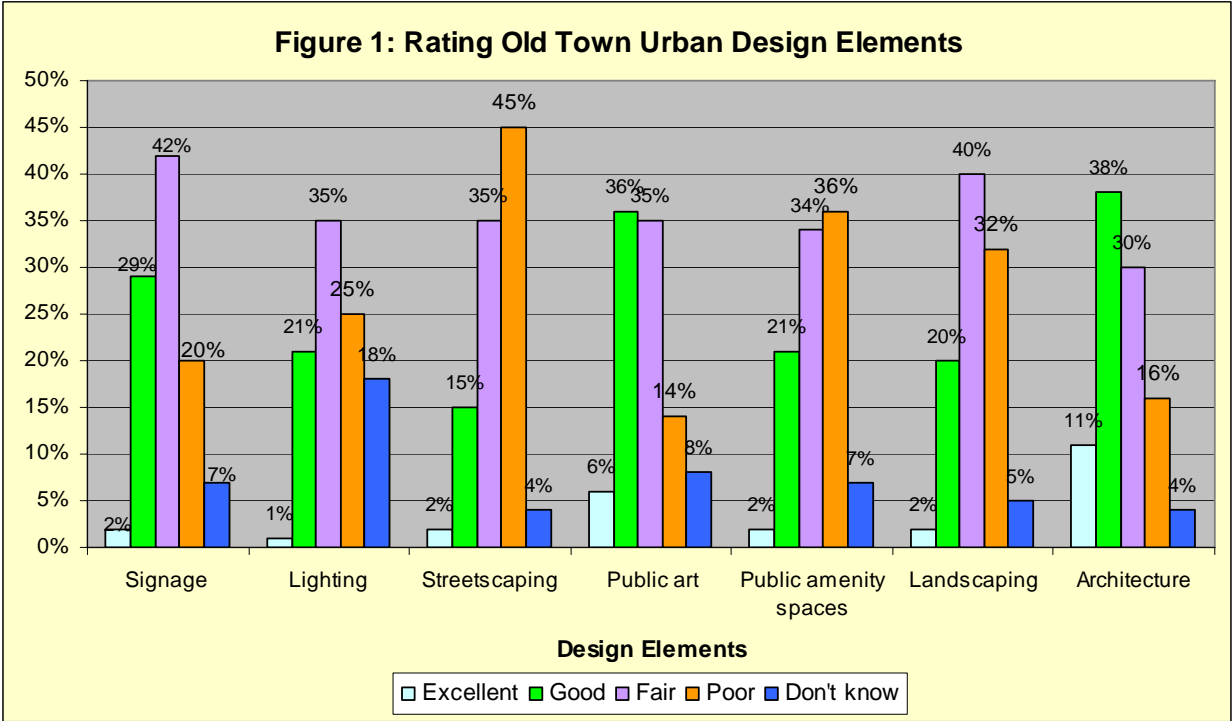
character, strengths, and weaknesses of these neighbourhoods. Based on the responses it is evident that residents and businesses recognize these qualities which will serve to build revitalization initiatives suited to a defined land use and design theme.

4.2.1 Old Town Land Use and Urban Design

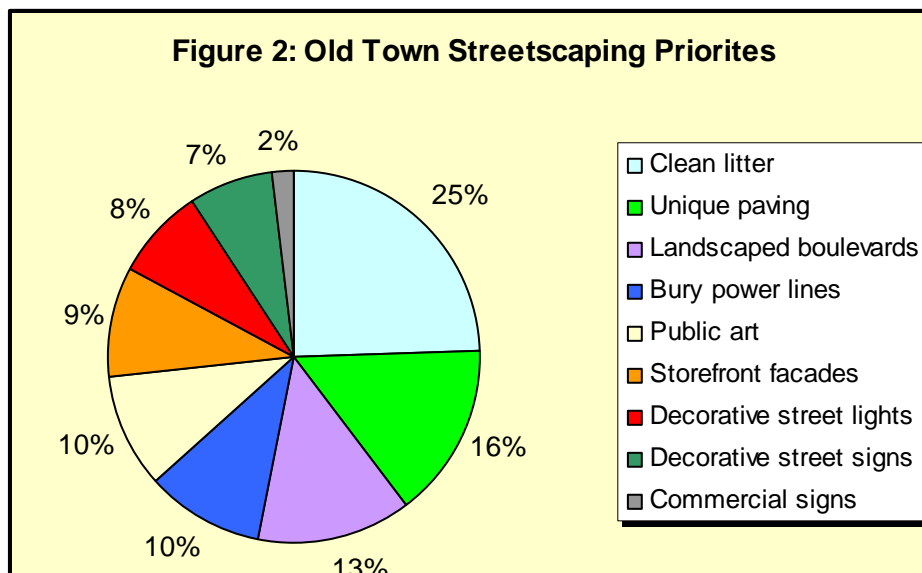
A majority of respondents identify Old Town as the primary heritage district of the City and the preservation of this quality was identified as a priority. Built into this theme is a need to highlight the natural and recreational opportunities of the area including the waterfront, parks and trails, and environmentally sensitive areas. Finally the neighbourhood character should build upon the eclectic and mixed use qualities. The following are the key themes and phrases associated with Old Town:

- Heritage – rustic, pioneer, frontier, arts, culture, northern, unique, aviation, funky and quirky;
- Highlight Natural Environment – develop parks and trails, waterfront access, preserve greenspace and natural features;
- Promote Mixed Use Character – residential, arts and crafts, tourism restaurants, nightlife/entertainment.

With the above themes in mind it is evident residents still feel that there is a need for urban design improvements to Old Town. Illustrated in Figure 1 below, architecture (11% excellent, and 38% good) and public art (6% excellent, and 36% good) might be identified as strengths, however streetscaping (45% poor, and 35% fair), public amenity space (36% poor, and 34% fair), and landscaping (32% poor, and 40% fair) are in need of improvement. With a majority rating of fair or poor, both signage and lighting also warrant design improvement in Old Town.



Further to the above, 71% of respondents supported architectural standards in Old Town, while 20% oppose standards and 8% don't know. With reference to streetscaping, Figure 2 demonstrates the ranking of priorities for streetscape improvements in Old Town with priority given to cleaning litter (25%), landscape boulevards (16%), storefront facades and decorative paving (13%), and decorative paving (10%).

