

SELLING PRICE/HOUSING ATTRIBUTES:

Comparisons drawn from the Orleans  
Gardens Phase I Development

Prepared for the Research Division  
Policy Development and Research Sector  
Canada Mortgage and Housing

by  
Beverly A. Nicolson  
Project Consultant

John Archer  
CMHC Project Manager

## ABSTRACT

This study was undertaken by the Canada Mortgage and Housing Corporation (CMHC) as a part of a continuing effort to monitor the quality of housing produced in Canada. It desires to encourage the efficient functioning of the housing market. The effectiveness of the price/quality trade-offs which occur on the housing market will effect the long and short term social and economic costs of housing.


The Orleans Gardens Phase One development, Ottawa, Ontario, was selected for study. This development presents an unusual opportunity to study a housing submarket in nearly ideal conditions. The objective of this study is to describe how the house price/quality market mechanism has worked in a particular market. The relationship of the physical and environmental attributes to the selling price of a house will be identified for the nine builders involved in this development. If we consider housing as a bundle of attributes then it is reasonable to derive a definition of housing in terms of the value of those attributes.

An approach used in a 1977 study on the Mill Wood area of Edmonton will be refined for use in this study. Twenty sample units have been identified within the site and over thirty attributes have been evaluated for each. Results indicate that selling price influences the attributes of space and features. Consumers are willing to trade-off these attributes in a hierarchial manner with homeownership as the main priority and other attributes traded to varying degrees at a particular price range.

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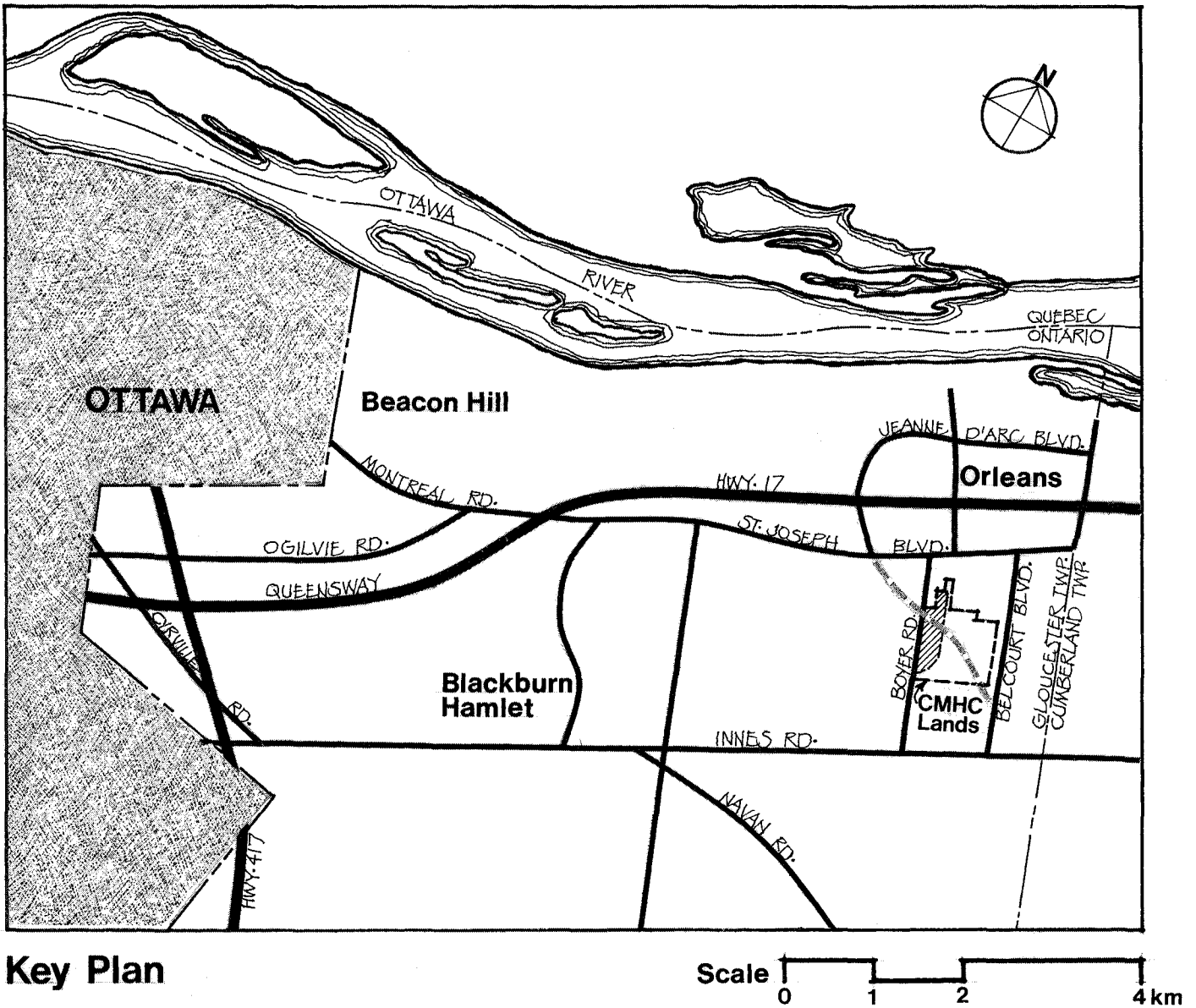
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## Background

Orleans Gardens is a new residential project presently under development by Canada Mortgage and Housing Corporation (CMHC). It is located off of Boyer Road, between St. Joseph Boulevard and Innes Road, in the eastern satellite community of Orleans adjacent to Ottawa, see Map 1. CMHC acquired the seventy-six hectare property in 1968 when the Department of National Defense phased out their wireless station. The parcel of land was owned solely by CMHC under provisions in the NHA. It has been held by the Corporation until the time when a housing need became evident.

While many cities in Canada experienced a decline in new housing production during the recent recession, demand for housing in Ottawa continued strong. Limits on developable land to the North of Orleans lead the Regional Municipality of Ottawa-Carleton and the City of Gloucester to look to the South, and the CMHC property, see Map 2. CMHC deemed it time to enter the development market. Three years ago the property was rezoned, a development plan established, and preparations began to install the necessary infrastructure.

When the Orleans Gardens project is completed there will be a self-contained neighbourhood with 1 000 residential units (750 single family detached dwellings and 250 Multiple Unit townhouses) housing approximately 3 500 persons. There will also be a school, park, a 100 000 square feet (9 290m<sup>2</sup>)



Key Plan

Map 1



**Key Plan**

**Map 2**

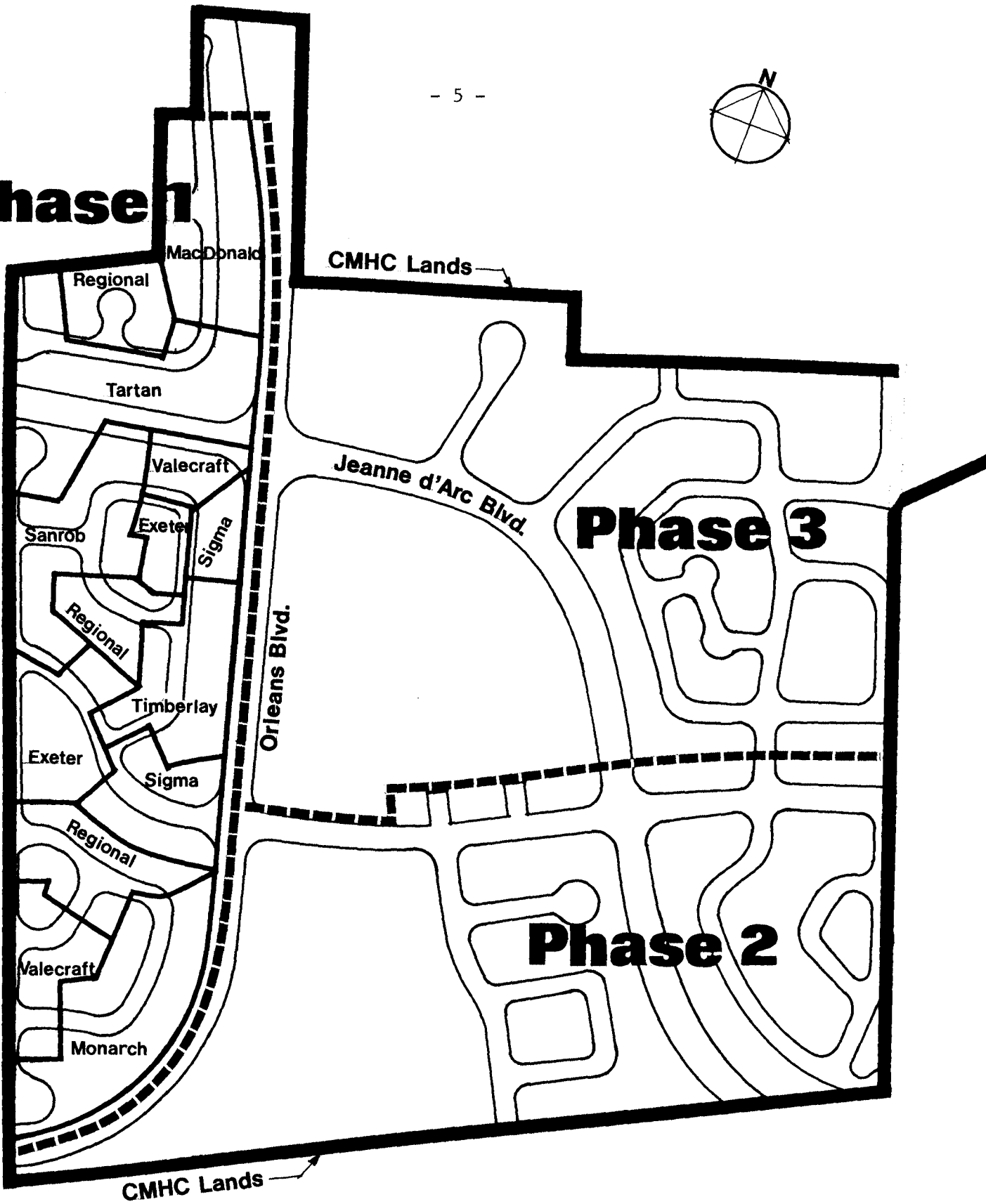
shopping center, and a major institutional building such as a hospital.

Phase I, which is now under construction will have 297 single family detached units. The lot size, house size and style will vary greatly, the price range is \$90 000 to \$150 000. This first phase of the Orleans Gardens development will be the area under examination in this project, see Map 3.

The Corporation intended to introduce innovation and quality products into the market place. To facilitate this the land was offered at market value to small and medium sized builders. These builders were encouraged by CMHC to follow construction criteria which reflected a concern for quality in design. For many builders the terms allowed an opportunity to become competitive in the housing market. Nine builders were selected to participate in the Phase One project: Valecraft Homes, the Exeter Group, Monarch Homes, Regional Builders, Tartan Developments, Sigma Construction Inc., Timberlay Developments, Sanrob of Canada Limited, and The Douglas MacDonald Development Corporation. The property was divided between these builders with each receiving between 26 and 40 lots in an attempt to avoid an assembly-line subdivision. Fifty-four house plans were available for the consumer to choose from in a 'one-stop shopping' sales centre. Each builder has a sales trailer where model homes are replaced by artists renderings of the models with floor plans drawn to scale. Samples of carpets, bathroom vanities, kitchen cupboards, railing options and many other features are displayed within the trailers. This was meant to provide a competitive atmosphere and a convenient place for home buyers to compare what the builders have to offer.



**Phase 1**



**Distribution of the builders  
on Phase 1 of Orleans Gardens**



The Corporation sold the land to the builders at market price with very reasonable terms. The price was estimated using 1981 and 1982 market values with a dwelling unit minimum of 1200 sq. ft., the land was sold for an average price of \$570 per front foot. Specifically, the terms are 2% on signing the agreement, 3% on issuance of building permits, and 5% within 6 months. The other 90% is interest free for 1 year, full amount of the land is due within 2 years or upon sale of the property. CMHC recognized that unlike the larger builders, small companies seldom have the time, expertise or money, to assemble and service their own parcels of land. CMHC has undertaken the bulk of the servicing costs of the Orleans Gardens project. The City of Gloucester and the Regional Municipality of Ottawa-Carleton will absorb the remainder. The roads and mainlines for sewer and water are presently under construction in Phase I.

The Competition in the housing market is quite intense in this area. Minto Corporation has large developments of single family units in Billberry Creek Village and Chapel Hill just 10 minutes away. J. Perez is building in New Orleans, Costain in Convent Glen and Shakespeare Homes in Boyer Ridge. On the approach to Orleans, prospective buyers are assaulted with advertising expounding the virtues of each of these developments. See advertisements Appendix A. Each builder is promoting his product as high quality - whether good design of the physical structure of the dwelling or of the residential community. They infer that quality does not necessarily imply high cost.



Signage



### Intent

The objective of this study is to evaluate the price/quality trade-offs which are occurring in a housing market, the Orleans Gardens Phase One development. The ideal of the housing market is that the higher the price paid the more and better value of housing purchased. 'Value' is defined in Webster's Dictionary as "worth, desirability, utility, qualities on which these depend", "a fair return in money, goods or services for something exchanged". If we consider housing as a bundle of attributes then it is possible to derive a definition of housing quality in terms of the value of those attributes.

An attribute is something which a consumer might desire in housing and for which he has to pay a certain amount to get. Attributes can be large or small, some can only be obtained if purchased as a part of a bundle. A bundle of attributes is composed of a mixture of housing characteristics encompassing three major factors, structure, environment and location. The mixture of attributes is viewed as being as important as the quantity of housing service, and at a given price the most suitable or desirable mixture of attributes are retained to provide for consumer satisfaction. This study will examine the quality of environmental and physical attributes in terms of structural-orientation, activity-orientation and visual-orientation. The degree to which trade-offs of these characteristics are made affects consumer satisfaction. When an attribute is omitted in order to meet a cost constraint, it can be called a 'concession'. When an attribute within a bundle

is given up in favour of another at the same cost, it is referred to as an 'exchange'. The degree to which concessions or exchanges are made with the Orleans Gardens market should be discernible when selling price and attributes of the units are compared.

These bundles of attributes are in turn affected by various factors. Not all consumers can afford to purchase the "best" housing. Income elasticity affects consumer consumption of housing attributes. Demand fluctuates as incomes increase or overall housing expenditures increase, affordability, therefore, is a major factor in housing, as is demand. A trade-off must be reached between the cost of obtaining "quality housing" and the monetary outlay involved, between long term social costs and short term economic ones. Tenure considers the cost of housing in terms of initial investment as well as maintenance and operating costs. The expectations that the consumer has regarding the durability of housing should consider the specific mixture of attributes and whether their needs will be satisfied in the long term. The extent to which the appearance of the house and its immediate surroundings satisfy the consumer is a reflection of expectations, prejudice and cultural backgrounds. The image of a development is very important to consumer satisfaction. Locational factors include community atmosphere, how others perceive the area and the convenience to place of employment, shopping facilities, etc. The appropriateness with which building materials, equipment and systems meet the consumers needs and expectations is another factor affecting the attribute bundle. Understanding these mechanisms is essential to a well balanced effective housing market.

The builder too must operate to trade-off price and quality at the level desired by the housing consumer. Individual builders react, or have the ability to react, differently to changes in demand. The dilemma for the builder is to keep up with current market trends. Through various methods, such as market research, they attempt to do so, but in the end builders take risks and speculate on what bundle of attributes the consumer is going to be shopping for. This study will include discussion with builders to see how they perceive the market mechanism.

No single housing feature is a reliable indicator of quality, the bundle must be looked at as a whole. Attributes regarding appearance and image, flexibility, durability, physical structure and design, and activities have been included in this attribute evaluation. Choices made by the consumer, in order to attain the desired level of satisfaction, may become evident upon comparison of housing attributes. The final discussion will tie together any trends that become evident from the samples, builder discussions and observations.

### Method

The study will use the approach introduced in a 1977 study of the house price/quality relationship in the Mill Woods area of Edmonton. This method gives a broad overview of quality in a moderately priced, medium density housing market.

To evaluate the effectiveness of the price/attribute trade-offs within the housing market two types of information will be looked at. First, a representative sample of twenty-two units from Orleans Gardens and 2 competing units will be chosen to provide a basis for comparison of price and quality by the unit attributes. Secondly, there will be a discussion with the builders to obtain their understanding of the inter-relationship of cost and quality in their work. For the purpose of this study, "unit" shall be defined as "the physical dwelling and the land it is situated upon".

To obtain a good cross-section of the homes available samples will be selected representing both the high and low end of the price scale. However, the majority of sample units will be middle range, \$90 000 - \$120 000. Each of the nine builders will have models in the sample population. Two samples will be taken from competing builders in the area.

Photographs of the exterior elevations of the houses, interior features, as well as floor and lot plans are included in this study to illustrate the comparisons being made. Specifications obtained from the builders give

detailed data regarding the attributes of each of the sample units. This descriptive information will serve as the data base for the price comparison.

Structurally-oriented factors such as floor space, number of bedrooms and thermal insulation levels are included in the evaluation, as well as factors relating to the functional capability, i.e. the flexibility and durability of the unit. Accommodation of the automobile and curb appeal are visually-oriented factors. Activity-oriented factors such as circulation space, and vehicular movement make up another set of attributes. Market absorption rate is also important and will be considered in the price/quality evaluation.

Site visits will be used to evaluate neighbourhood identification and unit locational attributes. Discussions with the builders will attempt to draw out their impressions of patterns of housing quality, how it affects them and how they see the consumer being affected. Their understanding of the cost/quality trade-off will be fundamental to the discussion. Of particular interest will be their reaction to the Orleans Gardens project; the quality of homes being produced, consumer reaction and selling prices.

### Attribute and Sample Selection

#### Approach

To describe the house price/quality market mechanism in the Orleans Gardens Phase One development 30 attributes have been isolated for comparison. An attribute evaluation form, Appendix B was developed to facilitate comparison of the attributes. These attributes endeavour to cover structural and design influences, esthetic appeal and activity orientation.

The attributes have been chosen to represent the various aspects of satisfaction for the housing consumer. The structural and design criteria of a dwelling such as size of rooms, privacy, amount of insulation material and ease of maintenance influences consumer comfort and convenience. Esthetics of a dwelling and the neighbourhood, or even the whole development may have a significant effect on consumer satisfaction. The exterior finish, landscaping, perception of how other people react to the unit (curb appeal) and neighbourhood identity will influence comfort, social and convenience factors. Finally satisfaction may be influenced positively or negatively by activity orientation or locational factors. Distance from recreation, schools or shopping centre, and accomodation of the automobile are external activity factors. Serviceability, durability, or ease of maintenance, flexibility and accessibility such as circulation space are activity oriented internal factors. All of these can have positive or negative implications for the satisfaction of the inhabitants of a unit. The consumer chooses a

mixture of these attributes/factors which they feel will provide them with a desired level of satisfaction.

#### Data Collection

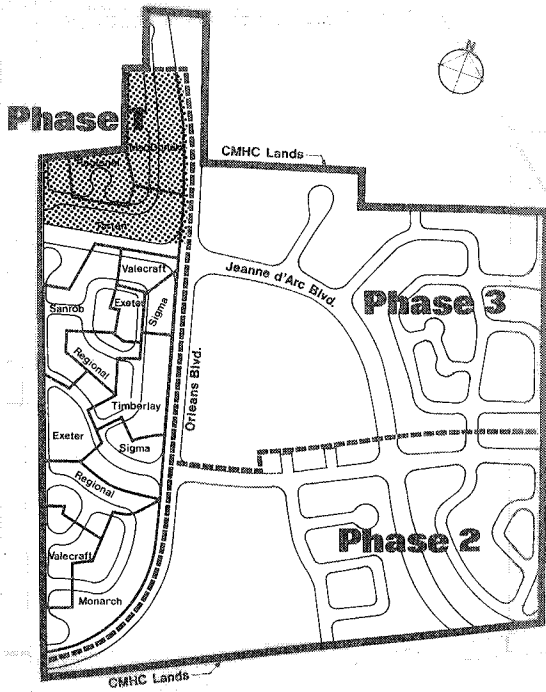
Twenty-two samples have been chosen to provide a representative sampling of the models, lot sizes and locations available within the site. Map 3 illustrates the builder locations on the site and Map 4, a,b+c identify the samples. The sample includes two-or three units from each builder, and one each from two competitors at other sites in the area. A major restriction on sample choice was construction scheduling. To allow for photographs of the exterior of units this factor had to be taken into account. The builders are at different stages in construction.



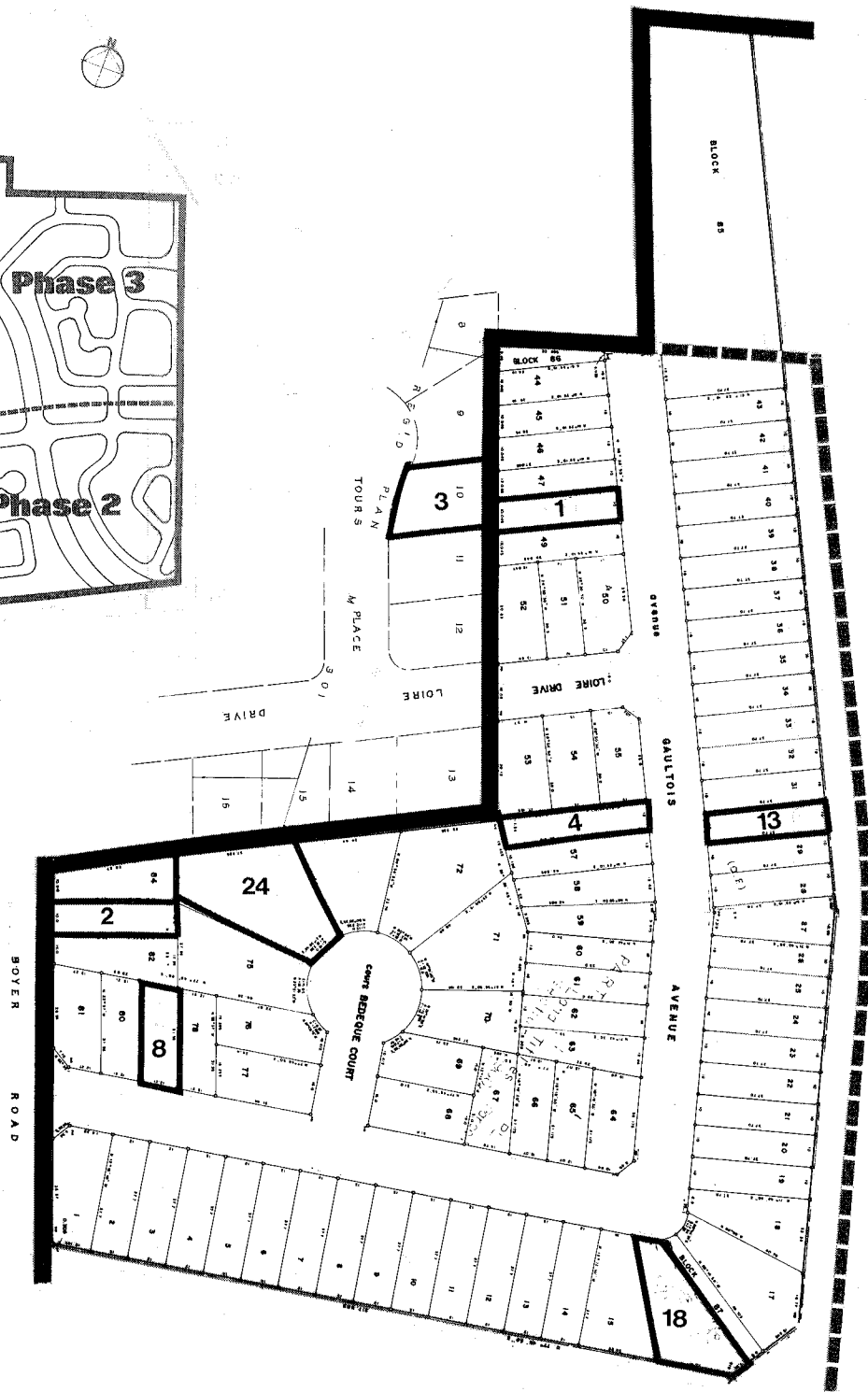
All nine builders, or their representatives were contacted, and the intent of the study explained. Data on each sample unit was collected and included builder specification lists and lot and house plans. Each sample unit was then evaluated using the evaluation form. From this material it was possible to select attributes common to the sample units and compare and contrast them in terms of the cost/attribute trade-offs.

Sample Data

In the following section the sample units are identified on the registered plans of the project map 4 a, b+c. They have been organized by selling price, the lowest to the highest and numbered accordingly. Detailed parameters for the attributes are included at the end of this section. Sketches of floor plans, siting and photographs are accompanied by brief outlines of major points of comparison. Included are two sample units from competing sites.



**Key Plan**

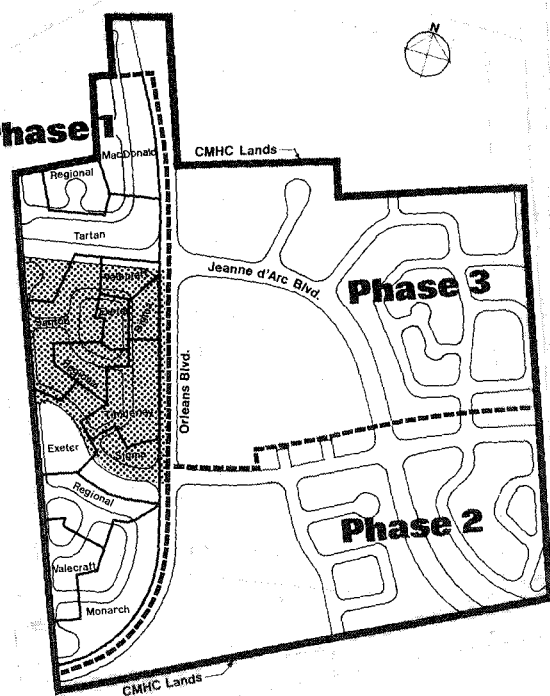


Map 4a

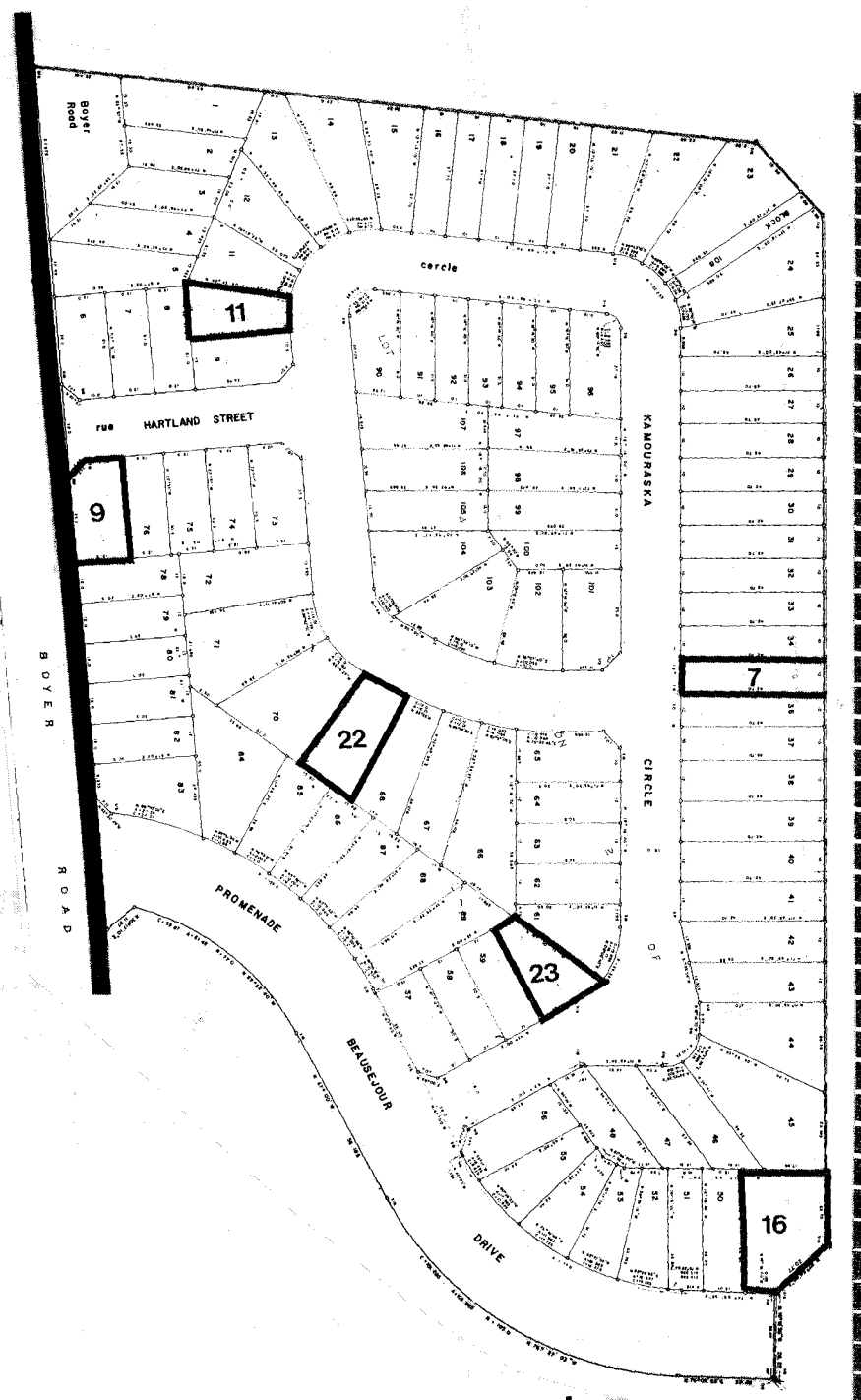
**Part of Phase 1 showing  
locations of sample units**

**Registered Plan 4M-391**

Scale 0 25 50 75 100m



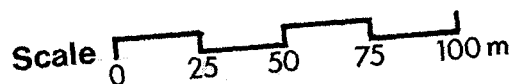
**Key Plan**

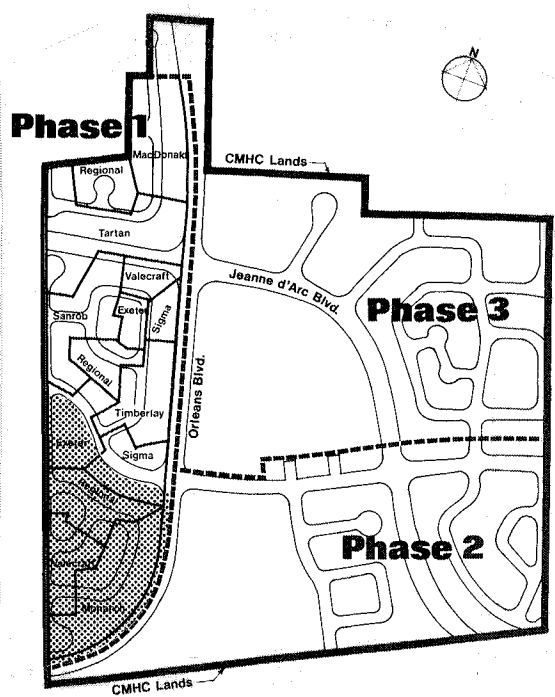


**Part of Phase 1 showing  
locations of sample units**

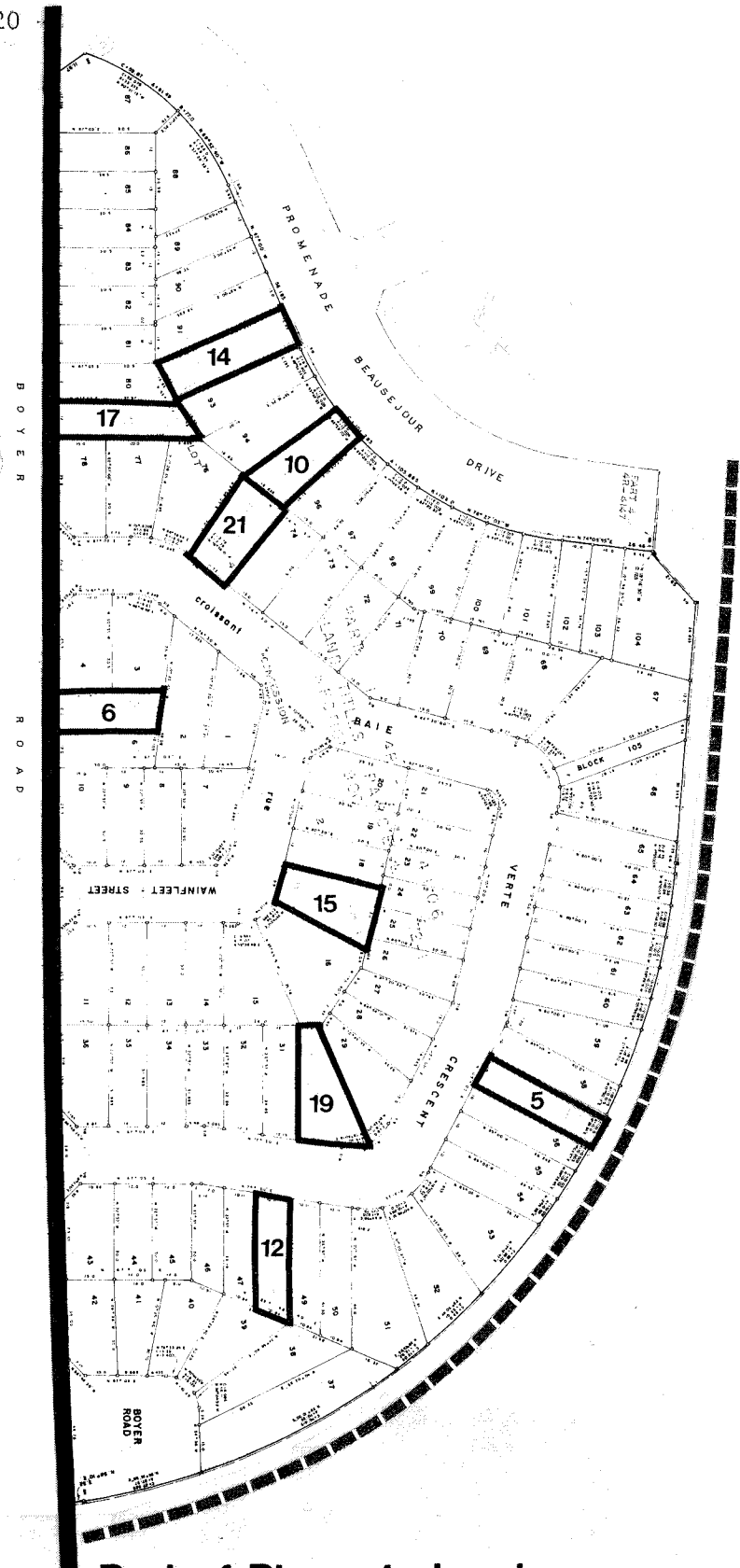
**Registered Plan 4M-392**

Map 4b





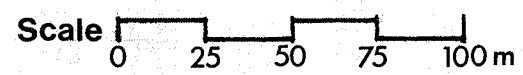
**Key Plan**



**Part of Phase 1 showing locations of sample units**

**Registered Plan 4M-393**

Map 4c



Parameters

- Construction detail based on builder input, information available to the consumer, and specifications, the rating 1 - 10 is the range, however, all of the builders on this project are HUDAC members and therefore build to minimum standards so that all of them are rated five or greater.
- Insulation and energy efficient features are rated 1 - 10 with four being minimum standards, five being the standard insulation envelope (STD) + 8 the extra energy efficient envelope, (Ext.) see definitions Appendix C.
  - \* economical floor plan and circulation - minimum space allowed for circulation patterns.
  - \* efficient floor plan and circulation - well planned use of available space, and convenient circulation patterns.
  - \* luxurious/large floor plan and circulation - expansive use of abundant space.
- Street parking - good, limited, poor are the ratings and they depend on street design and unit location with respect to street intersections, etc.
- Absorption rate/curb appeal - the rate at which a model attracts buyers, for specifics see the Tables. This can be fast, steady or slow. It is affected by how attractive the dwelling appears to be to a particular consumer, both the interior and exterior finishes.
- Accessibility (visual attributes) is rated as good, limited or poor to indicate how easy entrance is perceived as being to the unit, for example how accessible the kitchen would be when hampered by parcels.
- ratio =  $\frac{\text{lot size (m}^2\text{)}}{\text{Floor area (m}^2\text{)}}$  - gives us the floor space index as the ratio between the area of the building on all floors and the area of the lot site.
- No. of rooms - total number of rooms in each dwelling, including bathrooms and laundry room (not closet type); excluding unspecified living spaces such as vestibule and foyer.



