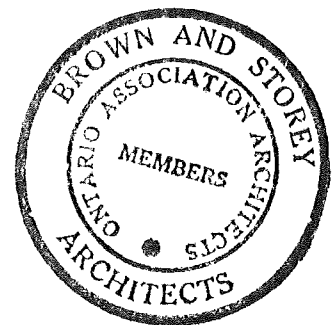


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# PALMERSTON BOULEVARD

An Evaluation of a Unique Residential Street

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# GENERAL INTRODUCTION

Palmerston Boulevard is a street located close to the central core of Toronto. The Boulevard was developed at the turn of the century as an upper middle class street, composed of houses, mostly detached, skilfully conceived and constructed. The houses are built to a common setback, and with the lines of trees running in pairs down the Boulevard's length, the cast iron original street lamps, and other details to be examined later, collectively form an extremely well co-ordinated street.

Externally, the landscape and elements of built form have been able to sustain and cloak a multitude of internal changes. The Boulevard has been compelled, through shifts in population, economics and cultural groups, to transform itself internally, mostly by conversions of single family residences to contain several apartments and sometimes offices.

The most notable characteristic of Palmerston Boulevard is not exactly its attractive and elegant appearance, but rather its capacity over seventy years of constant change to maintain itself as a highly relevant street and corresponding house

type, while remaining faithful to the street's basic original conception: one house on one lot.

The premise of this research has been to explain the uniqueness of the Palmerston house and the Boulevard. The scope of the research is illustrated by its sections as a systematic method of enquiry, selective rather than all-embrasive.

The method of work has as its primary goal the production of useful information with which further house examples can be evaluated. At the same time, an examination of general principles of the house form in the city and the suburbs is initiated.

The investigation begins with the documentation of the historical growth of the Boulevard, by showing the changes and elucidating the factors and forces that were at work in the making of the Boulevard. By tracing changes and growth, both of Palmerston and the surrounding streets, the fundamental principles that underlie the street's formation are understood. These principles are then clarified as part of a pattern that ties together the entire Boulevard.

The body of the research following contains ten examples of houses, studied in varying detail. The initial examples of houses are analysed as sets of simple contraries (unaltered/converted; internal/external) which gradually evolve into observations elaborated into criteria with which to evaluate the further examples.

Each house is presented with its own image and vital data, to facilitate comparison between samples collected. The houses are analysed with respect to their rooms, circulation space, and organization.

The method of work then moves to an investigation of the collective aspects of the Boulevard, looking less at individual concerns than at the larger ideas of built form and landscape.

The built form aspect of the study investigates prototypical conditions along the Boulevard that elevate individual concerns to larger collective issues.

The landscape section is constructed to work in contrast to the built form. The elements

of the landscape are fundamental to the concept of one house on one lot; its presence makes up a large part of the visible image of Palmerston that brings it its uniqueness.

The porch is then introduced as a photographic vignette and is described with respect to its pivotal role on the Boulevard as a bridge between the internal and external realms.

The last section of the work reviews the material under concepts of structures. The intention here is to discern the principles and forces that underlie the form of the Boulevard and its houses. The investigation expunges both internal and external concerns to illustrate principles of similarities, differences and relationships between internal and external organizations.

The scope, therefore, is ambitious as an early investigatory document should be, though it is by no means exhaustive. Each section works independently and can be read as an autonomous piece. The implications of this research, elucidated briefly in the summary, are based upon direct observation of the architecture of the Boulevard.



# HISTORICAL DIVISION OF LAND





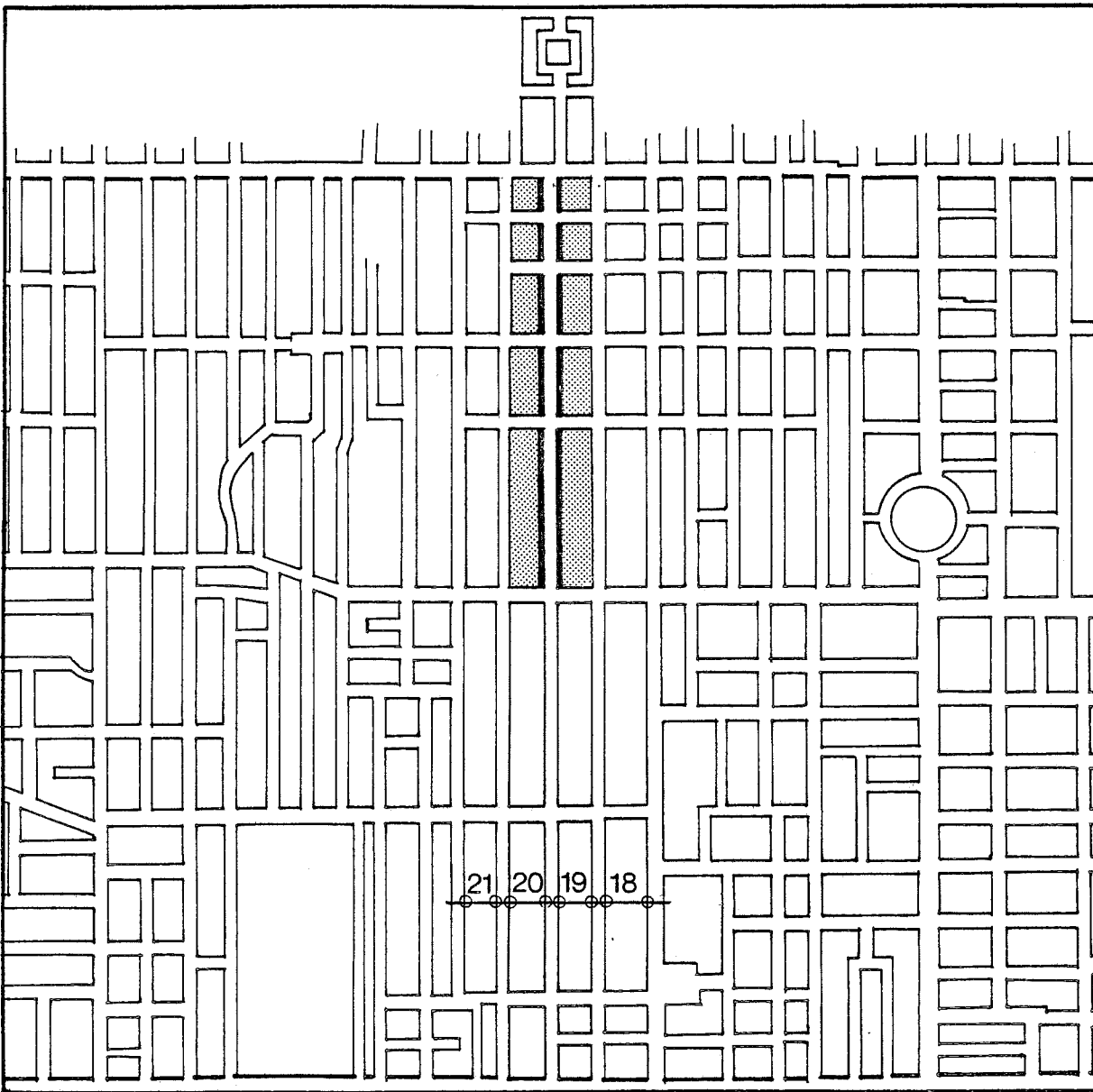
### City Location

#### Historical Division of Land

Palmerston Boulevard is located two blocks west of Bathurst Street close to the central core of the city. It is a primarily residential street that runs north and south between College Street at its southern limit and Bloor Street to the north.

#### Mapping of the Area

The historical maps document Palmerston Boulevard over a period of time from 1858 to 1982. These historical maps can be read as a text and have intrinsic traits.



Local Context

Neighbourhood Context

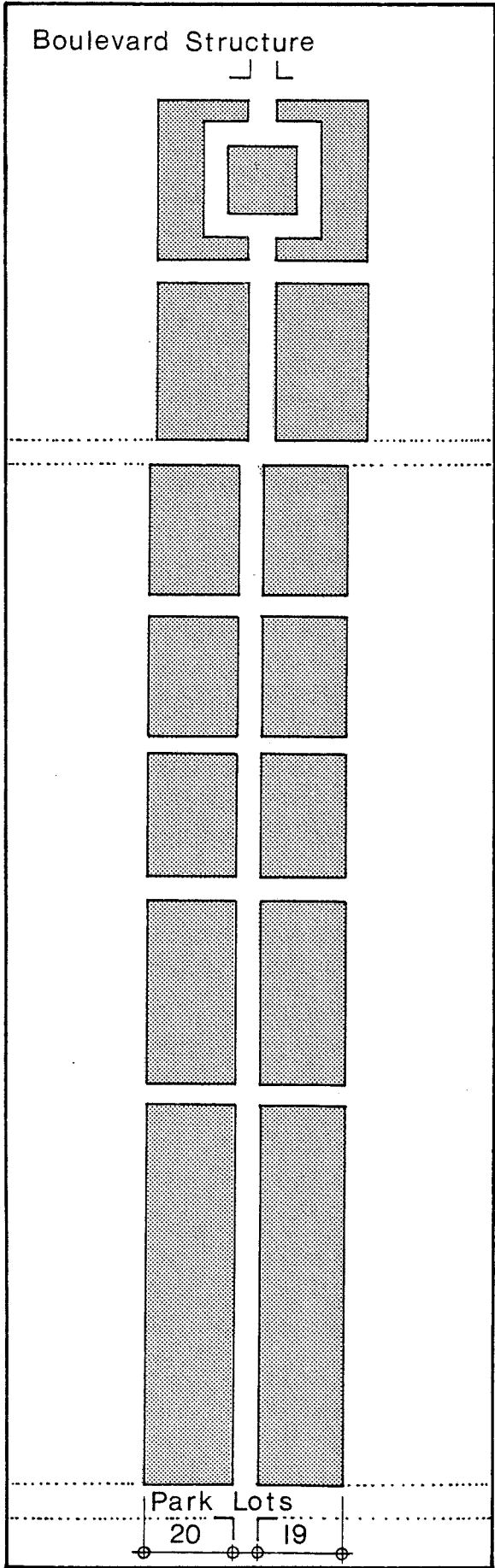
Below College Street, the street is named Palmerston Avenue and changes quite distinctly in character to a typically narrow and dense working class residential street, and is terminated in an undistinguished manner.