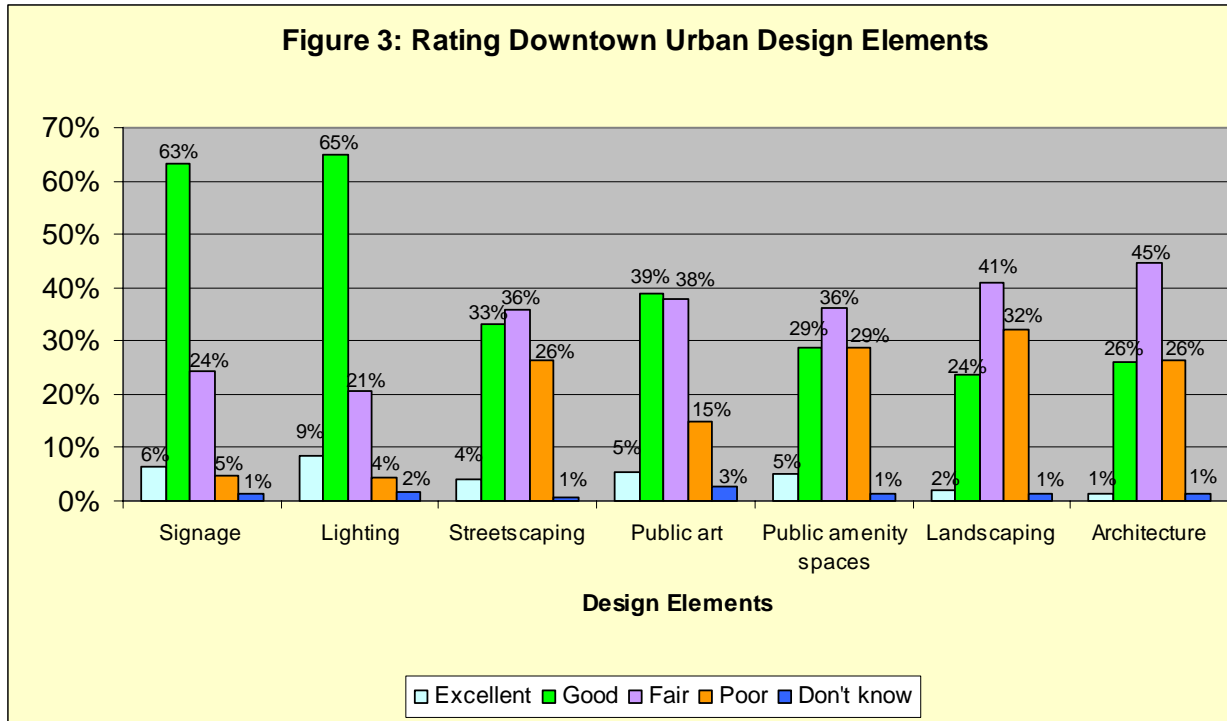


4.2.2 Downtown Land Use and Urban Design

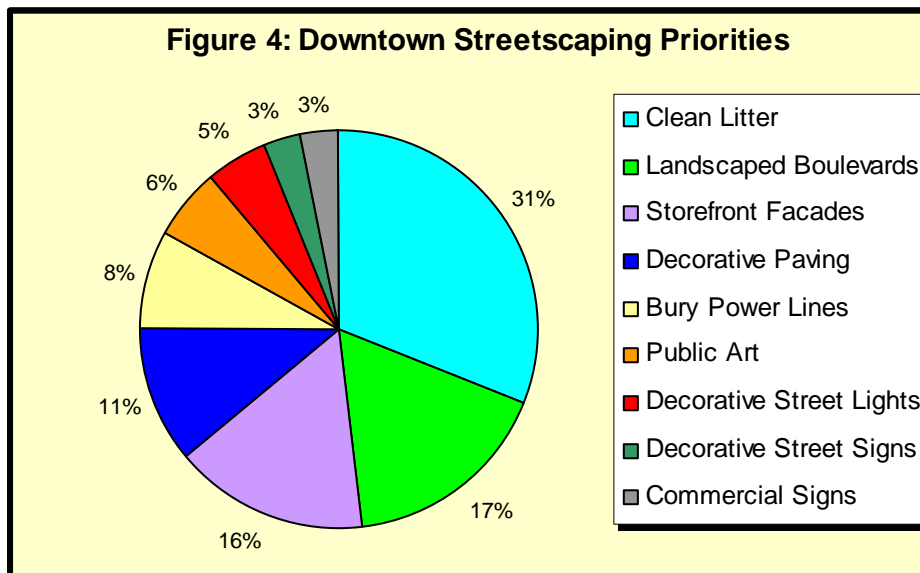
Downtown is recognized as the primary hub for a diverse mix of business commercial, professional/government services, and residential uses. Building on this theme respondents identify the Downtown as the cultural heart of the city that should reflect Yellowknife's arts and heritage but in a more modern or cosmopolitan manner. Passive recreation opportunities should be highlighted and protected, namely safe parks, trails and pedestrian-ways.

- *Primary Service Centre* – professional and government services, commercial retail (boutique and big box), tourism, residential, and restaurants/dining.
- *Cultural Heart of the City* – Arts and entertainment, eclectic, modern and cosmopolitan, northern/mining heritage, colourful, unique and vibrant.
- *Recreational Opportunity* – Safe parks, trails and green space, natural preservation, enhanced lighting.

Unlike Old Town, Figure 3 (page 12) depicts a higher level of satisfaction with signage (6% excellent and 63% good) and lighting (9% excellent and 65% good) as urban design elements. Landscaping (36% poor and 41% fair), public amenity space (29% poor and 36% fair) architecture (26% poor and 45% fair), and streetscaping (26% poor and 36% fair), are all rated poorly by respondents, with mixed public sentiment on public art in the Downtown.



Further to the above 74% of respondents supported architectural standards in the Downtown, with 17% opposing and 9% don't know. With reference to streetscaping, the following figure demonstrates the ranking of priorities for improvement with priorities given to cleaning litter, landscaped boulevards, façade/storefront improvements, and decorative sidewalk paving.



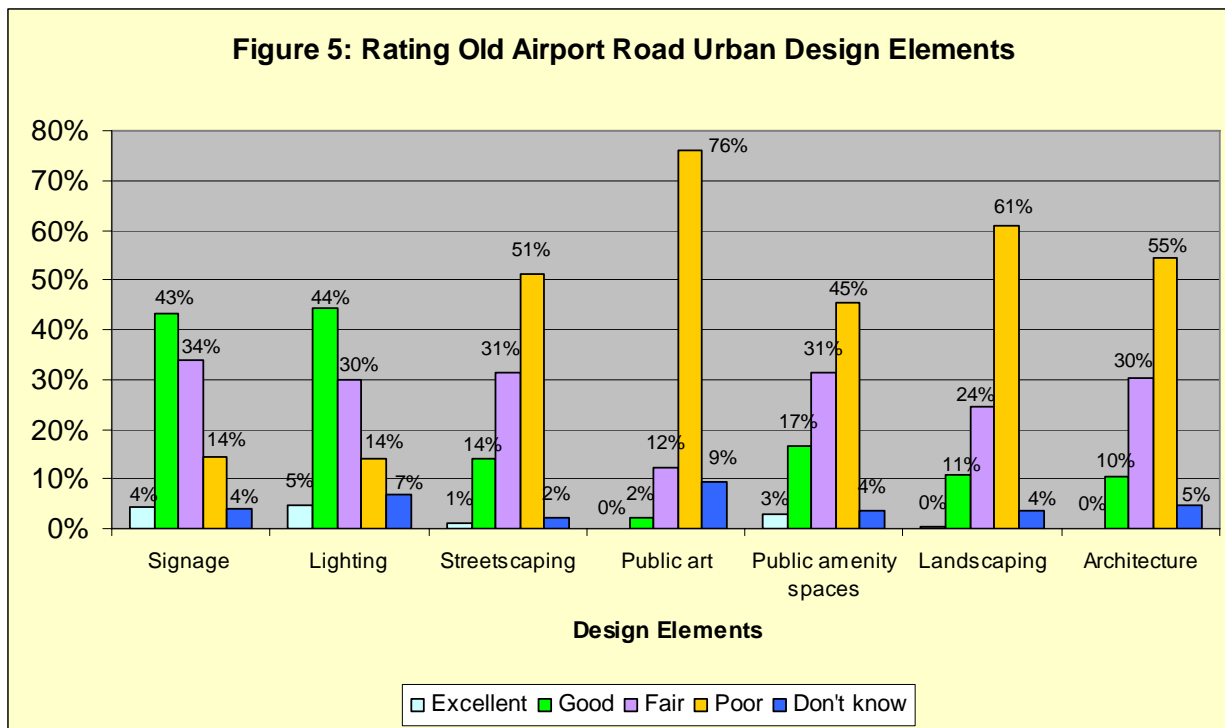
4.2.3 Old Airport Road Land Use and Urban Design

Respondents primarily identify Old Airport Road as an automobile-oriented retail commercial corridor consisting of strip malls, big box stores, and professional services. There is strong support for diversification of services and amenities away from light industry to more tourist

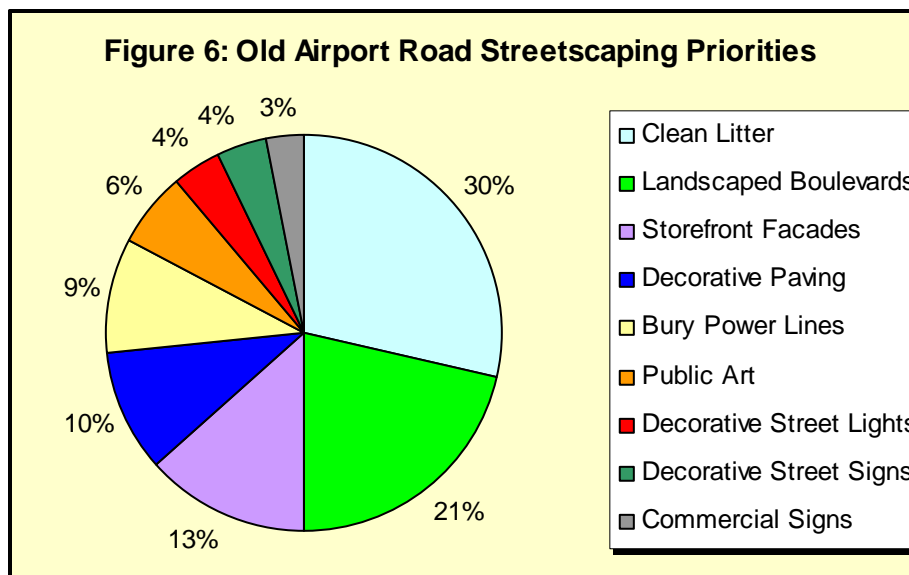
oriented shops, restaurants, and residential uses. Similar to Old Town and Downtown there is strong support for enhancing the natural environment and integrating safe recreational opportunities including pedestrian-ways, parks, trails, pedestrian ways.

- *Retail Commercial Corridor* – Big box, strip malls, professional service, industry, urban and modern.
- *Amenities* – Tourism shops, arts, culture, northern unique, dining, restaurants, residential, aviation heritage.
- *Recreation* – Welcoming gateway, more pedestrian-friendly, parks, trails, natural environment/green space, better lighting.

Figure 5 demonstrates that of the three neighbourhoods, Old Airport Road ranks the worst in terms of urban design elements. While opinions on lighting and signage are split, the remaining elements are rated poorly by respondents: public art (76% poor and 12% fair), landscaping (61% poor and 24% fair), architecture (55% poor and 30% fair), streetscaping (51% poor and 31% fair), and public amenity space (45% poor and 31% fair).



Further to the above, 64% of respondents supported architectural standards for Old Airport Road, with 22% opposing such standards, and 14% don't know. With reference to streetscaping, the following figure (page 14) demonstrates the ranking of priorities for streetscape improvements with preference given to cleaning litter, landscaping boulevards, façade/storefront improvements, and burying power lines.



4.2.4 Commercial Development Design Standards

In addition to the general public consensus on the need for urban design improvements to Old Town, Downtown, and Old Airport Road, there is general public consensus that city-wide standards for new commercial development should be encouraged. Table 6 illustrates strong support for preservation of natural features (89%), pedestrian friendly designs (88%), higher landscaping standards, and minimum energy efficiency requirements (79%). Only moderate support was provided for storefronts establishing design standards for storefronts (57%), even though as noted earlier architectural standards were strongly supported in the three primary study areas.