#1



#2





#3



#4

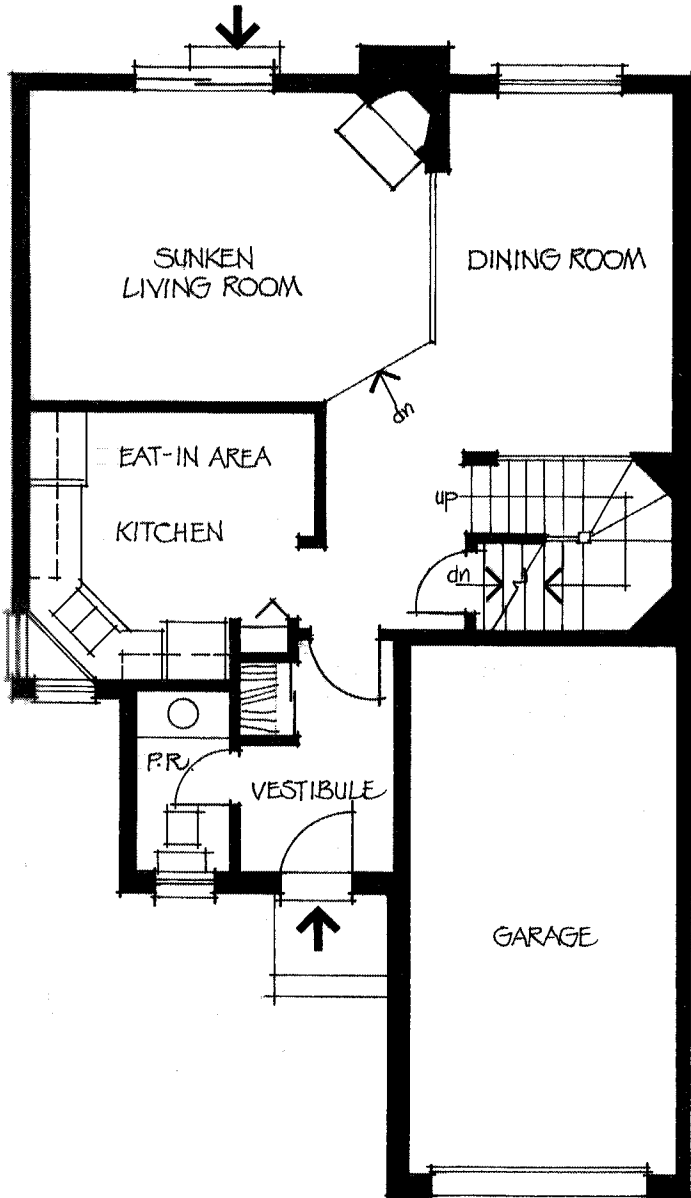
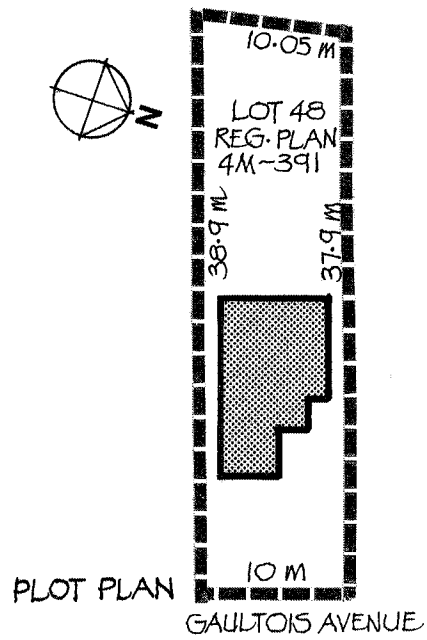


#1

Silverwood  
\$83,900

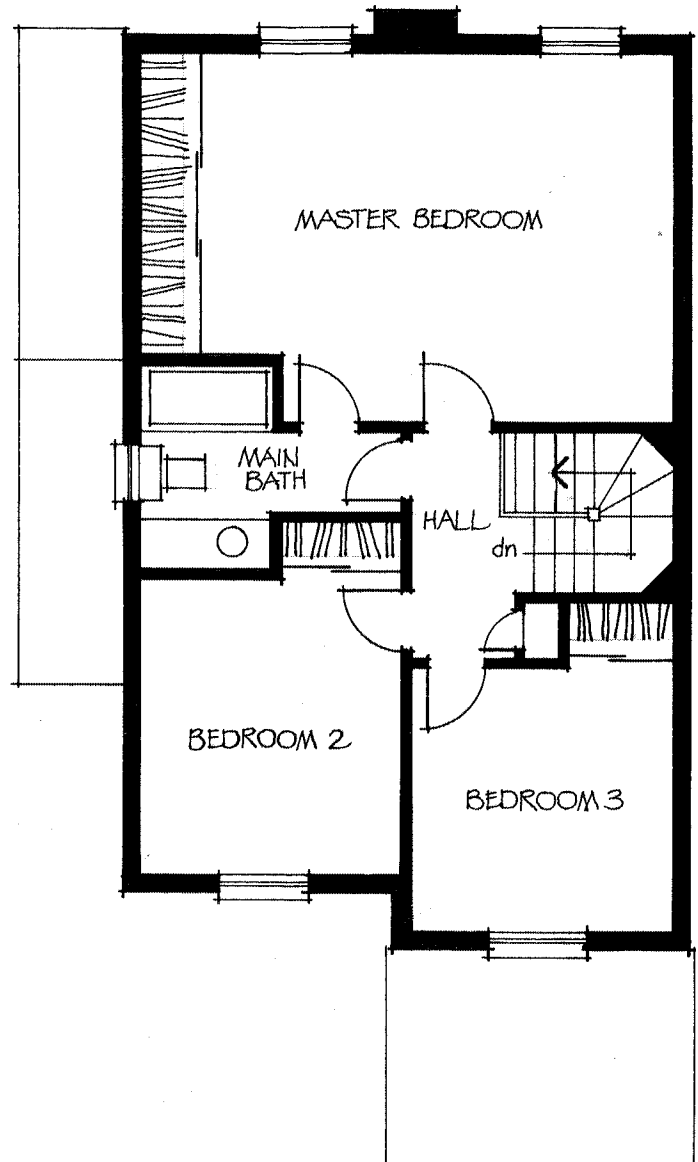
385.30 m<sup>2</sup> lot size

121.70 m<sup>2</sup> gross floor area



GROUND FLOOR PLAN

Note: floor plan is reversed  
to plot plan



SECOND FLOOR PLAN

#1

SILVERWOOD 1

Lot 48

\$83 990

(\$5 000 builder grant)



#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 5
- . medium - small kitchen/eat-in area, other rooms spacious, economic floor plan and circulation
- . features such as large vestibule, sunken livingroom and pantry
- . basement can be finished as family room, otherwise no provision for expansion

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front with stucco
- . one car garage, street parking good
- . absorption rate/curb appeal is steady
- . accessibility is perceived as good
- . features such as five appliances,  $1\frac{1}{2}$  bathrooms, fireplace and vestibule

#### Activity Attributes

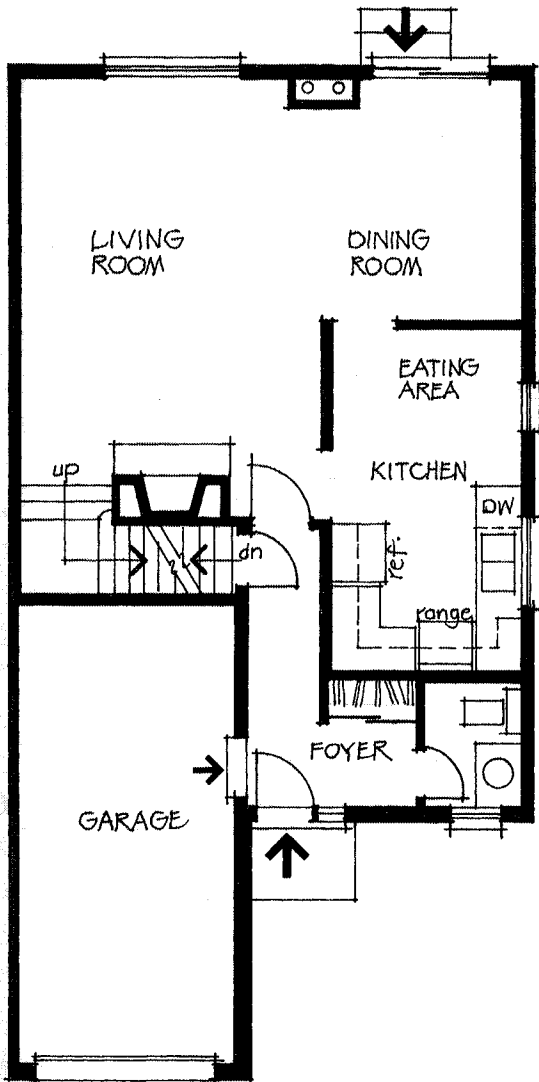
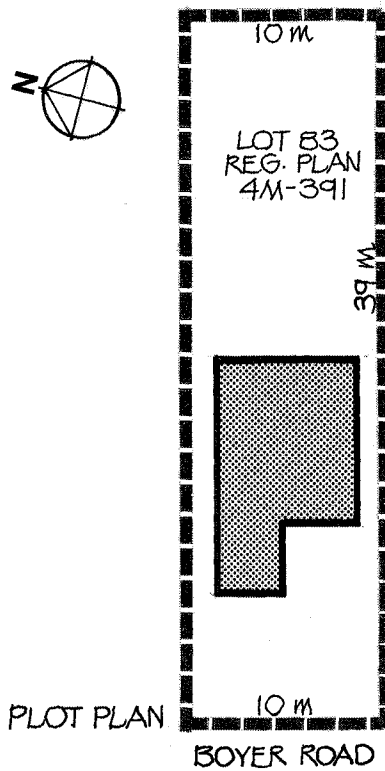
This unit is convenient for vehicular traffic via Gaultois Road to St. Joseph Blvd. and Boyer Road. Once Boyer Road is blocked off this may become a shortcut for people in the development to reach St. Joseph, therefore traffic flow and speed may increase. The pedestrian walkway provides access to Orleans Blvd., the commercial and institutional land. Parks and schools are accessible but not convenient. This unit could identify with the Shakespeare Boyer Ridge development beside it as well as the Orleans Gardens development. Neighbourhood identification is fair - good.

#2

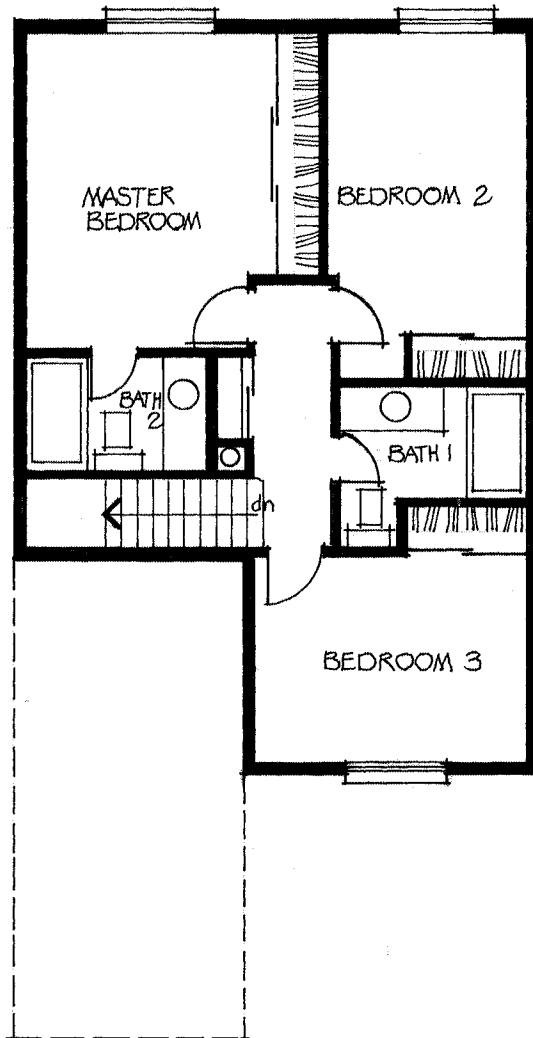
Jasmine  
\$88,900

390.0 m<sup>2</sup> lot size

129.14 m<sup>2</sup> gross floor area



GROUND FLOOR PLAN



SECOND FLOOR PLAN

#2

JASMINE

Lot 83

\$88 900



#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 8
- . spacious rooms, economic floor plan and circulation space
- . features such as recreation room and laundry facilities to be finished in basement, ceramic tile to ceiling in bathroom, full ensuite
- . expansion into basement only

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . one car garage, street parking limited
- . absorption rate/curb appeal is good - steady
- . accessibility is perceived as good
- . features such as vestibule, fireplace and  $2\frac{1}{2}$  bathrooms

#### Activity Attributes

This unit is located on Boyer Road, therefore it is convenient to the arterials and vehicular access is good. The pedestrian walkway is inconsequential to this unit. Access to commercial and schools, etc., is limited. This unit will identify with the Shakespeare Boyer Ridge development as well as the Orleans Gardens development. Identification fair with neighbourhood, older houses across the street and houses on either side due to backyard socializing factor.

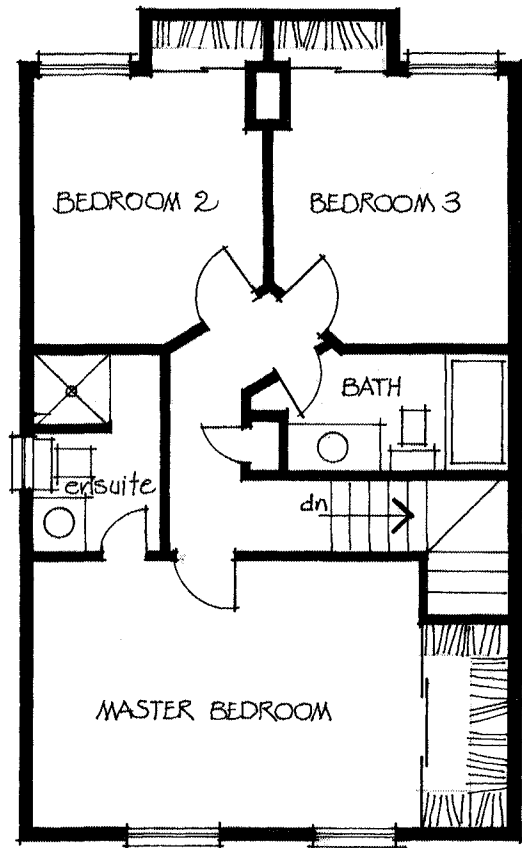
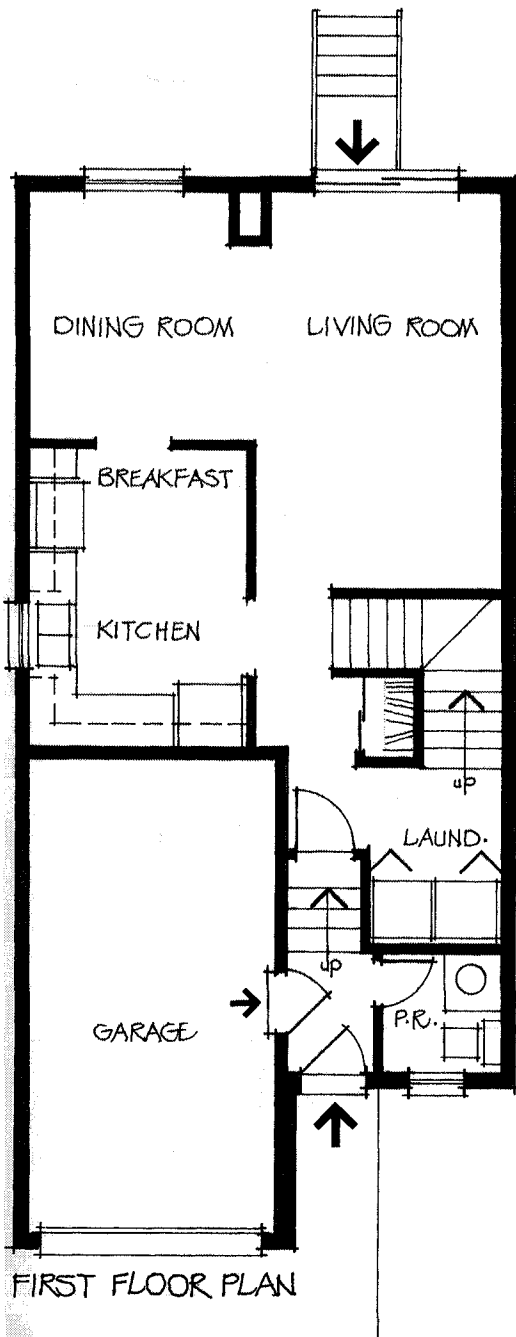
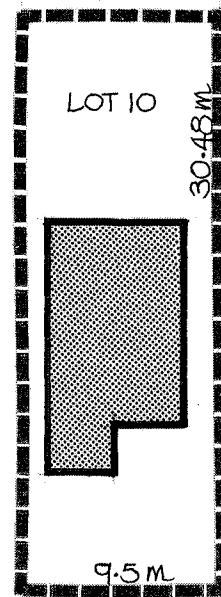
#3

The Carling  
\$88,900

289.56 m<sup>2</sup> lot size

130.99 m<sup>2</sup> floor area

PLOT PLAN



SECOND FLOOR PLAN

#3

THE CARLING            Boyer Ridge

\$88 900                Lot 10

Structural Attributes

- . construction detail - 6.5
- . insulation and energy efficient features - 7
- . small kitchen/eating area and rooms, economical floor plan
- . features such as main floor laundry area
- . basement already finished, limits alternatives for expansion

Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . one car garage
- . absorption rate/curb appeal is steady
- . accessibility is perceived as fair
- . features such as wood handrails and  $2\frac{1}{2}$  bathrooms

Activity Attributes

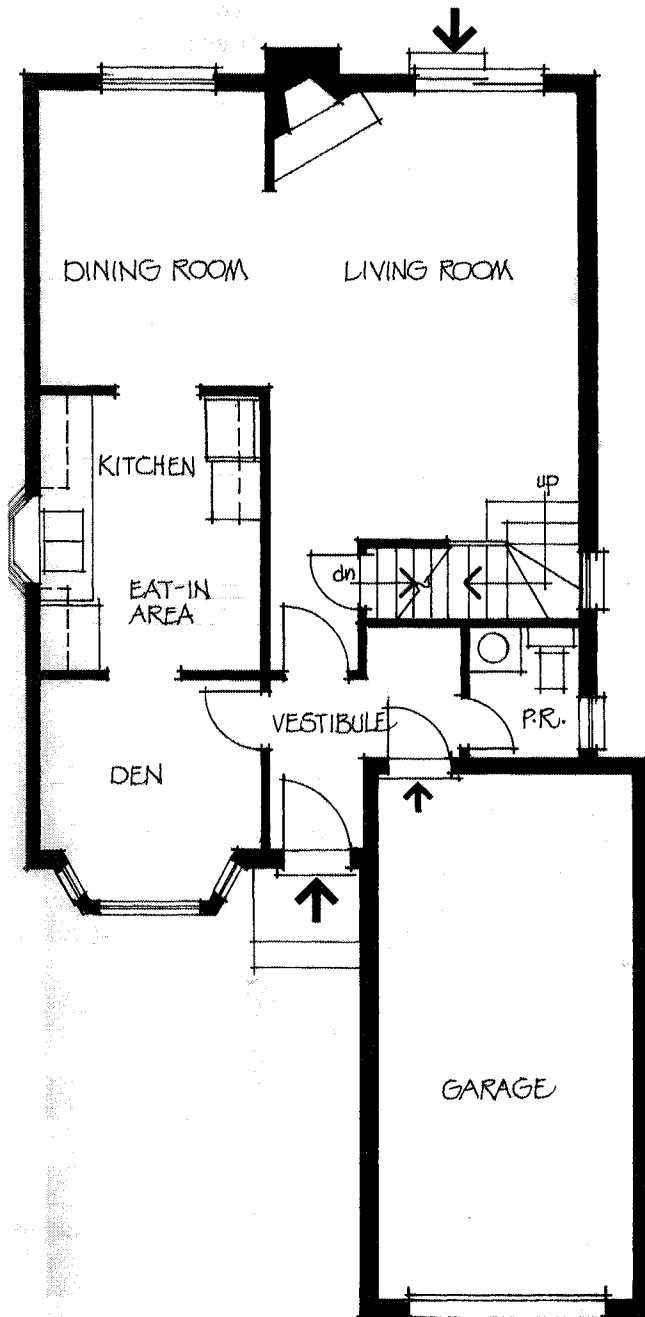
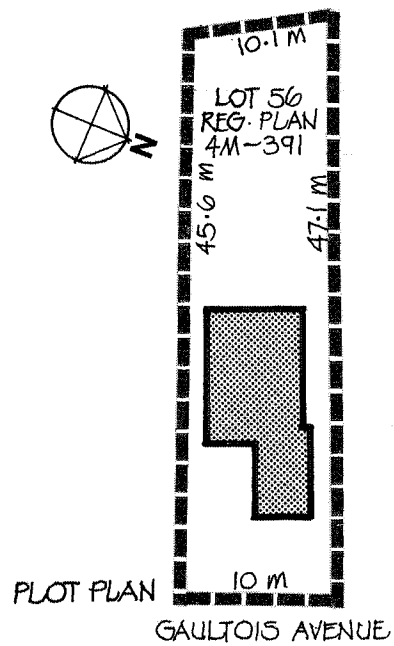
Access by vehicle fair to Boyer and St. Joseph Roads. Neighbourhood identification will probably include units from the Orleans Gardens site.

#4

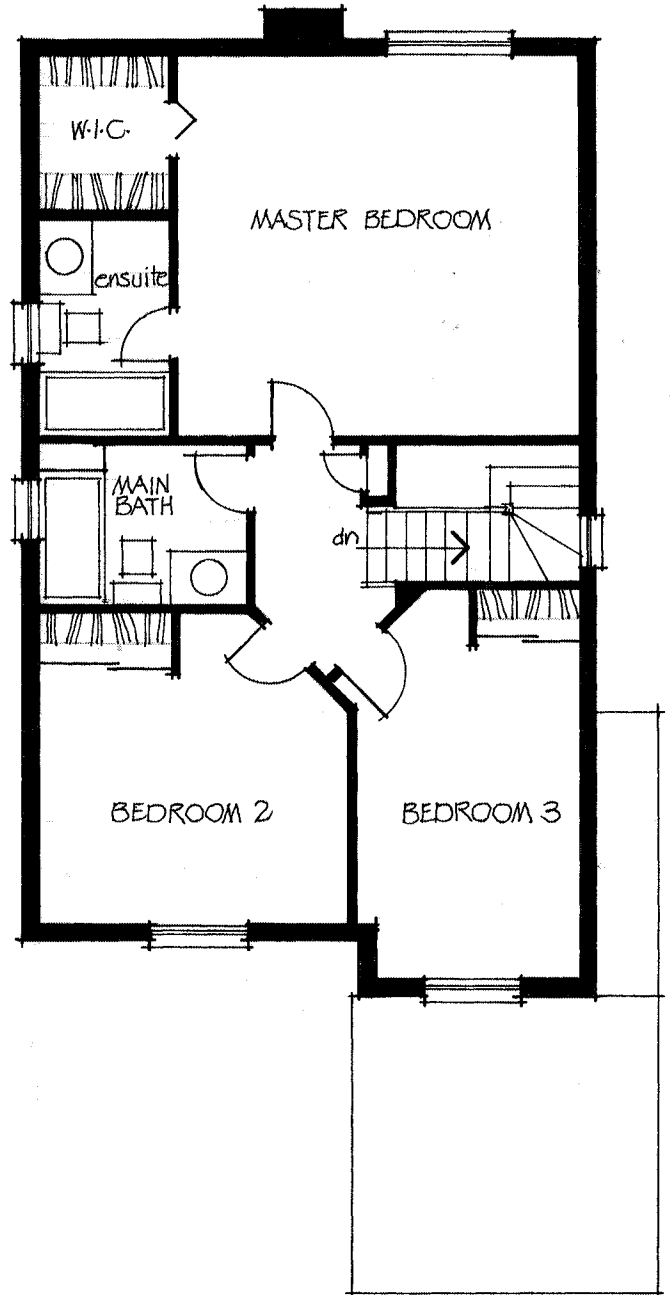
Apple Blossom  
\$89,285

467.91 m<sup>2</sup> lot size

131.36 m<sup>2</sup> gross floor area



GROUND FLOOR PLAN



SECOND FLOOR PLAN

#4

APPLE BLOSSOM

Lot 56

\$89 285

(\$5 000 builder grant)



#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 5
- . den provides flexibility, spacious rooms, economical floor plan and good circulation
- . features such as ceramic tile to ceiling in bathroom, full ensuite
- . basement could be finished to allow expansion

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front, stucco
- . one car garage, street parking good
- . absorption rate/curb appeal is slow - steady
- . accessibility is perceived as fair
- . five appliances credited
- . features such as greenhouse window, medium vestibule, fireplace and 2  $\frac{1}{2}$  bathrooms

#### Activity Attributes

This unit is convenient for vehicular traffic via Gaultois Road to St. Joseph Blvd. and Boyer Road. Once Boyer Road is blocked off this could become a shortcut for people in the development, therefore there will be an increase in flow and perhaps speed. The pedestrian walkway provides access to Orleans Blvd., the commercial and institutional land. Parks and schools are accessible but not convenient. This unit could identify with Boyer Ridge as well as Orleans Gardens. Neighbourhood identification is fair - good, and backyard socializing is implied.