North of Bloor Street, the street is also called Palmerston Avenue. This street, again

quite different in character, is interrupted and temporarily focused onto a small square named Palmerston Gardens. This square has been built upon quite densely and its possible original purpose of a garden has not been realized.

The focus of this research is upon the strip running between College and Bloor Streets, called Palmerston Boulevard.





Boulevard Structure

Undistinguished at the neighbourhood context, the detailed map of its structure however, illustrates a set of clear formal implications that suggest earlier aspirations.

The position of the square at the north part of the Boulevard and the pronounced break of alignment at Bloor Street provokes speculation; in order to investigate these concerns in an informed manner, an historical analysis of the formation of the area must be undertaken, which will propose how land was subdivided, in which periods building took place and the physical ramifications of these factors.

# The Conception of the Boulevard

1858

## Dimensions of Blocks

Park Lots are allotments of space, mathematically predetermined by original blocks of the city, used to describe large parcels of undeveloped land that were intended for eventual subdivision and settlement.

Park Lots 19 and 20 are 182 meters wide. These park lots are subdivided to contain one street and two blocks on either side. The normal street width of 20 meters and block depth of 82 meters is set here. The blocks are then subdivided equally to establish lot depths of 41 meters. When lanes are developed, the lot depth becomes 38 meters.

The width of Palmerston Boulevard running between Park Lots 19 and 20 is 24 meters, significantly wider than Euclid and Markham Streets.

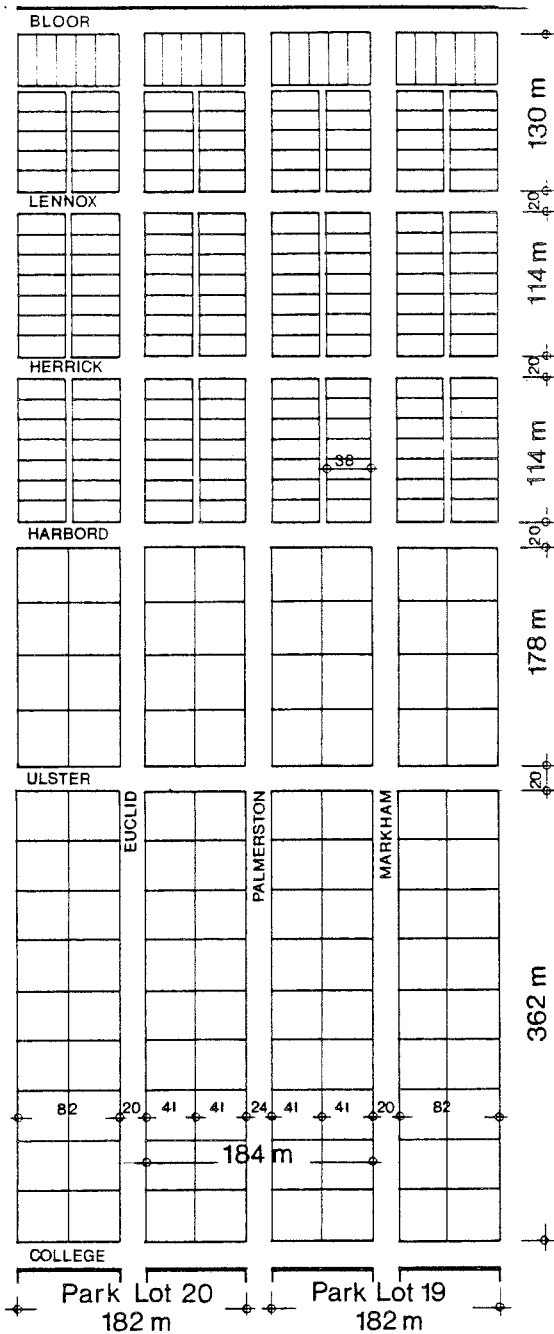
## Orientation

The primary orientation of Palmerston Boulevard is north/south with cross streets that run east/west. The orientation of the yet unbuilt houses are set, and the lot fixed.

Lane service is indicated and frontages are set out along the length of the Boulevard. The variables determining house form and type that have been laid down are:

1. Width of the lot
2. Position of the lot on the block (ie. mid-block or corner lots)
3. Position and the location of the lane service.

The lot is characteristically long and has its smallest dimension facing the Boulevard.



1858

The area of blocks, streets, and lots that make up the area of Palmerston Boulevard as set down in 1858 embody the explanation for the growth of the Boulevard and the formation of the area.

The smallest unit of the first set of lots is 16.28 meters by 38 meters. The built form of the house will orient itself to be perpendicular to the Boulevard and the lane system.

Size of Blocks

The Boulevard, as it extends northward, contains diminishing length of blocks. The top three blocks are of basically equal length.

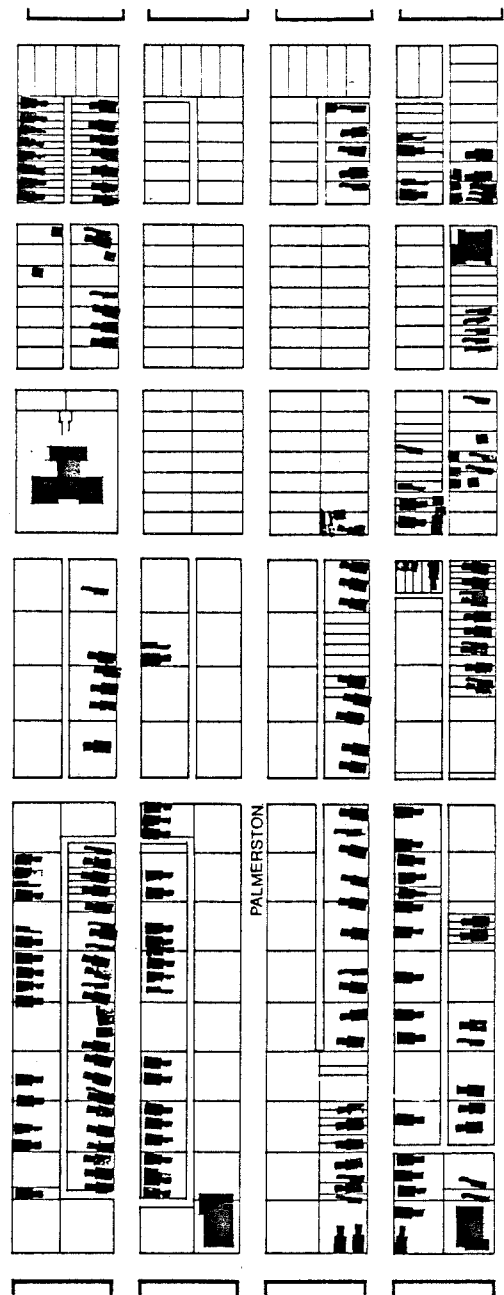
The first of these blocks starting at Bloor Street has a lane system that forms a "T" shape, and services lots that front onto both Bloor Street and Palmerston Boulevard. At this stage, the access to the lane is shown emanating from Euclid or Markham Streets and Palmerston. The position and undifferentiation of this lane access treats Palmerston equally to the other streets.

The Appearance of Built Form  
1899

The 1899 map shows the first buildings starting to appear on the surrounding streets. The position and relative number of houses suggest an incremental type of growth; houses appear for the most part sporadically which is an indication of the lack of market control.

Large lots shown in the 1858 map initiate subdivision. The division of original lot sizes indicated in the northern blocks is into three parts.

Lanes appear, and disappear in some cases. Lanes no longer have access from Palmerston. In particular, the Palmerston access to the lane previously noted at Bloor Street is now closed.



1899

Institutions make an appearance. A major church is built at the southwest corner of Palmerston Boulevard and College Street and the general area gains two other churches and a school.

Palmerston is now shown continuing past Bloor Street with a shift in alignment. The area north of Bloor Street, formerly known as Seaton Village, was annexed by the city in 1888. The shift of alignment of streets which occurs at many other points along Bloor Street is a result of the development of the Village independently of the rest of the city south of Bloor Street.

The lot size and corresponding built form are directly determined and expressed through the ownership of the land.

### Intensification

1903

---

The 1903 map continues the same process of densification begun in 1899, although Palmerston Boulevard remains unsettled. Growth is scattered across many blocks and takes place as built form by a process of intensification. This is done incrementally by further subdivision of lots to contain more and more built parts.

The narrow lots of the adjacent streets have created out of necessity larger numbers of semi-detached houses rather than detached houses; all houses are oriented perpendicular to the street.

### Growth on the Boulevard

1910

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The space of time between 1903 and 1910, a span of seven years, shows some remarkable changes.

The absence of building on the Boulevard from 1858 to 1903 is replaced with a burst of growth.

The City Directory accounts of building addresses date buildings on the Boulevard between 1905 and 1909; the pivotal year is 1906. The Boulevard has been almost entirely built in a space of four years.

By 1910, the built character of the Boulevard is set down; most of the houses have been built, and the surrounding neighbourhood has been saturated.