Table 6: Public support for commercial design requirements

	Support	Oppose	Don't know
Preservation of some natural features	89%	5%	6%
Design standards for storefronts	57%	22%	21%
Minimum energy efficiency requirements	79%	10%	11%
Pedestrian friendly features	88%	4%	8%
Higher landscaping standards	80%	9%	11%

4.2.5 Public Safety

Table 7 (page 15) presents respondents' rating of importance for specific elements to make the study areas safer for residents and businesses. As shown below, increased police presence (56%) and improved lighting in alleys (51%) were identified as very important by the majority of respondents. Traffic calming measures as very (29%) or somewhat important (35%) whereas mixed-use developments (19% and 30%) and longer store hours (16% and 29%) were identified as being moderately important.

Table 7: Public safety importance in primary study areas

	Very	Somewhat	Not very	Not at all	Don't know
Increased police presence	56%	31%	9%	2%	1%
Improved lighting in alleys	51%	32%	12%	3%	2%
Longer store hours	16%	29%	34%	18%	3%
Traffic calming measures	29%	35%	21%	8%	7%
Increase mixed-use development	19%	30%	30%	13%	7%

4.3 Transportation

Smart growth planning recognizes transportation as a primary element of community form and character. Internal transport modes such as roadways, pedestrian and bicycle networks, and public transit serve to define a city’s land use, density, and limits to future growth. These factors and the ongoing impacts on quality of life, the environment, and infrastructure costs/deficits, imply that the long-range impacts of transportation expansion warrant careful planning and community consideration.

The *Questionnaire* sought public opinion on identifying general city-wide transportation issues in the City and more specifically on public transit. These questions were followed by targeted questions on transportation elements in the three primary study areas: Old Town, Downtown, and Old Airport Road. Both the open-ended responses and quantitative material is supplemented by general comments on transportation issues from the respondents.

4.3.1 Transportation Issues

To assist in understanding the existing transportation concerns in Yellowknife the public were asked what they deemed to be the most important transportation related issues in the City. The prioritized responses (Table 8) were organized into a dozen broad categories with insufficient parking (Old Town and Downtown), bus service, and road/sidewalk conditions (including snow removal) rated as top concerns. These were followed by insufficient bike lanes/pedestrian-friendly design, traffic congestion on Old Airport Road and in Downtown, and need for Kam Lake by-pass road/additional access city and downtown.

Table 8: Transportation issues identified by respondents

Transportation Issues	Percentage
Insufficient parking (Old Town/Downtown)	17%
Bus service	16%
Road/sidewalk conditions	14%
Insufficient bike lanes/pedestrian-friendly design	13%
Traffic congestion (Old Airport Road/Downtown)	10%
Kam Lake bypass	7%
Road design	5%
Traffic light synchronization	4%
Traffic violation enforcement (speeding)	4%
Wal-Mart parking lot	4%
Idling	2%
Gas prices	1%

As a winter city, there were many comments about transportation issues related to snow removal and road conditions. Most of the comments focused on better snow removal for both streets and sidewalks. Tied in to this concern, many comments were also received in regard to maintaining and improving road conditions. Traffic congestion through the city as a whole was also a major concern of respondents especially traffic congestion in the downtown core during morning and evening rush hours. Finally, a significant portion of transportation-related comments focused on the need to improve access, egress, and design of the Wal-Mart and Tim Horton’s parking lot area.

4.3.2 Public Transit

With regard to public transit, the questionnaire identified a generally low ridership amongst respondents with only 10% of respondents using the bus. Of these respondents 45% use the bus 1-2 days per week, 31% use the bus 3-4 days per week and 24% use the bus 5 or more days per week.

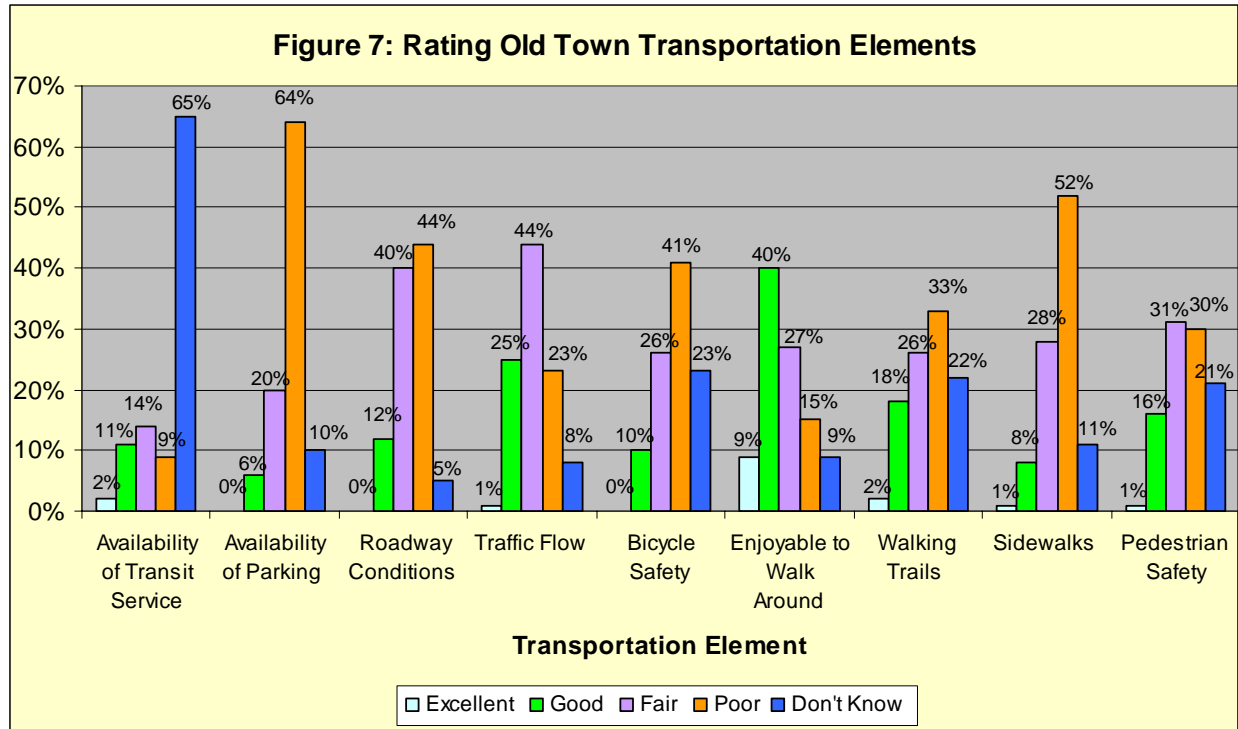
When asked to identify methods to encourage transit ridership in Yellowknife the majority of respondents (26%) suggested making the bus service faster and more frequent. Other recommendations noted in Table 9 include cheaper/free fares, more buses/larger coverage area, better weekend service, and better advertising of schedule.

Table 9: Respondent recommendations to encourage transit ridership

Recommendation	Percentage
More frequent service/express routes	26%
Cheaper/subsidized fares	15%
More buses/coverage area	13%
Better weekend service/longer day hours	12%
Better advertising of schedule	8%
Safer/cleaner/more accessible buses	8%
More stops-proximity to residences/prominent locations	7%
Smaller buses	5%
Heated bus shelters	2%
Eliminate Downtown parking	2%
No parking Downtown	2%

4.3.3 Old Town Transportation Elements

In addition to the city-wide transportation issues the public rated general transportation infrastructure and services within the three primary study areas. Presented in Figure 7 (page 17), a number of significant traffic concerns exist in Old Town. With regards to pedestrian-oriented design, many respondents identify Old Town as an enjoyable place to walk around. However a majority also rate pedestrian/cycling elements as either only fair or poor: walking trails (55%), sidewalks (80%), pedestrian safety (61%), and cycling safety (67%). Vehicular accessibility is also a major concern with 64% of respondents identifying availability of parking as poor (20% fair), 44% rated road conditions as poor (40% fair), and 23% identified traffic flow as poor (44% fair). Based on these figures Old Town has the most significant transportation related issues of the three primary study areas.