#5

Willow  
\$90,990

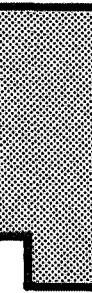
406.50 m<sup>2</sup> lot size

127.28 m<sup>2</sup> floor area



LOT 57  
REG. PLAN  
4M-393

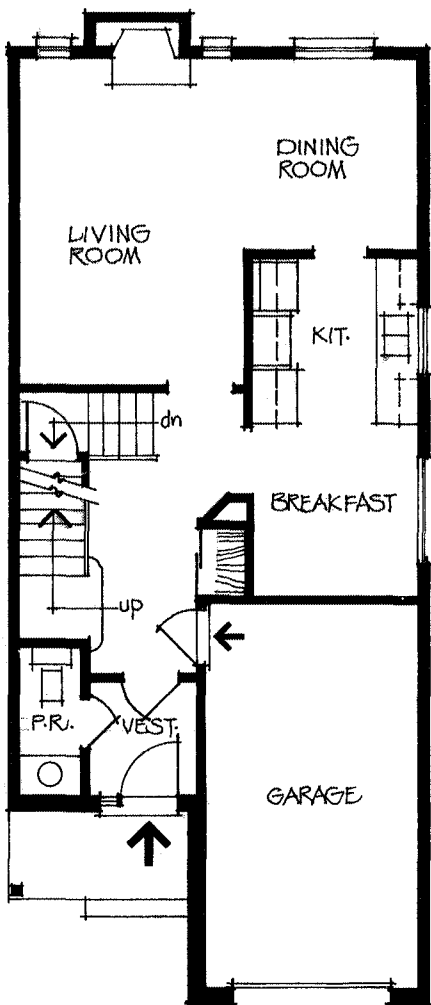
40.7 m



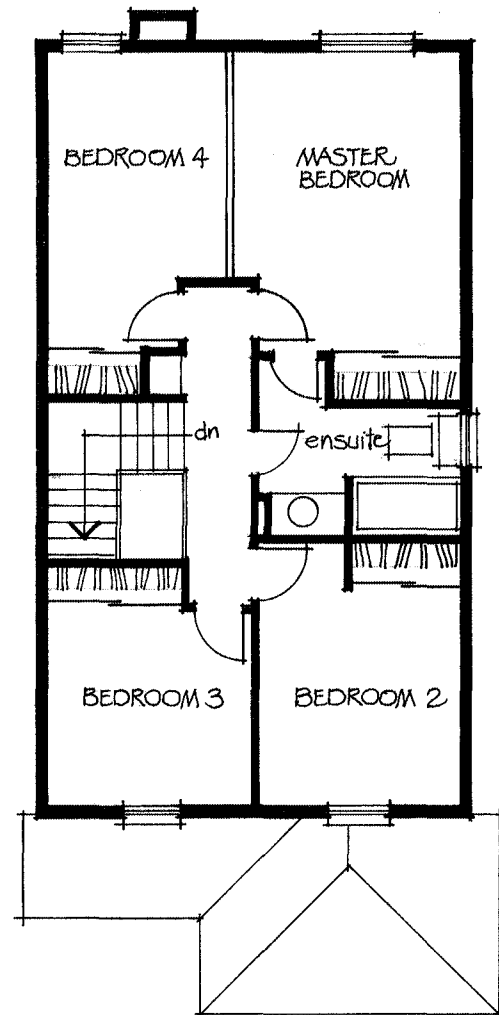
10 m

PLOT PLAN

VERTE CRESCENT



FIRST FLOOR PLAN



SECOND FLOOR PLAN

#5

THE WILLOW

Lot 57

\$90 990



#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 4
- . medium sized rooms, efficient floor plan and circulation
- . features such as vestibule, 4 bedrooms and ceramic tile full height in bathroom
- . finishing basement only alternative for expansion

#### Visual Attributes

- . quality brick full front
- . one car garage, street parking good
- . absorption rate/curb appeal is slow
- . accessibility perceived as fair
- . features such as skylight, fireplace and 1½ bathrooms
- . berm and hedge at back of lot, as noise barrier to adjacent boulevard, reduces outdoor space

#### Activity Attributes

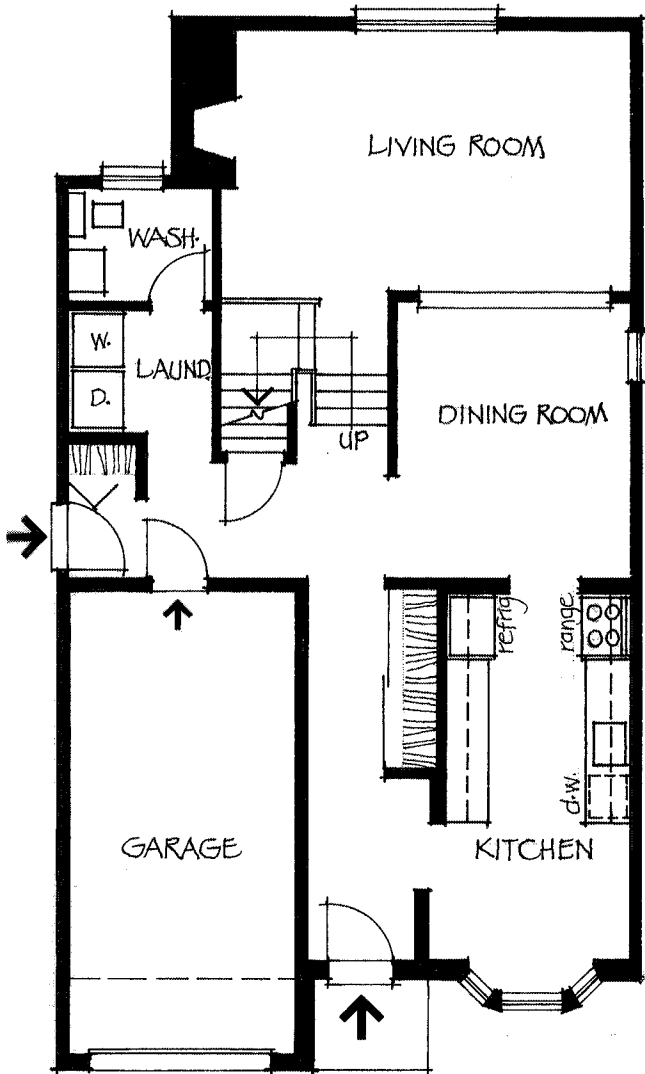
Vehicular movement from this unit is limited, because 1) street design and 2) once Boyer Rd. is blocked off Beausejour will be the only access route. The design does restrict the flow and speed of traffic. The pedestrian walkway is convenient for access to school, park and commercial. Neighbourhood identification and site identification should be good.

#6

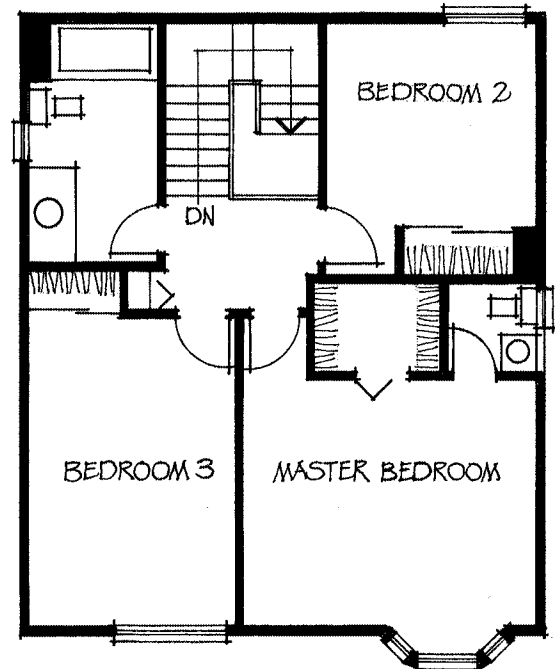
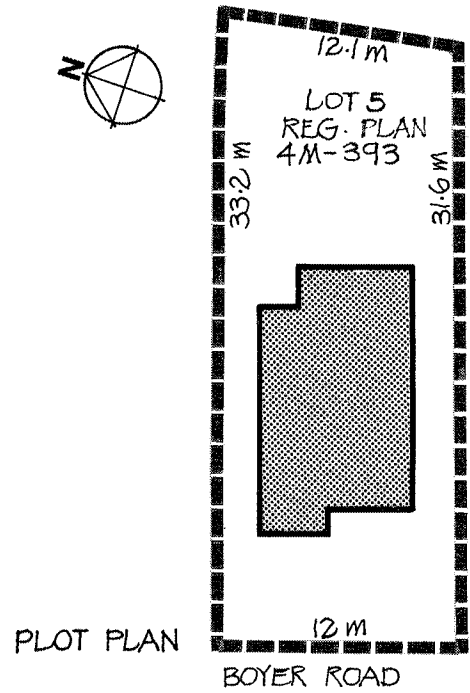
Valewood B  
\$91,190

388.17 m<sup>2</sup> lot size

143.44 m<sup>2</sup> gross floor area



MAIN FLOOR PLAN



ALTERNATE 3 BEDROOM

#6

VALEWOOD B

Lot 5

\$91 190



#### Structural Attributes

- . construction detail - 7
- . insulation and energy efficient features - 4
- . large kitchen/eating area, spacious rooms, efficient floor plan and circulation
- . features such as main floor laundry room, and concrete floor in garage
- . no expansion

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front and stucco with wood trim
- . one car garage, street parking poor
- . absorption rate/curb appeal is good - steady
- . accessibility is perceived as good
- . features such as oak handrails, fireplace and 1 + 2- $\frac{1}{2}$  bathrooms

#### Activity Attributes

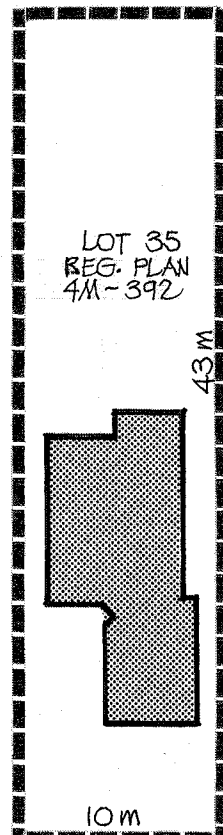
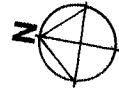
This unit is located on Boyer Road, convenient to the collectors and arterials so that vehicular access is good. The pedestrian walkway is inconsequential to this unit. Access to commercial and schools is accessible but not convenient. Identification with the site is good due to central location. Neighbourhood identification may include older homes across Boyer and homes in adjacent cluster (forms island of property), through backyard socializing.

#7

Marquis A  
\$94,450

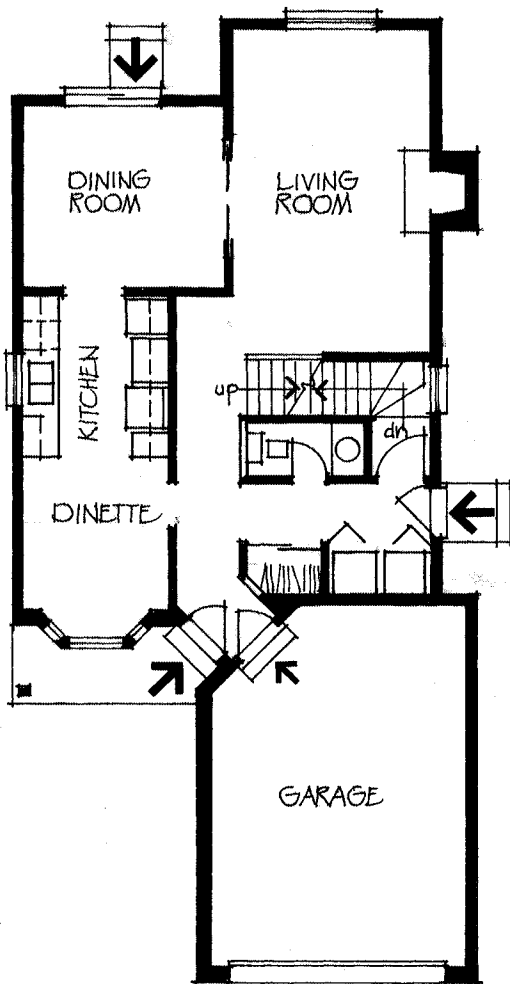
427.0 m<sup>2</sup> lot size

134.34 m<sup>2</sup> gross floor area

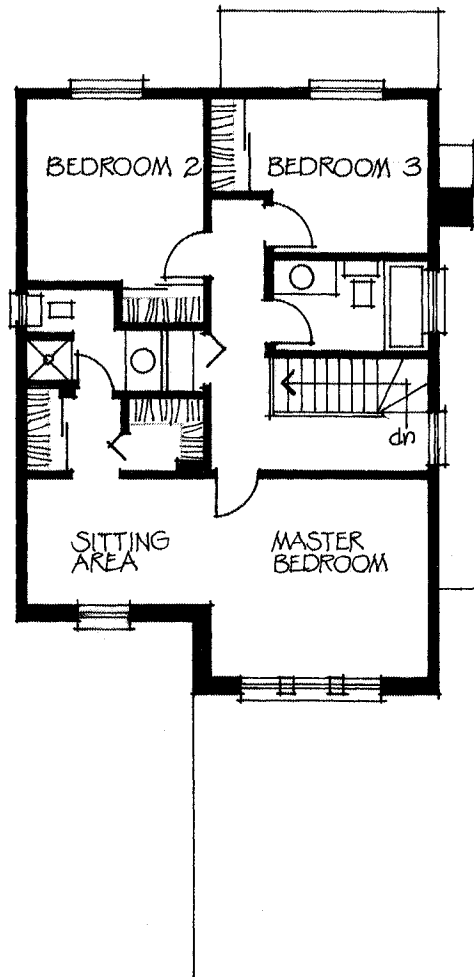


PLOT PLAN

KAMOURASKA CIRCLE



GROUND FLOOR PLAN



SECOND FLOOR PLAN

#7

MARQUIS A

Lot 35

\$94 450



#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 5
- . spacious rooms, efficient floor plan and circulation
- . features such as ceramic tile to ceiling in bathroom and main floor laundry facilities
- . basement can be finished as family room, otherwise no provision for expansion

#### Visual Attributes

- . quality brick full front with wood trim
- . oversized garage with driveway expanded to accommodate two cars, street parking poor
- . absorption rate/curb appeal is good - steady
- . accessibility is perceived as good
- . features such as oak handrails, fireplace and 2½ bathrooms
- . berm and hedge at back of lot, as noise break to adjacent boulevard, reduces outdoor space

#### Activity Attributes

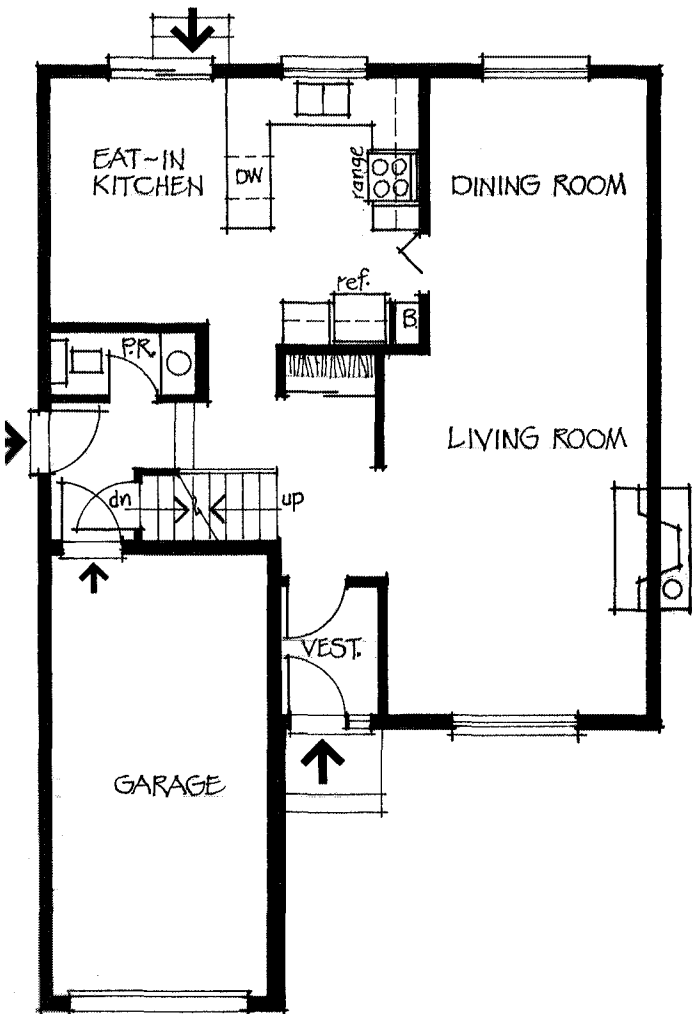
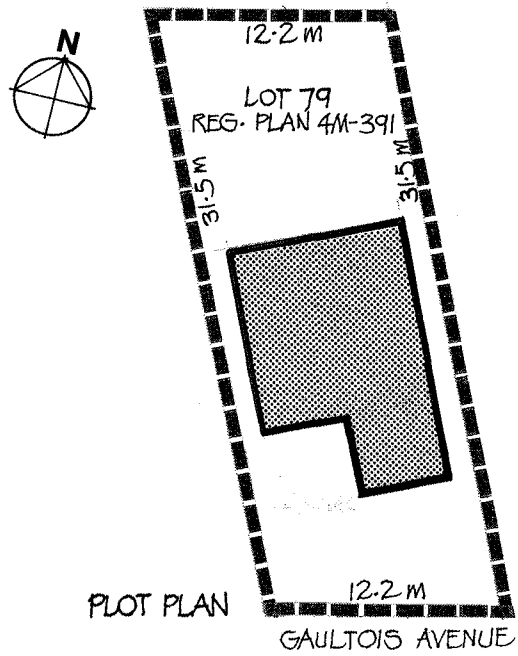
This unit is accessible to the collectors so vehicular access is good. The design of the road limits traffic flow and speed. The pedestrian walkway provides access to commercial and institutional. Parks and schools are accessible by the collector Beausejour. Identification of this unit with the project is good, due to its central location. Neighbourhood identification is fair - good with the units beside and across from this sample unit.

#8

The Lumley  
\$96,900

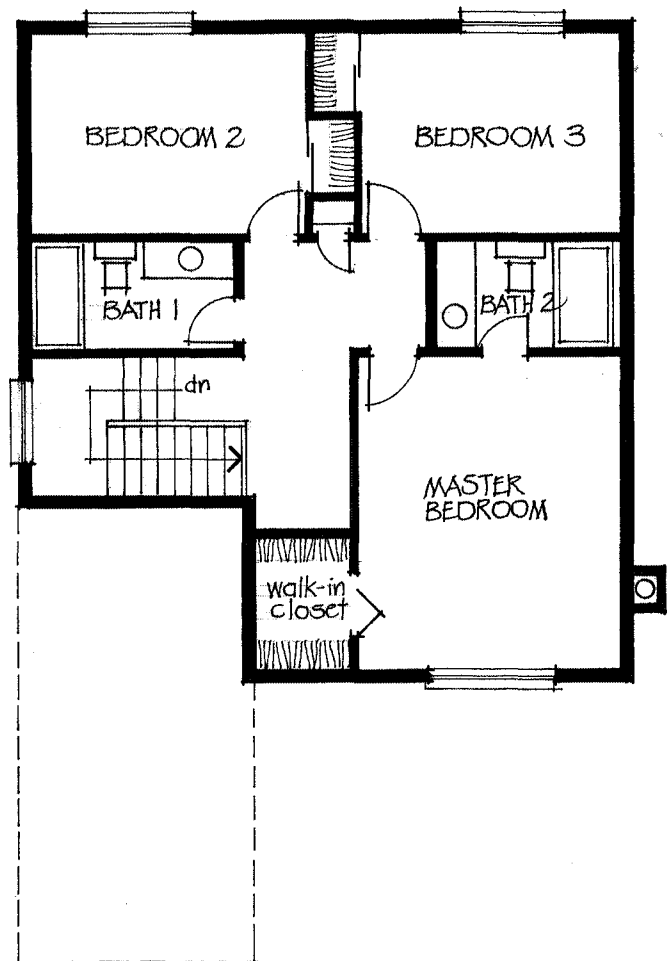
385.23 m<sup>2</sup> lot size

139.72 m<sup>2</sup> gross floor area



GROUND FLOOR PLAN

Note: floor plan is reversed  
to plot plan



SECOND FLOOR PLAN

#8

THE LUMLEY

Lot 79

\$96 900



#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 8
- . large kitchen/eating area, spacious rooms, efficient floor plan and circulation
- . features such as ceramic tile full height in bathroom, window in bathroom, window in stairway, full ensuite
- . basement could be finished to accommodate expansion

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . one car garage, street parking good
- . absorption rate/curb appeal is good
- . accessibility is perceived as good
- . features such as fireplace, vestibule and  $2\frac{1}{2}$  bathrooms

#### Activity Attributes

This unit is located convenient to the collectors and hence arterials, consequently vehicular movement good. Traffic flow may become heavy as it could become a shortcut for development residents once Boyer is cut off. The pedestrian walkway allows access to commercial, schools and parks. Neighbourhood identification is good with surrounding units and those across the street, backyard socializing is implied.



#6



#8





#9



#10

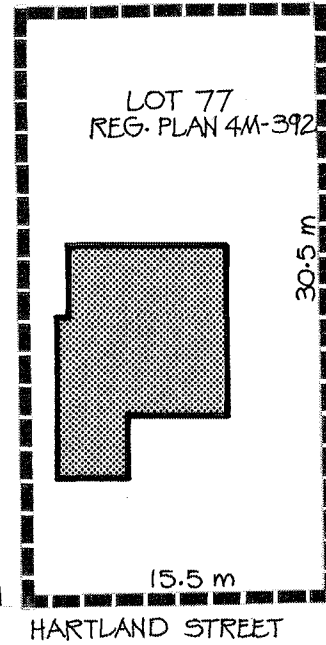


#9

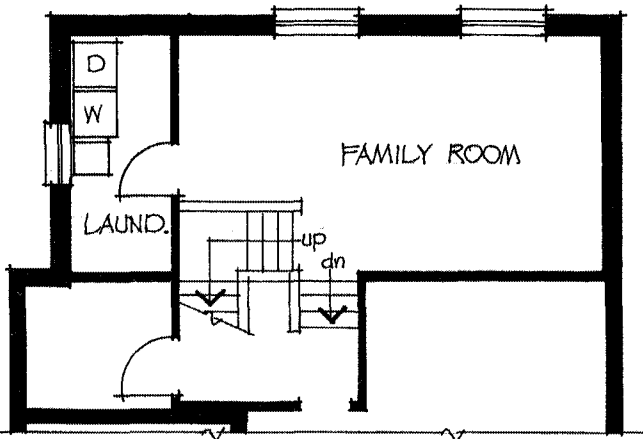
Dream Home A  
\$96,900

472.75 m<sup>2</sup> lot size

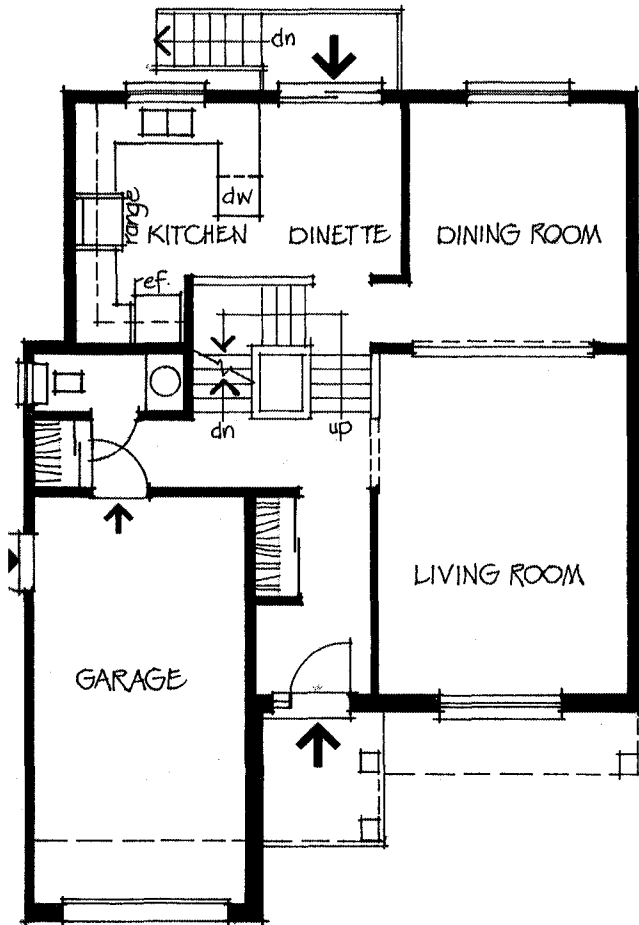
166.20 m<sup>2</sup> gross floor area



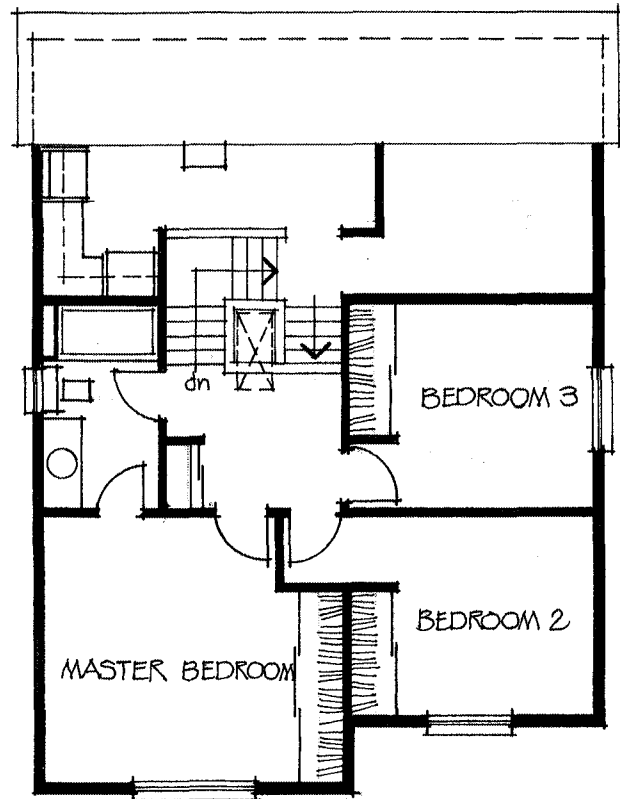
PLOT PLAN



PART OF BASEMENT FLOOR PLAN



MAIN FLOOR PLAN



BEDROOM FLOOR PLAN

#9

DREAM HOME A

Lot 77

\$96 900

(\$5 000 builder grant)



#### Structural Attributes

- . construction detail - 6.5
- . insulation and energy efficient features - 4
- . medium kitchen/eating area
- . features such as skylight, cedar deck, woodburning stove, 200 amp svc
- . family room in  $\frac{1}{2}$  basement, no expansion considered

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . one car garage, street parking poor
- . absorption rate/curb appeal is steady - slow
- . accessibility perceived as good
- . features such as microwave oven,  $1\frac{1}{2}$  bathrooms

#### Activity Attributes

This unit is located conveniently for vehicular access on Boyer Road and Hartland Street. The pedestrian walkway is accessible but not convenient, for access to the commercial, schools and park. Site identification should be good because of its central location. Neighbourhood identification could include the older units across Boyer Road, and backyard socializing is implied.

-42-

#10

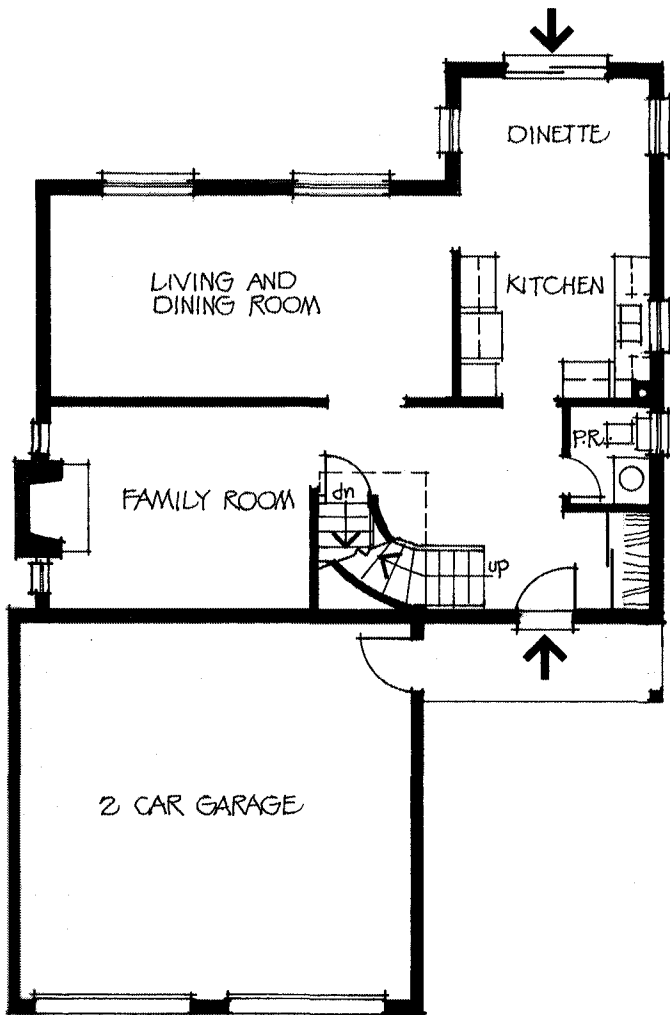
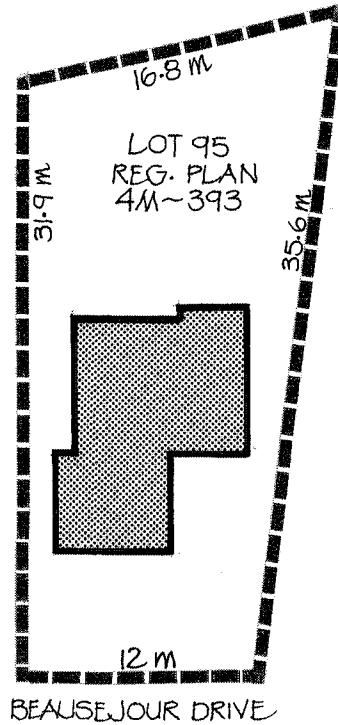
Elysée  
\$96,900

482.65 m<sup>2</sup> lot size

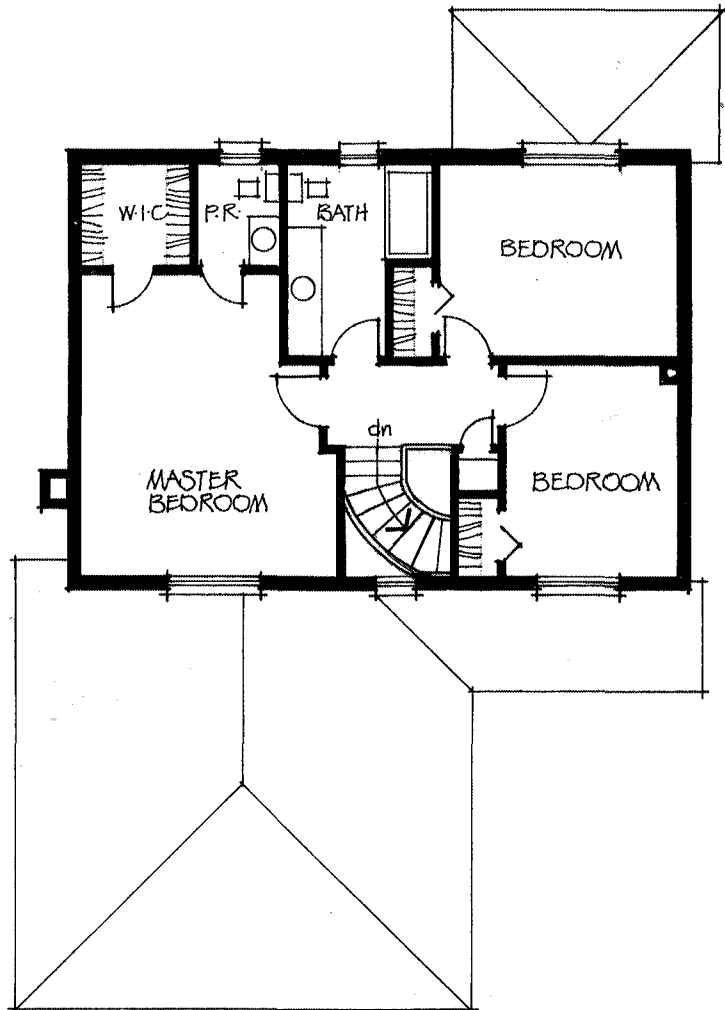
141.02 m<sup>2</sup> floor area



PLOT PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

#10

ELYSEE

Lot 95

\$96 900



#### Structural Attributes

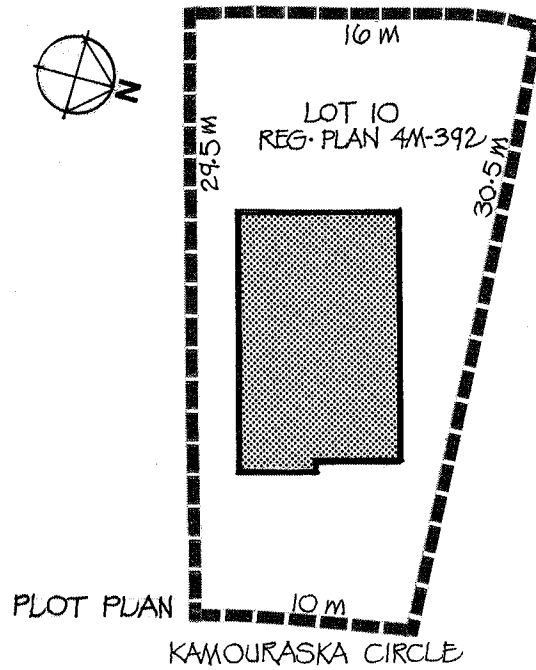
- . construction detail - 6.5
- . insulation and energy efficient features - 4
- . medium to large rooms
- . features such as ceramic tile to ceiling, entrance with curving staircase and main floor family room
- . basement could be finished otherwise no provision for expansion/change
- . berm and hedge for noise attenuation

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . two car garage, street parking limited
- . absorption rate/curb appeal is slow
- . accessibility perceived as fair
- . features such as oak railings, fireplace and 1 + 2- $\frac{1}{2}$  bathrooms

#### Activity Attributes

Vehicular movement is very convenient from this unit to all points in the site, it is located at the corner of an arterial and a major collector. This may, however, create a steady traffic flow. The pedestrian walks are inconsequential although may be used to provide access to the interior of the site. Commercial, parks and schools are easily accessed. Identification with the project should be good. Neighbour identification may be restricted because of location.