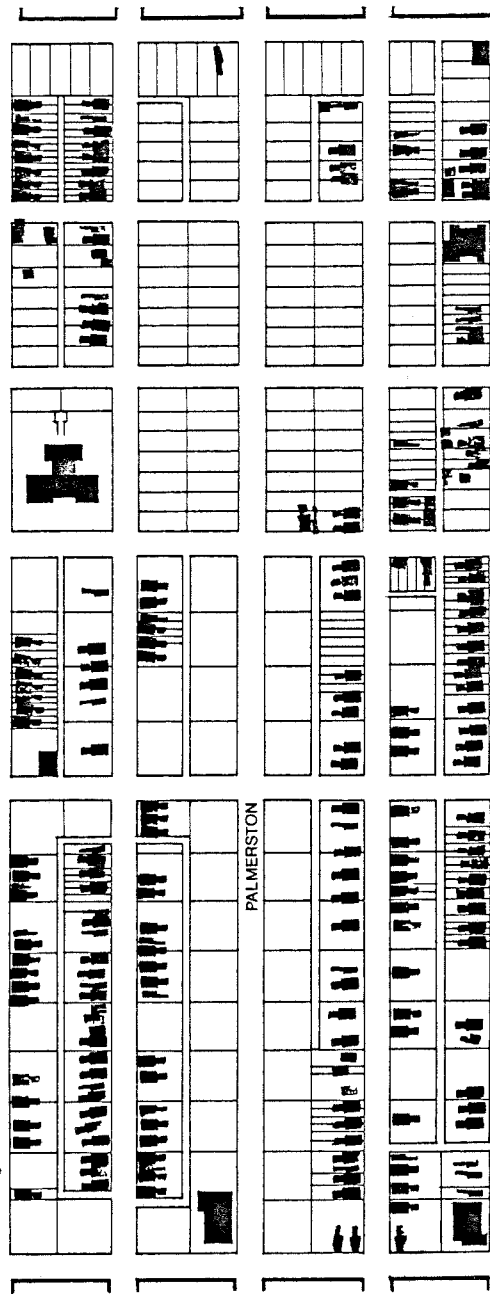
The growth of the surrounding streets and the growth of the Boulevard show marked contrasts.

The random growth characteristic of Euclid and Markham Streets between 1899 and 1910 is a reflection of the marketing of the land with little evidence of planning or control.

When Palmerston begins to appear, as documented through contemporary city directories and original building permit records, the growth is controlled. This is first shown by the very absence of growth in the midst of the settlement of the surrounding streets.

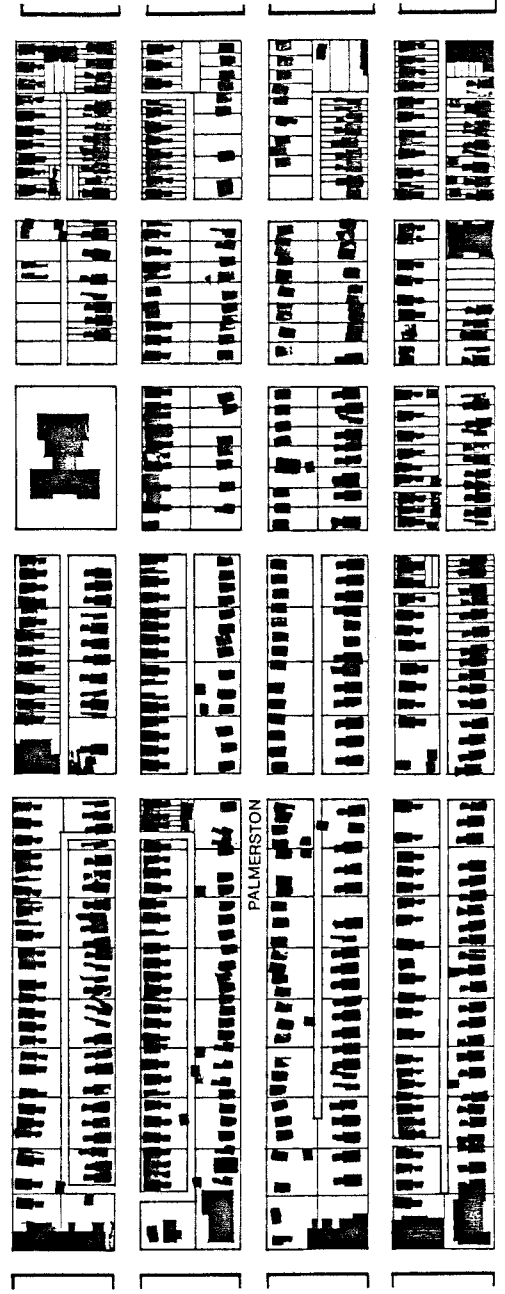
On the Boulevard, building takes place simultaneously on both sides of the street. The sale of lots and construction moved north, block by block. This movement points to calculated growth and market control.

Lot sizes are regulated; being far wider and more expensive, the higher quality, larger size and type of the houses are ensured. The large lot size of Palmerston Boulevard results in a collective of detached houses that all reflect the wealth and social status of the new owners.



1903

The smaller blocks, after the first long block beginning at College Street, aids the market control aspect. The blocks are subdivided and sold off one at a time, keeping the supply low, and the demand high. This also resulted in a more desirable product; one could point to completed blocks as an end product when selling the next block of lots.



1910

The image of the street was established quickly and could have been used to facilitate obtaining top prices for the remaining lots.

The other aspect of block by block development is the advantage of financing. As one block is serviced, and lots sold, the money gained is used to service the next block, and so on.

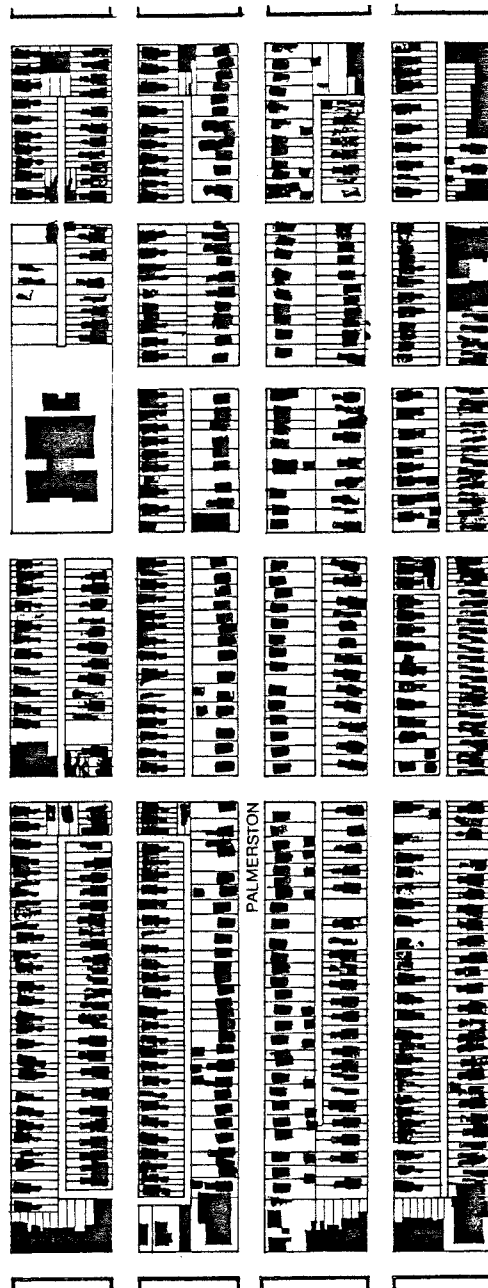
By opposition to the narrow lots of the adjoining streets with their haphazard growth and smaller working-class house types, Palmerston's unique character was guaranteed. The Boulevard emerges as an exclusive enclave for those of wealth and position.

The ideal aspect of Palmerston Boulevard, however, suffers an unfortunate blow. The shift previously described that occurs in Palmerston Boulevard to Palmerston Avenue at Bloor Street offers an explanation of the inability of the Boulevard to continue across Bloor Street to the square formed at Palmerston Gardens. The square never materializes as public open space but instead is built upon with dense rowhouse type units.

Stabilization  
1923

The 1923 map of Toronto shows the primary building stock of the city built. The map of the Palmerston Boulevard of 1923 demarks the stabilization of the built form. The street is composed of single houses sitting in landscaped lots.

The far-reaching ramifications of the initial plan of 1858 have been realized. The idea of one house/one lot extends from the individual level of the lot to form a block; the blocks form the Boulevard, and the Boulevard becomes a unique residential street in the city.



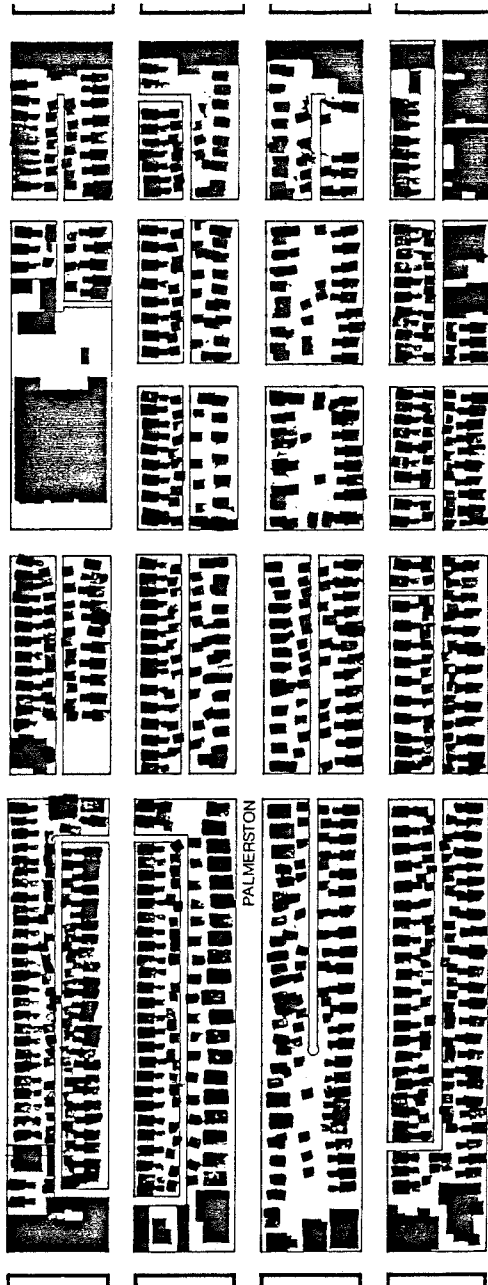
1923

The Present

1982

There has been little variation of the built form of the Boulevard since 1923. The original lot order has been maintained with little or no fluctuations.

The new built form that does emerge in this map is the building up of the lane systems through the construction of coach houses and garages. The nature and potential of the lane system built form has yet to be fully realized and points to a future densification of the street as the residential demands of the city grows.



1982





# HOUSE TYPE ANALYSIS

# Introduction

This section of the study deals with the analysis of ten houses from the Boulevard. The analysis is broken into three sections, moving in groupings of two, three, then five houses.