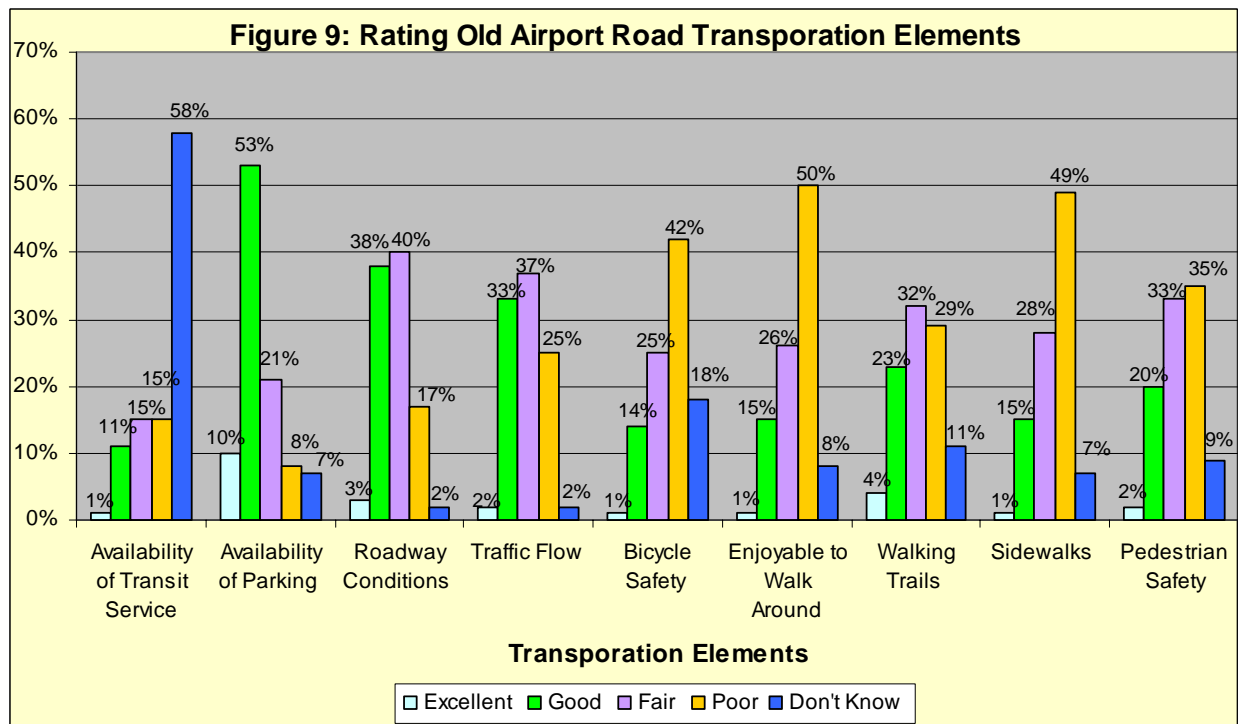
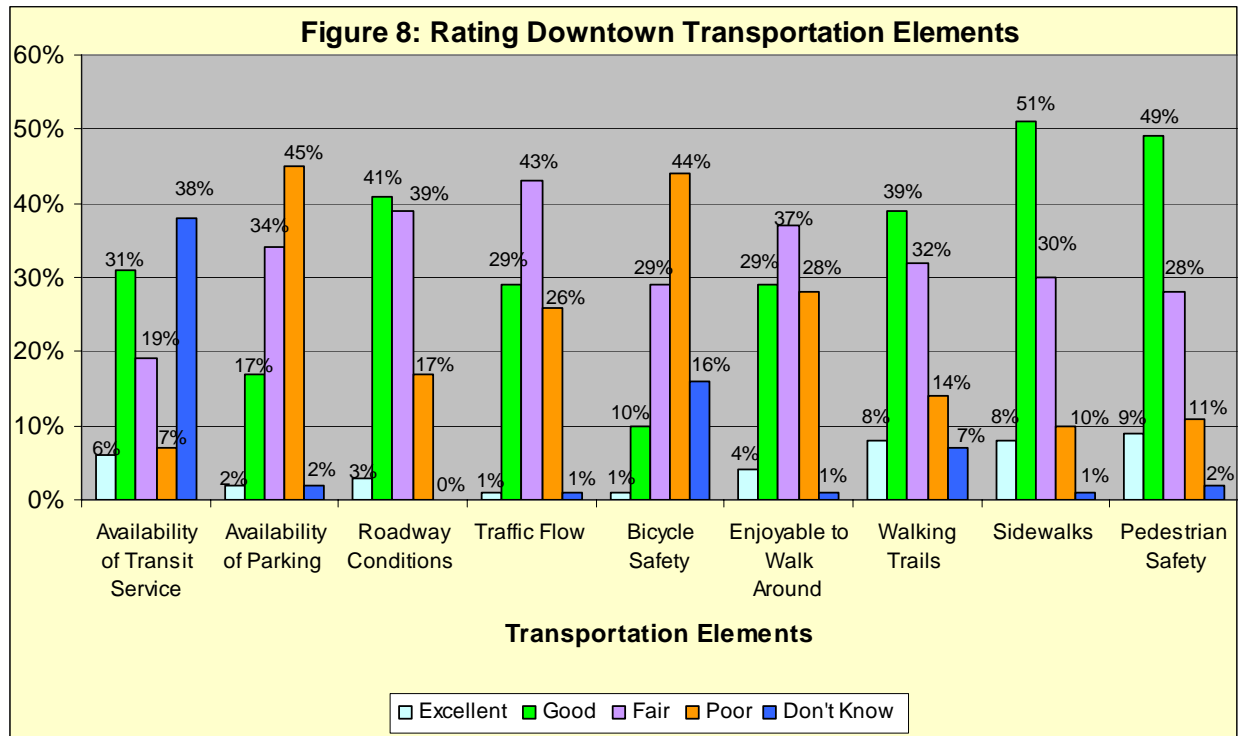


4.3.4 Downtown Transportation Elements

Illustrated in Figure 8 (page 18), respondents generally ranked transportation elements higher in the Downtown than in Old Town or Old Airport Road. Pedestrian elements such as sidewalks for example were ranked by 51% of respondents as good and 8% excellent, with pedestrian safety as 49% good and 9% excellent. Despite these ratings walking trails are ratings were split and enjoyable walking environments were rated fair or poor by 65% of respondents. Availability of parking was identified as the primary concern in the Downtown with 45% of respondents identifying it as poor and 34% as fair. This is followed by cycling safety which is ranked poor by 44% and fair by 29%. Respondent opinions on conditions of roads were split, however some concerns exist with regards to traffic flow (26% poor and 43% fair). The majority that rated transit availability ranked it as good or excellent.

4.3.5 Old Airport Road Transportation Elements

Similar to Old Town, respondents generally rated most transportation elements on Old Airport Road as poor or fair (Figure 9, Page 18), with the exception being availability of parking (53% good and 10% excellent). Pedestrian and cycling elements for example were consistently ranked as substandard by the majority of respondents: sidewalks (49% poor and 28% fair), pedestrian safety (35% poor and 33% fair), enjoyable walking environment (50% poor and 26% fair), and walking trails (29% poor and 32% fair), and cycling safety (42% poor and 25% fair). The majority also acknowledged concerns with regards to traffic flow (25% poor and 37% fair) and road conditions (17% poor and 40% fair), whereas public sentiment on transit availability on Old Airport Road is mixed.



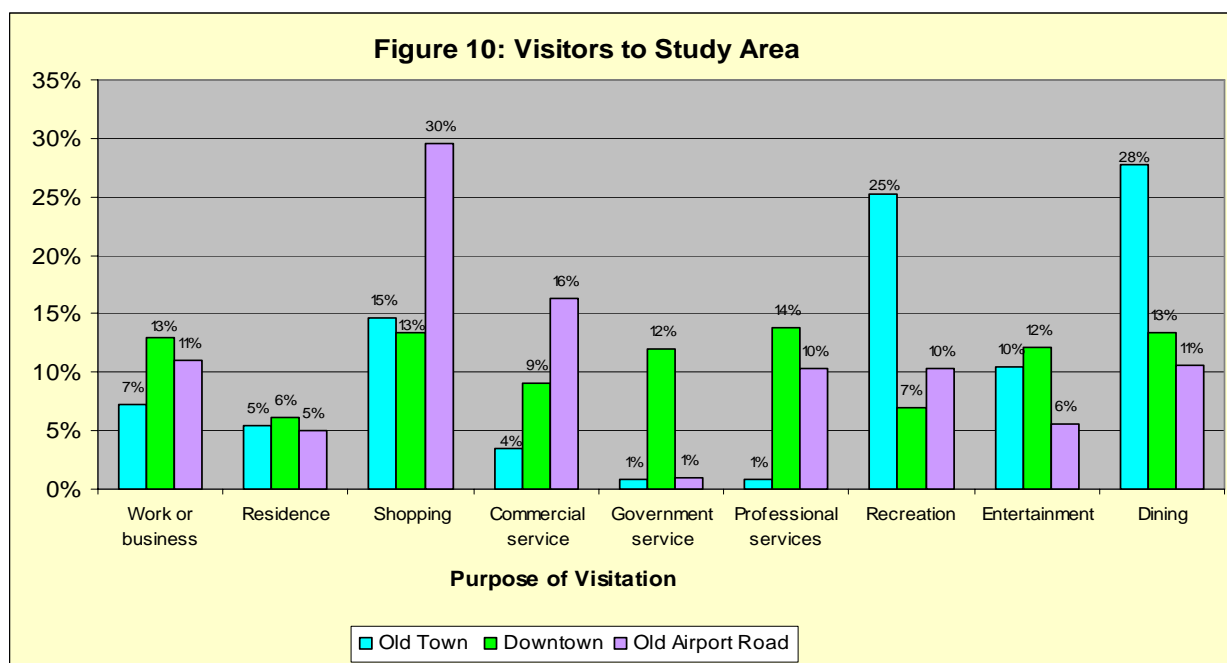
4.4 Economic Development

The smart growth initiative intends to encourage the development and redevelopment of Yellowknife through a combination of development incentives, land assembly strategies, public private partnerships, and zoning. A strategy fostering reinvestment and revitalization begins with viable development/redevelopment anchors, an appropriate mix of land uses, and available land for development. Integrating this approach with the urban design and transportation components for each of the three primary study areas shall serve to encourage and guide future growth and development within these areas.

4.4.1 Study Area Attractions

Determining appropriate economic development anchors within an area involves identifying and understanding its existing land-use make-up, building upon its assets, and strengthening its weaknesses. To gain a better understanding of the level of attraction of each of the study areas, respondents were asked how often they visit each area, and for what purpose. Based on the responses, Downtown has the highest number of visits by respondents at 24 days per month, followed by Old Airport Road with 18 days per month, and Old Town with 8 days per month. These responses are consistent with the land use patterns of the three areas with Downtown having the highest concentration of office buildings and commercial services, followed by Old Airport Road.