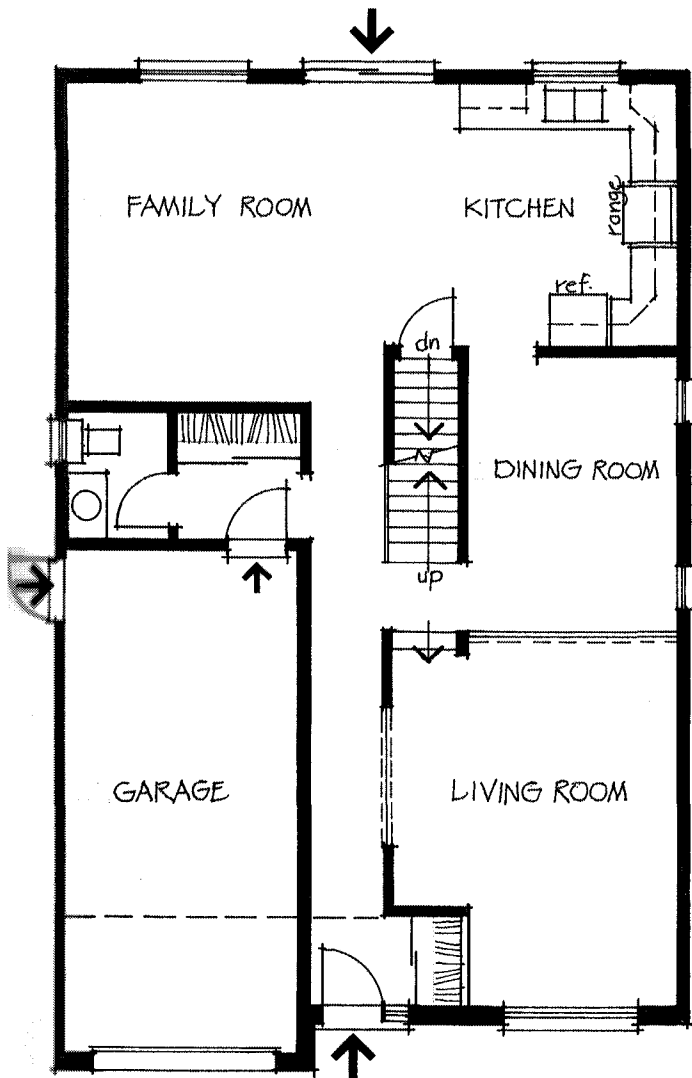


#11

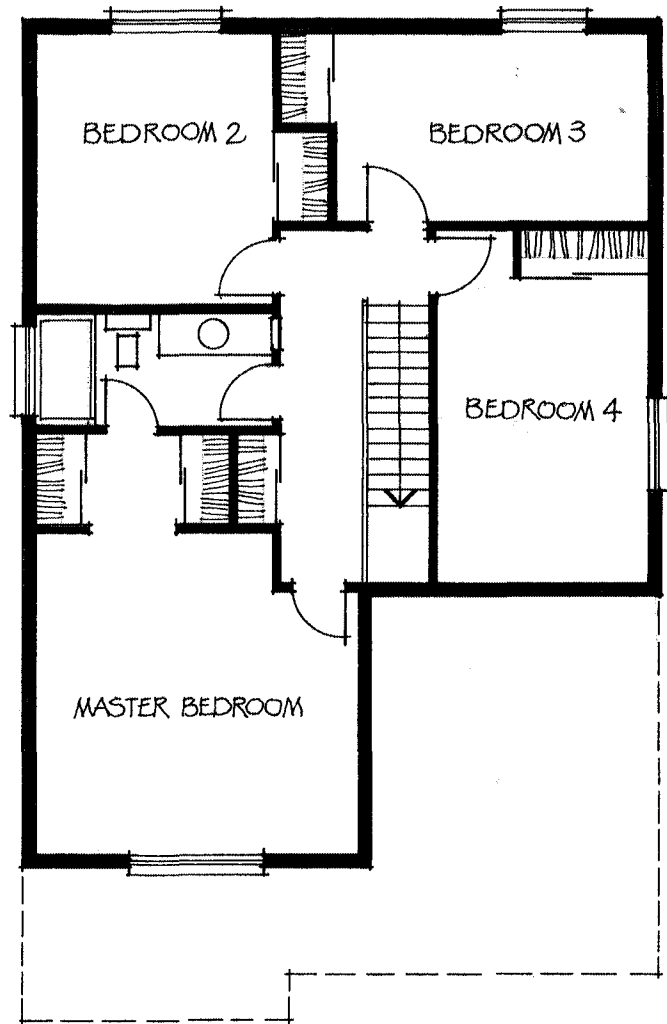
Ultra Home A  
\$98,900

382.92 m<sup>2</sup> lot size

166.29 m<sup>2</sup> gross floor area



MAIN FLOOR PLAN



BEDROOM FLOOR PLAN

#11

ULTRA A

Lot 10

\$98 900

(\$5 000 builder grant)



#### Structural Attributes

- . construction detail - 6.5
- . insulation and energy efficient features - 4
- . medium rooms, open concept, efficient floor plan and circulation
- . feature such as gas furnace, cedar deck, 200 amp svc, wood stove
- . basement could be finished otherwise no provision for expansion

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . one car garage, street parking limited
- . absorption rate/curb appeal is good - steady
- . accessibility perceived as good
- . features such as microwave oven, elevated living room and  $1\frac{1}{2}$  bathrooms

#### Activity Attributes

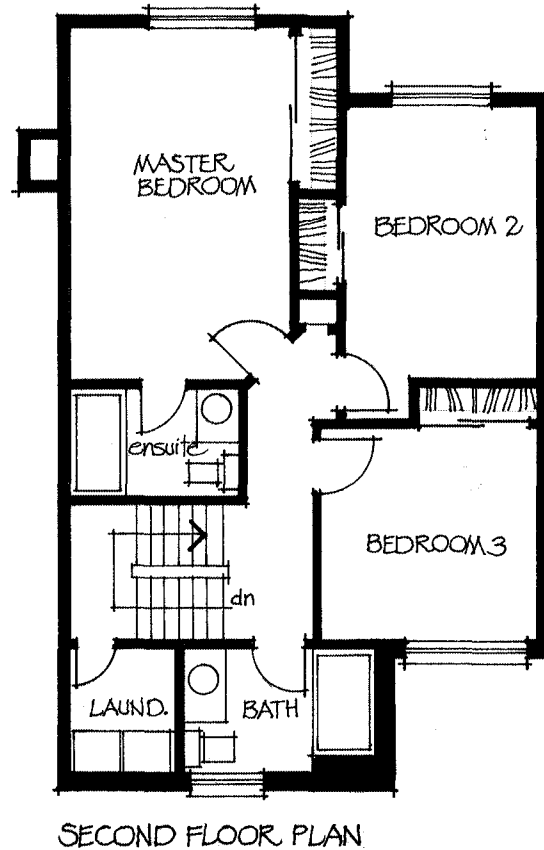
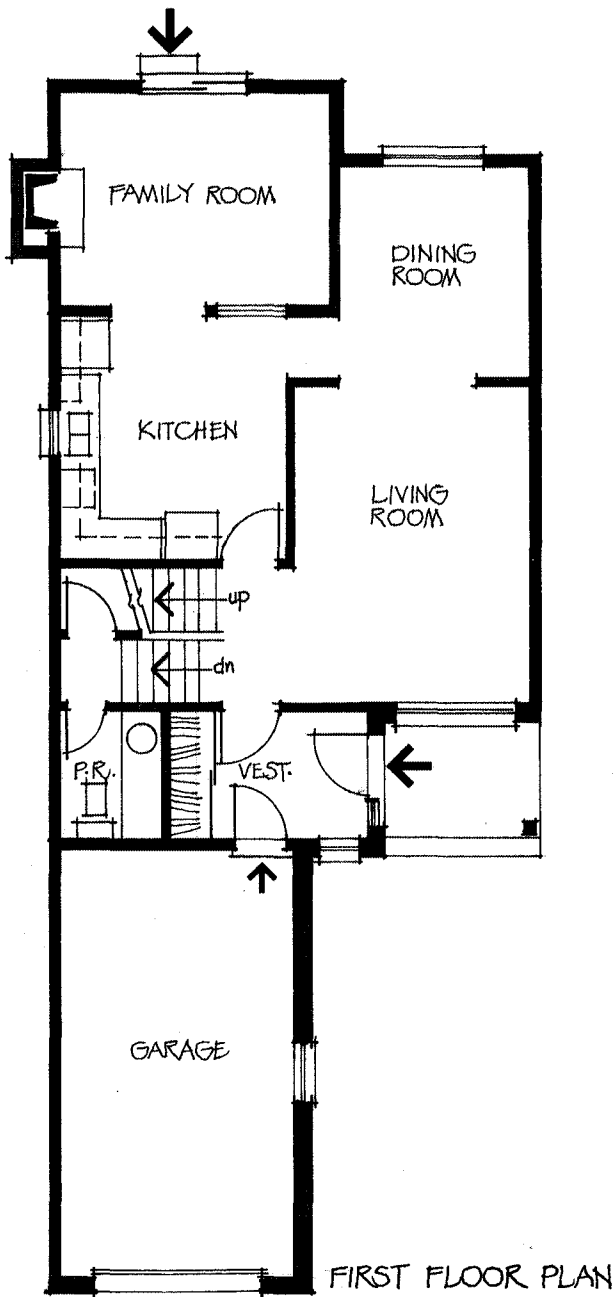
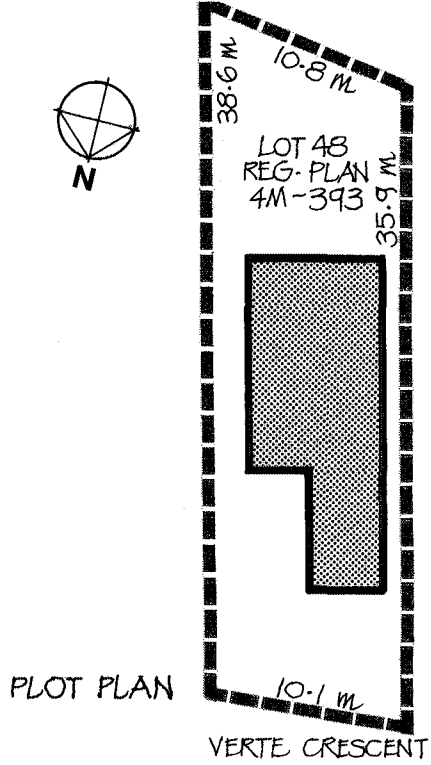
Vehicle movement is convenient from this unit to the major collectors. The unit is close to road junction so that traffic may be steady, however, due to the road design it will be local traffic and the speed probably restricted. The pedestrian walkway provides access to commercial and institutional. Parks and schools are not accessed by the pedestrian walkway. Identification with the project is good due to the internal location. Neighbourhood identification is good because backyard socializing is implied.

#12

Birch  
\$98,990

376.55 m<sup>2</sup> lot size

140.65 m<sup>2</sup> floor area



Note: floor plan is reversed  
to plot plan

#12

BIRCH

Lot 48

\$98 990



#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 4
- . medium sized rooms, economical floor plan and circulation
- . features such as large vestibule, laundry room and cold storage area
- . finishing basement only alternative for expansion

#### Visual Attributes

- . quality brick full front
- . one car garage, street parking limited
- . absorption rate/curb appeal is slow
- . accessibility perceived as limited
- . features such as fireplace, and 2½ bathrooms

#### Activity Attributes

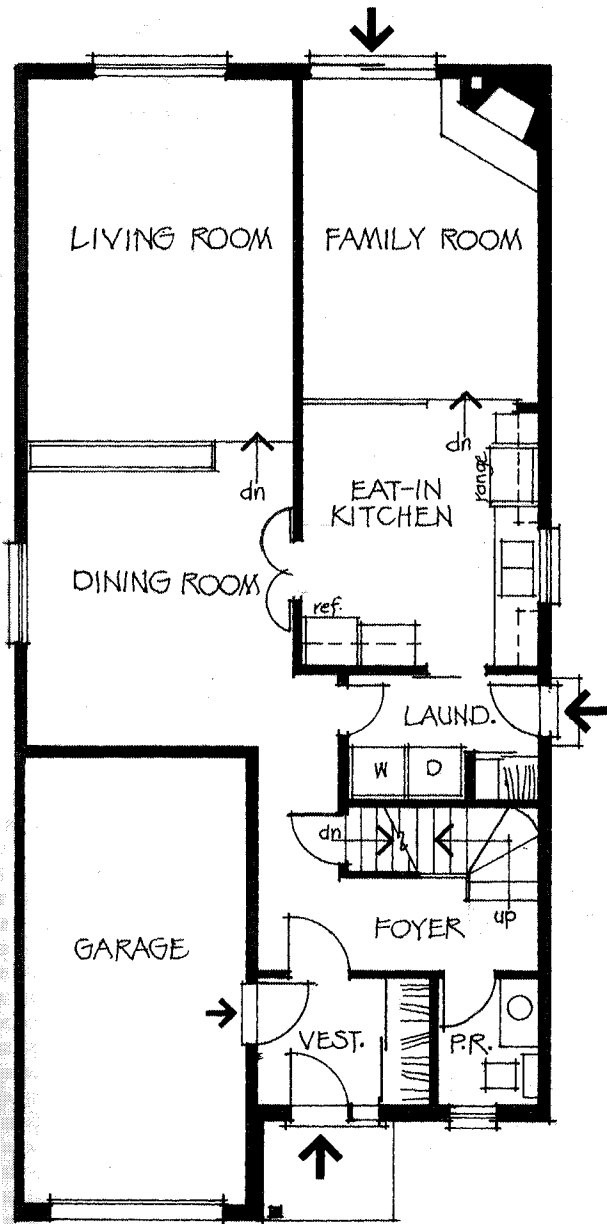
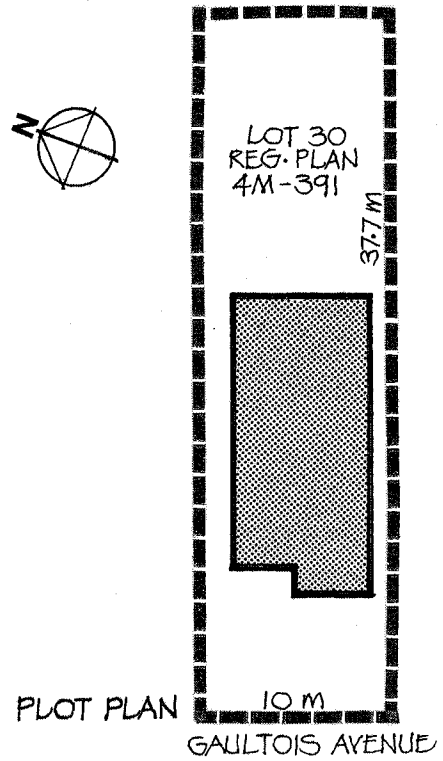
This unit is accessible to Boyer Road and from there to Beausejour. It is on a crescent so that traffic flow and speed may be limited. The walkway is accessible but not convenient to reach the school, the park and the commercial area. Site identification is limited. Neighbourhood identification is good, with backyard socializing possible.

#13

Beaverbrook  
\$99,450

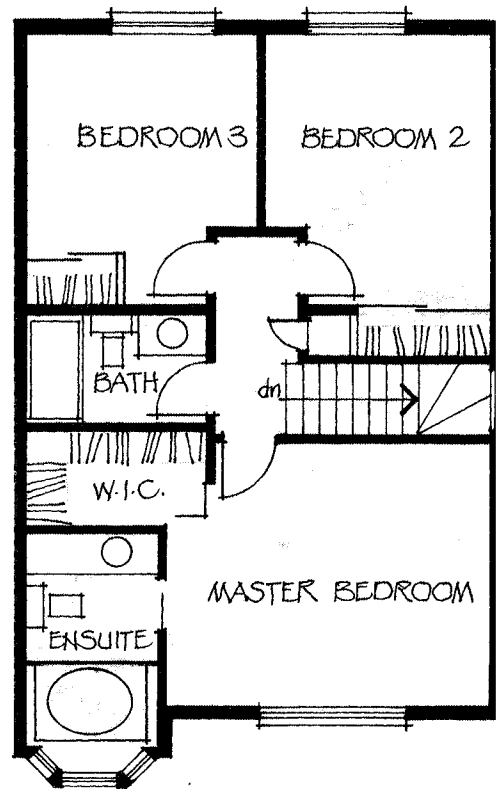
377.0 m<sup>2</sup> lot size

157.93 m<sup>2</sup> gross floor area



GROUND FLOOR PLAN

Note: floor plan is reversed  
to plot plan



SECOND FLOOR PLAN

#13

BEAVERBROOK

Lot 30

\$99 450

(\$5 000 builder grant)



#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 5
- . medium sized kitchen/eating area adjacent to family room, spacious rooms, economical floor plan and circulation
- . features such as sunken tub in full ensuite, sunken living and family room, main floor laundry room
- . basement could be finished to accommodate expansion

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . one car garage, street parking good
- . absorption rate/curb appeal is steady
- . features such as five appliances, oak handrails, vestibule and  $2\frac{1}{2}$  bathrooms
- . berm and hedge at back of lot, as noise break to adjacent arterial, reduces outdoor space

#### Activity Attributes

Vehicular movement convenient from this unit to Boyer Road and St. Joseph Blvd. Traffic flow and speed may increase when Boyer Road closed if local residents use it as a shortcut. Pedestrian walkway provides good accessibility for commercial, schools and parks. Neighbourhood identification limited by street patterns and arterial barrier at rear of the unit.



# 11



# 12



# 13



# 15



# 16



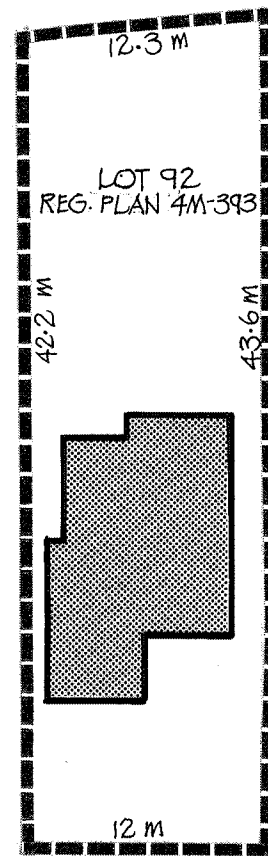
#14

Breton A

\$100,990

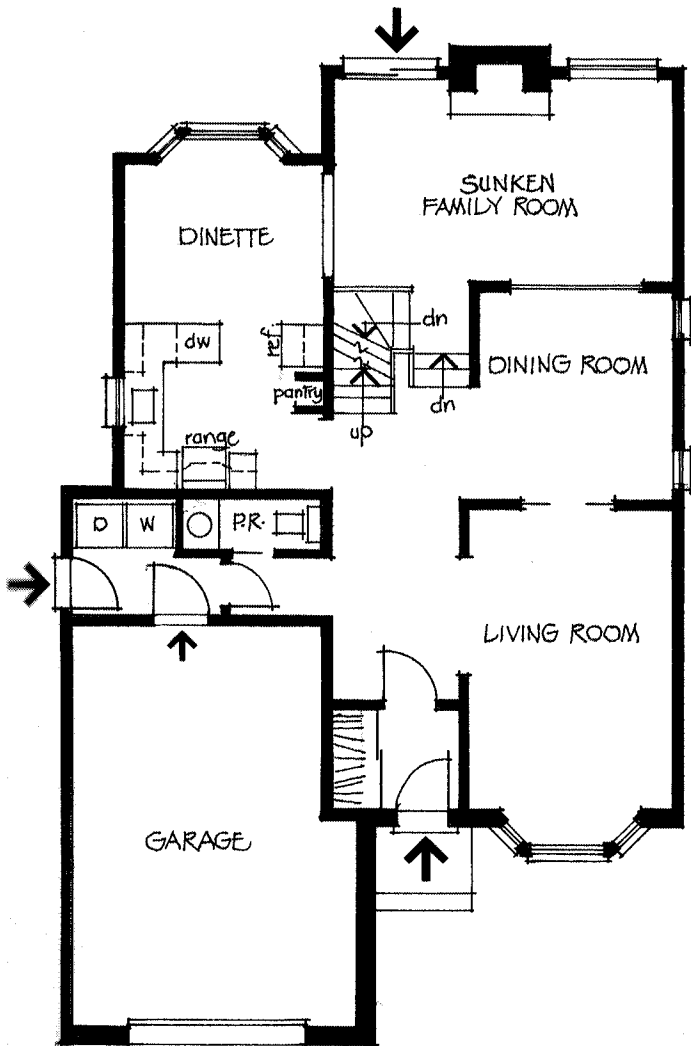
525.52 m<sup>2</sup> lot size

190.54 m<sup>2</sup> gross floor size

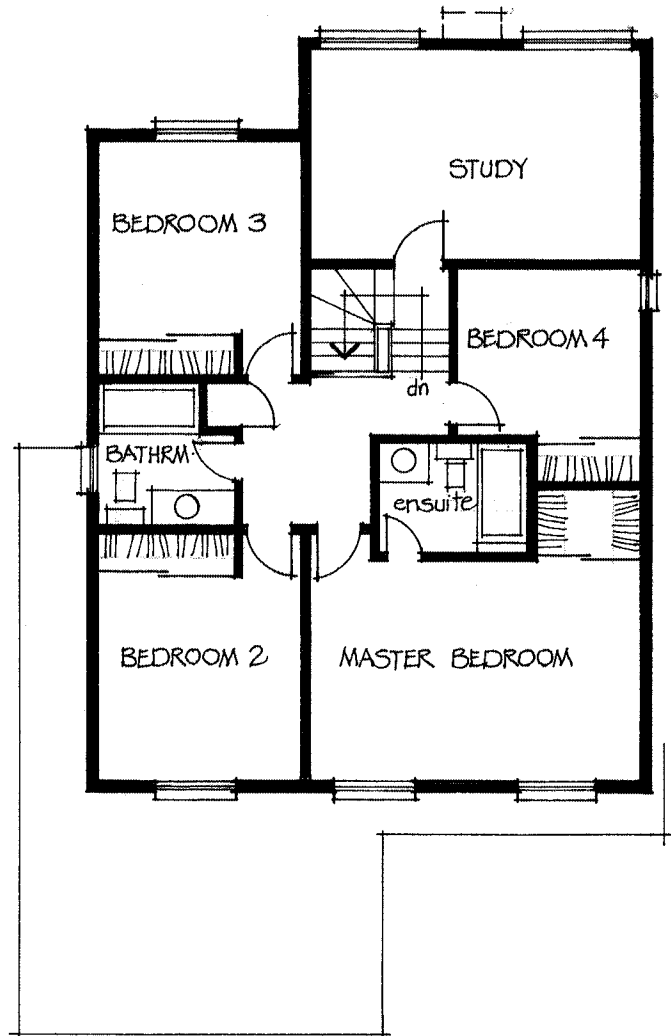


PLOT PLAN

BEAUSEJOUR DRIVE



GROUND FLOOR PLAN



SECOND FLOOR PLAN

#14

BRETON A

Lot 92

\$100 990

#### Structural Attributes

- . construction detail - 7
- . insulation and energy efficient features - 4
- . medium sized kitchen/eating area with bay window, four bedroom plus study
- . features such as sunken family room, main floor laundry area and full ensuite
- . basement could be finished expansion not considered

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front, wood trim
- . oversized single garage, street parking limited
- . absorption rate/curb appeal is good
- . accessibility perceived as good
- . features such as oak railing, vestibule, fireplace and  $2\frac{1}{2}$  bathrooms

#### Activity Attributes

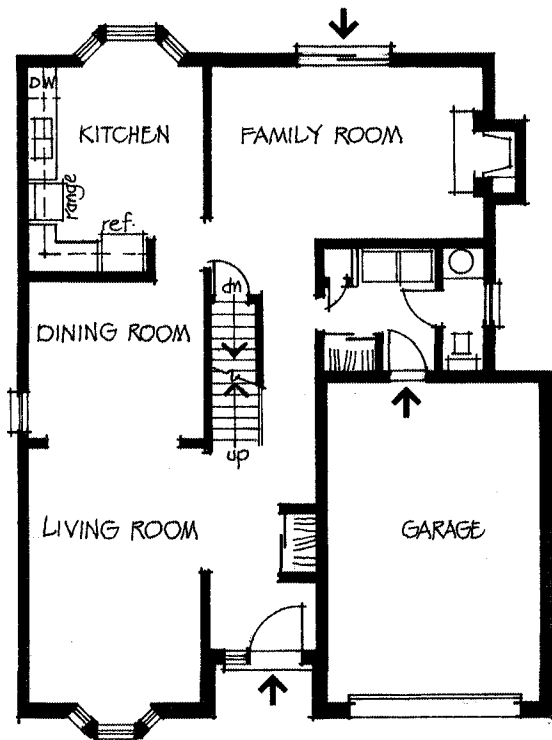
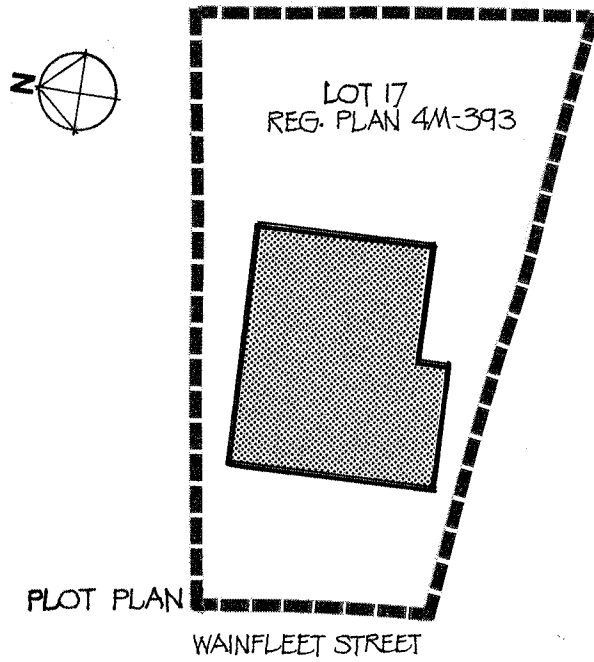
Vehicular movement, convenient because it is located on major collector, Beausejour. Traffic flow and speed may be extensive. Pedestrian walkway inconsequential to this unit. Neighbourhood identification could utilize backyard socializing factor due to barrier of collector.

#15

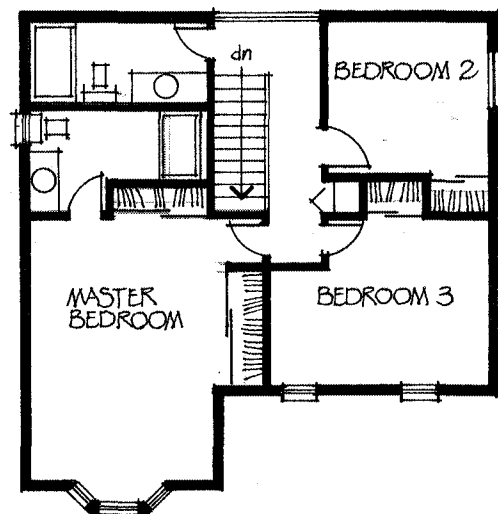
Valeridge  
\$105,490

535.05 m<sup>2</sup> lot size

159.32 m<sup>2</sup> gross floor size



MAIN FLOOR PLAN



BEDROOM FLOOR PLAN

#15

VALERIDGE

Lot 17

\$105 490



#### Structural Attributes

- . construction detail - 7
- . insulation and energy efficient features - 4
- . medium kitchen with bay window, open concept
- . features such as full ensuite, main floor laundry facilities, family room, with raised ceiling
- . basement only area for expansion

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . one car garage, street parking poor
- . absorption rate/curb appeal is good - steady
- . accessibility perceived as good
- . features such as oak handrails, fireplace and  $2\frac{1}{2}$  bathrooms

#### Activity Attributes

This unit conveniently located for vehicular access to Boyer Road. Crescent design of road will restrict traffic flow and speed. The pedestrian walkway affords access to schools, park and commercial. Site identification should be good and neighbourhood identification also good, with backyard socializing highly implied.

-54-



#16

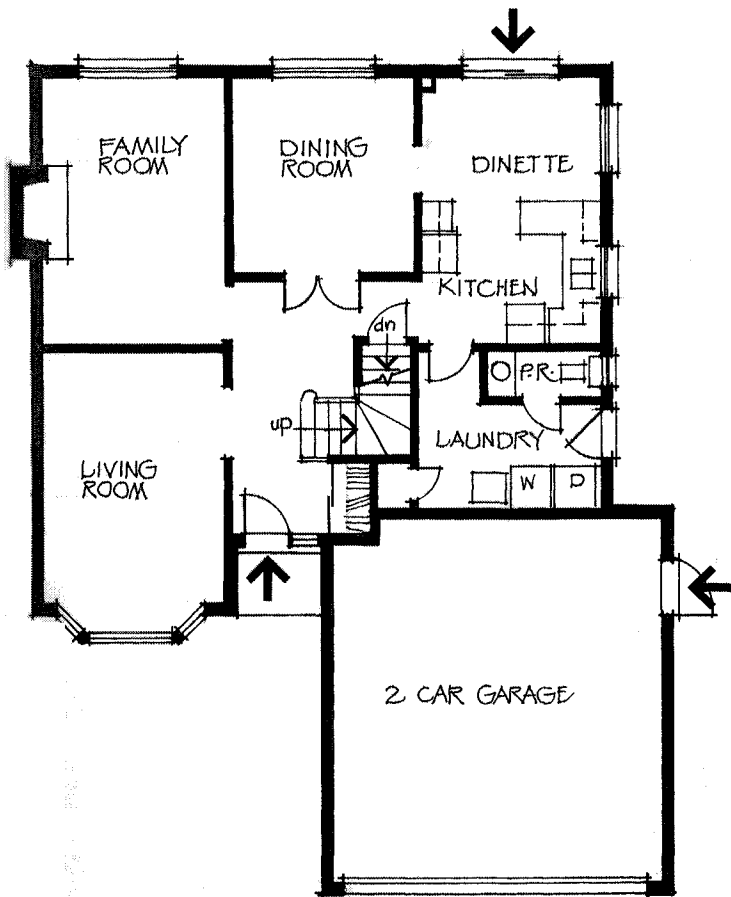
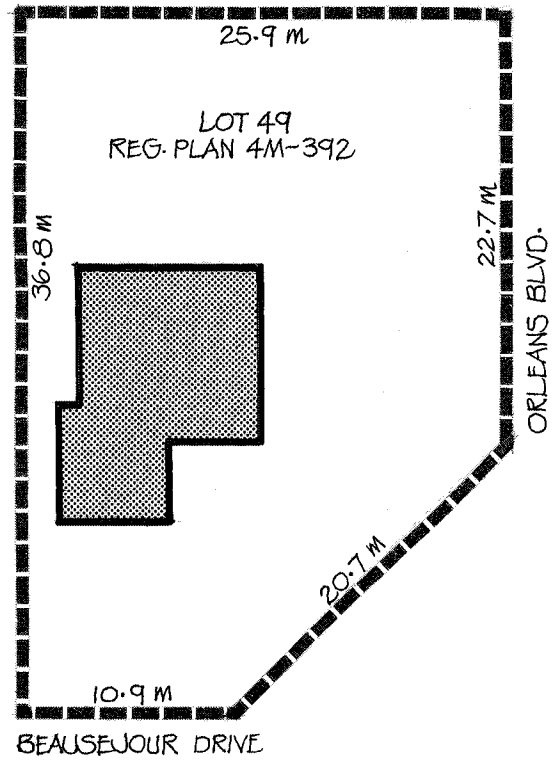
Versaille

\$107,900 (lot premium)

845.86 m<sup>2</sup> lot size

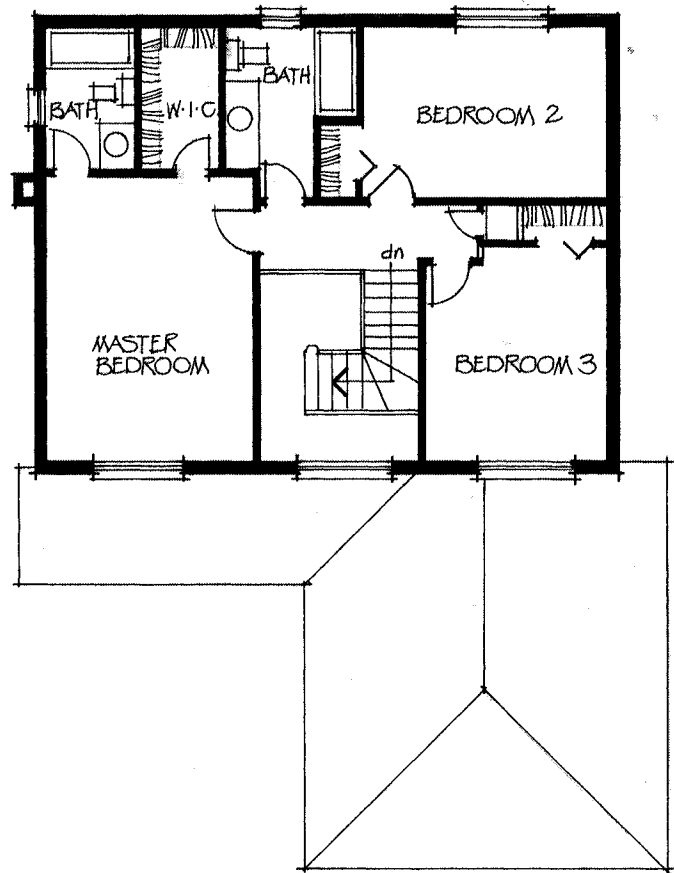
160.16 m<sup>2</sup> floor area

PLOT PLAN



FIRST FLOOR PLAN

Note: floor plan is reversed  
to plot plan



SECOND FLOOR PLAN

#16

VERSAILLE

Lot 49

\$107 900

#### Structural Attributes

- . construction detail - 6.5
- . insulation and energy efficient features - 4
- . medium sized rooms, specialized room floor plan
- . features such as main floor laundry and family rooms, ceramic floor tile in entry and full ensuite
- . basement could be finished to expand space

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . two car garage, street parking poor
- . absorption rate/curb appeal is slow
- . accessibility perceived as good
- . features such as oak handrails,  $2\frac{1}{2}$  bathrooms and fireplace

#### Activity Attributes

Vehicular movement from this unit is very convenient to arterials and collectors. Traffic flow and speed may be a problem. The pedestrian walkway is inconsequential unless entrance to the interior, Baie Verte Crescent, is desired. Access to commercial, school and park is good. Identification with site is good, with neighbourhood restricted, backyard socializing is important.