Each of these stages will look at the houses under discussion within a framework of categories. The first group of two houses to be analysed offer simple contrasts; the first contrast is between an unaltered house "A" and a converted house "B". The analysis proceeds initially with the unaltered example, where space is first posited. House "A" is spatially described by naming parts, and enumerating characteristics. The spatial properties are understood in categories of "spaces":

- 1) External Space
- 2) Internal Space
- 3) Middle Space (between external and internal)

House "B" proceeds with an analysis that follows the same spatial categories but looks at them specifically with "time" and "change" as attributes. Following this, House "B" is studied specifically for characteristics of changes that have taken place within the house.

The comparison between Houses "A" and "B" documents further analysis and begins to raise tentative observations.

The next step involves the analysis of Houses "C", "D", and "E", combining both spatial and temporal concerns with a specific intention of discovering common properties and characteristics.

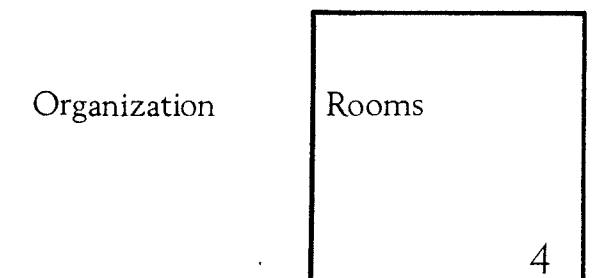
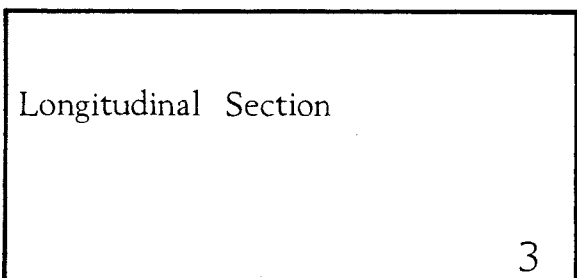
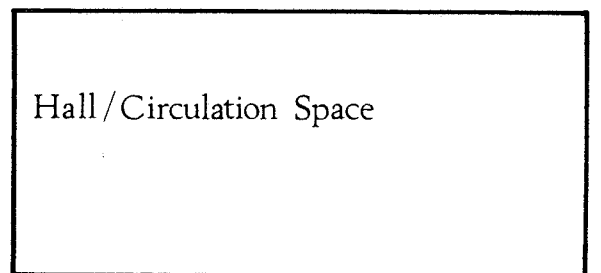
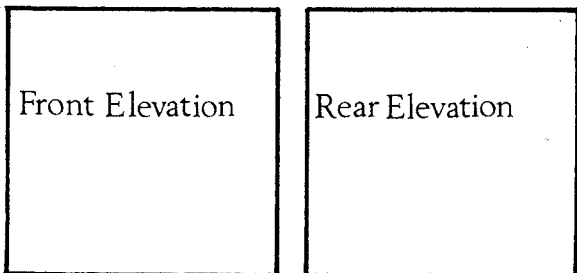
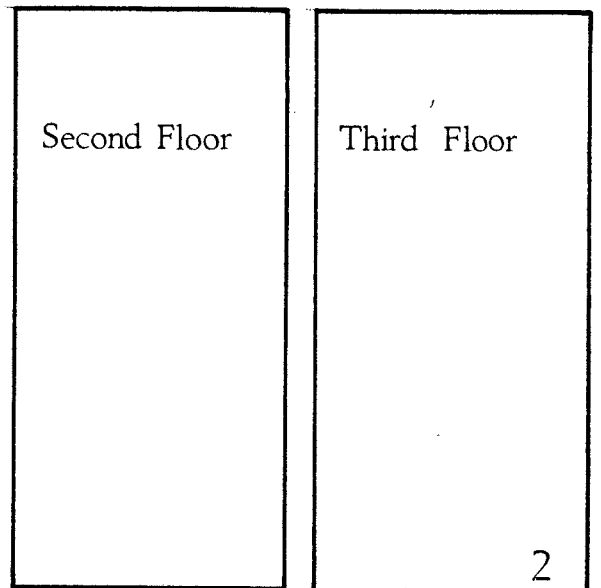
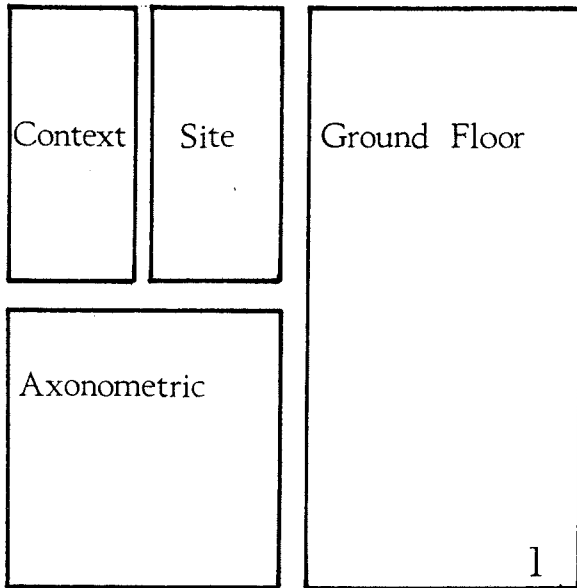
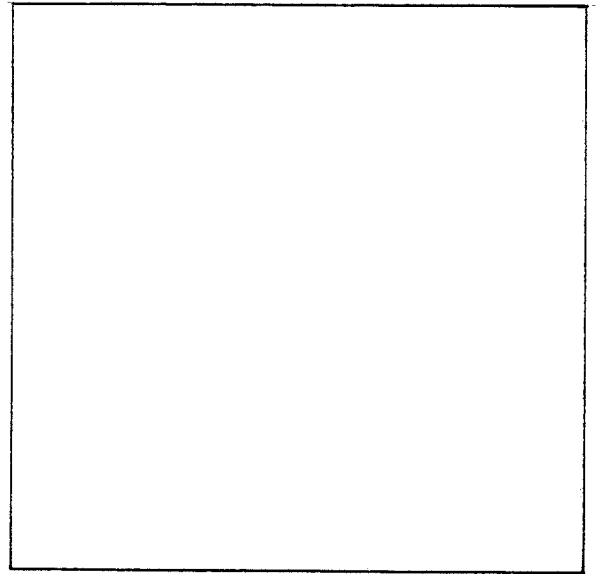
The final grouping of five houses, "F", "G", "H", "J", and "K", will then be studied in a more informed manner given the results and propositions raised by the earlier examples.

All of the examples have been set into a common format, to ease comparison and facilitate familiarity with the houses under study.

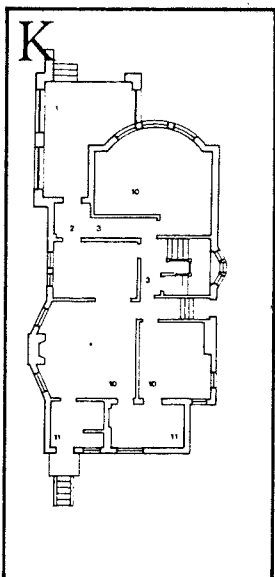
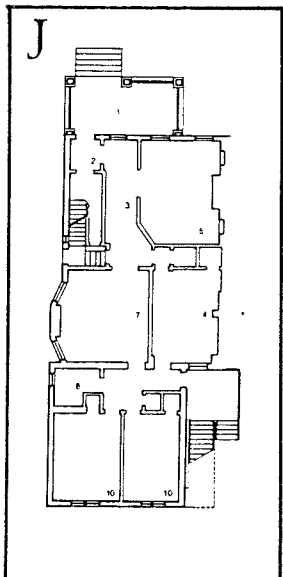
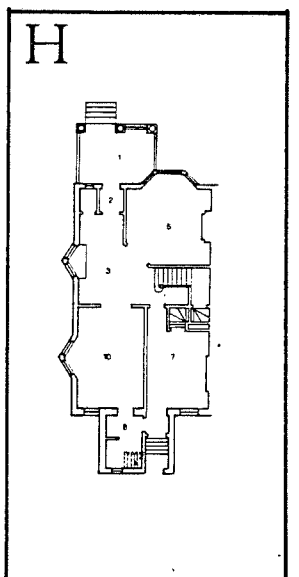
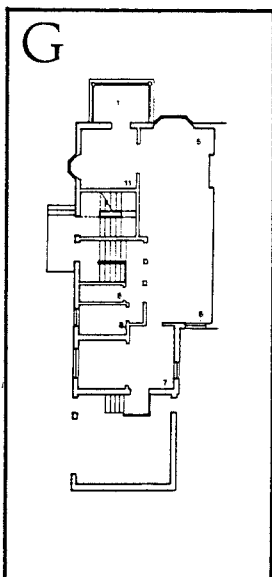
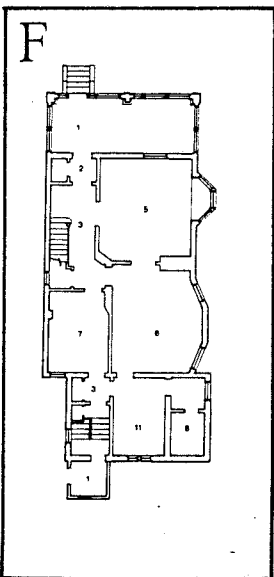
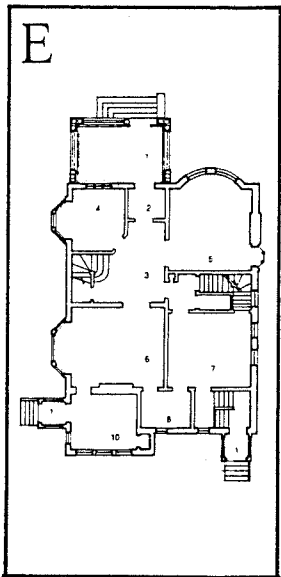
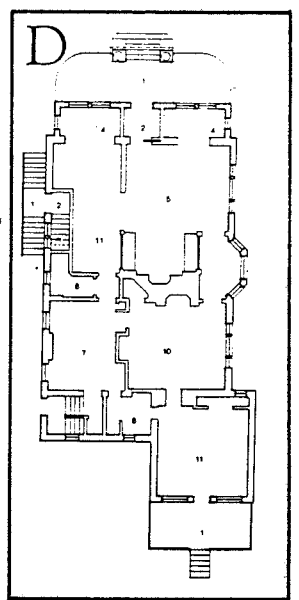
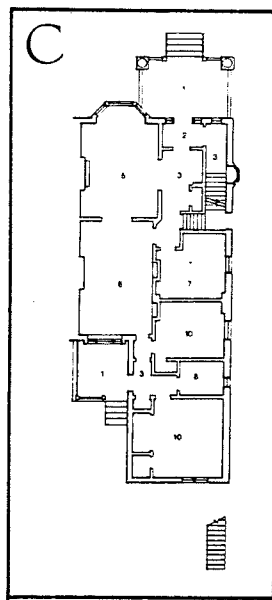
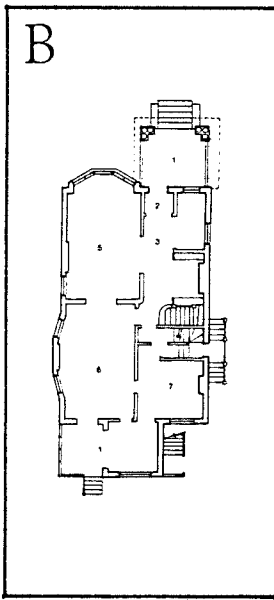
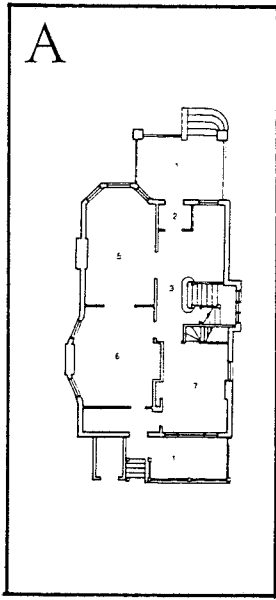
The terminology and method used in this work proceeds from a simple descriptive level of things to a more advanced description, using more familiar names and terms. The host of relationships, contradictory names and phenomenon demand that these simple relationships be described in their uncorrupted simple terms, keeping these to a minimum to aid in explaining the increased complexities of usage later on.