Figure 10 further breaks down why respondents are visiting the study areas. The Figure illustrates an even distribution of reasons for visiting the Downtown core, reflecting an attraction attributable to a relatively balanced and mixed concentration of uses. This could be strengthened by residential intensification, expanded commercial services, and recreational opportunities. Visits to Old Airport Road are primarily for purposes of shopping and commercial services, with an even mix of dining, work, or recreation. Low concentration of residential development, government services, and entertainment are reflected along the Old Airport Road corridor. Old Town’s primary attractions for city-wide residents are dining, recreation, and shopping with limited activity related to services, residence, or work.



4.4.2 Revitalization Anchors

Successful revitalization entails formulation of a broad vision sufficient to mobilize community stakeholders toward strategic implementation. In addition to understanding the land use make-up and design limitations of a community, this process targets suitable development and redevelopment anchors, creates practical land assembly strategies, and fosters an environment of investment and reinvestment. The intent is to create spin-off opportunities and a synergy of activities resulting in meaningful improvements to land use, density, and quality of life for Yellowknife citizens. In this context the Questionnaire sought public opinion on potential revitalization anchors, redevelopment opportunities, and public access to key waterfront areas in Great Slave Lake.

Illustrated in Figure 11 (page 21), respondents rated their preference for numerous potential revitalization anchors within the three study areas. Within Old Town, the majority of respondents preferred a commercial marina (22%) followed closely by an artist cooperative (21%), with strong preference also given to a mixed-use public market (13%) specialty niche businesses (11%), and a sculpture garden. With regard to Downtown revitalization anchors the top two preferences a new library (16%) and convention centre (14%), followed by a central park or plaza (12%) and a performing arts hall (11%). For Old Airport Road, respondents would prefer to see a big box retail store (20%) and shopping mall (17%) followed by a college campus (9%) and mixed use public market (8%).

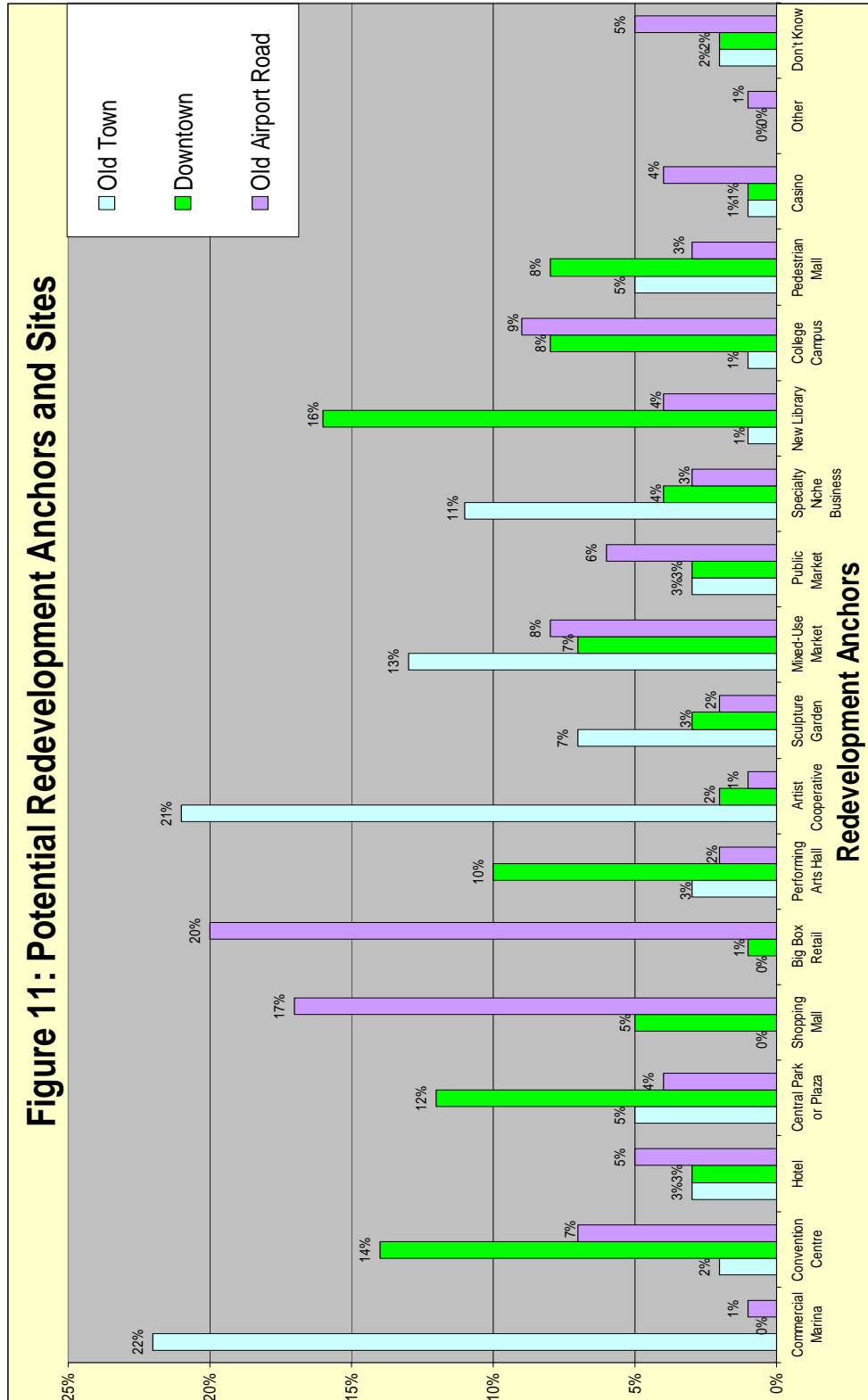
4.4.3 Revitalization Sites

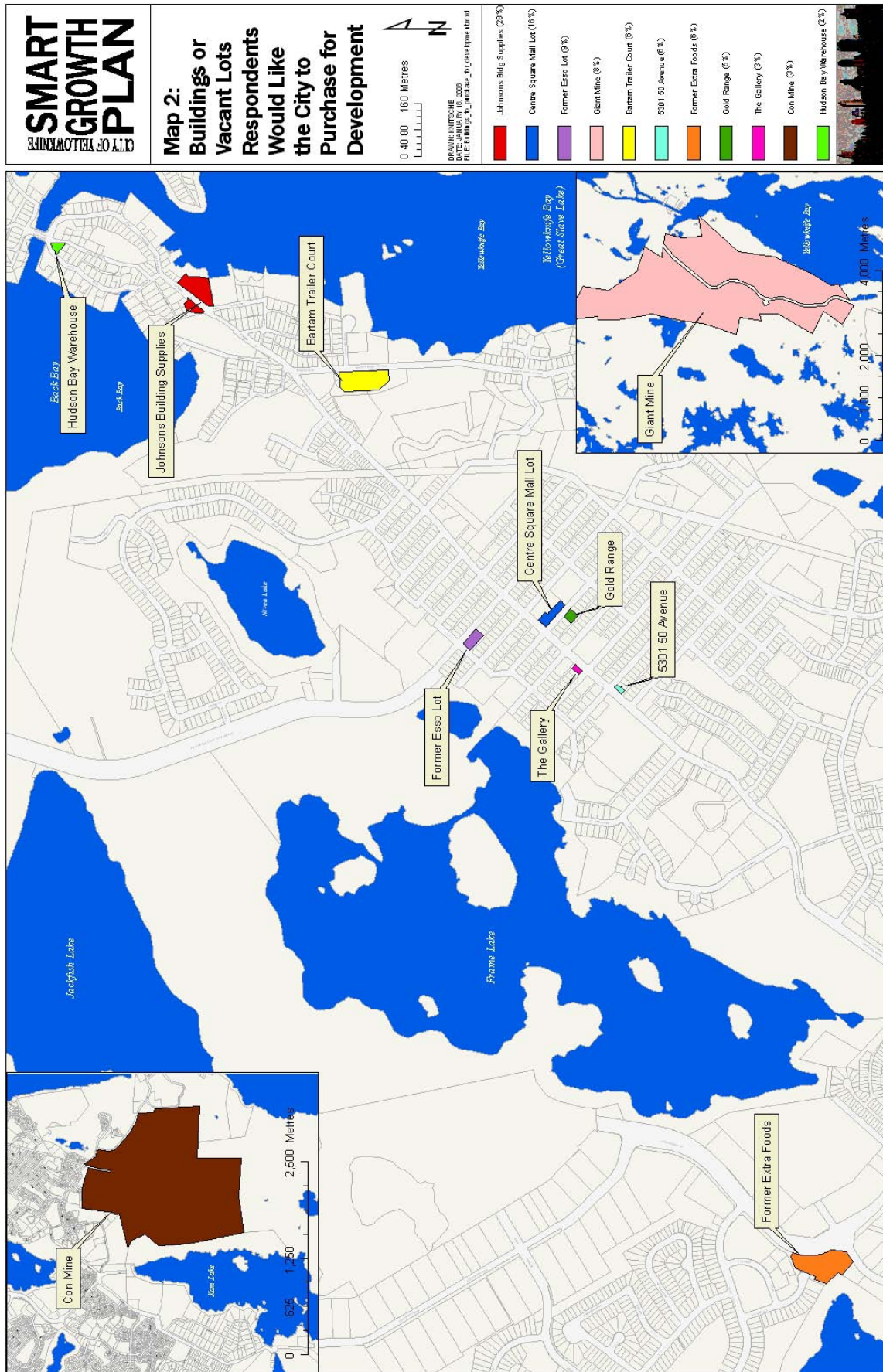
Revitalization sites present themselves in the form of vacant or underutilized parcels (i.e. brownfields), heritage properties, or lands deemed to have a broad public attraction or interest. Such locations present opportunities for reviving an existing site or building, improving or modifying a land use, or introducing a new compatible redevelopment anchor. Site identification is important first step to formulating a public vision and action strategy to redevelopment. To foster an understanding of these issues the Questionnaire survey asked questions relating to redevelopment of vacant or underutilized properties, waterfront recreational opportunities, and designation of potential heritage properties.