#17

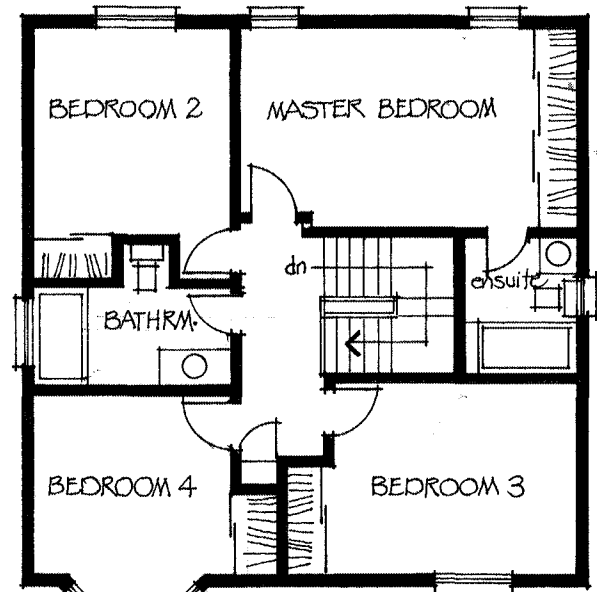
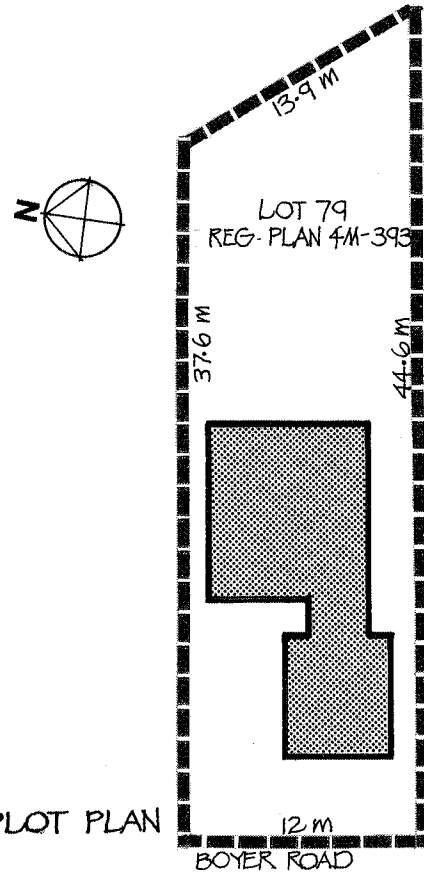
Castillion B

\$108,990

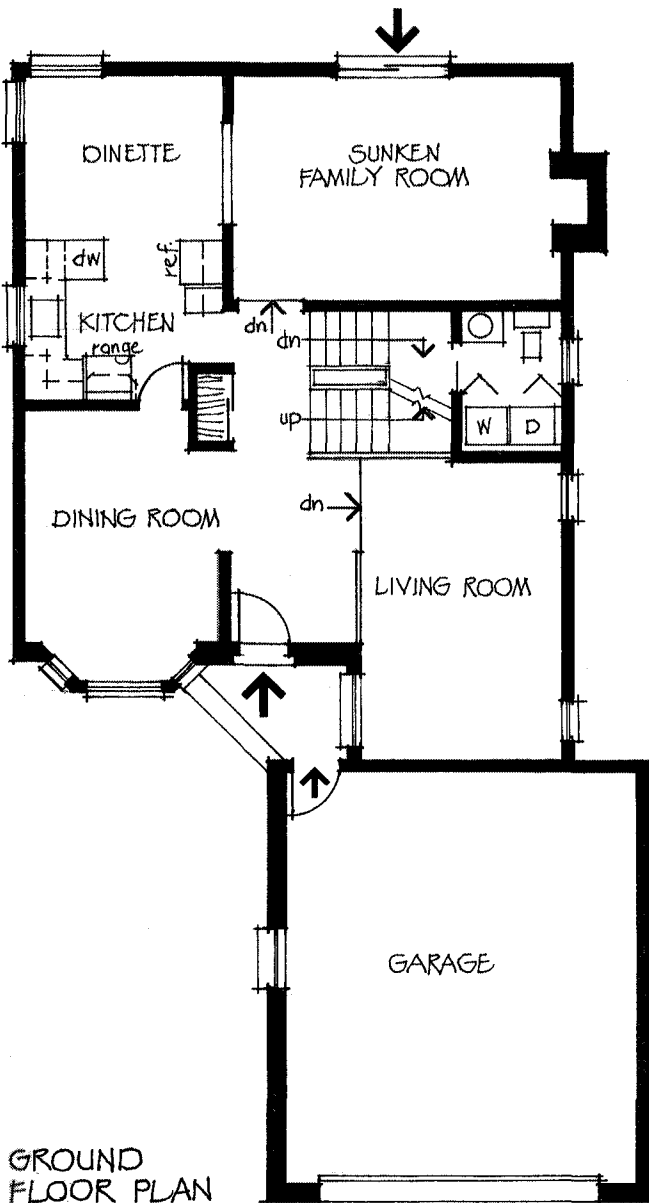
493.26 m<sup>2</sup> lot size

162.30 m<sup>2</sup> gross floor area

PLOT PLAN



SECOND FLOOR PLAN



GROUND FLOOR PLAN

#17

CASTILLION

Lot 79

\$108 990

#### Structural Attributes

- . construction detail - 7
- . insulation and energy efficient features - 4
- . medium kitchen/eating area overlooks family room, spacious rooms, 4 bedrooms, efficient floor plan and circulation
- . features such as sunken family and living room, steel garage door, pantry and full ensuite
- . basement only area for expansion

#### Visual Attributes

- . quality brick trim
- . two car garage, street parking poor
- . absorption rate/curb appeal is excellent - fast
- . accessibility perceived as good
- . features such as oak railings, fireplace and 2½ bathrooms

#### Activity Attributes

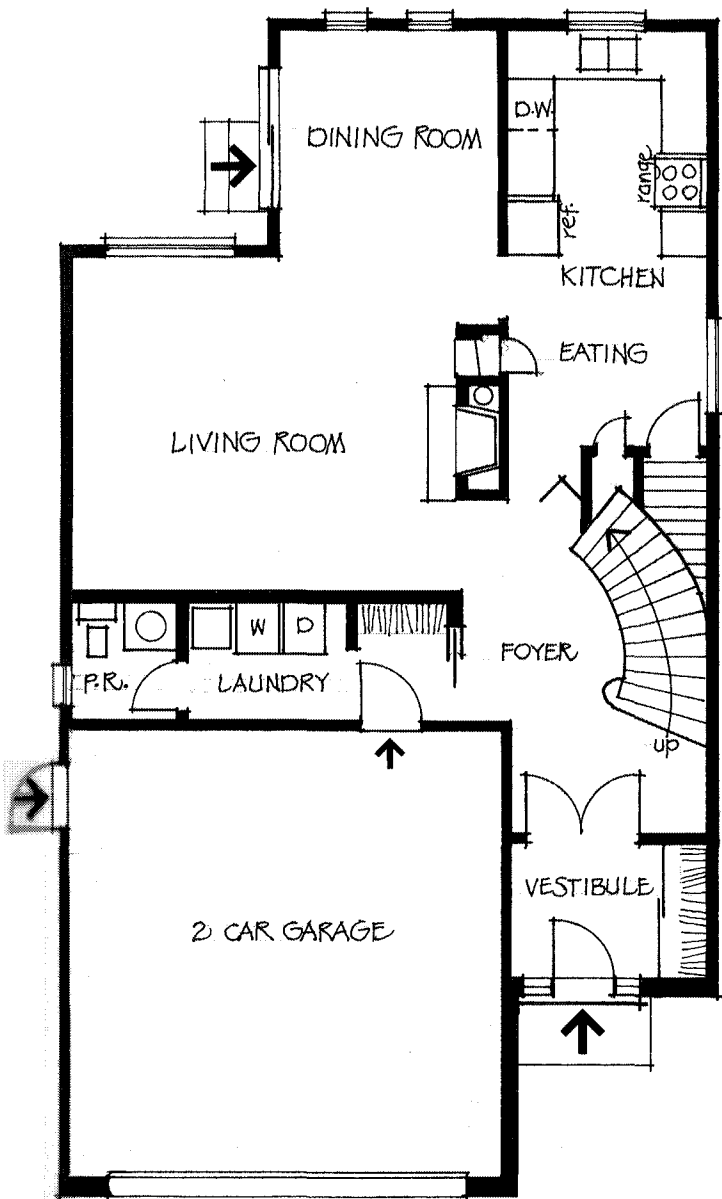
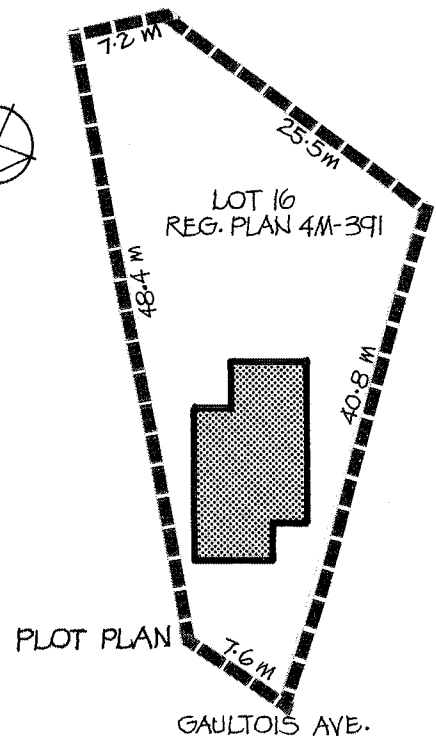
This unit is located on Boyer Road, convenient to the collectors and arterials so that vehicular access is good. The pedestrian walkway is inconsequential to this unit. Access to commercial and schools is accessible but not convenient. Identification with the site is good due to its central location. Neighbourhood identification could include the older houses opposite on Boyer Road, however, backyard socializing factor implied.

#18

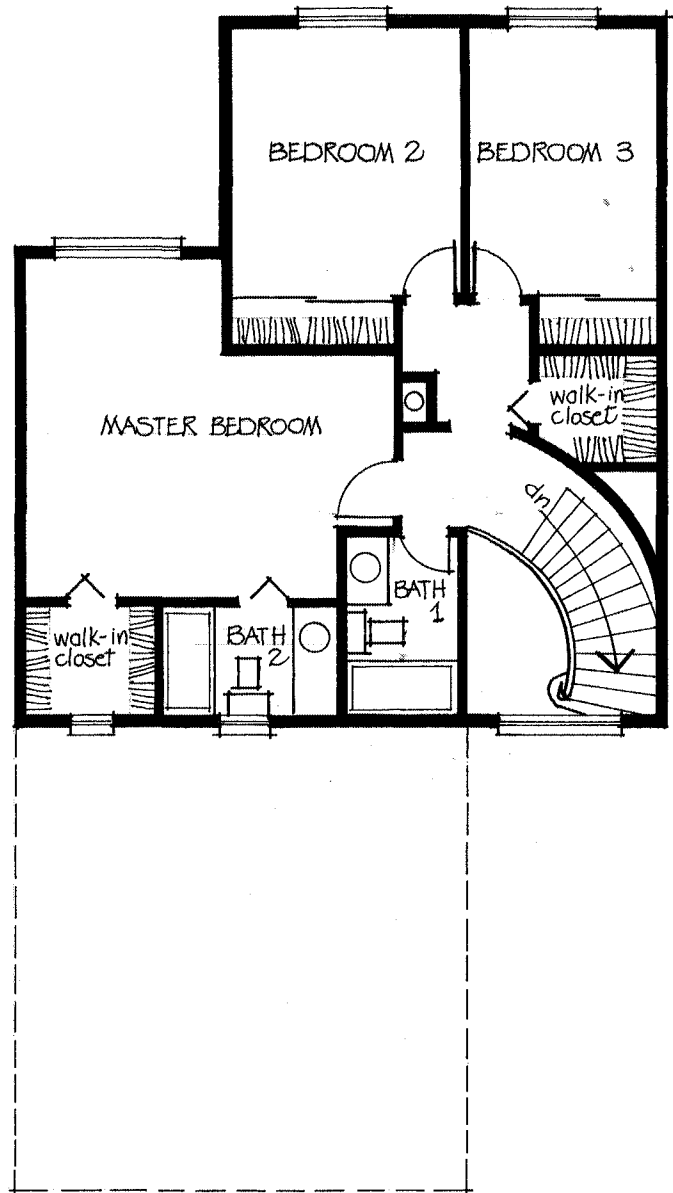
New Yorker  
\$111,400 (lot premium)

666.56 m<sup>2</sup> lot size

168.89 m<sup>2</sup> gross floor area



GROUND FLOOR PLAN



SECOND FLOOR PLAN

#18

NEW YORKER

Lot 16

\$111 400

#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 8
- . large spacious rooms, floor plan and circulation
- . features such as double french doors in large vestibule, main floor laundry area, pantry, ceramic tile to ceiling in bath, full ensuite and large walk-in closets
- . basement only area for expansion

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . two car driveway, street parking poor
- . absorption rate/curb appeal is slow
- . accessibility perceived as limited
- . features such as fireplace, circular staircase and  $2\frac{1}{2}$  bathrooms
- . berm and fence at back of lot, provide noise attenuation barrier, however also reduces useable yard space

#### Activity Attributes

This unit is located convenient for vehicular traffic, it could, however, become a shortcut for local residents once Boyer Road is closed off with an equivalent increase in traffic flow and speed. The pedestrian walkway is extremely accessible and provides excellent access to commercial, schools and park. Neighbourhood and site identification should be very good.

#19

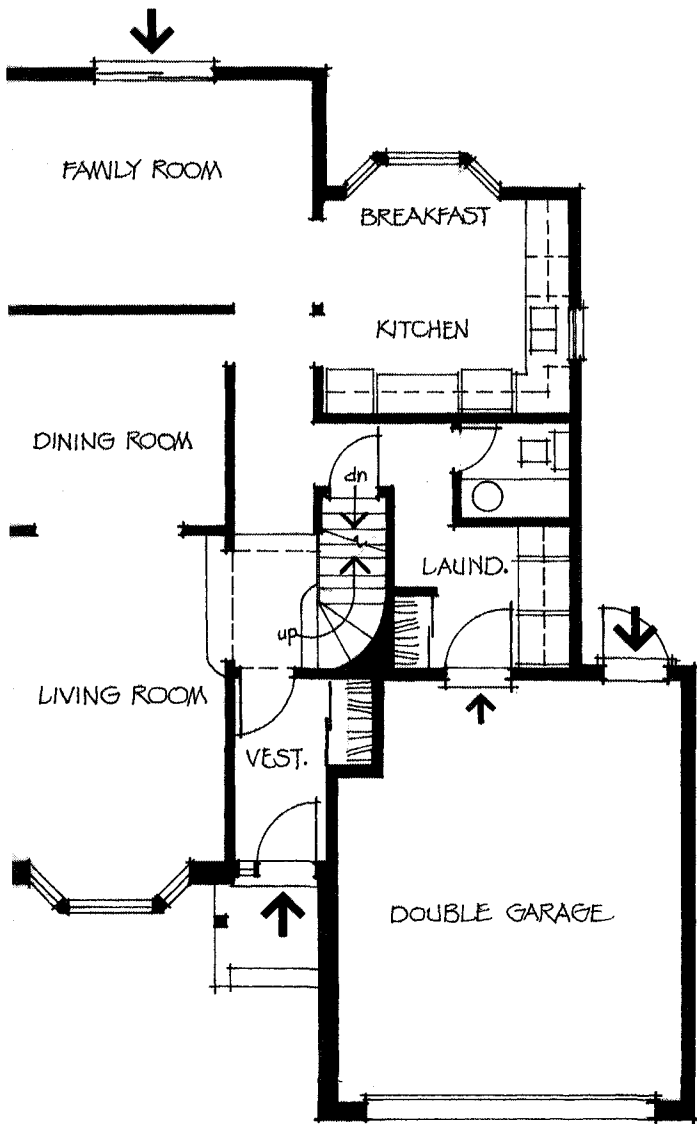
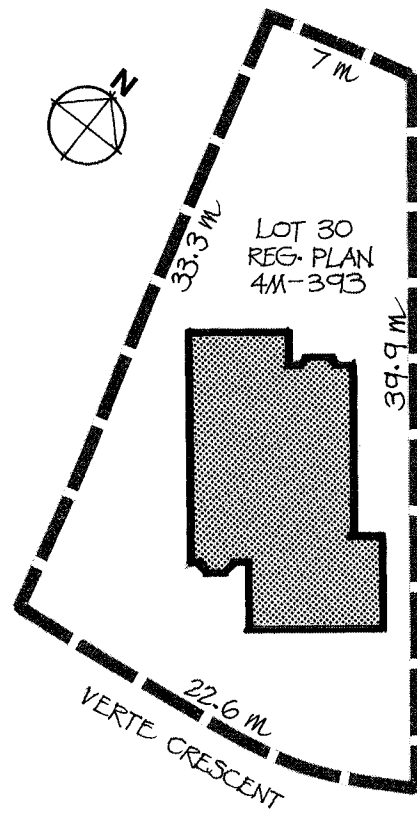
Chestnut  
\$115,480

540.48 m<sup>2</sup> lot size

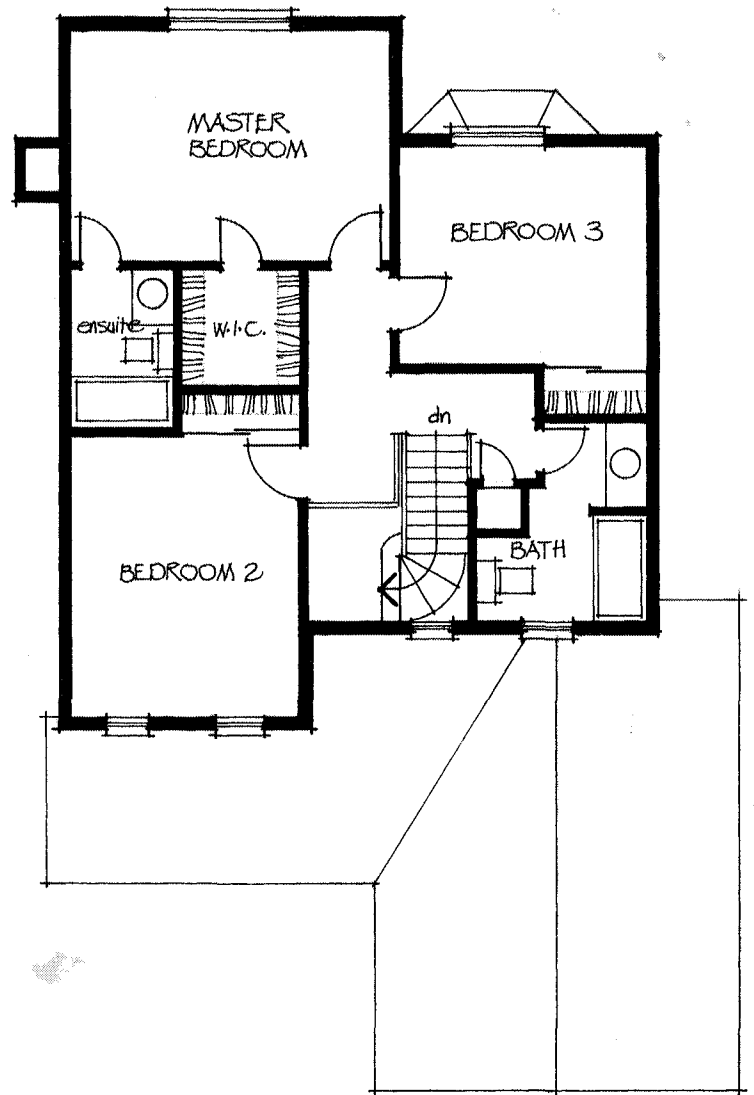
161.00 m<sup>2</sup> floor area

-60-

PLOT PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

#19

CHESTNUT

Lot 30

\$115 480

#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 4
- . medium sized rooms
- . features such as large vestibule, main floor laundry and family room, and curved staircase
- . finishing basement only alternative for expansion

#### Visual Attributes

- . quality brick full front
- . two car garage, street parking limited
- . absorption rate/curb appeal is slow
- . accessibility perceived as good
- . features such as fireplace and 2½ bathrooms

#### Activity Attributes

This unit is accessible to Boyer Rd. and from there to Beausejour. It is on a crescent so that traffic flow and speed may be limited. The walkway is accessible but not convenient to reach the school, the park and the commercial area. Site identification is fair. Neighbourhood identification is good with backyard socializing implied.

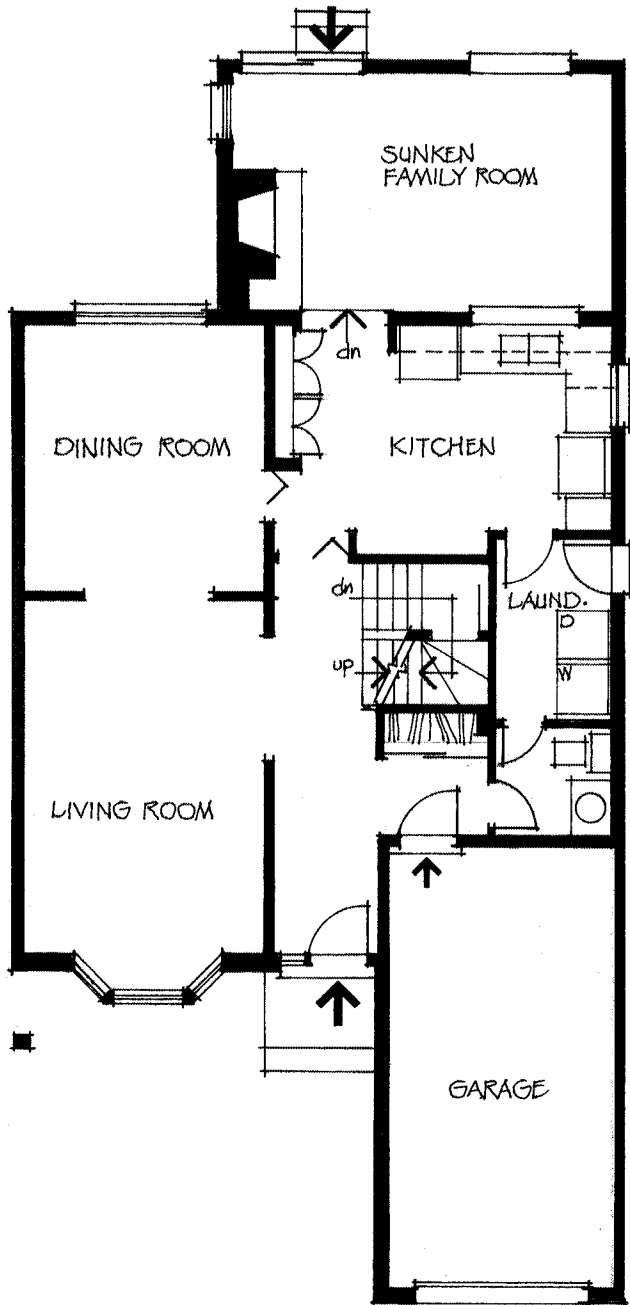
#20

Hastings

\$115,900

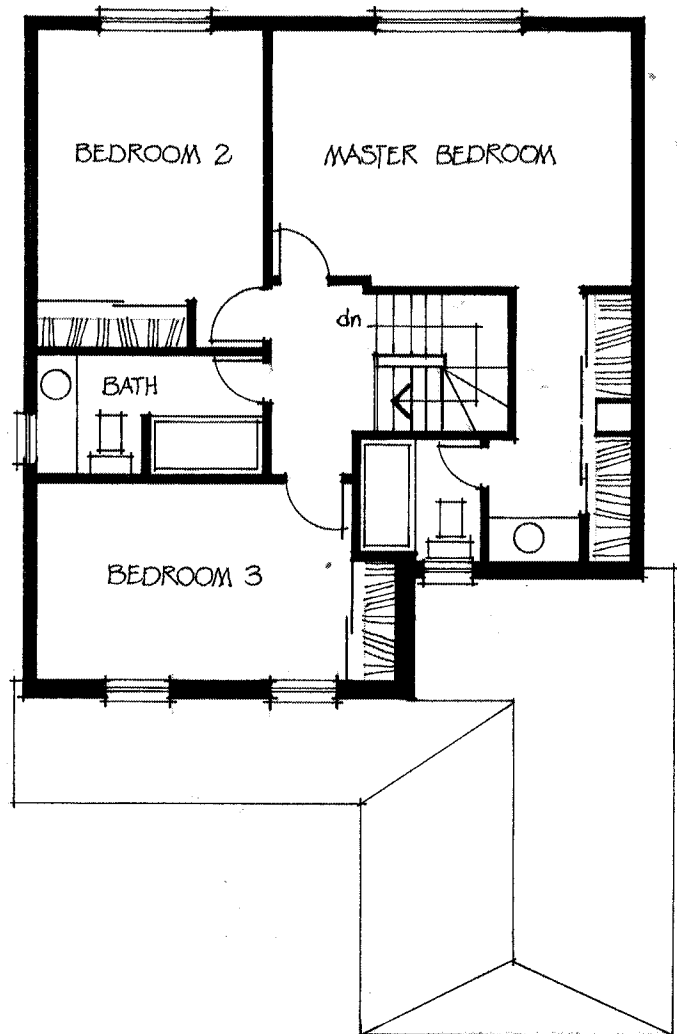
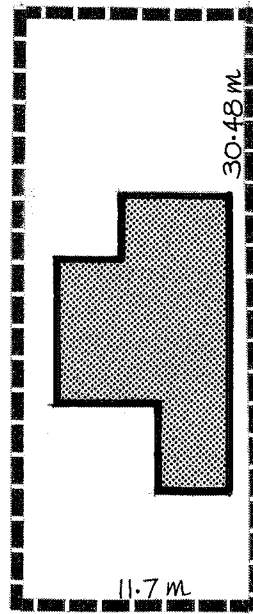
352.96 m<sup>2</sup> lot size

164.80 m<sup>2</sup> floor area



GROUND FLOOR PLAN

PLOT PLAN



SECOND FLOOR PLAN

#20

HASTINGS

Chapel Hill

\$115 900



#### Structural Attributes

- construction design - 8
- insulation and energy efficient features - 7
- medium sized rooms, efficient floor plan and circulation
- features such as huge pantry, mudd room, main floor laundry room and sunken family room
- basement only area available for expansion

#### Visual Attributes

- quality brick full front, wood trim
- one car garage
- accessibility perceived as good
- features such as fireplace and 2½ bathrooms

#### Activity Attributes

Important to the sale of the houses is the overall site image.

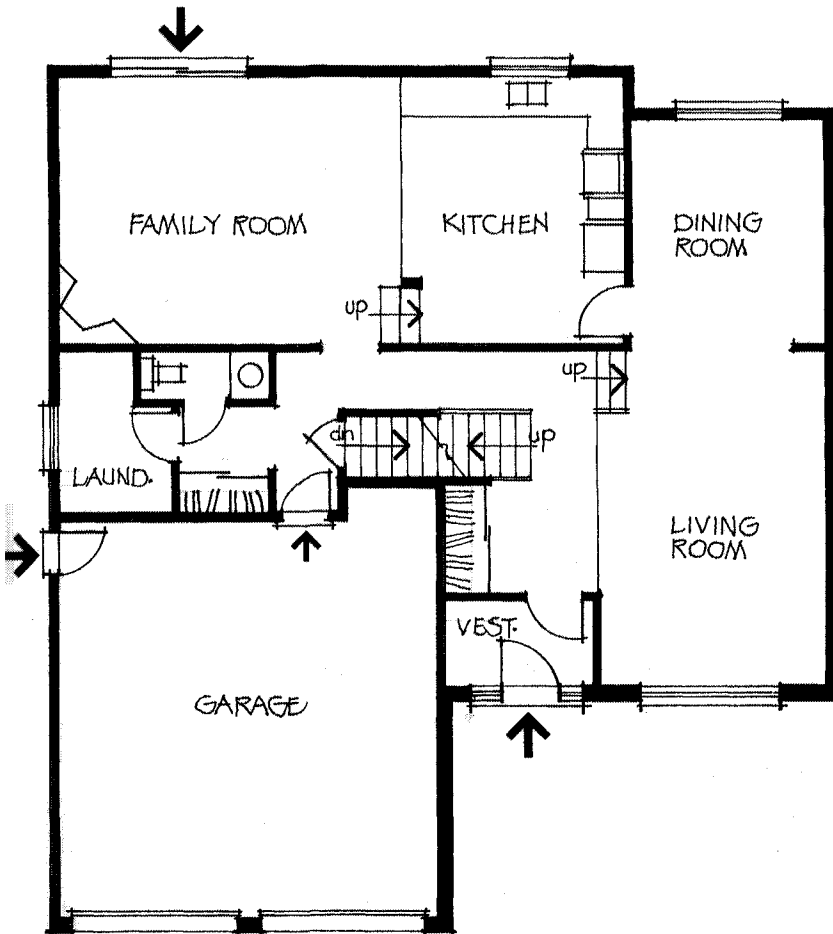
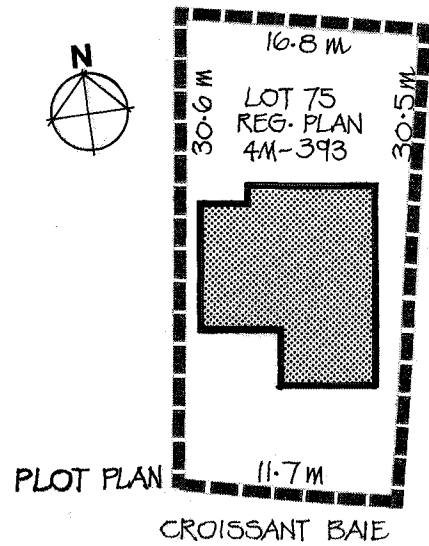
#21

Timberview

\$124,400

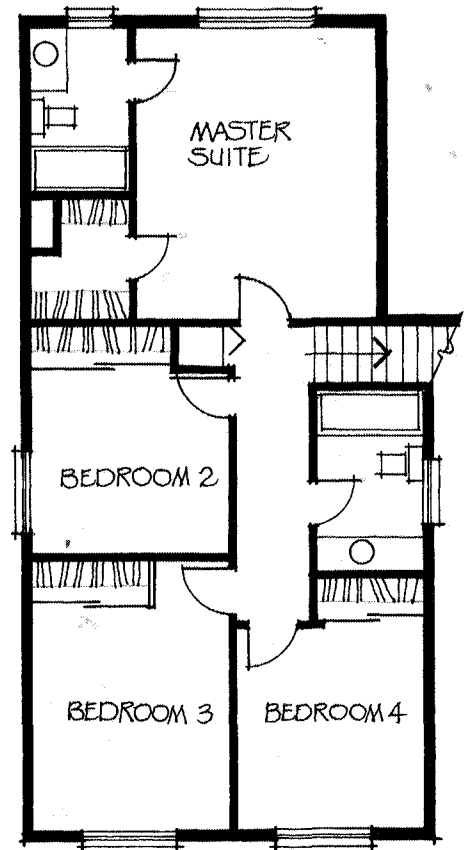
464.52 m<sup>2</sup> lot size

176.51 m<sup>2</sup> floor area



LOWER LEVEL PLAN

Note: floor plan is reversed  
to plot plan



UPPER LEVEL PLAN

#21

TIMBERVIEW

Lot 75

\$124 400



#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 8
- . large spacious rooms, efficient floor plan and circulation
- . features such as main floor laundry and family rooms, full ensuite, ceramic tile to ceiling in bathroom
- . basement could be finished otherwise no provision for expansion

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . two car garage, street parking limited
- . absorption rate/curb appeal is slow
- . accessibility is perceived as good
- . features such as vestibule, fireplace and  $2\frac{1}{2}$  bathrooms

#### Activity Attributes

Vehicular movement is convenient from this unit to collectors and thence to arterials. The design of the road will limit the speed and quantity of traffic flow. The pedestrian walkway provides good access to arterial intersections, commercial, parks and schools. The site identification should be good due to a central location. The neighbourhood identification should be high with backyard socializing prominent.