The method of work does not attempt a complete causal or systematic explanation for everything. The examples, therefore, reflect a small number of the total of one hundred and sixty houses on the Boulevard. We then expect to raise propositions that work in a way which illustrates principles of houses: their changing role, and their relationship to the immediate street and city of which they form a dialectical part.

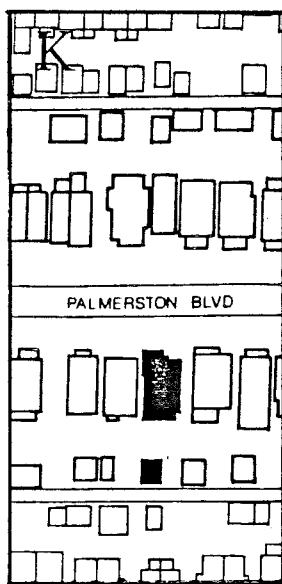
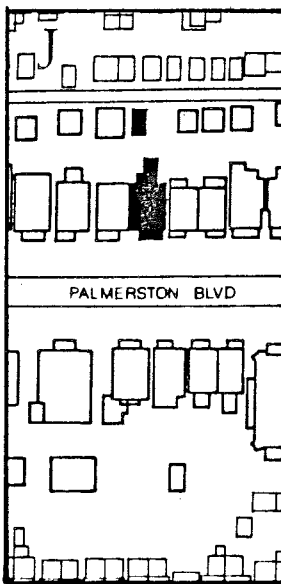
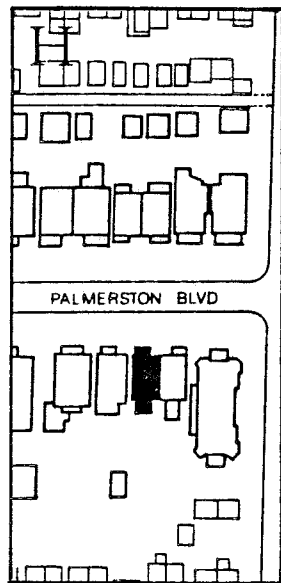
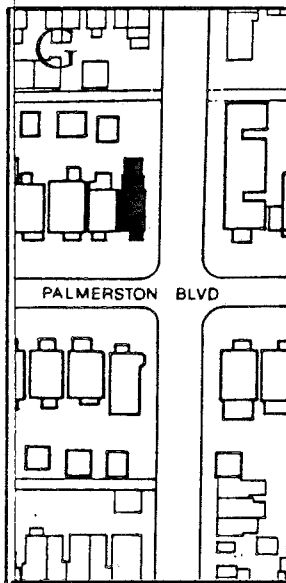
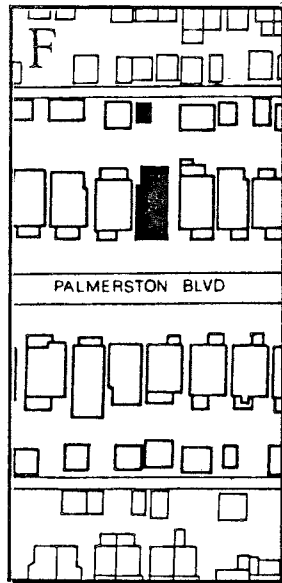
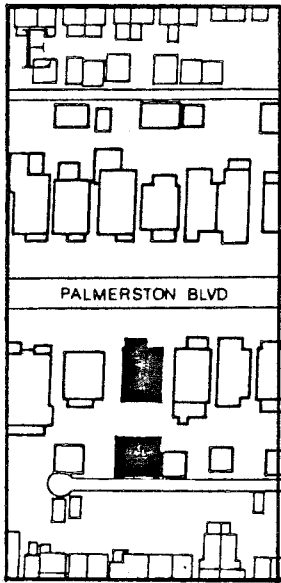
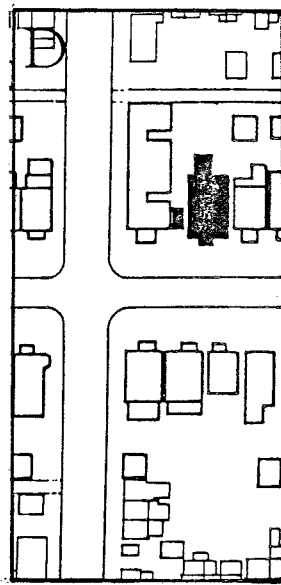
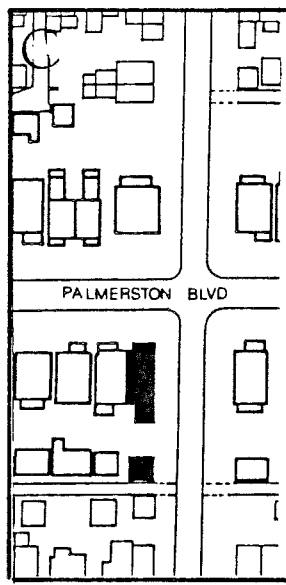
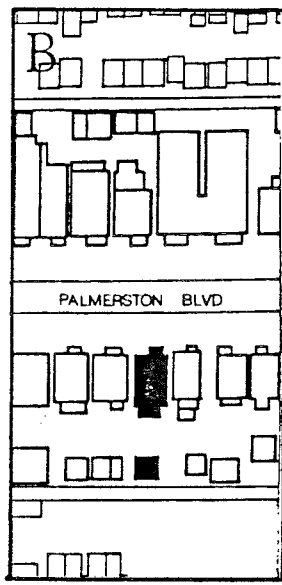
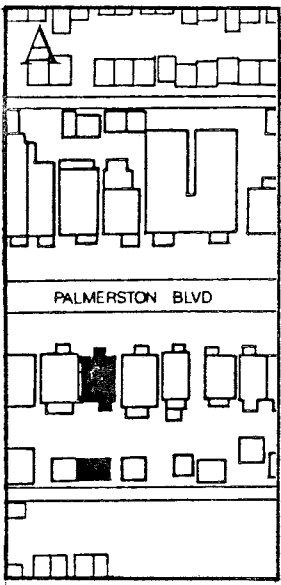
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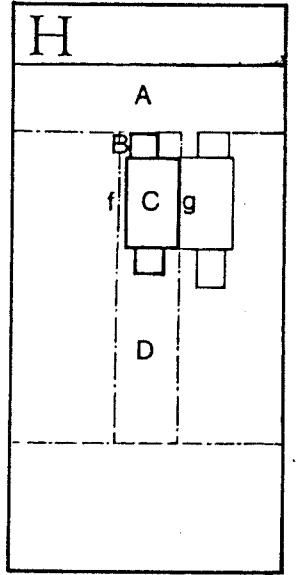
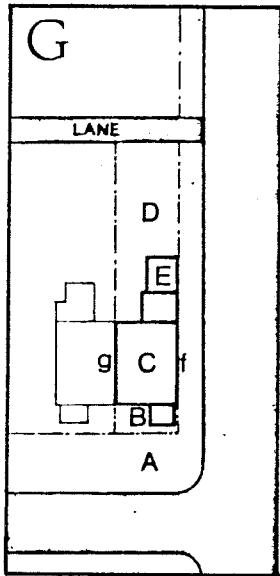
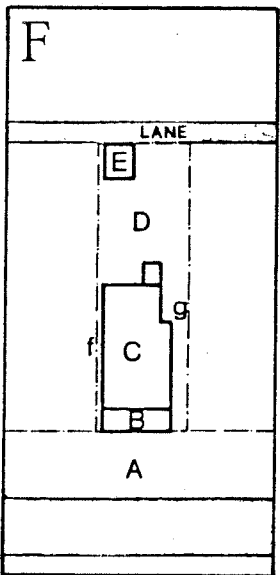
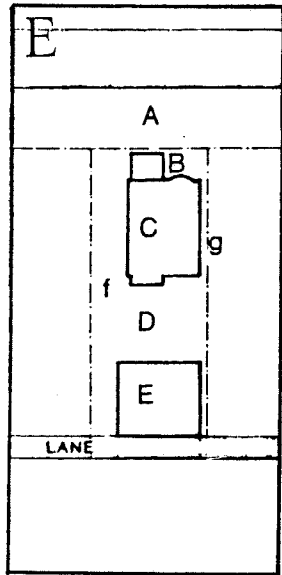
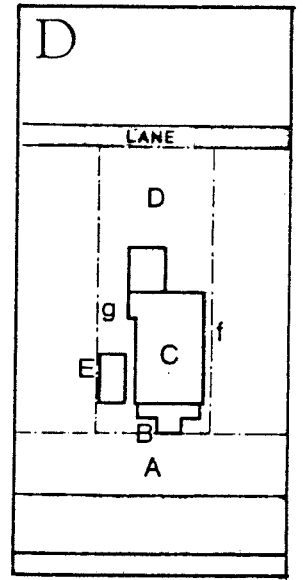
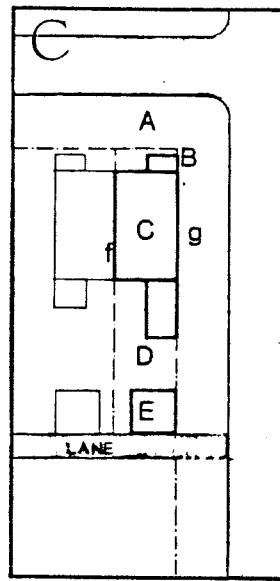
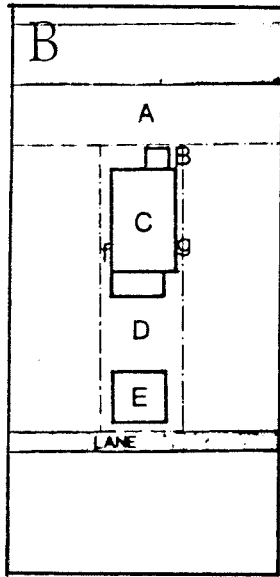
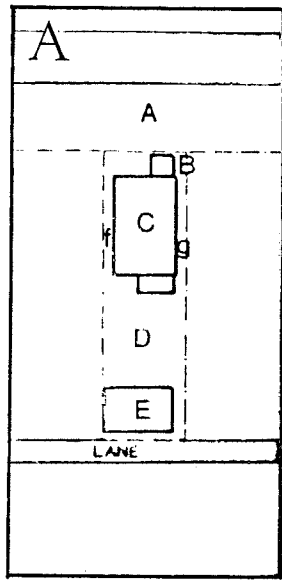
# Index to House Types