Respondents were asked to identify city-wide vacant or underutilized properties the City should assemble for purpose of development or redevelopment. Map 2 (page 22) illustrates the public's preference for land assembly to be focused in the areas of Old Town and Downtown. Johnson Building Supplies at the entranceway to Old Town was identified by the majority of respondents (28%) as the top priority for the City, followed by the Centre Square Mall Property (16%). Other notable properties identified by respondents include the former Esso Lot (9%) on 49th Avenue and 49th Street, Giant Mine (8%), Bartam Trailer Court (6%), former Extra Foods (6%), Gold Range (5%), Gallery Building (3%), Con Mine Site (3%), and Hudson Bay Warehouse (2%).

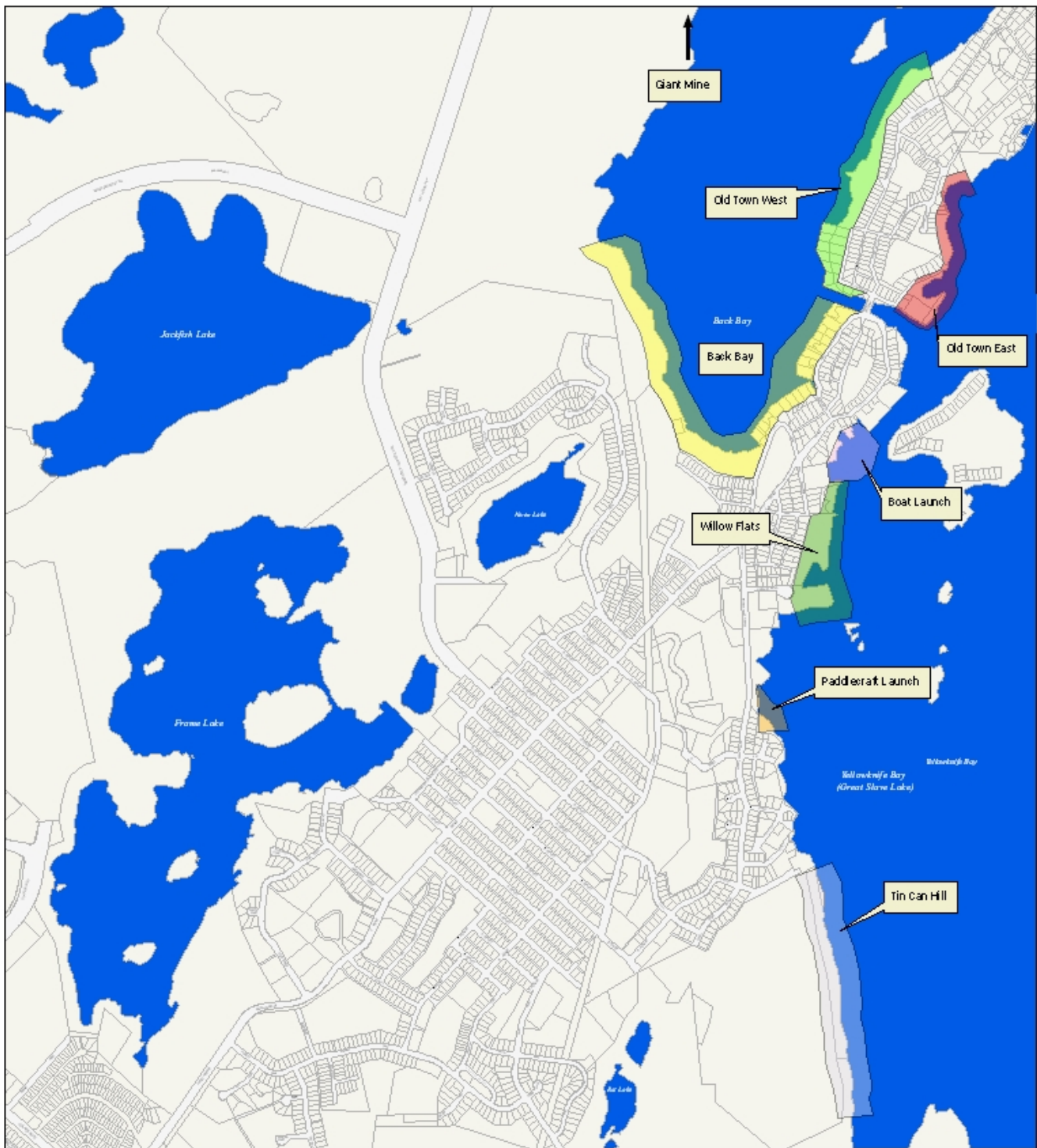
In addition to vacant and underutilized properties respondents were asked identify specific buildings or properties that should be considered for heritage designation. Map 3 (page 23) illustrates that while most of these sites are concentrated in Old Town or the Downtown core, the top two sites are Giant Mine (17%) and Con Mine (16%). Other sites identified by members of the public include Wildcat Café (14%), Weaver and Devore (14%), Post Office (7%) Hudson Bay Warehouse (7%) Bullocks Bistro (6%), Johnson Building Supplies (6%), Gold Range (6%), Woodyard (4%), Mildred School (2%), and Fireweed Studio (1%).

Finally respondents were asked to identify the top three Great Slave Lake waterfront areas that should be improved for recreational access. Illustrated in Map 4 (page 24) the priority areas include Back Bay (21%), Giant Mine (18%), Willow Flats (17%), and Tin Can Hill (17%). Secondary properties are Old Town West (9%) and Old Town East (8%), with a limited interest in the Boat Launch (2%) and Paddlecraft Launch (1%).









CITY OF YELLOWKNIFE

SMART GROWTH PLAN

Map 4: Respondents' Preference for Improved Waterfront Access

0 125 250 500 Metres

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 Back Bay (21%)	 Old Town West (9%)
 Giant Mine (18%)	 Old Town East (8%)
 Willow Flats (17%)	 Boat Launch (2%)
 Tin Can Hill (17%)	 Padderaf Launch (1%)



4.4.4 Development Incentives and Permitting

Beyond municipal capital expenditures in streetscaping, strategic land assembly and/or redevelopment, revitalization is heavily dependent on private sector investment. Such investment can range from a small business making site or building façade improvements, to brownfield remediation, to a developer undertaking a major residential or commercial development. Encouraging these reinvestment opportunities often requires creative partnerships, alternative revenue sources, or development incentives.

Development incentives are an increasingly popular means for municipalities to directing reinvestment and enterprise toward targeted districts. The Questionnaire asked respondents to identify their support for three financial incentives from a list of various initiatives. Table 10 illustrates broad support for utilizing financial incentives, with the largest proportion of respondents (25%) rating site improvements as a top priority. This was followed closely by preservation of heritage buildings (21%) and cleaning up contaminated sites (21%). Secondary financial incentives include storefront (façade) improvements (13%), promotion of downtown residential development (11%), and promoting renewal of commercial centres (6%).

Table 10: Support for financial revitalization incentives

	Proportion
Site improvements	25%
Preserving heritage buildings	21%
Cleaning up contaminated sites	21%
Improvements to storefronts	13%
Promoting more residential development downtown	11%
Promoting renewal of commercial centres	6%
Don't support	3%

5. SUMMARY AND RECOMMENDATIONS

The City-Wide *Questionnaire* was the first task in undertaking public consultation with Yellowknife residents for the development of a *Smart Growth Development Plan*. A total of 865 questionnaires were returned representing a return rate of 12% and a statistical significance of 95%. The following related recommendations are presented based on the tabulated responses and supplemental commentary from the questionnaire participants. These recommendations or ideas may be considered in the ongoing development of the *Plan* including the formulation of relevant policies, strategies, concepts or subsequent consultation stages. The following analysis is divided into six integrated themes which relate to initial work breakdown structure outlined in the *Plan*'s original terms of reference.

5.1 Public Participation

As preliminary public participation components, the *Questionnaire* and *Focus Groups* provide a broad framework for identifying issues relating to the City's long term growth and development. Respondents and participants appreciated the consultation initiatives and indicated a strong public interest to participate in shaping the future layout and design of the City. Many respondents felt however that the sessions were only a starting point and that ongoing consultation and public participation is required to develop an integrated and broadly supported vision that impacts the entire City (primary, secondary, and outlying areas). As the City continues to develop the *Plan*, the following recommendations are made to ensure ongoing public involvement:

- Publicize the *Questionnaire* and *Focus Group Reports* and seek additional feedback from residents and businesses on recommended smart growth policies and programs.
- Establish a *Smart Growth Development Plan Steering Committee* to promote stakeholder involvement and transparency in the formulation of the *Plan*.
- Utilize *MetroQuest Software* to model future growth scenarios and engage stakeholders and citizens to build consensus on the long-range development of Yellowknife.
- Conduct a 3-5 day community-wide design charrette targeting a specific redevelopment initiative for each of the three primary study areas and the Con Miramar Mine Site.
- Develop a smart growth web page on the City's web-site to educate the public on the smart growth strategy and provide progress updates on reports, policies and programs, and development/redevelopment initiatives arising from the *Plan*.
- Encourage greater involvement from youth and children in the long-range planning of Yellowknife by outreaching to schools through engagement tools such as *MetroQuest*, design charrettes, or "box city".
- Seek greater involvement from First Nations communities in the long range planning of the City's growth and development.
- Host a series of public forums and workshops for the various Smart Growth planning initiatives including growth management, transportation, urban design, and economic development.