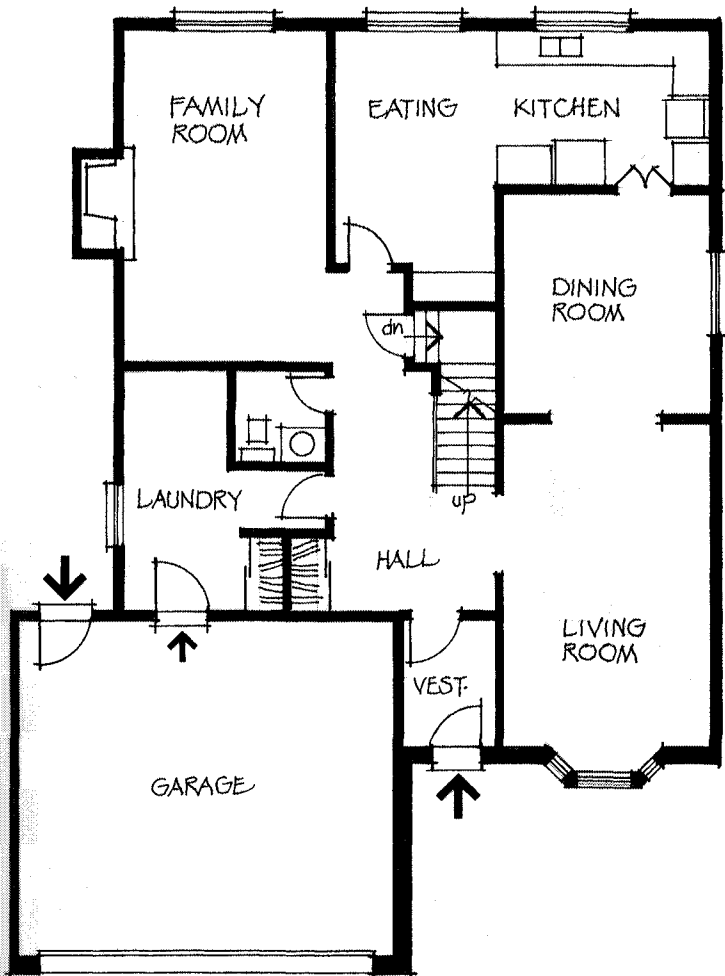
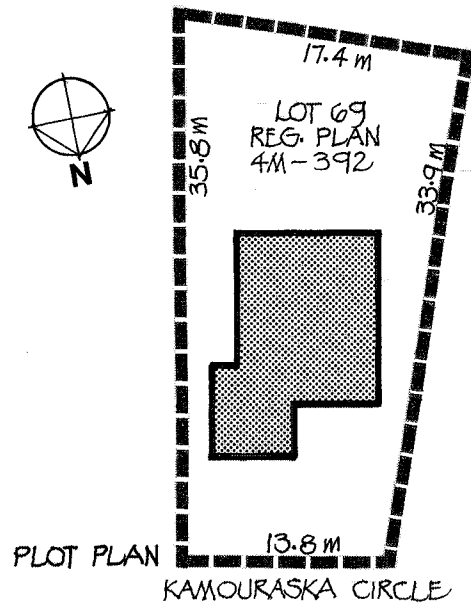
#22

Amberdale

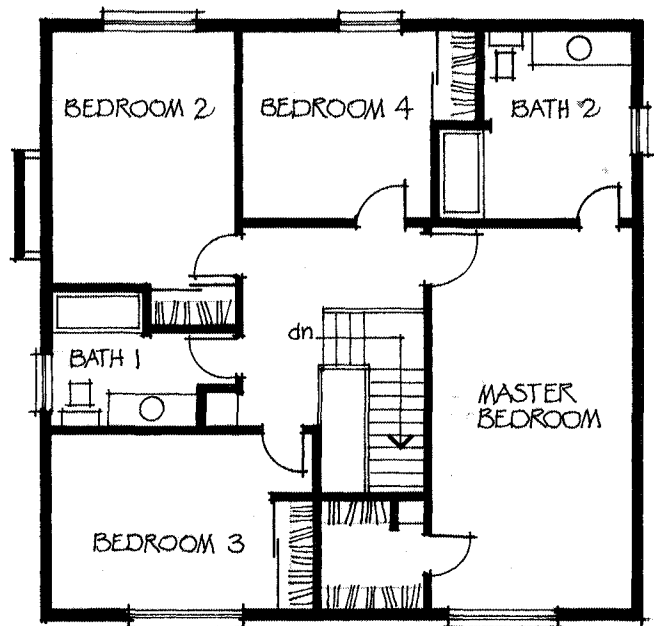
\$126,400

435.54 m<sup>2</sup> lot size

202.52 m<sup>2</sup> floor area



FIRST FLOOR PLAN



SECOND FLOOR PLAN

#22

AMBERDALE

Lot 69

\$126 400



#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 8
- . electric furnace
- . large rooms, efficient floor plan and circulation
- . features such as main floor laundry and family room, ceramic tile to ceiling in bathroom and full ensuite
- . basement could be finished otherwise no provision for expansion/change

#### Visual Attributes

- . quality brick full front
- . two car garage, street parking limited
- . absorption rate/curb appeal is fast to excellent
- . accessibility perceived as limited
- . features such as large vestibule, oak handrails, fireplace and 2½ bathrooms

#### Activity Attributes

Vehicular movement is good from this unit to the collectors. The circular shape of the road will limit excess traffic quantity and speed. The pedestrian walkway is of little consequence to this unit, however it could provide access to commercial. Schools and parks are accessible. Site identification is good due to central location. Neighbourhood identification is also good with backyard socializing prominent.

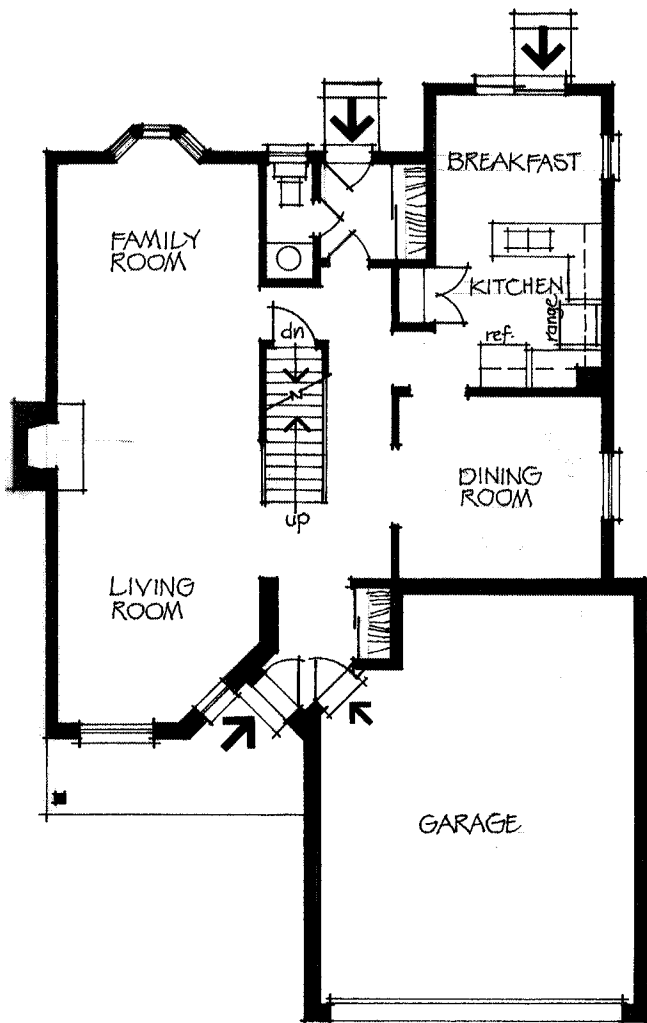
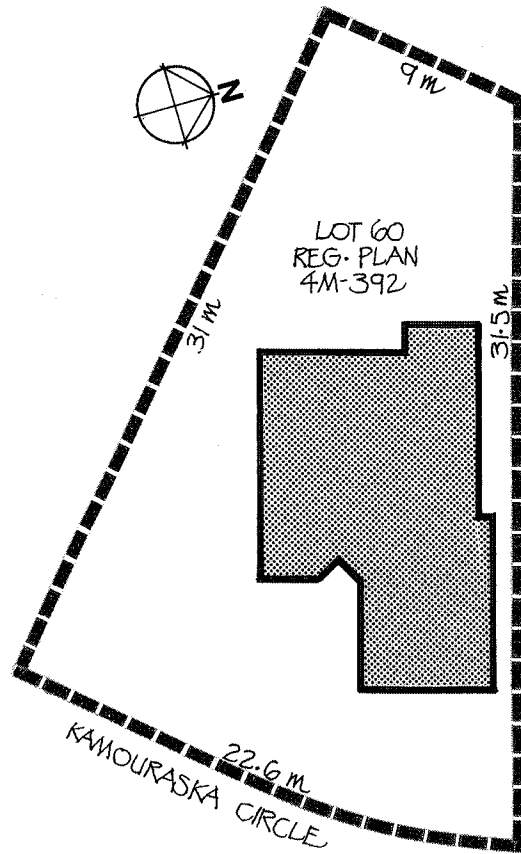
#23

Monte Carlo  
\$127,450

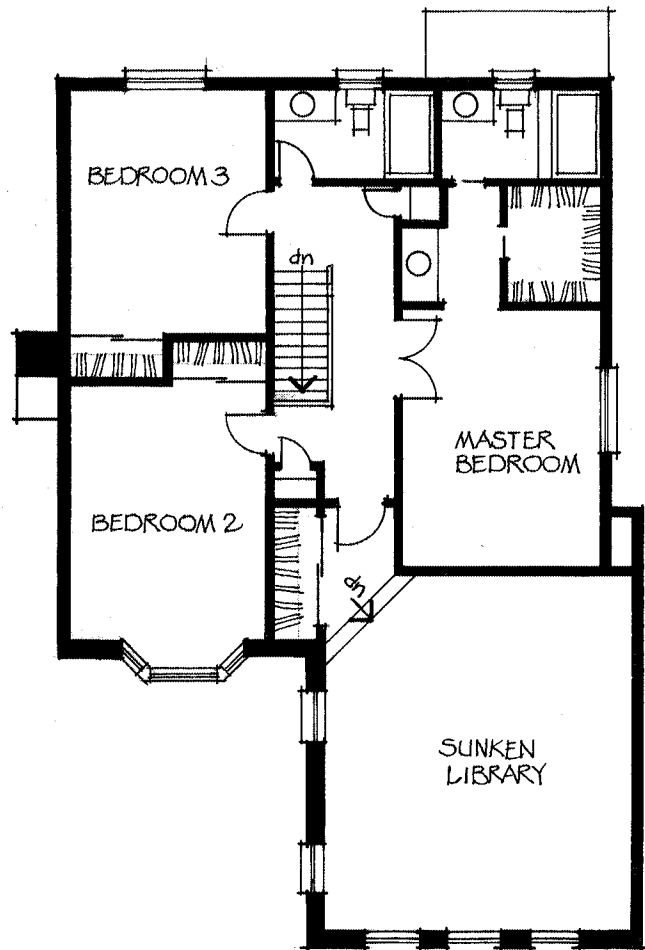
474.96 m<sup>2</sup> lot size

200.30 m<sup>2</sup> floor area

PLOT PLAN



GROUND FLOOR PLAN



SECOND FLOOR PLAN

#23

MONTE CARLO

Lot 60

\$127 450



#### Structural Attributes

- . construction detail - 8.5
- . insulation and energy efficient features - 5
- . spacious rooms, large floor plan and circulation
- . features such as pantry, ceramic tile to ceiling in bathroom, family room, library and extra closet

#### Visual Attributes

- . quality brick full front, wood trim
- . two car oversized garage, street parking poor
- . absorption rate/curb appeal is excellent to fast
- . accessibility perceived as good
- . features such as fireplace, oak handrails, walk-in closets and 2½ bathrooms

#### Activity Attributes

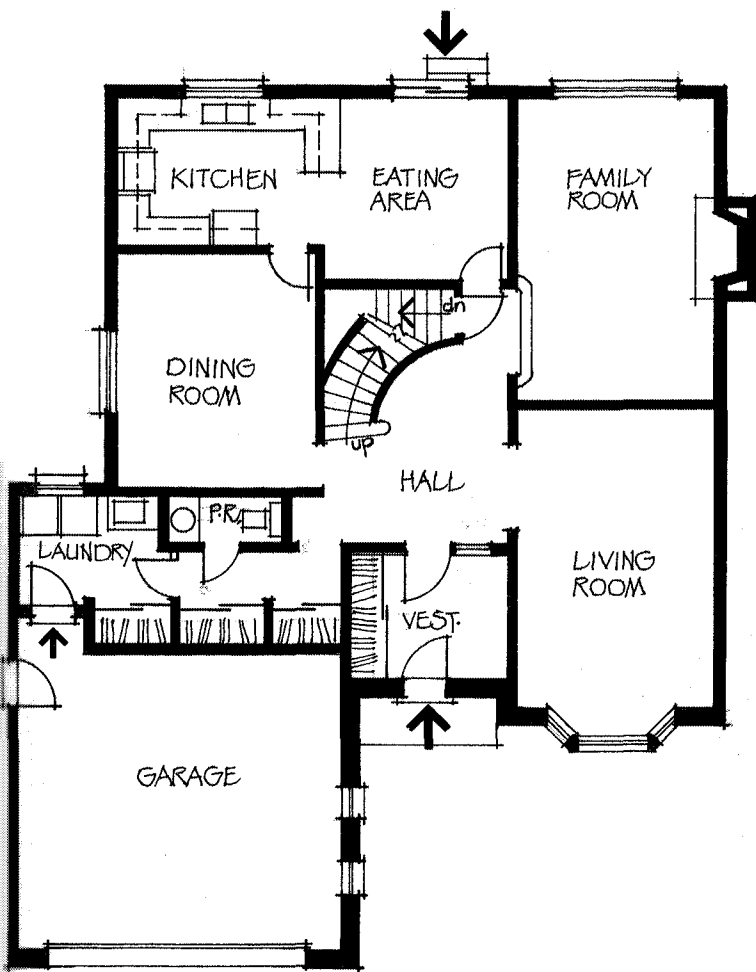
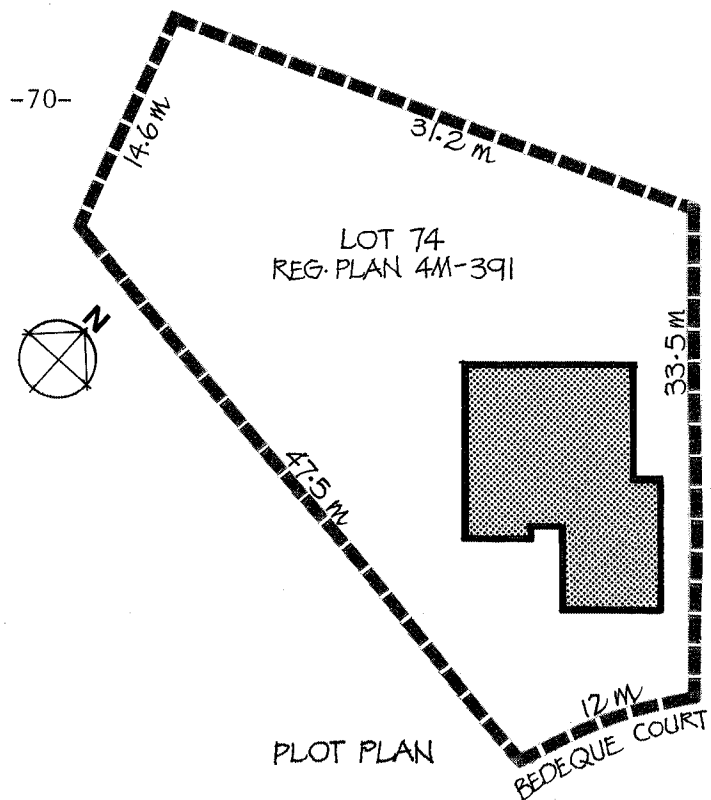
This unit is convenient to Beausejour and thence to the arterials. The pedestrian walkway accessible for access to schools, park and commercial. Site identification is good. Neighbourhood identification is good with backyard socializing implied.

#24

Acadian  
\$151,400 (lot premium)

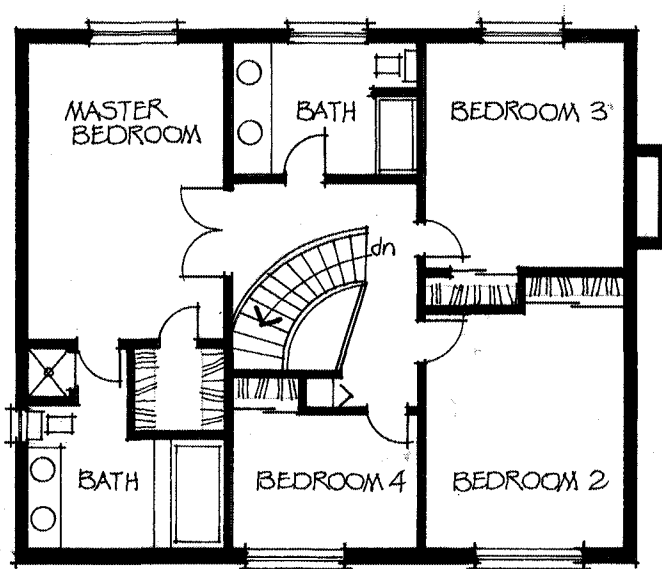
1211.13 m<sup>2</sup> lot size

229.66 m<sup>2</sup> floor area



MAIN FLOOR PLAN

Note: floor plan is reversed  
to plot plan



BEDROOM FLOOR PLAN

#24

ACADIAN

Lot 74

\$151 400



#### Structural Attributes

- . construction detail - 8
- . insulation and energy efficient features - 8
- . large spacious rooms, floor plan and circulation, 4 bedrooms
- . features such as ceramic tile to ceiling in bathroom, full ensuite, main floor laundry area and sunken family room
- . basement could be finished otherwise no provision for expansion/change

#### Visual Attributes

- . quality brick  $\frac{1}{2}$  front
- . two car garage, street parking limited
- . absorption rate/curb appeal is steady
- . accessibility perceived as good
- . features such as large vestibule, fireplace, curved staircase, large foyer, and 2 $\frac{1}{2}$  bathrooms

#### Activity Attributes

Vehicular traffic dictated by cul-de-sac, this also restricts traffic flow. Pedestrian walkway provides access to arterials, commercial, schools and parks. Site identification good, likely to also identify with next development. Neighbourhood identification should include adjacent development and be high with the rest of neighbours with backyard socializing implied.



# 18



# 19





# 20





# 21



# 22





# 23



# 24



### Introduction to Quality Discussion

In the following discussion selling price will be compared with attribute bundles which encompass three orientations - structural, visual and activity. Changes/comparisons which occur as selling price declines will be illustrated using simple tables and graphs. The size of the study sample precludes a vigorous statistical analysis of the data base collected. Many of the attributes selected as indicators of quality would not, in fact, lend themselves to such an examination. The bundles of attributes which are the basis on which the quality comparison is made are intended as a representation of the site units and are not a statement of the degree of quality.

The following tables provide a brief comparison.

Table 1

|    | (\$ Price                | Floor Area (FA)       | Lot Size (LS)         | Ratio (FA/LS) | Exterior Finish                                 | Accommodation of Automobile                 | Absorption Rate   |
|----|--------------------------|-----------------------|-----------------------|---------------|---|---|---|
| #1 | 83,990<br>(\$5000 grant) | 121.70 m <sup>2</sup> | 385.30 m <sup>2</sup> | 3.17          | brick $\frac{1}{2}$ front and stucco            | in 1<br>out 2<br>str. good                  | excellent-steady<br>-price                                |
| #2 | 88,900                   | 129.14 m <sup>2</sup> | 390.0 m <sup>2</sup>  | 3.02          | brick $\frac{1}{2}$ front                       | in 1<br>out 2<br>str. limited               | steady<br>-design, features                               |
| #3 | 88,900                   | 130.99 m <sup>2</sup> | 289.56 m <sup>2</sup> | 2.21          | brick $\frac{1}{2}$ front                       | in 2<br>out 2<br>str.                       | -   |
| #4 | 89,285<br>(\$5000 grant) | 131.36 m <sup>2</sup> | 467.91 m <sup>2</sup> | 3.56          | brick $\frac{1}{2}$ front and stucco            | in 1<br>out 2<br>str.                       | slow-steady<br>-price, design                             |
| #5 | 90,990                   | 127.28 m <sup>2</sup> | 406.50 m <sup>2</sup> | 3.19          | brick full front                                | in 1<br>out 2<br>str. good                  | slow (late start)<br>-price, features,<br>qual. of design |
| #6 | 91,190                   | 143.44 m <sup>2</sup> | 388.17 m <sup>2</sup> | 2.71          | brick $\frac{1}{2}$ front and stucco, wood trim | in 1<br>out 2<br>str. poor                  | good-steady<br>-model avail.,<br>open concept,<br>price   |
| #7 | 94,450                   | 134.34 m <sup>2</sup> | 427.00 m <sup>2</sup> | 3.18          | brick full front, wood trim                     | in 1 $\frac{1}{2}$<br>out 2<br>str. limited | good-steady<br>-price, options                            |
| #8 | 96,900                   | 139.72 m <sup>2</sup> | 385.23 m <sup>2</sup> | 2.76          | brick $\frac{1}{2}$ front                       | in 1<br>out 2<br>str. good                  | steady<br>-layout   |
| #9 | 96,900<br>(\$5000 grant) | 166.20 m <sup>2</sup> | 472.75 m <sup>2</sup> | 2.84          | brick $\frac{1}{2}$ front                       | in 1<br>out 2<br>str. poor                  | steady-slow<br>-garage recessed,<br>conc. gar. floor      |

Table 1

|     | (\$ Price                | Floor Area (FA)       | Lot Size (LS)         | Ratio (FA/LS) | Exterior Finish            | Accommodation of Automobile            | Absorption Rate   |
|-----|--------------------------|-----------------------|-----------------------|---------------|----------------------------|--|---|
| #10 | 96,900                   | 141.02 m <sup>2</sup> | 482.65 m <sup>2</sup> | 3.42          | brick ½ front              | in 2<br>out 2<br>str. poor             | slow<br>-circ. staircase<br>lg. entrance                  |
| #11 | 98,900<br>(\$5000 grant) | 166.29 m <sup>2</sup> | 382.92 m <sup>2</sup> | 2.30          | brick ½ front              | in 1<br>out 1<br>str. limited          | steady<br>-recessed garage<br>conc. gar. floor            |
| #12 | 98,990                   | 140.65 m <sup>2</sup> | 376.55 m <sup>2</sup> | 2.68          | brick full front           | in 1<br>out 2<br>str. limited-gd       | slow (late start)<br>-price, features,<br>qual. of design |
| #13 | 99,450<br>(\$5000 grant) | 157.93 m <sup>2</sup> | 377.00 m <sup>2</sup> | 2.39          | brick ½ front              | in 1<br>out 2<br>str. good             | steady<br>-sunken fam. room                               |
| #14 | 100,990                  | 190.54 m <sup>2</sup> | 525.52 m <sup>2</sup> | 2.76          | brick ½ front<br>wood trim | in 1 oversize<br>out 2<br>str. limited | good<br>-study  |
| #15 | 105,490                  | 159.32 m <sup>2</sup> | 535.05 m <sup>2</sup> | 3.36          | brick ½ front              | in 1<br>out 2<br>str. poor             | good-steady<br>-family room,<br>features, price           |
| #16 | 107,900<br>(lot premium) | 160.16 m <sup>2</sup> | 845.86 m <sup>2</sup> | 5.28          | brick ½ front              | in 2<br>out 2<br>str. poor             | slow<br>-price, design                                    |
| #17 | 108,990                  | 162.30 m <sup>2</sup> | 493.26 m <sup>2</sup> | 3.04          | brick trim                 | in 2<br>out 2<br>str. poor             | excellent-steady<br>-double garage,<br>design             |
| #18 | 111,400<br>(lot premium) | 168.89 m <sup>2</sup> | 666.56 m <sup>2</sup> | 3.96          | brick ½ front              | in 2<br>out 2<br>str. poor             | slow<br>-staircase,<br>closets                            |

Table 1

|     | (\$) Price               | Floor Area (FA)       | Lot Size (LS)          | Ratio (FA/LS) | Exterior Finish                | Accommodation of Automobile         | Absorption Rate   |
|-----|--------------------------|-----------------------|------------------------|---------------|--------------------------------|-------------------------------------|---|
| #19 | 115,480                  | 161.00 m <sup>2</sup> | 540.48 m <sup>2</sup>  | 3.36          | brick full front               | in 2<br>out 2<br>str. limited       | slow (late start)<br>-price, features,<br>qual. of design |
| #20 | 115,900                  | 164.80 m <sup>2</sup> | 352.96 m <sup>2</sup>  | 2.14          | brick full front,<br>wood trim | in 1<br>out 2<br>str.               |   |
| #21 | 124,400                  | 176.51 m <sup>2</sup> | 464.52 m <sup>2</sup>  | 2.63          | brick ½ front                  | in 2<br>out 2<br>str. limited       | slow<br>-vestibule,<br>family room                        |
| #22 | 126,400                  | 202.52 m <sup>2</sup> | 435.54 m <sup>2</sup>  | 2.15          | brick full front               | in 2<br>out 2<br>str. limited       | excellent-fast<br>-design. options                        |
| #23 | 127,450                  | 200.30 m <sup>2</sup> | 474.96 m <sup>2</sup>  | 2.37          | brick full front,<br>wood trim | in 2 oversize<br>out 2<br>str. poor | excellent-fast<br>-options, lib-<br>rary, features        |
| #24 | 151,400<br>(lot premium) | 229.66 m <sup>2</sup> | 1211.13 m <sup>2</sup> | 2.21          | brick ½ front                  | in 2<br>out 2<br>str. limited       | steady<br>-staircase,<br>options, limited<br>by lot size  |

Table 2

|    | (\$)   | Price          | Kit/Eat<br>Area and<br>Rating   | Liv/Din<br>Area                              | No. of<br>Rooms | No. of<br>Bed-<br>rooms | Construc-<br>tion<br>Detail         | No. of<br>Bath-<br>rooms | Insul.<br>Energy<br>Effic. Heat  | Fireplace<br>Location                             | Extra Features   |
|----|--------|----------------|---------------------------------|--|-----------------|-------------------------|-------------------------------------|--------------------------|--|---|--|
| #1 | 83,990 | (\$5000 grant) | 10.23 m <sup>2</sup><br>med-sm. | 17.25 m <sup>2</sup><br>11.17 m <sup>2</sup> | 8               | 3                       | 8                                   | 1½                       | Std 5  | StD<br>liv. room                                  | Pantry, sunken<br>liv., lg. vestib   |
| #2 | 88,900 |                | 12.95 m <sup>2</sup><br>med.    | 22.54 m <sup>2</sup><br>9.09 m <sup>2</sup>  | 9               | 3                       | 8                                   | 2½                       | Ext. 8   | heatil-<br>ator,<br>raised<br>hearth<br>liv. room | Rec. room +<br>laun. fac. in<br>basement, cer.<br>backsplash, cer.<br>tile to ceil. in<br>bathrm |
| #3 | 88,900 |                | 9.19 m <sup>2</sup><br>sm.      | 14.88 m <sup>2</sup><br>8.36 m <sup>2</sup>  | 10              | 3                       | 6.5<br>allows<br>purchaser<br>input | 2½                       | basement<br>R-8 2'below<br>ceil. R-34<br>no prog.<br>thermos.<br>Std 7 | heat<br>circ.<br>fam. room<br>in<br>basement      | main floor laun.<br>room,<br>french doors,<br>wood handrails                                     |
| #4 | 89,285 | (\$5000 grant) | 8.29 m <sup>2</sup><br>sm-med.  | 19.51 m <sup>2</sup><br>9.08 m <sup>2</sup>  | 10              | 3                       | 8                                   | 2½                       | Std 5  | StD<br>quarry<br>tile<br>hearth<br>liv. room      | den, greenhouse<br>window, cer.<br>tile full ht.<br>in bathroom                                  |
| #5 | 90,990 |                | 11.91 m <sup>2</sup><br>med.    | 15.84 m <sup>2</sup><br>7.43 m <sup>2</sup>  | 10              | 4                       | 8                                   | 1½                       | R-8 base.<br>& 4 mil<br>V.B. other-<br>wise Std 4                      | StD<br>quarry<br>tile<br>hearth<br>liv. room      | qual. brass<br>hardware, sky-<br>light, sm.<br>vestib.,<br>cer. tile full<br>ht. in bathroom     |

Table 2

|     | (\$)                     | Price | Kit/Eat<br>Area and<br>Rating | Liv/Din<br>Area                              | No, of<br>Rooms | No. of<br>Bed-<br>rooms | Construc-<br>tion<br>Detail        | No. of<br>Bath-<br>rooms | Insul.<br>Energy<br>Effic. Heat  | Fireplace<br>Location      | Extra Features   |
|-----|--------------------------|-------|-------------------------------|--|-----------------|-------------------------|------------------------------------|--------------------------|--|----------------------------|--|
| #6  | 91,190                   |       | 12.59 m <sup>2</sup><br>lg.   | 18.29 m <sup>2</sup><br>11.32 m <sup>2</sup> | 10              | 3                       | 7                                  | 2                        | base. R-8,<br>therm.<br>caulk., no<br>vestib.<br>or prog.<br>thermos.<br>4 | StD<br>liv. room           | main floor<br>laun. room,<br>oak handrails,<br>conc. gar.<br>floor             |
| #7  | 94,450                   |       | 12.93 m <sup>2</sup><br>lg.   | 18.39 m <sup>2</sup><br>10.55 m <sup>2</sup> | 10              | 3                       | 8.5<br>allow<br>purchaser<br>input | 2½                       | StD<br><br>5   | StD<br>Marble<br>liv. room | laun. fac.<br>main floor, oak<br>handrails, cer.<br>tile to<br>ceiling in bath |
| #8  | 96,900                   |       | 18.02 m <sup>2</sup><br>lg.   | 18.05 m <sup>2</sup><br>11.47 m <sup>2</sup> | 10              | 3                       | 8                                  | 2½                       | Ext.<br><br>8  | StD<br>Liv. room           | Kit. cer.<br>backsplash,<br>cer. tile to<br>ceiling in<br>bathroom             |
| #9  | 96,900<br>(\$5000 grant) |       | 16.98 m <sup>2</sup><br>med.  | 18.40 m <sup>2</sup><br>11.55 m <sup>2</sup> | 11              | 3                       | 6.5                                | 1½                       | basement<br>R-8 2' below<br>StD<br>4                                       |                            | cedardeck, wood<br>stove, skylight<br>200 amp. SVC,<br>fam. room               |
| #10 | 96,900                   |       | 23.17 m <sup>2</sup><br>med.  | 20.78 m <sup>2</sup>                         | 11              | 3                       | 6.5                                | 2                        | walls R-15<br>roof R-34<br>base. R-8<br>4                                  | StD<br>fam. room           | oak railings,<br>ceramic tile<br>in vestib.                                    |
| #11 | 98,900<br>(\$5000 grant) |       | 11.42 m <sup>2</sup><br>med.  | 18.05 m <sup>2</sup><br>11.42 m <sup>2</sup> | 10              | 4                       | 6.5                                | 1½                       | base. R-8<br>no prog.<br>thermostat<br>StD 4                               |                            | gas furnace, oak<br>handrails, 200<br>amp. SVC                                 |