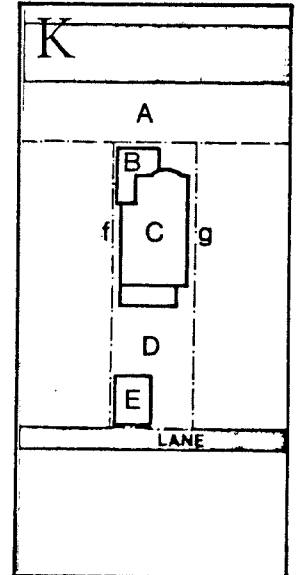
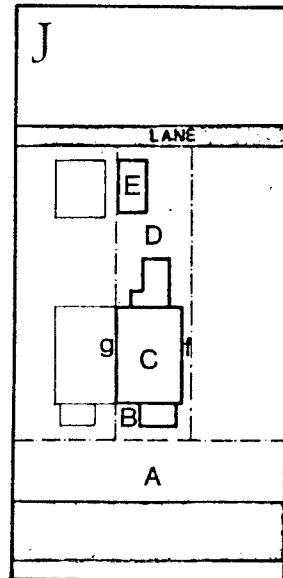
Ground Floor Plans

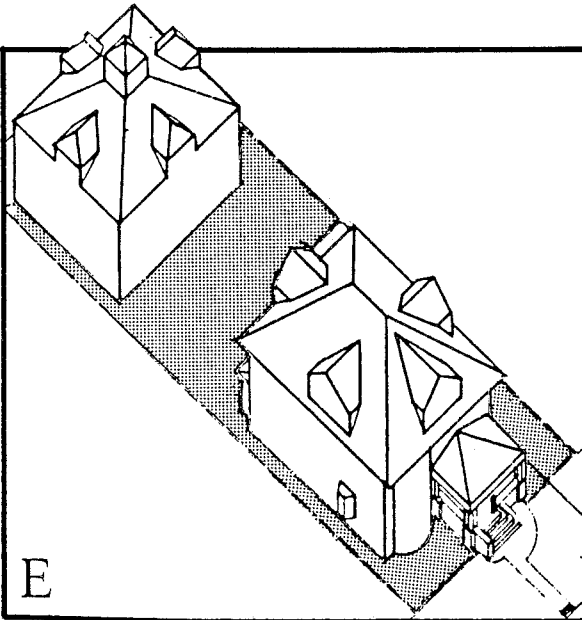
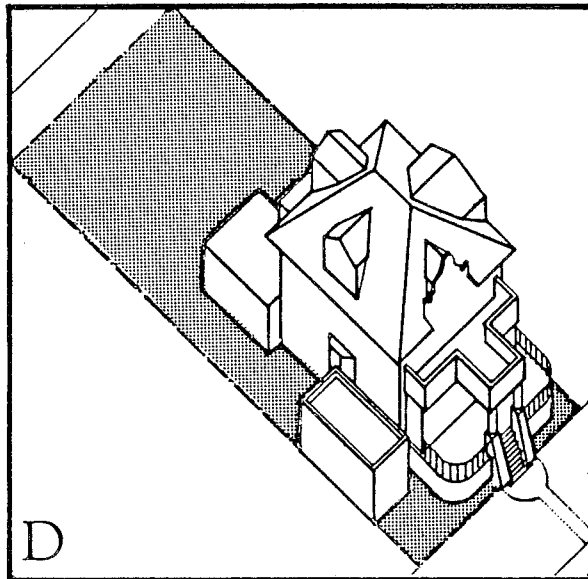
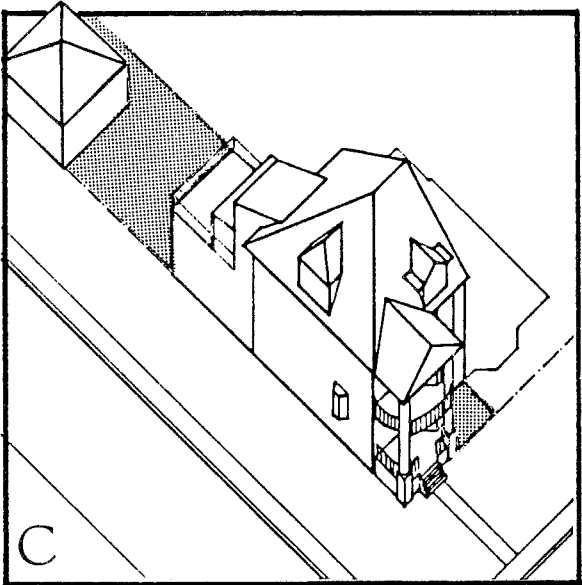
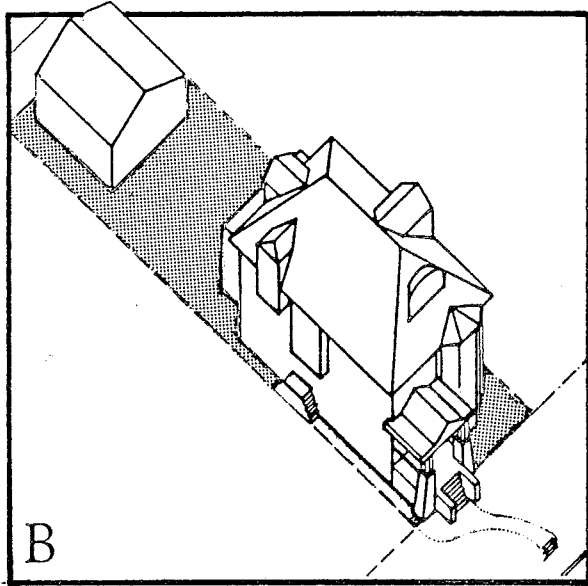
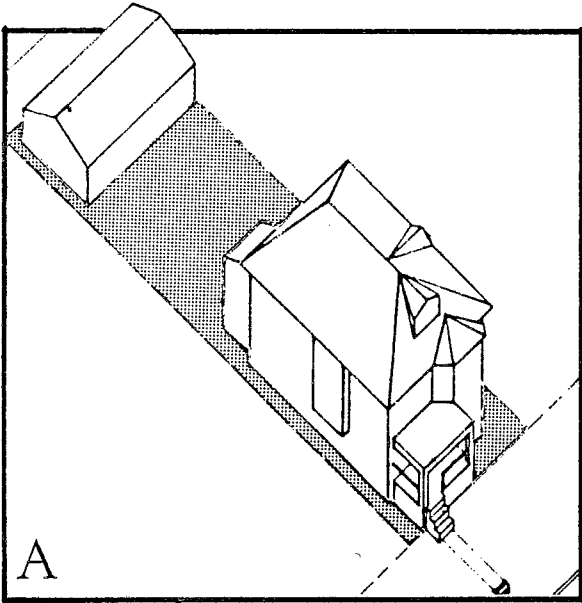