5.2 Housing

Although the *Questionnaire* demonstrates a strong desire for single family ownership (70%) in established neighbourhoods, homeownership of any sort remains unfeasible for a large portion of households in Yellowknife. With an average 2007 sale price of \$292,000, it is evident that between 15-25% of households in Yellowknife cannot afford a mortgage beyond \$200,000. This quantitative data is supported by comments from respondents who stressed the need for the City to facilitate a more diversified market through concurrent subdivisions in multiple locations. It was further stressed in respondent commentary that the City should promote a higher overall standard for single-family homes through greater emphasis on more architectural compatibility and limits on number of mobile/manufactured homes.

With these factors in mind it is recommended the *Smart Growth Development Plan Steering Committee* look at the following issues to improve the housing conditions in Yellowknife:

- Work with the *Canadian Mortgage and Housing Corporation*, and the *Northwest Territories Housing Corporation* to develop an affordable housing initiative for Yellowknife.
- Identify infill and greenfield sites for future residential development in conjunction with the *MetroQuest* growth management consultation process with recommended timelines for development.
- Develop a residential development incentive policy for new residential construction or building conversion to residential in the Downtown or Old Airport Road areas (see Economic Development).
- Position the Land Development Fund (LDF) to encourage concurrent residential development initiatives in the City to diversify housing choice, affordability, and locations. Target a minimum allocation of LDF revenue toward assembly of land in the Downtown and Old Town for residential development (see Economic Development).
- Promote mixed-use and flex housing options developments within the primary study areas.
- Seek to improve the quality of residential construction by implementing the EGNH-80 standard, establishing minimum architectural requirements for new residential subdivisions.

5.3 Land Use and Urban Design

The land use and urban design component is at the heart of the Smart Growth initiative as its strategy most strongly impacts the aspects of future growth, development, and appearance of the City. The *Questionnaire* identified strong opportunities for theming the primary study areas with an emphasis on Old Town Heritage, Downtown as the Cultural Heart, and Old Airport Road as the Welcoming Gateway. Despite these opportunities however, the public noted many deficiencies with regards to the land use make-up and urban design of these areas (i.e., public art, landscaping, architecture, streetscaping, limited waterfront access, etc.).

With regards to the streetscape appeal of the primary study areas and the City as a whole, there was an overwhelming response from residents on the litter/pet waste issue. Given the magnitude of the problem an integrated strategy is required that involves City-wide stakeholders (see

Environmental recommendations). Other comments relate to the low site and development standards of commercial or residential buildings, in particular preservation of natural features/landscaping, or the building architecture and use of cheap construction materials (i.e., vinyl/metal siding). Further that the City lacks an action-oriented vision with regards to heritage and the arts and that the current strategy needs to move beyond “designation” of heritage buildings to a targeted plan and preservation strategy.

Finally a major challenge recognized by respondents is the balance between intensification and sprawl or conflicting land uses. Many suggested that more open spaces (i.e., parks) are required in the Downtown and that green space (i.e., potential infill sites) should be preserved rather than considered for development. Others noted that growth needs to be contained and that the City should follow a model like Vancouver instead of Calgary by encouraging concentrated development. Regardless of the level of intensification there was strong support for mixed-use developments (i.e., residential, commercial, recreation) and zoning standards which carefully consider land use compatibility and prevent future land use conflicts (i.e., dog kennels versus caretaker suites in Kam Lake).

The following recommendations target required plans, policies, and strategies, with regards to the urban appearance, land use make-up and future growth of the City:

- Develop streetscaping plans for Old Town, Downtown, and Old Airport Road, which address landscaping, lighting, street furniture, facade improvements, and traffic-calming and pedestrian oriented design.
- Promote Old Airport Road as the “welcoming gateway” to the city by facilitating the relocation of light industry and trucking enterprises from Old Airport Road to the Engle Business District.
- Emphasize Downtown as the “gathering place” or “cultural heart” of the City and continue to support its role as the primary service centre through promotion of commercial/office development, arts and culture, open space, and suitable redevelopment anchors (i.e., performing arts centre, library, convention centre).
- Designate Old Town as the primary heritage district and promote opportunities for tourism, recreation and the arts through the development of a mixed-use waterfront marina.
- Host an architectural design charrette and workshops with residents and design professionals to define an architectural vernacular that aptly reflects Yellowknife’s unique northern character.
- Establish architectural guidelines and minimum zoning requirements for buildings in the primary study area as they relate to building materials, fenestration, and form.
- Develop city-wide commercial signage guidelines and regulations to minimize sign clutter, define neighbourhood character, and promote architectural and streetscape compatibility.
- Develop landscaping guidelines to support a new landscaping standard for businesses in the City which consider the distinct character of each of the primary and secondary study areas in the City.

- Replace cobra-head high pressure sodium (HPS) street-lighting throughout the primary study areas with themed decorative metal halide (MH) lighting appropriate to Old Town, Downtown, and Old Airport Road.
- Delineate key entranceways into neighbourhoods with “gateway” features such as public art, signage/banners, lighting, and landscaping.
- Increase mixed-use which emphasize land use compatibility, pedestrian oriented design, and quality of life in every redevelopment concept for the primary study areas.
- Work with the Heritage Committee, Downtown Committee, and arts community to develop a public arts policy with identifies suitable sites, provides grants, and establishes submission and performance criteria.
- Proceed to Phase II of the Ecological Resource Inventory in conjunction with the MetroQuest consultation process to appropriately delineate, zone, establish development/preservation requirements with regards to environmentally sensitive areas or infill sites.
- Seek to address safety and crime issues in the Downtown through Crime Prevention through Environmental Design.
- Promote additional greenspace in the Downtown by assembling sufficient land to establish a central square, and targeting pocket parks, pedway corridors, or amenity space in every Downtown block.

5.4 Transportation

Transportation is a central component of the smart growth initiative and is recognized as a driving factor in shaping the growth and development of the City. Traffic circulation patterns, level of service (L.O.S.), accessibility and parking, and integration of alternative transportation modes, both define and are defined by future land use and urban form. The smart growth initiative aims to develop a holistic transportation plan that not only assesses the current conditions, but projects future networks and their impacts on trip generation, level of service, modal splits, and land use.

The *Questionnaire* data identified numerous transportation challenges within the primary study area (i.e., parking, transit, road conditions, and alternative transportation). Supplementary commentary from respondents regarding Downtown parking for example suggests on the one hand that more off-street parking should be provided or required, and on the other that more pedestrian/transit oriented modes should be encouraged. For Old Town respondents identified the parking shortage as a primary concern, largely attributable to the narrow road widths and lack of off-street parking. The impact of this shortage is most evident in the summer months in the vicinity of the boat launch and commercial businesses. Regarding Old Airport Roadway respondents did not highlight the lack of parking availability, but rather the poor traffic circulation design, accessibility, and landscaping of big-box, strip malls, and other property owners.

To improve the provision of alternative transport modes respondents suggested more bus stops/shelters, increased frequency of buses, and better advertising of schedules. This is supplemented by very strong support for aggressive trail preservation and development, more

pedestrian crossings, waterfront pathways/boardwalks, and bicycle lanes. On the vehicular side, a great deal of commentary relates to the traffic patterns into the City and Downtown core. Long range consideration needs to be given to improving the level of service of Old Airport Road as it continues to development, reducing or eliminating truck traffic, improving intersections and access to lots (i.e., Stanton Plaza), and balancing the conflicting public opinions on traffic control (i.e., stop versus yield signs, traffic light synchronization).

With the intent of commencing the transportation planning component of the *Plan* in the summer of 2008, the following recommendations are made to further the scope and direction of the initiative:

- Host a preliminary public consultation sessions to identify public concerns with reference to city-wide transportation.
- Utilize the MetroQuest consultation process to gain public input on the future growth and development of the City and its impacts on transportation.
- Conduct a parking assessment of on- and off-street parking in the Downtown and Old Town area and determine a strategy to alleviate parking shortages or development constraints resulting from parking shortages.
- Work with business owners to facilitate the redevelopment of Old Airport Road parking lots including big box stores, strip malls, and independent owners, with the intent of improving vehicular traffic circulation, safety, and aesthetic appeal (i.e. landscaping and lighting).
- Reduce heavy truck traffic on Old Airport Road through the establishment of the Kam Lake By-Pass extension and the encouragement of trucking industry relocation to the Engle Business District.
- Develop a road improvement plan for Old Airport Road concurrent with the Frame Lake Extension which addresses traffic congestion, drainage, aesthetics (streetscaping), and pedestrian safety.
- Explore opportunities for establishing an outdoor pedestrian mall in one of the city's Downtown streets through incremental improvements such as sidewalk widening, removal of on-street parking, one-way traffic, and/or angled parking.
- Incorporate traffic calming elements through pedestrian oriented areas of the City through the utilization of bulb-outs, wider sidewalks, bollards, angled on-street parking, one-way streets, and geometric controls.
- Promote Transit Oriented Design (T.O.D.) by providing suitable zoning, development incentives, infrastructure, and transit amenities (bus shelters and schedules, way-finding signage, information kiosks, and bike racks) to increase density of targeted areas.
- Integrate the city's natural trails, sidewalks, greenways (4 metre hard surface), bicycle lanes, and transit to pedway and T.O.D. nodes.
- Conduct City-wide traffic counts on major roadways and intersections to identify existing and projected future level of service (L.O.S) of major roadways and intersections.
- Develop a future traffic demand analysis utilizing projected growth and land use scenarios and trip generation analysis to project capacity and demand of the City's roadway networks.