Table 2

|     | (\$)                     | Price | Kit/Eat<br>Area and<br>Rating | Liv/Din<br>Area                              | No. of<br>Rooms | No. of<br>Bed-<br>rooms | Construc-<br>tion<br>Detail | No. of<br>Bath-<br>rooms | Insul.<br>Energy<br>Effic. Heat                         | Fireplace<br>Location                                    | Extra Features  |
|-----|--------------------------|-------|-------------------------------|--|-----------------|-------------------------|-----------------------------|--------------------------|---|--|---|
| #12 | 98,990                   |       | 11.31 m <sup>2</sup><br>med.  | 15.33 m <sup>2</sup><br>8.36 m <sup>2</sup>  | 10              | 3                       | 8                           | 2½                       | base. R-8<br>VB 4 mil no<br>prog. ther.<br>StD<br>4     | StD, ½<br>brick<br>mantle<br>tile<br>hearth<br>fam. room | qual. brass<br>hardware, lg.<br>vestib., laun.<br>rm. main floor,<br>cold stor.<br>area |
| #13 | 99,450<br>(\$5000 grant) |       | 11.65 m <sup>2</sup><br>med.  | 18.82 m <sup>2</sup><br>14.76 m <sup>2</sup> | 11              | 3                       | 8                           | 2½                       | StD<br>5  | StD<br>fam. room   | lg. vestib.,<br>sunken tub,<br>oak handrails,<br>sunken liv./fam.                       |
| #14 | 100,990                  |       | 16.27 m <sup>2</sup><br>lg.   | 14.41 m <sup>2</sup><br>10.60 m <sup>2</sup> | 14              | 4                       | 7                           | 2½                       | base. R-8<br>2'below<br>StD<br>4                        | wood<br>burn.<br>insert,<br>quarry<br>tile<br>hearth     | qual. hardware,<br>sun. fam. room,<br>study, oak<br>handrails,<br>vestib., mudd<br>room |
| #15 | 105,490                  |       | 13.07 m <sup>2</sup><br>med.  | 16.42 m <sup>2</sup><br>10.22 m <sup>2</sup> | 11              | 3                       | 7                           | 2½                       | base. R-8<br>2'below<br>no prog.<br>thermostat<br>StD 4 | wood<br>burning<br>fam. room                             | hi. roof in fam.<br>room, laundry<br>area main floor,<br>oak handrails                  |
| #16 | 107,900                  |       | 13.93 m <sup>2</sup><br>med.  | 13.44 m <sup>2</sup><br>10.22 m <sup>2</sup> | 12              | 3                       | 6.5                         | 2½                       | walls R-15<br>roof R-34<br>base. R-8<br>2'below<br>4    | StD<br>fam. room   | main floor laun-<br>dry, oak rail.,<br>cer. floor tile<br>in entry                      |

Table 2

|     | (\$) Price | Kit/Eat Area and Rating      | Liv/Din Area                                 | No. of Rooms | No. of Bedrooms | Construction Detail | No. of Bathrooms | Insul. Energy Effic. Heat  | Fireplace Location                                       | Extra Features   |
|-----|------------|------------------------------|--|--------------|-----------------|---------------------|------------------|--|--|--|
| #17 | 108,990    | 15.34 m <sup>2</sup><br>lg.  | 13.94 m <sup>2</sup><br>12.55 m <sup>2</sup> | 12           | 4               | 7                   | 2½               | ceiling. R-34<br>base. R-8<br>2' below,<br>STD 4                                   | heat<br>circ.<br>fam. room                               | qual. hardware,<br>sun. fam. & liv.<br>room, oak rail.   |
| #18 | 111,400    | 13.43 m <sup>2</sup><br>med. | 24.75 m <sup>2</sup><br>9.30 m <sup>2</sup>  | 11           | 3               | 8                   | 2½               | Ext.<br><br>8  | heatil-<br>ator,<br>liv. room                            | cer. tile to<br>ceiling, curv.<br>staircase, cath.<br>ceiling, cer.<br>kit. back splash,<br>pantry, lg.<br>vestib. fr. DRS |
| #19 | 115,480    | 11.28 m <sup>2</sup><br>lg.  | 15.81 m <sup>2</sup><br>10.22 m <sup>2</sup> | 11           | 3               | 8                   | 2½               | base. R-8<br>2' below<br>VB 4 mil.<br>no prog.<br>thermos.<br>4                    | StD<br>tile<br>hearth,<br>½ brick<br>mantle<br>fam. room | lg. vestib.,<br>curv. stair-<br>case, laun. room<br>main floor,<br>qual. hardware  |
| #20 | 115,900    | 15.12 m <sup>2</sup><br>med. | 16.08 m <sup>2</sup><br>12.93 m <sup>2</sup> | 11           | 3               | 8                   | 2½               | StD + base.<br>9.9 2', ext<br>walls R21.9<br>attic R34.2<br>ext. fl.<br>R26.9<br>7 | heat<br>circ.<br>wood<br>burning<br>fam. room            | huge pantry,<br>mudd room, main<br>floor laundry<br>sunken fam. room   |
| #21 | 124,400    | 13.77 m <sup>2</sup><br>med. | 17.35 m <sup>2</sup><br>10.25 m <sup>2</sup> | 12           | 4               | 8                   | 2½               | Ext.<br>ceiling. R-40<br>air return<br>furnace<br>8                                | heat<br>circ.<br>fam. room                               | main floor laun-<br>dry room,<br>vestib., options  |

Table 2

|     | (\$)    | Price | Kit/Eat<br>Area and<br>Rating   | Liv/Din<br>Area                              | No. of<br>Rooms | No. of<br>Bed-<br>rooms | Construc-<br>tion<br>Detail        | No. of<br>Bath-<br>rooms | Insul.<br>Energy<br>Effic. Heat                          | Fireplace<br>Location                         | Extra Features  |
|-----|---------|-------|---------------------------------|--|-----------------|-------------------------|------------------------------------|--------------------------|--|---|---|
| #22 | 126,400 |       | 18.42 m <sup>2</sup><br>med.    | 17.87 m <sup>2</sup><br>11.22 m <sup>2</sup> | 13              | 4                       | 8                                  | 2½                       | Ext.<br>ceiling, R-40<br>heat pump +<br>elec. furn.<br>8 | heat<br>circ.<br>fam. room                    | cer. tile to<br>ceiling, lg.<br>vestib., laun.<br>room main floor,<br>oak handrails                         |
| #23 | 127,400 |       | 13.35 m <sup>2</sup><br>med-lg. | 15.31 m <sup>2</sup><br>10.22 m <sup>2</sup> | 12              | 3                       | 8.5<br>allow<br>purchaser<br>input | 2½                       | Std  | wood<br>burn.<br>marble<br>hearth &<br>facade | pantry, cer.<br>tile to ceiling.<br>sun. liv., oak<br>handrail, fam.<br>room                                |
| #24 | 151,400 |       | 21.56 m <sup>2</sup><br>lg.     | 18.97 m <sup>2</sup><br>16.31 m <sup>2</sup> | 13              | 4                       | 8                                  | 2½                       | Ext.<br>ceiling, R-40<br>return air<br>furnace<br>8      | heat<br>circ.<br>fam.<br>room                 | lg. vestib.,<br>cer. tile to<br>ceiling, main<br>floor laun.<br>room, sun.<br>liv. room, curv.<br>staircase |

A. Selling Price

In 1965, the average price of a Canadian house was approximately \$16 000; by 1975, it was \$47 000; by 1980, \$67 000; and by 1982, \$72 400. This increase outstrips increases in real income and reduces the ownership ability of many people. This has had a large limiting factor on low and middle income families, who do not already own a house. In the 70's some builders provided a basic dwelling, however the market did not respond. This may be attributed to the "growing dominance of upper income households" (Kaynak and Stevenson, 1981:43). However, it is the smaller, less expensive house which can provide ownership for those who do not want a great deal of space, or those who are willing to trade-off space for ownership status.

Although selling price is no more an objective indicator of quality than any other scale of value, it does reflect the nature of housing production in Canada today. Housing is produced as a commodity for sale on the market and as such, should be available to everyone. As a consumer product, therefore, the relationship of cost and quality reflect inherent systemic weakness of the consumer market place. Of these weaknesses, availability, affordability, knowledge of the market place, and the ability of the consumer to evaluate his housing needs, have implications for the expression of the cost/quality relationship on the housing market. If one of the expectations we hold about competition is that it "fine tunes" the relationship of selling price and quality, these

weaknesses reduce the effectiveness of the consumer's buying power. As we have seen in the past few years, the consumer market is the persuasive base of our social and economic life and we may expect that the consumer coming to the housing market will have a fairly well developed understanding of at least the basic cost/quality relationship. This level of sophistication should allow broad patterns of that relationship to be observable.

We have a limited sample size from the Orleans Gardens site, even so, selling price reflects a varied market and the changes which occur within this middle range market. The reasonable rates provided by CMHC were meant to encourage the builders to make housing affordable. The presumption is that there is a limited number of consumers who can afford a particular selling price in the housing market at any one time. A range of selling prices are therefore available because the producers of housing would wish to avoid competing for this limited demand and would, subsequently seek to produce a housing unit at a selling price where production competition was weakest. This model of limited demand (Archer, 1978:52) also presumes that the consumer will buy as much quality as he can afford.

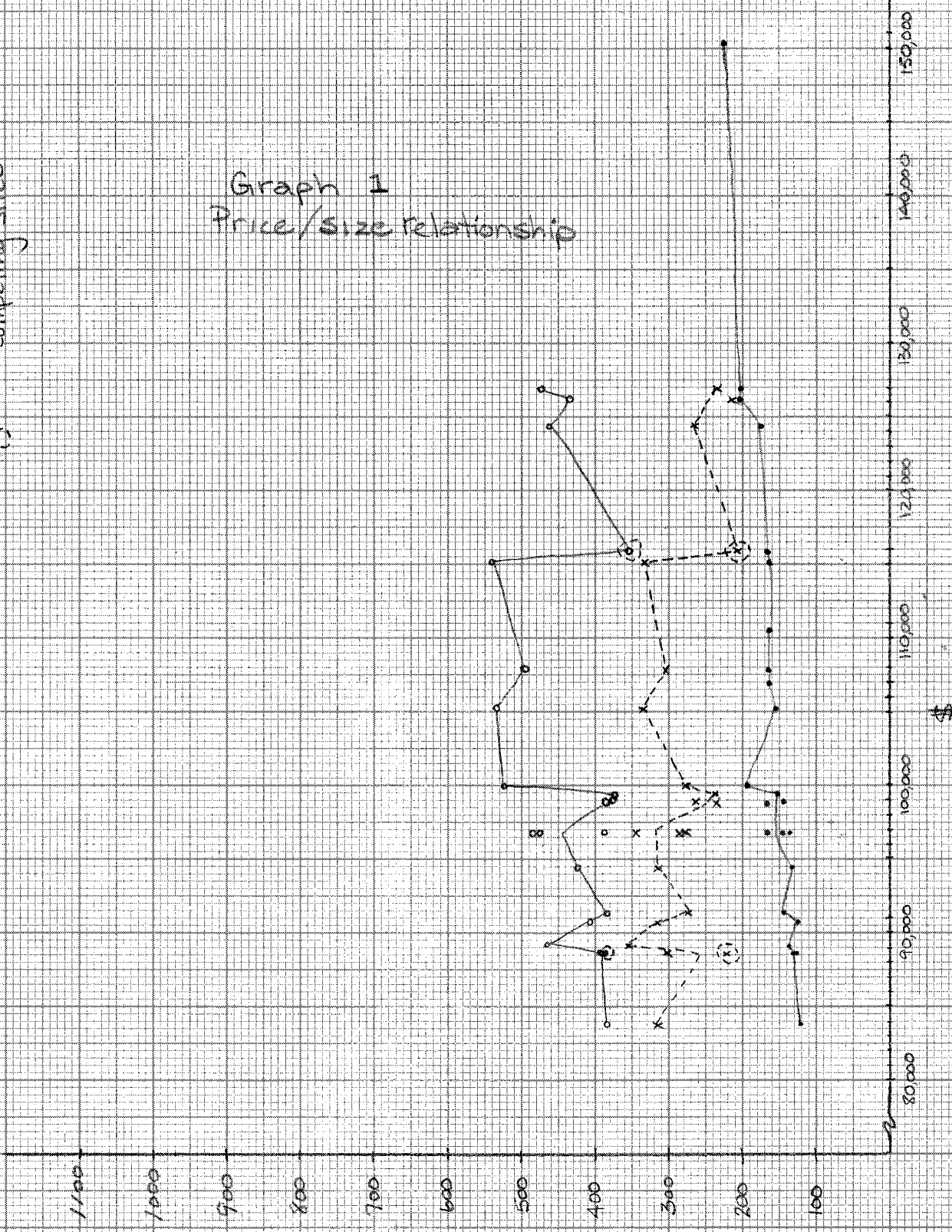
Within our sample population the \$100,000 mark cluster is a reflection of 1) the type of buyer, and 2) the economic/financial dividing line. See Graph 1. ~~Referring to this \$100 000 mark on the graph we see evidence of less stability. This may be a reflection of 1) the type of buyer, and 2) the economic/financial dividing line.~~

Ratio  
Lot Size  
Floor Area  
Competing sites

#16, 18, 21 + detailed due to lot premiums

Graph 1  
Price/size relationship

x o ( )



M2



The most frequently mentioned attribute of the purchaser was that they were nearly always the second home buyer, and indeed many of the builders were aiming for this population. These families have reached the middle stages of the lifecycle and desire a home which will accommodate this stage. They know what they are looking for, demand nothing less and are willing to pay for it. Some convincing arguments have led to the thought that ".... housing choices are powerfully conditioned by the marital status and ages of the household heads, the presence of children in the household, and the age of the youngest child" (McCarthy for Boag & Sarkar 1983:2). Changes in residence then follow the "traditional" sequence of family stages as expressed by the life cycle premise, see Definitions, Appendix C. At the same time, accompanying changes in the family unit's financial situation plays an important role and this is the second variable influencing the \$100 000 mark.

The second-time home buyer is prepared to pay more for a dwelling and at the same time has the ability to do so. The equity which has been built up in the first dwelling may afford the consumer flexibility in purchasing the next home. Then too the life cycle premise gives credence to the thought that at a certain stage a family is financially more stable, due to household head job tenure, and the future income is perceived as being more secure, in order to meet operating costs.

There is some speculation regarding threshold in the quality expectations which occur in the housing market. In this study the author found that

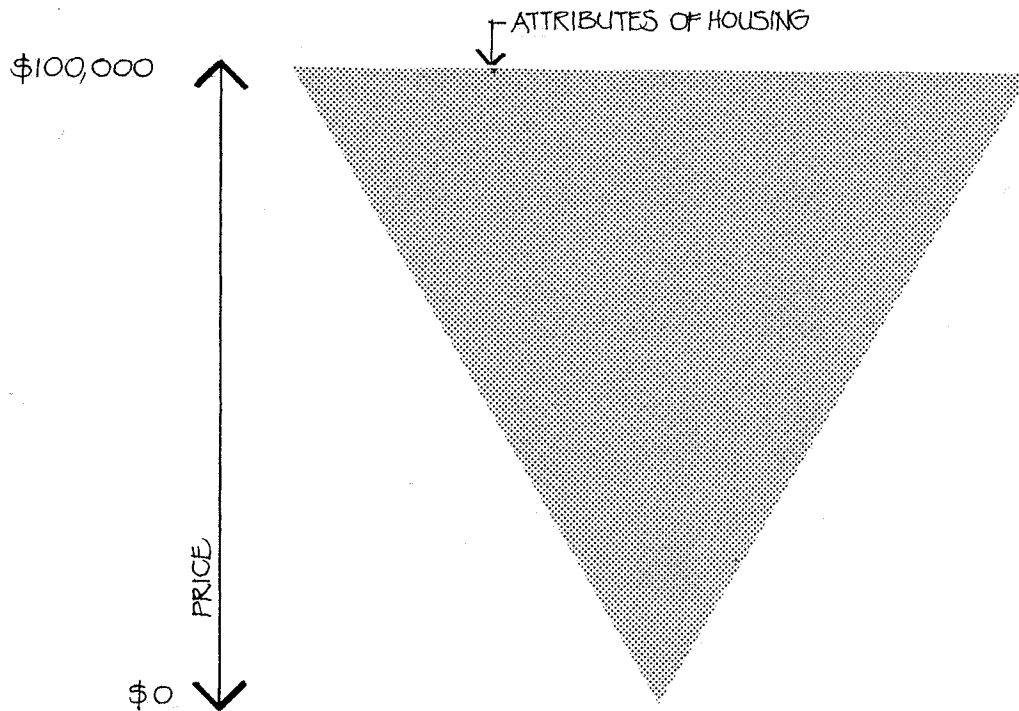


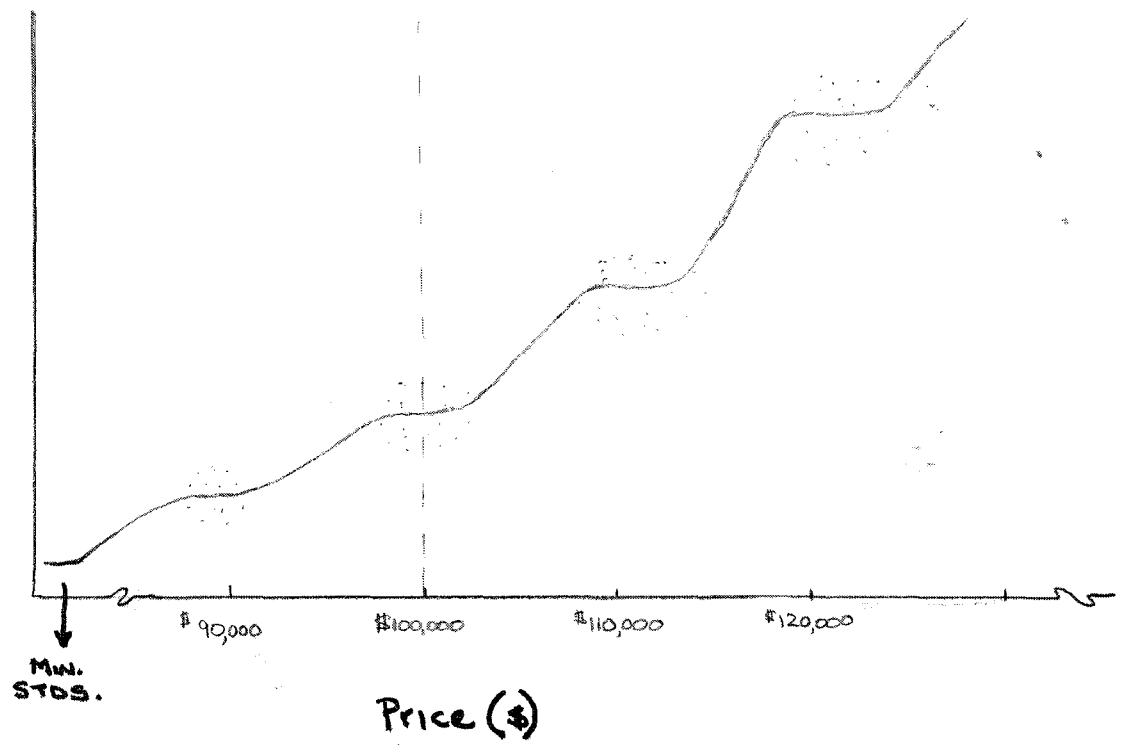
Diagram 1

(Johnston, 1982:5)

the relationship between cost and quality is not consistent. The bundles of attributes, which makeup the quality of a house, are affected by the pricing mechanisms. The following simple diagram illustrates the assumed relationship between quality and price. From this then we assume that as price is reduced, so is quality in terms of structural durability, appearance of a house and activity attributes. However, at any price the quality of housing may be good or bad depending on the trade-offs made regarding which attributes to include or omit. At each price range a choice of attributes is available, some are necessary to provide for comfort and convenience in the day-to-day activities of the occupants, others have more specialized functions. Therefore, selling price may be influenced by and influence many factors in a dwelling unit.

As the discussions noted for the Orleans Gardens site there is an interesting change in attributes and space at the \$100 000 mark. At each price range there are a cluster of attributes to choose from. It is interesting to note this on the simple graph (#2) below and in the attribute tables (Pg. 77). From \$90 000 to \$100 000 range the attributes and space actually vary very little, some of the attribute options worthy of note are fireplace + extra  $\frac{1}{2}$  bathroom. There is an increase in attributes and space at the \$100 000 to \$110 000 range, for example a vestibule and main floor family room and laundry area. At each new price range there are different clusters of attributes and more space for the consumer to choose from, for example the special function room such as a library.

Attributes  
+  
Space



attribute  
Graph 2 - 'Competition Clusters'

The author suggests that since the Orleans Gardens site consists of many moving-up buyers, from small garden homes, the demand for the smaller less expensive home is appropriate. The consumer desires homeownership however they may have limited equity and so be limited in the attributes they can choose, the \$100 000 mark represents a limit. Then too, with the variety of builders, some are providing homes for the second time home buyer who is demanding a higher standard of attributes and use of space, this explains the increase after the \$100 000 mark. There is a point which may, however, be specific to this site where 1) the attribute of space does not increase with the dollar and 2) there is a limited market for higher priced dwelling units.

B - Lot Size

In general when establishing selling price we tend to expect the cost of land to be the largest single variable. We also know that the single-family detached dwelling is the lowest density, highest consumption form of housing. Those people buying units are concerned with the size of the lot, its configuration, the placement of the house on the lot, and landscaping. The first three factors are most often controlled by zoning and building regulations as established by the municipal planning agencies, and builder discretion. CMHC is a third actor influencing lot size at the Orleans Gardens site.

Studies which have been done tend to state "As a consequence of municipal planning practices which do not encourage the development of sub-divisions with low cost lot characteristics (small lot size = low cost), prices for these houses have been unnecessarily inflated" (Boag & Sarkar, 1983:41). However, at the Orleans Gardens site 32 ft. lots were established. The builders have reported mixed reactions by consumers. The builders feel that the small lots are harder to market because the house designs are limited by the size of house which can be placed on the lot. Side yard zoning seems to be the most limiting factor.

Homeownership, of itself, requires a demarcation of territory, most frequently with the use of fences and hedges, this occurs no matter how small the space. The consumer prefers the larger lot, however, at a

given price a trade off is necessary. This is acceptable if other attributes are available and perceived as being able to meet the consumers needs. These attributes will be discussed further on an individual basis.

At this site our sample shows that as price increases the house size increases, however, the lot size does not increase at a comparable rate. The ratio of lot size to floor area remains relatively low and stable. The author suggests that there are two factors at work here.

The market preference for homeownership has been backlogged in the Ottawa area during the recent recession. Many studies (for example, Boag & Sarkar, Isadpanah + Var) pronounce ownership to be the most important attribute, with space the next priority. We can hypothesis then for the Orleans Gardens site that the small lots (32 ft.) are selling because of 1) the desire for home ownership and 2) the homes being provided have other attributes of sufficient quality and quantity so that the consumer is willing to trade-off lot space in order to achieve this desire.

The ratio factor, provided in the attribute tables, indicates by its stability that the privacy factor (outdoor space between units) is less important in todays market than homeownership. There is an indication that the actual size of the lot is less important than the feeling of privacy which is generated by the available space. Perception of privacy results from the shape and placement of the house on the lot vis-à-vis

the street and neighbours. The street itself plays a role in the level of privacy in terms of noise and traffic. This will be discussed further within the activity attributes.

The second factor relating lot size to price are the terms at which CMHC is offering the land to the builders. The servicing costs are incurred by the Corporation and local government, so that the individual builders have minimal costs, in that respect. The average of \$570 per front foot allows them to keep land costs low, and the financial terms allow them flexibility within their construction costs. We can speculate then that minimizing lot size keeps house prices affordable while maximizing the land available for the single family dwelling. We conclude that lot size or exterior space is traded-off for floor area or interior space at a given price.



## C - Structural Quality

Building standards are dictated to a large extent by government agencies, they do not ensure success but they do reduce the risk of disaster to the builder and consumer. The standards establish a minimum level of performance in terms of building methods, building materials, and internal operating systems. It is the architect and builder who must make a number of trade-offs among the resources at their disposal in order to produce a particular dwelling unit. The discussion will encompass attributes influencing durability of construction, site preparation and the design of the units.

Durability implies safety and soundness, both of the building and its context. For the consumer quality has to be evaluated from the specifications provided by the builder, or by observing the product during construction stages and models which are already built. This was done for the attribute comparison tables. Second, the suitability of materials, and the way in which they are designed to be assembled is important to durability. The third factor affecting durability is the quality of installation. Builders have their own site construction managers to ensure proper installation, by subcontractors. Improper installation can create many expensive problems in the future for the homeowner, and an example of this could be rotten wood from moisture entering under the siding on the exterior walls.

Site considerations are also important to ensure durability. Proper grading, drainage, servicing and landscaping is necessary to avoid problems in the future. The design of exterior space can be just as important as the design of interior space. At Orleans Gardens much consideration has been given to the design of the berm, fence and hedge which will act as a sound barrier. The clay soil has required proper drainage design. These factors may be very important to the satisfaction of the consumer.

Some researchers contend<sup>d</sup> that builders do not perceive structural quality to be a prime criterion for most home buyers. In Izadpanah and Var's (1979) study structural quality was ranked 8th out of 14 criteria by both expert and consumer. The author, through discussion with the builders at the Orleans Gardens site found that they are very cognizant of building quality, as defined here. However, when questioned how they would reduce price and yet not affect consumption, there was general indication that it would be through construction methods, or materials quality, not construction quality, but other things that couldn't be seen. For example 2 x 4 studs 24" OC rather than 16" OC, cheaper windows (sliding vs wood casement), no concrete garage floor, and less expensive carpet and flooring options. All of the builders at the Orleans Gardens site are HUDAC members and as such are expected to maintain certain professional standards.

The consumer also makes trade-offs when choosing a home, each individual has their own ideas regarding the attribute bundle and quality of housing. Each unit must provide a minimum level within the construction standards and provide for the consumers needs as they perceive them. Choices will depend upon what these unique preferences, as expressed by the individual add to the total cost of the house, thereby making a particular house type or attribute bundle of affordable.

### C.1 Floor Area/Space

The design of interior space is very important however, consumers may not want space per se; they want rooms large enough to accommodate the necessary furniture for appropriate activities. This depends on the size of the family and their income status, priorities are for leisure space, household chores, cooking and eating rather than sleeping. Therefore, we see importance placed on appropriate groupings and design of rooms in terms of purpose and need. The flow of traffic patterns have to be examined in an attempt to minimize disturbing activities such as sleep (quiet), work or social activities.

In the 1978 study done on Mill Woods (Archer) an inversion of the internal zoning of the unit was noted. In these single family dwellings at Orleans Gardens we can support this idea. At the 121.0 m<sup>2</sup> mark the kitchen/eating area is in the front of the unit with the living and dining areas at the rear. As floor area, lot size and price increase this is reversed. One reason is that the frontage of the low end units, 121.0 m<sup>2</sup>, is small, an average of 10 m. Therefore, the space demanded by an entry limits the width of the living room, making it unacceptably long and narrow. This also has implications for the placement of the garage, this will be discussed within the accommodation of automobile attribute.

Some demographic changes occurring within the population may have important implications. Two of these which have an influence on the need for space are 1) the increase in dual-career families, and 2) the decrease in the size of the average family. Activity spaces and room groupings are becoming more and more important as lifestyles change. The working woman is demanding space which allows interaction with the family. Features such as main floor family and laundry rooms reflect this.

The consumer is no longer looking for the basement family room, less formal spaces which allow interaction are taking precedence. The number of bedrooms are less important than previous because of the smaller families. The samples indicate that the fourth bedroom is often dropped in favour of the walk-in closet and ensuite, or the 'study'.

Interestingly a priority which seems to transpire floor area and price range is the minimum of 1½ bathrooms. The consumer simply will not trade-off that extra bathroom and will add extras as soon as space permits. The author surmises that this is a product of our North American societies emphasis on comfort and convenience.

The floor area varies a great deal at the Orleans Gardens site, within our sample population it is 121.70 m<sup>2</sup> to 229.66 m<sup>2</sup>. It would seem that the amount of floor area required to produce a marketable three or four bedroom house varies considerably. Good design with maximum use of

space and appropriate room grouping is important at the low end even more than the high end of the price range. As we move up the price scale floor area increases but rather than having larger rooms extra rooms are added. Typically, at the low end, the eating area is combined with the kitchen or living areas. As you move up to the higher end there are specialty rooms such as library, laundry room or family room.

The trade-offs in floor area occurring at the Orleans Gardens site lend support to previous studies which place homeownership as the most important priority with 121.70 m<sup>2</sup> or greater of space/floor area. With this minimum amount of space the occupant is able to organize the use of the rooms in order to meet his needs. The success of sales of the smaller houses indicates that consumers are willing to trade floor area for ownership as long as there are some features of the larger house such as extra bathroom, main floor laundry room and fireplace.



## C.2 Energy Efficiency/Insulation

It is important that consideration be given to sound insulation and energy efficiency practices when a unit is being constructed. The consumer expects the initial costs will produce savings in the long term providing the work is done correctly at the outset. The past energy crisis created a transient awareness in many people regarding the necessity for energy efficiency. In today's market there are several builders who are providing the energy efficient envelope in their homes. The consumer however, has adjusted to energy costs and is less worried in general about obtaining an energy efficient package. They are satisfied with the structure as long as it is of good quality and the insulation meets standards set by government agencies.

The price range has only a small effect upon this attribute. Within the Orleans site and the two outside sites, the author has chosen to include, minimum standards are regulated by government. A few of the builders provide different insulation and energy efficient features in the house packages, the differences appear mostly between builder rather than dwelling unit. Some of the units are at the minimum standard or just above, others have an extra energy efficient envelope. Appendix C gives a detailed definition of these standards and how they are utilized in the attribute tables. The sale of these units indicates 3 factors which may influence the consumer regarding energy efficiency. 1) The smaller homes may not be viewed as being the last home the family will

buy, and for the present the design meets the families needs and the selling price meets their financial capacity. 2) People are not as worried about energy costs, therefore when a trade-off or concession must be made between a more energy efficient unit or a larger unit the later wins. 3) The consumer who is educated regarding energy efficiency includes it as an attribute of value worthy of the extra cost.

### C.3 Flexibility

An important characteristic inherent in the man/environment relationship is the constant changes which are being undergone. This in turn affects the housing needs of the consumers. These needs are expressions of the range of individual idiosyncracies, economic situations, health changes, the climatic variations, and stages of the life cycle. An important quality of the dwelling unit then is its responsiveness to the dynamics of these changes, its flexibility in adapting, and capacity to adapt to changing needs.

The Orleans Gardens development was evaluated for flexibility as indicated by plan adaptability, ambiguous space, and potential for expansion. These broad criteria were seen as representing the perception of flexibility as a quality from the point of view of the occupant - i.e. a convenient environment; a quality provision made by the builders, and quality from the longterm perspective of CMHC.

Ambiguity refers to the undefined function of space pertaining to the spatial organization of the interior dwelling plan. Its presence allows an occupant to take a space and put it to uses which represent his/her solution to housing needs. A good example of this would be sample #7. Two spaces are provided in proximity to the kitchen, the occupants may choose to use these areas in various ways as different stages in the life cycle are reached. They may retain one area for formal dining, and

and the other for informal. In unit #7 there is no family room, therefore it would follow that the family could use one area for meals and the other for family activities.

Similar dynamic qualities may exist in other areas of the unit plans. An important factor affecting the capacity of the dwelling plan to provide a degree of adaptability is the total amount of space available. Larger rooms allow the occupant the opportunity to furnish a space and organize it according to his/her needs. A larger number of rooms allow the occupant to use one room according to particular needs such as children's play, sewing, television watching or study, which change over time. Some builders are able to compensate for less space by providing these adaptable spaces. Sample unit #4 has a den which could be used as an extension of the eating area, a formal dining area (leaving the dining room open for other uses), or a family activity area. The larger units, such as #14 provide many more areas which are adaptable. In this model there is the family room, a study and 4 bedrooms. There is ample room for a variety of activities and to provide for accommodation of guests.