Context



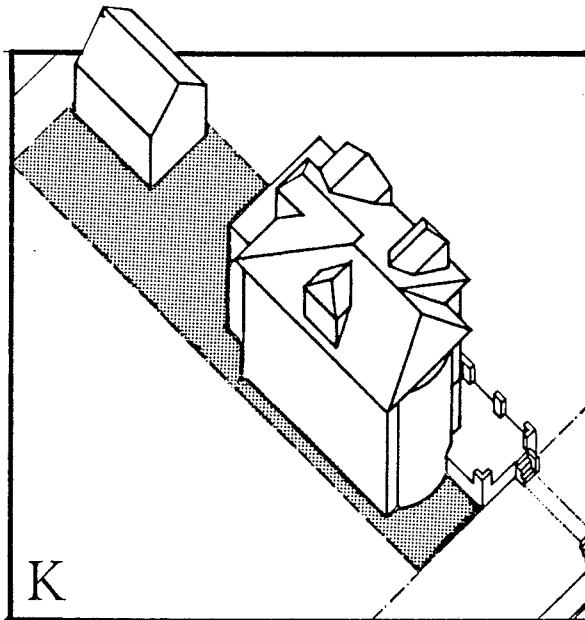
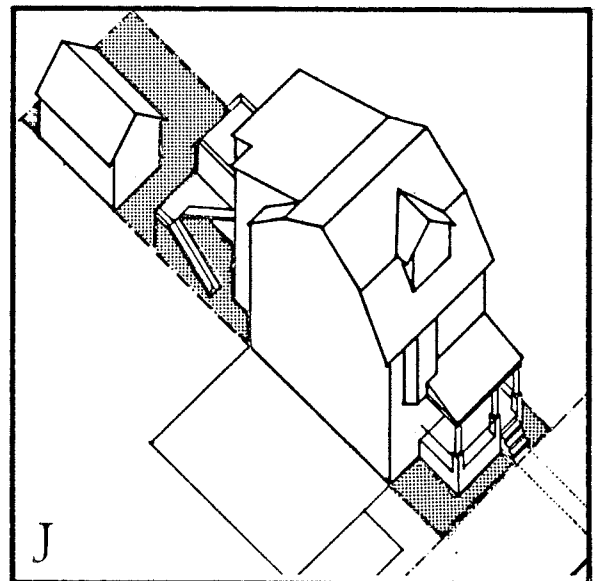
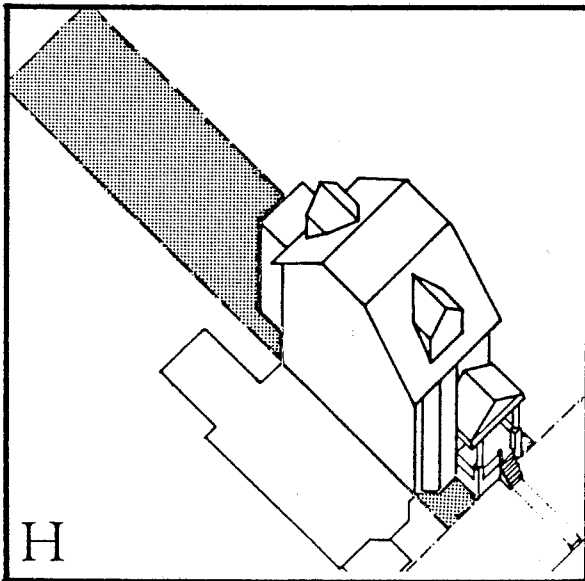
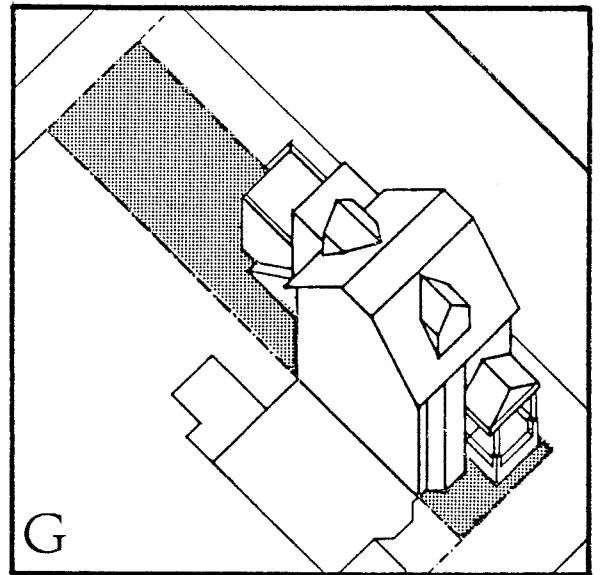
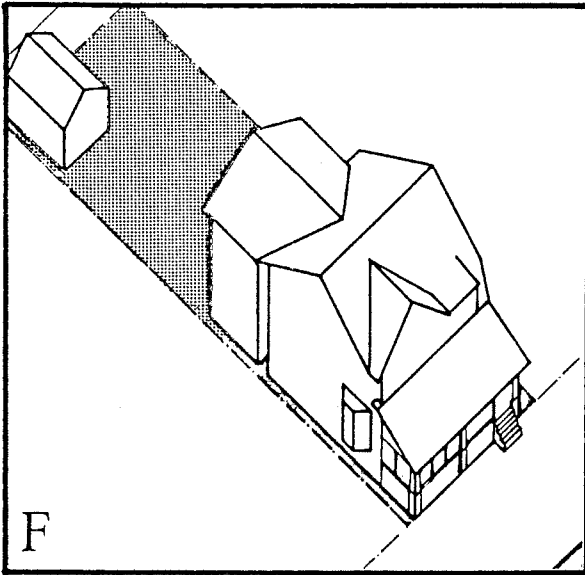
Site Plans





## Axonometrics



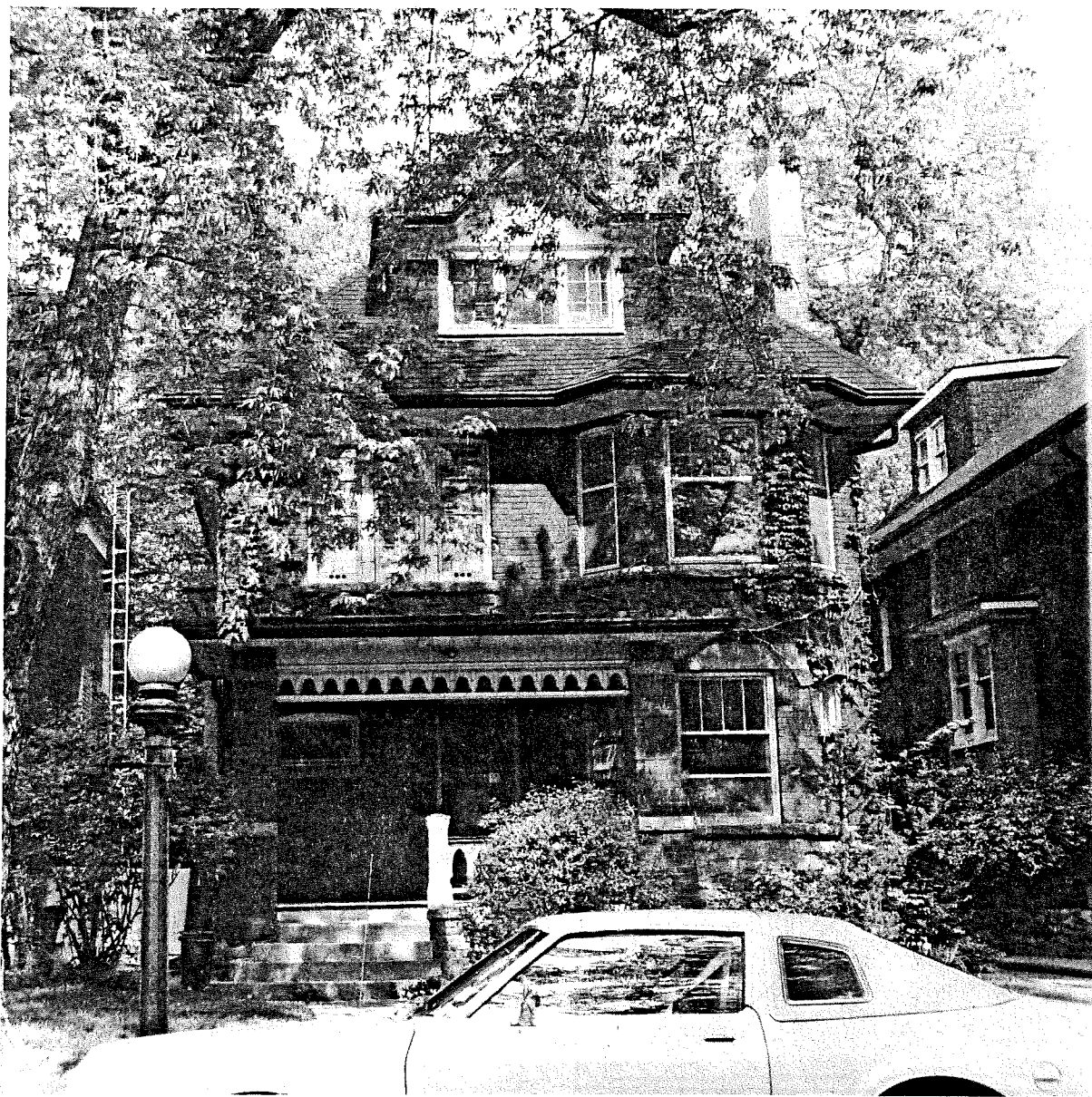


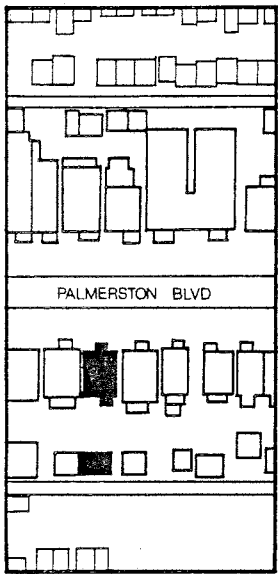
Building  
City/Street  
Time

House "A" Detached  
Palmerston Boulevard  
1908 approximately

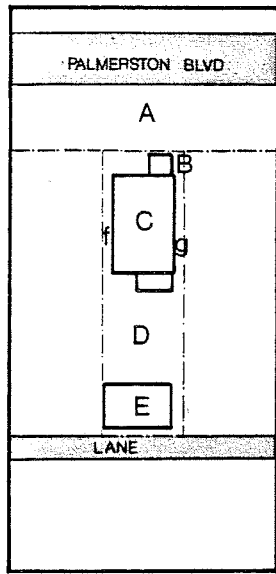
This Palmerston house embodies all of those qualities which make up the Boulevard. Its front yard landscaping shades and defines the external space. The porch puts forth the main image of the house to the Boulevard; the body of the building sits behind. It has not been significantly altered save for a small back addition. The original house is virtually unaltered externally and internally, and is still occupied as a single family residence.