- Review the adequacy of traffic light synchronization, stop and yield signs, wayfinding signage, bicycle signs, and crosswalks throughout the City and project future traffic control requirements based on future growth and development.
- Develop a phasing schedule and cost-estimates for major roadway infrastructure improvements networks based on projected population growth and development.
- Seek to improve waterfront access to Great Slave Lake by developing a cohesive plan integrated to redevelopment concepts which identifies access points, dedicated parks, and trails to Back Bay, Giant Mine Site, Willow Flats, Tin Can Hill, Old Town West, Old Town East, Boat Launch, and Paddlecraft Launch.

5.5 Environment

Although the *Questionnaire* did not dedicate a specific section to the environment, there is significant quantitative data and supplementary commentary from the public. The quantitative data suggests a strong need to address public litter (see Land Use and Urban Design), support for green space and the natural environment, landscaping, minimum commercial building energy efficiency standards, and encouragement of alternative modes of transport. Most of the commentary on environmental issues relates to the appreciation and preservation of ecologically sensitive areas, the enhancement of natural trails and buffer, and higher landscaping and tree/natural feature preservation regulations for new development.

Based on the above, one of the biggest challenges Yellowknife will face with regards to future growth and development is a comprehensive and practical environmental preservation strategy. Although the City completed the *Environmental Resource Inventory (ERI)* in 2007, it is evident that a Phase II is required to more specifically delineate boundaries and design site-specific protective versus development options. Since the *ERI* was a scientific based report, further consultation work is required on the “quality of life” impacts of identified properties. Integrating this process with the *MetroQuest* initiative is required to demonstrate to the public the impacts of preservation or development on the various growth and development scenarios.

The following recommendations are intended to ensure that environmental considerations are recognized and given priority in the smart growth initiative:

- Establish subdivision design standards that define minimum landscaping standards, open space dedication, preservation of natural features, and integrated pedestrian/bicycle networks (sidewalk, trail, bike-lane, greenway networks).
- Update the City’s landscaping requirements and develop guidelines which define a higher landscaping standard, include tree preservation or replacement requirements, preservation of natural areas, and require performance and maintenance guarantees.
- Develop and promote an Adopt-A-Tree Program to encourage the corporate sector and citizens to promote landscaping and beautification of the City’s parks and streetscapes.
- Work with the Yellowknife Community Garden Association and local landscaping companies to promote community gardens in residential neighbourhoods.
- Explore the potential of a greenfield development levy through the Land Development Fund Policy with a portion of revenues dedicated toward park and greenspace expansion.

- Allocate a budget and multi-year implementation schedule to landscape the parking lots of all city-owned facilities.
- Investigate preservation standards, appropriate setbacks (i.e., 50 metres), and zoning around all water bodies within Yellowknife in the context of public access, recreation and potential development.
- Where feasible establish minimum buffers (i.e., 10 metres) between existing and future trails and future development and redevelopment areas.
- Minimize light pollution and reduce energy usage by establishing lighting standards in the zoning by-law and targeting zero cut-off street-light fixtures for all future commercial and residential subdivisions and streetscaping initiatives.
- Develop a LED (light emitting diode) street-lighting pilot project with Northland Utility to measure the performance, energy savings, and suitability of LED street lighting and the feasibility of a city-wide street-lamp conversion to LED.
- Continue to promote the City’s Building Energy Efficiency Program (EGNH-80 and CBIP or LEED Certified) through ongoing capacity building, recognition, and public education and awareness.
- Develop a Leadership in Energy and Environmental Design (LEED) program which involves capacity building, public education, minimum requirements for municipal facilities, and scaled incentives for the private sector with reference to certified, silver, gold and platinum certification.
- Work cooperatively with the business community and citizens to develop a city-wide action-oriented litter control program with primary emphasis given to the Downtown, consisting of the following:
 - ♦ Availability and suitability of existing garbage bins along trails, sidewalks, and key intersections throughout the Downtown and City;
 - ♦ Anti-littering and pet waste education campaign involving signage, radio, video, and newspaper ads;
 - ♦ Annual spring clean-up program;
 - ♦ Storefront/property by-law requiring business/property owners to maintain cleanliness of storefront properties, parking areas, and adjacent sidewalks/boulevards;
 - ♦ Develop partnership with business community to establish street-cleaning (i.e., Business Improvement District Ambassador Program (see Economic Development)).

5.6 Economic Development

A cohesive development strategy which provides incentives, encourages creative partnerships, and strategically allocates resources and investment is essential to a successful smart growth initiative. The *Questionnaire* identified some of the commercial strengths and attractions within the primary study area along with potentially suitable redevelopment anchors (i.e., commercial marina, new library, artist co-op, and various retail establishments). It is evident that citizens wish to see the City take a more aggressive approach to land assembly to spur on such development, in particular land around the “50-50” corner and land throughout the Old Town

Waterfront. The formulation of a redevelopment vision for targeted areas coupled with the strong public support for development and redevelopment incentives can serve as the foundation to build private sector interest and leverage the investment and reinvestment required for revitalization.

The following recommendations are intended to guide the Smart Growth Committee in its formulation of a much needed economic revitalization strategy that is practical and sustainable:

- Develop a vision statement and brand (logo) for Downtown, Old Town, Old Airport Road, and secondary commercial districts which are representative of the interests of Yellowknife and the future development and redevelopment of these areas.
- Engage citizens and Territorial leaders to redefine Yellowknife's image and brand into raise awareness and increase participation in the revitalization of the City.
- Develop a City-wide brownfield inventory, improvement plan, and incentive program to encourage the remediation and redevelopment of contaminated properties.
- Develop information bulletins (brochure and web-based marketing) profiling site and market conditions (location, zoning, taxes, adjacent land uses, property dimensions, development options, and incentives) of brownfields, vacant buildings, and underutilized sites for purposes of encouraging investment and redevelopment.
- Develop a Land Development Fund policy which dedicates off-site improvement levies or a minimum of 25% of revenues from the revolving fund to target land assembly (land bank) and to facilitate residential and commercial redevelopment initiatives in the primary study areas (Downtown, Old Town, and Old Airport Road).
- Establish the primary study areas (Old Town, Downtown and Old Airport Road) as an enterprise zone, with primary focus on the Downtown. Incorporate a well advertised and integrated development incentive program which targets incentive models such as tax increment financing (i.e., 100%-80%-60%-40%-20% tax breaks over five years), waiving of fees (development/building permit or tipping), Phase I and II ESA subsidies, grant structures, and/or zoning incentives (i.e., density bonusing) to the following smart growth initiatives:
 - ♦ Housing Intensification
 - ♦ Commercial Intensification
 - ♦ Brownfield Remediation and Redevelopment
 - ♦ Leadership in Energy and Environmental Design (LEED)
 - ♦ Facade and Site Improvements
 - ♦ Heritage Preservation
- Develop a streetscaping action plan for the Downtown which allocates a minimum annual expenditure of the parking meter revenues from the Downtown Enhancement Committee to scheduled streetscape improvement plan.
- Work with the business community leaders to establish a Business Improvement District (BID) in Yellowknife with matching monies from the City, for programs related to marketing, commercial revitalization, beautification, litter-clean-up, public safety, and facilitation of land assembly and redevelopment.

- Target Con Miramar Mine to house the Northern Environmental Centre serving as the cornerstone R&D incubation hub for the north with a focus on industry generators relevant to the region including mining, geosciences, alternative energy, sustainable resource management/conservation, traditional knowledge, climate change, and value-added industry development.
- Work with the Yellowknife Community Garden Association to create garden R&D incubators and greenhouses into the City's Engle Business District and Con Miramar Geo-Science Centre.
- Continue to work with the federal and territorial government on the remediation of Giant Mine and assess the financial and environmental feasibility of heritage preservation within the Town Site and the long-term development/redevelopment potential of the site.
- Encourage economic partnership opportunities with the Akaitcho First Nation and provide assistance to expedite land claim resolution, land selections, and development of selected sites.

APPENDIX A:
REFERENCES

REFERENCES

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APPENDIX B:
DETAILED RESPONSE RATES

Table	Number of Respondents	Margin of Error
Table 1: Age range of respondents	764	±4%
Table 2: Household income	839	±3.5%
Table 3: Current and preferred housing type	842	±3.5%
Table 4: Price willing to pay for housing	832	±3.5%
Table 5: Where respondents would like to live	835	±3.5%
Table 6: Public support for commercial design requirements	830	±3.5%
Table 7: Public safety importance in primary study areas	819	±3.5%
Table 8: Transportation issues identified by respondents		
Table 9: Respondent recommendations to encourage transit ridership		
Table 10: Support for financial revitalization incentives		

Figure	Number of Respondents	Margin of Error
Figure 1: Rating Old Town Urban Design Elements	807	±4%
Figure 2: Old Town Streetscaping Priorities		
Figure 3: Rating Downtown Urban Design Elements	814	±4%
Figure 4: Downtown Streetscaping Priorities		
Figure 5: Rating Old Airport Road Urban Design Elements	811	±4%
Figure 6: Rating Old Airport Road Design Elements	724	±4%
Figure 7: Rating Old Town Transportation Elements	782	±4%
Figure 8: Rating Downtown Transportation Elements	787	±4%
Figure 9: Rating Old Airport Road Transportation Elements	779	±4%
Figure 10: Visitors to Study Area	757	±4%
Figure 11: Potential Redevelopment Anchors and Sites	717	±4%

APPENDIX C:
CITY-WIDE QUESTIONNAIRE