The second factor is ambiguous space or the amount of area which is as yet undeveloped. Typically this type of space is found in the basement and attic. The natural light and ventilation provided affected the basement rating given each sample unit.



The builders at the Orleans Gardens site viewed the basement differently. For those with smaller units they saw the basement as the only means of expansion. In the larger units it was undeveloped space that could be used as the consumers needs dictated. In every case the basement was unfinished. Most of the models have 2-3 windows and several builders take future use into account when locating the furnace

and rough-ins. Important to enhancing the potential additional living area which this second factor represents, is the relationship of this undeveloped space to the rest of the dwelling in terms of access. This study indicates that fewer people are opting for the basement family room, no matter how accessible it appears. This is related to the demographic changes which were discussed in the floor area/space attribute earlier.

The third factor in this quality attribute discussion is the opportunity the unit provides for expansion and change by means of exterior additions. This type of flexibility often involves a major investment in terms of time, energy and dollars on the part of the occupant. None of the builders have allowed for more than cursory expansion, such as a greenhouse. The explanation was that the small lots tend to make this form of expansion difficult. In models, such as #2, 7, 8, 18 and 24 expansion potential would be over the garage only. Lack of potential for expansion of the units reflects two ideas. 1) The smaller units are not necessarily viewed as the permanent or last home that the consumer will buy. 2) The builders feel the larger models should meet all the needs of those who are purchasing them. The potential for exterior flexibility has implications then, for the ability of the housing unit to respond to the needs of the occupant, and to its value as a piece of housing stock over the long term.

Flexibility has important economic implications for occupants who place high value on the equity of the home. There exists the possibility that an addition to an existing dwelling through the contribution of one's own labour represents the least expensive means by which an increase in living space can be achieved. On the market place, a dwelling with that extra room may represent an incremental step in selling price that would otherwise be beyond the resources of the occupant.

An overall view of this development indicates that there is a decrease in flexibility as selling price decreases. This is directly related to the amount of floor space provided in the unit, and this in turn influences the two other factors. Development of the basement space is more important at the lower floor area, lower selling price, with the provision for light and ventilation being the deciding factor.

Similarly another element affecting flexibility is the design of circulation space. Various active and passive uses may be accommodated and degrees of privacy achieved for family members involved in different activities if the circulation system allows for it. Good design is, therefore, very important at any price range or floor area.

D - Appearance and Image

These attributes will encompass the aesthetic and symbolic aspects of a dwelling unit. The visual impression, appearance/aesthetics, include consideration of proportion and harmony which are universal and enduring as well as considerations of taste and fashion which are temporary and subjective. The large projects which stifle individual expression and do not provide a desirable collective image are prone to premature degeneration - emotional and physical.

The resolution of consumer needs must take place within a cost framework. At a given price the trade-off requires a choice of the most suitable and desirable balance between functional aspects, durability, and symbolic or aesthetic aspects. Many people continue to buy a home due to the image it implies rather than the quality of construction.

Curb appeal, accommodation of automobile and a variety of features compose this bundle of attributes.

D.1 Curb Appeal/Absorption Rate

The inclusion of this variable was meant to provide an indicator of how the consumer influences housing production. This is one aspect of housing quality which can not meet the professionally defined "objective" criteria, but which can be very important to the occupant's perception of the quality of his housing. This is particularly the case in the psychological association an individual may have acquired in the past, and also the symbolic attributes which are represented in the house as cultural artifact. The very image a house projects as it is approached may be the deciding factor in a sale.

These attributes reflect the rapidity in which the typical unit was sold on the market. The rating for curb appeal/absorption rate was derived from discussion with plus the impressions expressed by the salespeople at the Orleans site. Absorption rate was seen as an indicator of the quality of a unit as a consumer product, and the features were identified which enhanced its appeal. This rating has an inherent weakness in that it may reflect a market condition, for example selling price and availability may take priority over expectations at a low price level.

The external features which attract attention are the brick, siding, glass or wood which is used in the finishing phases of construction. In this development the consumer has chosen the full or  $\frac{1}{2}$  front elevation

of brick. Vinyl or aluminum siding cover the other walls but brick tends to project the impression of quality. Wood trim and doors are selectively offered by the builders due to cost constraints.

Some builders indicate that there is a trend in the desirability of a roof line and facade. Trends in the styling of dwelling units have been common for many years.





Windows also play a part in curb appeal. Proper placement and styling of a window can influence the overall impression it projects. The placement of a window to allow for increased sunlight and ventilation is one factor. The style of a window for example the bay window influences popularity. Special windows such as the skylight and greenhouse window are attractive features. Sample units #9 and #4 take advantage of these to provide increased lighting and character to the dwelling. This can be particularly important at the lower price ranges because windows can also enhance the perception of space.



Internal features which influence appeal are the fireplace, curving staircase, vestibule, number and size of closet or cupboard spaces and number and size of rooms. The latter variable will be dealt with more in depth shortly. All of these attributes influence the perception of convenience and comfort of a unit. The fireplace has become almost a standard feature of the new dwelling, there is a huge variety of styles which are accepted by the consumer.



The vestibule has become more than an energy efficient measure, the french door leading into the interior of the house appeals to the consumer. The curving staircase that units #10 and #19 provide also have their appeal.



Cupboard and closet space is very important, primarily for convenience. The final decisions made by a purchaser may hinge on the balance of these features, how they are perceived and how they fulfill the needs of the purchaser.

At Orleans Gardens each builder provides their own variation or package of these attributes. Personal choice is a very important factor in the decisions which are made.

## D.2 Accommodation of Automobile

The increased emphasis on mobility in our society requires that this attribute be included in the study sample. Also, the handling of the automobile was found to be a critical factor in site planning, marketability, and the curb appeal of the site.

In our sample of single family detached units each as its own private provisions for the automobile. These are the garage, the driveway and the amount of street parking available. In all of these units a garage is provided, ranging from a single, an oversized single or a double. The driveway increases appreciably with the garage. These increases can be related to increased selling price, at least for this particular site.

The situation of the garage, whether it is recessed into or projecting from the unit, has an influence on the visual perception of the unit. It is evident however, that the consumer perceives the garage as an integral part of the dwelling unit, and is not willing to make any trade-offs.



### D.3 Room Features

The size and number of rooms vary with floor space, and therefore with selling price. Inherent to this attribute is the ~~the~~ design of the interior space and room groupings. As floor area declines room sizes decline and closet space is lost. Architects try to group rooms together to provide for effective functioning of the consumers environment, such as food preparation and eating area. The consumer has traded room space in the Orleans Gardens site if two other attribute bundles are available.

The first encompasses the successful grouping of rooms. The perception is that there is enough space to provide for a family's needs, utilizing ambiguous space could satisfy this. A good example is the kitchen, eating area and family room grouping. Less emphasis is placed on the sleeping areas at the low end of the price range.

The second attribute bundle which influences satisfaction is the type of rooms available, in particular the family room, the laundry room and the bathrooms. The family room has been raised out of the basement and is firmly ensconced on the main floor. Family interaction revolving around the family room has increased and this area has become very important. The importance of these impacts upon purchaser choice, will vary with the stage of the family life cycle.

The main floor laundry room stands out as being an attractive feature. The provision of adequate space for this function has implications for the convenience and comfort of the residents.

The number of bathrooms is an interesting attribute. As soon as space permits an extra half or full bathroom is added, there is no unit with less than 1 and  $\frac{1}{2}$  bathrooms. Consumers are not willing to trade this off.



E - Activity

Three attributes compose the activity bundle, these are site planning, the provision of communal usable spaces and the development of a community network; secondly, the community facilities which are provided, such as public transit and schools; and third, the quality of the landscaping of the site. All of these attributes were considered to play an important role in creating the potential for good community identification.

For the Orleans Gardens site these attributes had little effect on selling price. Although locational factors were not considered as important criteria for choosing a dwelling unit, distance from place of employment, schools and shopping centres are persistent variables. Studies show their influence varies with income group, for example, these variables are ranked low for high and low income groups and childless couples, and high for the middle income groups. "Suitable neighbourhood" or "attractiveness" provides more satisfaction and has stronger implications for choosing a dwelling.

The Orleans area itself was attractive to the consumer, in fact most of the buyers were moving from within the area. This was one reason for purchasing a unit at the Orleans Gardens site.

**Phase 1**

CMHC Lands



**Phase 3**

Commercial

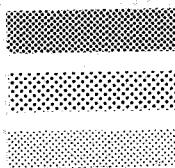
Institutional

**Phase 2**

Park

School

CMHC Lands



Arterials

Major collectors

Minor collectors



Proposed bus stops

**Land Use Plan**

**Map 5**

The phase one site is one segment of a four part plan, therefore, site planning was done for this entire area, see Map 4. With CMHC acting as developer the community facilities, commercial, institutional, parks and schools, are being provided in a central location, accessible to the entire project.

The site planning indicated little relationship between selling price and community amenity. The handling of the automobile had tremendous impact on the organization of the site. There are two arterials bisecting the site, Orleans Boulevard and Jeanne D'Arc. These act as access routes to and from the site, for local traffic, through traffic and Fire Department access. These streets also make provision for pedestrian networks. The design of the streets take into account traffic flow; servicing and energy efficiency. For example, crescents and cul-de-sacs mean less traffic but may influence maintenance costs, such as snow plowing.

The second aspect is the provision of community facilities. Refer to Map 4. Public transit has tentatively been planned to follow the arterial and collector routes. The schools, commercial areas and parks are centrally located for consistent access from any area within the site. The institutional lands are under revision and it is unclear what use these will be put to.

The third component of the activity bundle is landscaping. For the phase one site, the berm is the most important aspect of landscaping. To

provide protection and privacy from noise and traffic a 1 metre high berm will be incorporated into the design of the lots. A hedge will be along the top of the berm as an additional noise barrier and for aesthetic purposes. At several points a textured concrete fence will provide additional protection. All of these will be blended into the landscape to provide a comprehensive package.

Introduction to Builder Consultation

Each builder has been contacted and efforts have been made to obtain their views. Questions regarding their choice of house form, the establishment of selling price, and their methods of market research were set forth. Other questions included how they defined housing quality, what sells a house, how they maintain construction standards, and their perceptions of any trends or preferences expressed by the consumer. Of particular interest was their reaction, both purchaser and builder, to the Orleans Gardens site and sales centre. The sales people were solicited for their reaction to the site, the consumer and their model attributes. Many aspects, both positive and negative ones, were collected. These provide the basis for subsequent discussion.

### Builder Discussion

From discussion with each builder many issues became apparent. The competitive environment of having a variety of builders on one site seems to have been well accepted by the builders involved. Although several expressed the desire to have had the site to develop themselves, they were in the main, satisfied with the development plan and financial arrangements. Some expressed concern that the consumer could become confused with the large number of choices available. Ultimately the majority of builders felt the purchaser would be in an excellent position to make their final choice. This situation would be enhanced once construction was underway, consumers could then compare and contrast and choose the home which best met their needs and expectations.

Quality was perceived by builders as appropriate building materials and <sup>u</sup>accomm~~o~~modations such as oak hand rails, wood casement windows and quality tile. The builders tended to view construction methods as a part of quality which allows for little trade-off, each varies in their standards however. The builders realize that people are looking for what they haven't had in their last dwelling unit and the things they can see attain great significance often for this reason. This was most often mentioned as important in the sale of a higher priced house. The reputation of the builder is also important when quality is discussed.

During the initial stages of development there was an open field with the sales centre seemingly stuck in the middle. The builders felt that the initial surge of house sales at the site reflected recognition of the quality of design and excellent prices which were being offered. There were no model homes selling was done by artists renderings and sample swatch. Many salespersons experienced difficulty in selling in this manner as they had to be much more descriptive and informative regarding the house, its design and features. The newness of the development however facilitated acceptance of renderings and initially excused the lack of models. Those builders who had models in other developments nearby utilized these to their advantage, ~~with increased sales.~~

However, once homes started appearing on the site the general buying public wanted to see models. There was a subsequent push by several builders to



meet the demand for model homes and increased sales were related to their opening. Minto Corporation is only one of the many builders who capitalized on this type of promotion. The image a site projects may influence the type of purchaser that is attracted, as well as the sales. At Minto's Chapel Hill development entertainment and beverages are provided as prospective buyers tour beautifully decorated model homes set in an idealic site 'enhanced by nature'. Almost a carnival atmosphere prevails as hundreds troop through the models.

Marketing research, although required by CMHC, varied greatly from builder to builder. To establish house form and selling price most of the builders incorporated past experience from other developments with looking at the Orleans marketing area itself. Information exchange with other builders and contractors, was utilized to project a picture of the potential market. Most of the builders also took into account the type of community they wanted to build and that CMHC was encouraging. The Builders are ~~attempting~~ attempting to meet the consumers demands, however, two limiting factors became evident during discussions.

The lot size and zoning of the lots at the Orleans Gardens site was one of the most often mentioned limiting factors. The 9.75 m (32 ft.) lot was universally identified as too small to allow the builders design freedom. The models which could be located on these lots were limited by side yard zoning requirements (min. of 4 to 6 ft.). General concensus was that even 10.67 m (35 ft.) lots would have allowed for increased flexibility. The

consumer is demanding all the features of a large house in the smaller models, such as main floor laundry and family room, and the builders found this difficult to provide on the small lots.

The limitations due to lot size was further apparent when the expansion/flexibility attribute is discussed. None of the builders allowed for more than cursory expansion, such as a greenhouse or sun space, onto their homes.

*same 72v3*  
The models used the maximum available space on the small lot sizes. The idea of reducing house size was not supported by consumers demanding as large a dwelling as possible, and the builder has to provide it to sell the houses. This is borne out in the comparison of price, floor area and lot size. As the price increases floor area increases, however, lot size increases at a slower rate, see graph 1<sub>A</sub> *(page 84)*. The two competitor units indicated lower ratios, also indicating a large house on a small lot.

The second limiting factor was advertising and presentation/marketing. Initially CMHC was to co-ordinate signage and advertising and signs were erected in what was considered the most advantageous locations. However, it was discovered that in the highly competitive Orleans market this was not enough. Signs providing direction to the site are very important. Builders compete with huge signs and vie for the best locations. The majority of builders felt a more co-ordinated effort and larger more dramatic signs were needed to draw the consumer. At the site each builder has his own sign with the Orleans Gardens logo on it. The builders opted to undertake

- 127  
- 120 -



co-ordination of group advertising themselves. Most of them now agree that this was a mistake. Each builder has his own methods of advertising and consensus was difficult. The lack of this co-ordination was a limiting factor and often mentioned as one of the reasons they felt the group sales centre was not totally successful. Hiring a professional agency is the alternative suggested by most of the builders. CMHC meant to alleviate this problem somewhat by acting as co-ordinator, unfortunately this was not realized.

An additional problem at the Orleans Gardens site was that the installation of site servicing was later than expected and roads into the site were in disrepair during the peak selling months. Prospective buyers who had followed the signs often had trouble getting to the sales centre. The lighting system, or lack thereof, also created problems. Signs could not be seen and the sales centre became hazardous after dark for consumer and sales staff alike.

In discussions between the author and the builders they expressed general satisfaction with the site itself. The locational attributes were rated high by the builders. The provision of site facilities such as the shopping facilities and the Orleans area itself were viewed as good selling features. This factor had been taken into account when the builders were designing homes, which in turn dictated the atmosphere of the development.

The builders see trends/shifts in the market often. The large house with the large lot is the ideal. However the large house, or atleast one that provides the amenities of one, is a workable trade-off. The features which tend to stand out are the number of bathrooms, the main floor family room and laundry room, a fireplace and the brick facade. The builders are finding themselves dealing with a better educated public. Some purchasers would like to become more involved in the production of their home.

### Concluding Discussion

The quality/attribute discussions isolated particular attributes and compared them with selling price. The Orleans Gardens study is not a user study. A subsequent follow-up user study, to examine the satisfaction of the consumer with their trade-offs, would be advantageous to answering further questions of cost/quality trade-offs.

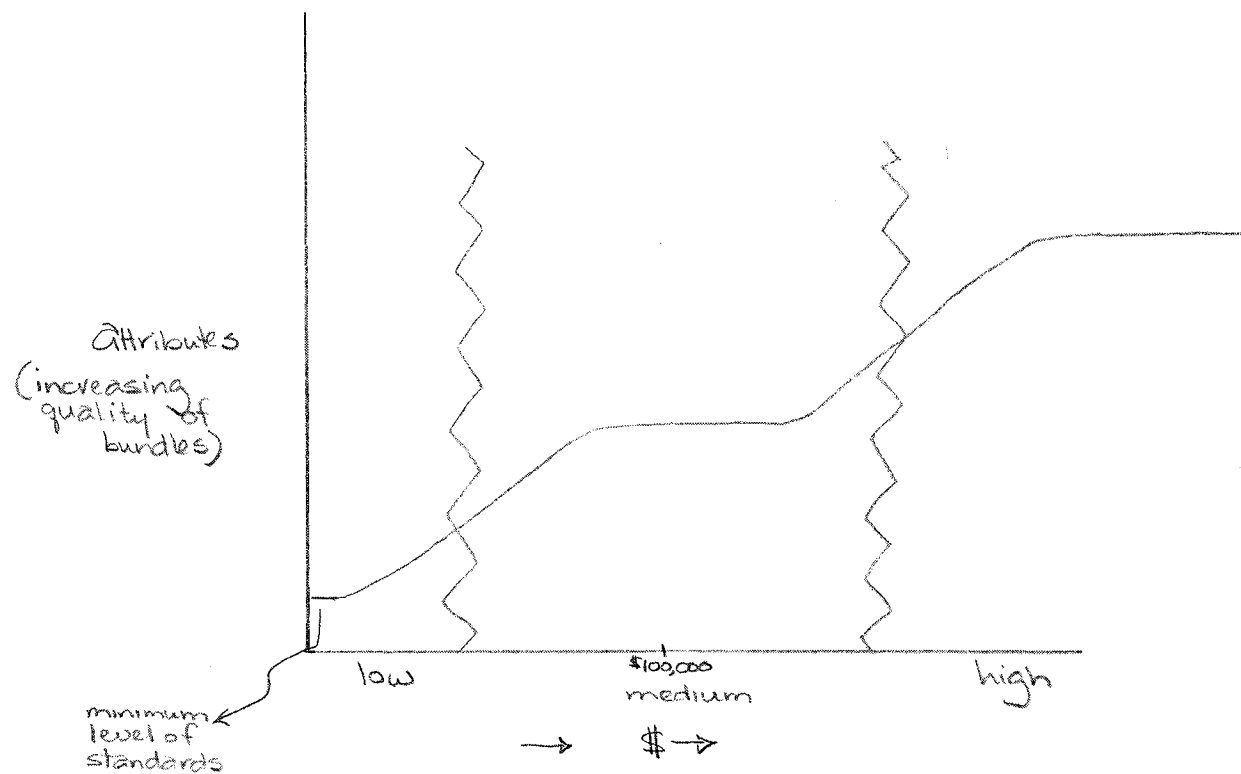
This study recognized the difficulty of developing a single measure of housing quality. A multidimensional bundle of services and characteristics generated by a dwelling unit and its neighbourhood provide a more reliable indicator of housing quality than any single housing feature.

Four hypotheses were proposed in the 1978 study of the Mill Woods area which considered the overall characteristics of the relationship of selling price and housing quality. The first hypothesis proposed a linear relationship between quality, the aggregate of all attributes, and selling price. The consumer on the new housing market would find that as the selling price of a housing unit declined he would receive less of every quality he might examine.

In this study results indicate that there is not a direct linear relationship. Decisions regarding housing quality seem to be made on a hierarchical basis. With trade-offs occurring at different levels and to different degrees in accordance with cost. This follows with the second

hypothesis which speculates that as selling price declines qualities are traded off against each other in a variety of ways. There is a desired ideal, however if the consumer can not afford that ideal, he can retain some of those qualities by reducing his expectations in other areas.

As an example we can look at the rooms, design and number, in a dwelling unit. At the high end of the price range rooms have a specialized function, such as the library, and trade-offs are not as likely. The low price range implicates reduced space, with smaller multipurpose rooms and groupings being important. The livingroom/dining room combination is an example of this. There are limits to the trade-offs possible however due to liveability,



Graph 3  
Market Competition Curve

desireability and saleability of the units. In the middle price range, which most of the <sup>units</sup> units at Orleans Gardens fall into, trade-offs have increased variability and distinctions are often personal. Successful grouping of rooms, such as the kitchen/eating/family room combination, and the feature rooms, such as the laundry room and extra half bathroom, can greatly influence the absorption rate of a model within a very competitive market. Table 3 and Graph 3 gives a brief outline of the affects of price range and how the hierarchy/expectations affect the trade-off of bundles of attributes.

Convergent with this is the 'attribute competition clusters' mentioned earlier, see Graph 2. At each selling price, or range of selling prices, you will find all of the housing produced exhibiting a basic similarity. However the attributes available at each range will vary, choices will depend upon personal preference. For example the variety of fireplace facades available, or the quality of the handrail (wood, wrought iron).

The third hypothesis in the Mill Woods study supports this hierarchy of housing qualities and clustering of attributes. It speculates that the least valuable attribute is lost first as selling price declines. For example the Ratio/Floor Space Index indicates that floor area or internal space takes precedence over lot size or exterior space. As the fourth hypothesis infers dependant and independant variables and preferences affect the quality and choice of housing. These include for example cost, availability and personal taste.

Table 3

Price range - competition clusters

| <u>low</u>                    | <u>medium</u>                 | <u>high</u>                   |
|-------------------------------|-------------------------------|-------------------------------|
| - reduced flexibility         | - most competitive            | - specific luxury             |
| - limited number of consumers | - most flexibility & choice   | features                      |
|                               | - largest number of consumers | - limited number of consumers |

Within each there is a hierarchy

homeownership  
(centre)

gross envelope  $\leftrightarrow$  houseform  $\xrightarrow{2}$  lots size  $\xrightarrow{2}$  floor area  $\xrightarrow{2}$  location  $\xrightarrow{2}$

medium level  $\leftrightarrow$  auto accom.  $\uparrow$  # of bdrms  $\uparrow$  # of bthrms  $\uparrow$  facade treatment  $\uparrow$  fireplace  $\uparrow$  fam. room

detail level  $\leftrightarrow$  energy pkg.  $\rightarrow$  furnishings  $\rightarrow$  i.e. carpet  $\rightarrow$  tile (center these)  $\rightarrow$  accoutrements  $\rightarrow$  i.e. curved stair  $\rightarrow$  cent. vac  $\rightarrow$  oak handrail  $\rightarrow$  appliances

The sample size was meant to give a representation of the models available at the site. The limited number of samples limited our ability to use statistical analysis in evaluating the attributes. The method used in this study shall prove valuable for cost/quality investigations and applications for other residential development projects. Builders may also utilize information available in this report.

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Over 50 different homestyles available.

**The community with  
the visible  
difference.**



Take a look at Orleans Gardens.

The difference is immediately apparent. No rows and rows of look-alike houses that get lost in a blur of sameness.

Why?

Because that Ottawa's best builders have combined their expertise to create the community with the visible difference. At Orleans Gardens, you have over 50 different home styles to choose from.

Look at it now -- and see the difference.

This is a community with unique appeal, close to business, schools, churches and shopping. But hurry, more than

100 families have bought -- and preferred lots are going quickly.

Orleans Gardens.

Because the choice is yours.

**9 Different builders  
make comparison**

ORLEANS GARDENS



JEANNE D'ARC

QUEENSWAY HWY. 17 →

# New Homes

Comparison

Oct. 183  
A.C.

## Orleans offers widest variety

**Billberry Creek Village:** Only 20 units are left for sale in this 700-unit Orleans project by Minto Corporation. Six models are available priced from \$83,000 to \$110,000. The single-family homes are 1,300 to 2,000 square feet and have central air-conditioning, heat-circulating fireplaces, computerized thermostats and three appliances. Mortgages at 9% per cent are offered over three years. Information, 824-0961.

**Chapel Hill Town Site:** Minto Construction is offering 100 lots, for houses priced from \$89,900 to \$179,900 in Orleans. Fifteen models range in size from 1,400 to 2,600 square feet. Information, 837-3300.

**New Orleans:** Perez carriage homes and tower-design singles are selling for \$72,990 to \$130,000, and range in size from 1,070 to 2,223 square feet. Thirty homes are being released at a time in this 1,000-home Orleans project. Information, 837-4561.

### The market—east

**Orleans Gardens:** Tartan has 27 lots remaining for homes priced from \$89,900 to \$118,000 in this Orleans development. Six models, ranging from 1,384 to 1,845 square feet, are available. A free finished rec room is included in sales made before Oct. 31. Information, 837-3621.

**Sigma** has 12 of 26 lots available, in 33-foot-by-100-foot and 40-foot-by-110-foot sizes. Four models with three and four bedrooms are offered, containing between 1,419 and 1,724 square feet of space. Prices run from \$91,900 to \$113,900. Information, 824-6315.

**The Exeter Group** has 19 of 28 lots available here, in sizes of 33-foot-by-100-foot and 40-foot-by-156-foot. Eight models are available with 1,480 to 1,715 square feet. Prices range from \$97,900 to \$108,900.

**bury Homes** has 50 single-family homes to sell here, ranging from 2,000 to 2,500 square feet and priced from \$124,000 to \$150,000. Lots are 50 and 60 feet wide. Construction will begin in March on 100 more of the same seven models, plus 62 smaller-lot singles ranging from 1,500 to 2,000 square feet and costing from \$90,000 to \$120,000. Information, 837-1317.

with garage and fireplace. Information, 837-3343.

**Sanrob** is also building here, and in Rockland. Information, 837-3333.

**Maple Tree Village:** MacDonald Homes will begin selling the third phase of this Orleans project early in October with 73

three-bedroom townhouses to be offered. Information, 837-3343.

**Convent Glen:** Two Canadian models backing on the Ottawa River and priced at \$110,000 remain in this Costain project in Orleans. Information, 824-1566.

**River Ridge:** Sand-

Two examples of  
builder advertising for  
Orleans Gardens

**ORLEANS GARDENS**

MODELS NOW OPEN

THE COMMUNITY WITH THE VISIBLE DIFFERENCE

**THE LUMLEY**

DESIGNS A NEW STYLE IN LIVING COMFORT

Designed for today's lifestyles, 3 bedrooms, full bathrooms, ground-floor powder room and energy-saving features throughout. Ideal for active, growing families.

**\$103,900**

**Sanrob**

THE ENERGY EFFICIENCY BUILDER

SALES OFFICE  
837-3621  
Weekdays 1-6  
Sat & Sun 12-5  
Closed Fridays

ORLEANS GARDENS  
LES JARDINS D'ORLEANS

Greenboro—2 Homes Available  
—1 Buckingham, 1 Lumley.  
Call 733-7634

## Madame Jehane Benoit's Recipe for a Happy Home:

May I enter your home by the kitchen and give you a recipe for the greatest pleasure in life.

To begin with, you must have a good solid builder who puts his heart into building your new home. Sanrob Homes is such a housebuilder.

So this is my recipe for a happy home:

*First you visit a Sanrob Sales Centre;  
Then you choose the Sanrob home design that you like most;  
Look over the selection of choice properties and pick your lot;  
Sanrob Homes will help with your finance plan.*

All you do then, is sit back and dream about your new home. And, "WHAT A DREAM!"

### Sanrob Sales Centres:

*Blue Mountain Lookout*  
Richmond Road just west of  
Pinecrest 828-7527

Canada's  
First Lady  
of Cuisine  
Mme  
Jehane Benoit



*Chateaufort Vineyard  
& Orleans Gardens*  
Just off Boyer Road in Orleans  
837-3333  
*River Bend*  
Hwy #43 in Kemptville 258-3438  
*Operation Rockland II*  
At the western entrance to Rockland  
446-5158

APPENDIX B

ORLEANS GARDENS - HOUSING ATTRIBUTES

Builder \_\_\_\_\_ Model \_\_\_\_\_  
Closing Date \_\_\_\_\_ Lot Number \_\_\_\_\_  
Plan Number \_\_\_\_\_

Warranty: \_\_\_\_\_

Base Price \$ \_\_\_\_\_ Closing Price \$ \_\_\_\_\_

Floor area: gross (m<sup>2</sup>) \_\_\_\_\_

Lot: Size (m<sup>2</sup>) \_\_\_\_\_ Frontage \_\_\_\_\_

Ratio:  $\frac{\text{lot size (m}^2\text{)}}{\text{floor area (m}^2\text{)}}$  = \_\_\_\_\_

Curb appeal: PHOTOGRAPH PROVIDED

- a) exterior finish \_\_\_\_\_
- b) landscaping \_\_\_\_\_
- c) absorption rate \_\_\_\_\_

Accommodation of Automobile: PHOTOGRAPH PROVIDED

- a) private - inside \_\_\_\_\_ outside \_\_\_\_\_
- b) communal/visitor \_\_\_\_\_

Dwelling unit:

- a) fireplace \_\_\_\_\_ c) No. of appliances provided \_\_\_\_\_
- b) fixtures \_\_\_\_\_ d) electrical \_\_\_\_\_
- e) hardware \_\_\_\_\_
- f) kitchen/eating area (m<sup>2</sup>) \_\_\_\_\_  
kitchen rating \_\_\_\_\_
- g) living/dining area (m<sup>2</sup>) \_\_\_\_\_
- h) bedrooms - number \_\_\_\_\_ size \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- i) bathrooms - number \_\_\_\_\_ extra \_\_\_\_\_
- j) circulation space \_\_\_\_\_
- k) unspecified storage space \_\_\_\_\_
- l) basement/foundation \_\_\_\_\_
- m) features \_\_\_\_\_

Insulation: \_\_\_\_\_

Energy Efficient Features: \_\_\_\_\_

Ability to respond to changing needs:

a) flexibility - light and ventilation in basement \_\_\_\_\_

- multi-purpose rooms \_\_\_\_\_

b) structure durability - size sufficient to meet expanding needs \_\_\_\_\_

- materials quality \_\_\_\_\_

- accessibility \_\_\_\_\_

Locational attributes: positive (+ve) and negative (-ve) comments

- relationship to vehicular movement
- relationship to pedestrian walkway
- relationship to commercial and schools
- relationship to public transport
- level of neighbourhood identification

## APPENDIX C

### Definitions

#### Extra Energy Efficient Envelope

##### Ext

StD plus  
ceiling R-44  
garage R-20, ceiling R-26.7  
basement R-20 2' above floor  
forced air heat

#### Standard Insulation/Energy Efficient Envelope

##### StD

|                         |  |
|-------------------------|--|
| basement                | R-12 2' below grade                        |
| walls                   | R-20 batt, $\frac{1}{2}$ " gypsum          |
| ceiling                 | R-32, $\frac{1}{2}$ " gypsum               |
| garage next to house    | $\frac{1}{2}$ gypsum and room above R-26.7 |
| V.B.                    | 6 mil.                                     |
| ext. doors              | insul. R-14                                |
| doors and windows       | weatherstripped and caulked                |
| windows                 | doubled glazed                             |
| vestibule               |  |
| programmable thermostat |  |

### Backyard Socializing

The term 'backyard socializing' refers to the social networking which occurs over the back fence. This is prevalent within single family detached or attached developments due to the ~~of~~ degree of face to face contact. The 'functional distance' is based on siting factors that determine the placement of the house and its entrances and exits. This includes its position within the block, whether it is the middle or corner house, and its orientation with respect to other units, whether it is facing towards or away from nearby units. A network may run parallel to the road until a social isolate, a geographical barrier or change in house type occurs; whereupon it stops.

Other factors such as the character of residents, degree of mobility, social values, norms and attitudes influence social behaviour as much as, or perhaps more than, the physical environment itself. The factor of heightened mobility, which is exhibited by an automobile-oriented society calls for a lessened emphasis upon the provision, within walking distance, of opportunity to satisfy daily social, economic, and cultural needs.

The street may be considered a social unit, however every individual does not necessarily know every other member of this group personally. Positive relations are usually with immediate neighbours because hostility in this relationship would be threatening. Children encourage contacts, or at least facilitate interaction within the group.

The decrease in housewives staying at home and different income levels may affect neighbourhood groups and hence backyard socializing.

For the purposes of this study the author provides an example of backyard socializing on the next page.

#### Life Cycle Premise

Implies that as a family unit moves sequentially through the basic stages of the life cycle different sets of household circumstances affect housing needs and housing preferences.