Architect / Builder	unknown	
Lot Size	11m x 38m	Lot no. 114
Lot Area	418 sq. m.	
House Size	8.1m x 13.5m	N.F.A. 240 sq. m.
Coach House		N.F.A.
No of Stories	2 + attic	No. rms. 14
G.F.A	307 sq. m.	
Coverage	73%	
Density		
Type of use	Residential (1 unit)	
Type of construction	Brick and stone	
Location	East side, mid-block	
Access	Rear lane access only	
Sources	Measured drawings by E. K. Storey, J. K. Brown City Directory, 1908	

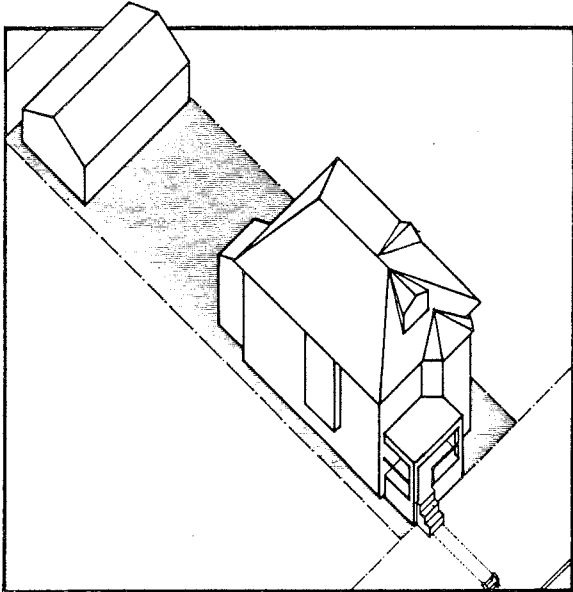




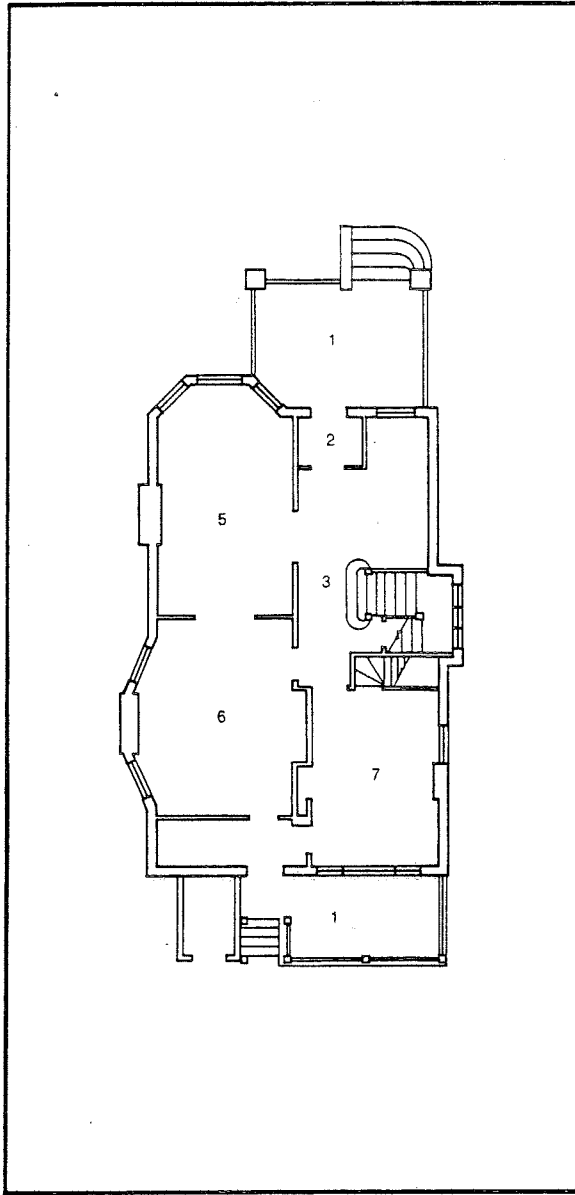
Context scale 1:2000



Site Plan scale 1:1000



Axonometric scale 1:500



Ground Floor Plan scale 1:200

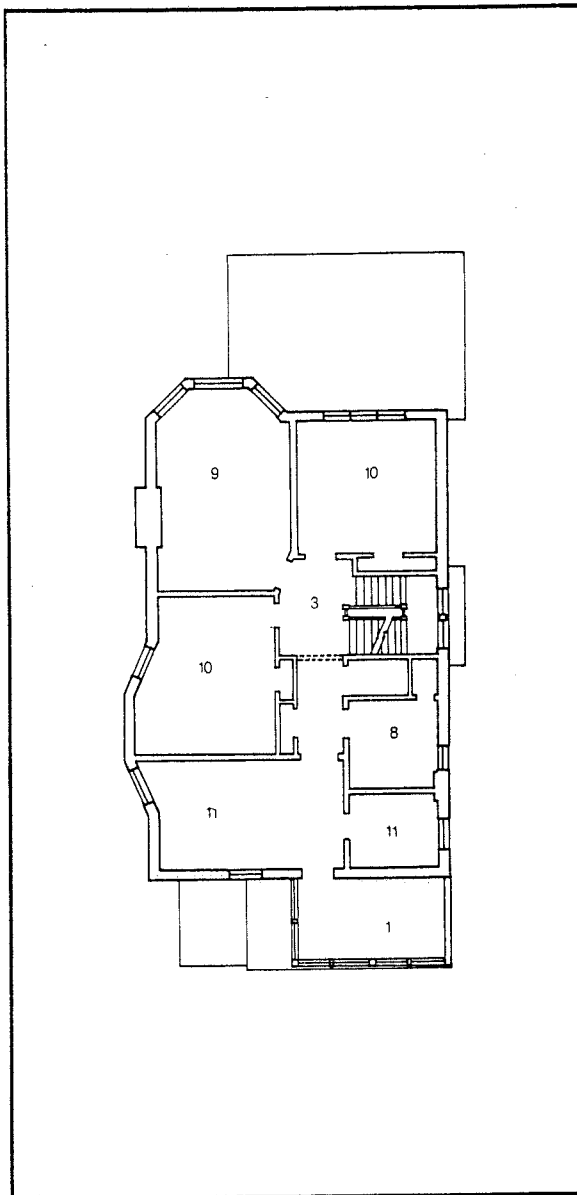
External Spatial Properties

The external spatial character of the house consists of solids and voids. The house occupies a position on a piece of property or lot.

- A: Space of the Boulevard between road and face of the house.
- B. Middle space: between the Boulevard and the House; contains the Porch.
- C. The House occupies a forward position on the lot; creates the front space A & B in

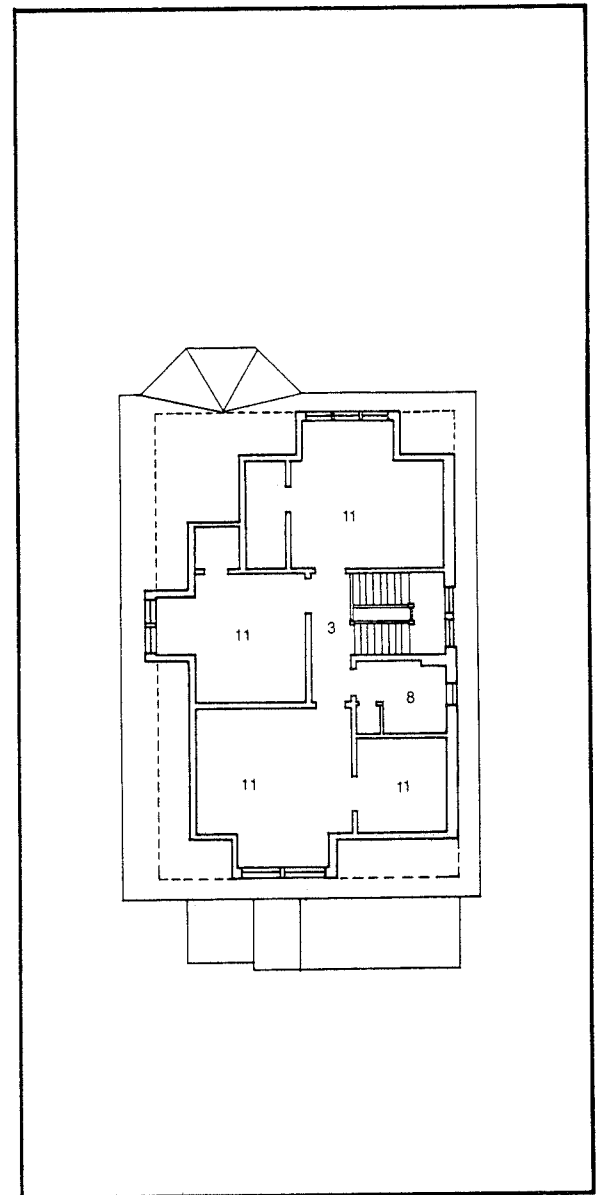
relationship to the Boulevard, and also forms the back space "D".

- D: Back space; located between the solid of House C and the back structure E.
- E: Back building; located at the rear of the lot, occupies a position adjacent to the lane.
- F, G: Two side spaces, formed by the house's position on its lot, and subject to its immediate surrounding.



Second Floor Plan

scale 1:200



Third Floor Plan

scale 1:200

**Key**

- 1 PORCH
- 2 VESTIBULE
- 3 HALL
- 4 DEN
- 5 LIVING ROOM
- 6 DINING ROOM
- 7 KITCHEN
- 8 BATHROOM
- 9 MASTER BEDROOM
- 10 BEDROOM
- 11 ROOM

Internal Spatial Properties

The house consists of enclosed spaces which are interconnected. These spaces move horizontally in a progression from the front of the house to the back.

Front spaces: principal rooms that face the Boulevard:

- 1. Porch space: partially open space, raised above the level of the Boulevard; attached to the front of the house.

- 2. Vestibule space: small space that contains two doors, one into the house, the other out to the porch.
- 3. Hall space: contains the stair, includes the Vestibule, has doors opening onto it, and has a window.
- 4. Primary Space: faces onto the Boulevard, entered from the hall, with a large window onto the Boulevard.



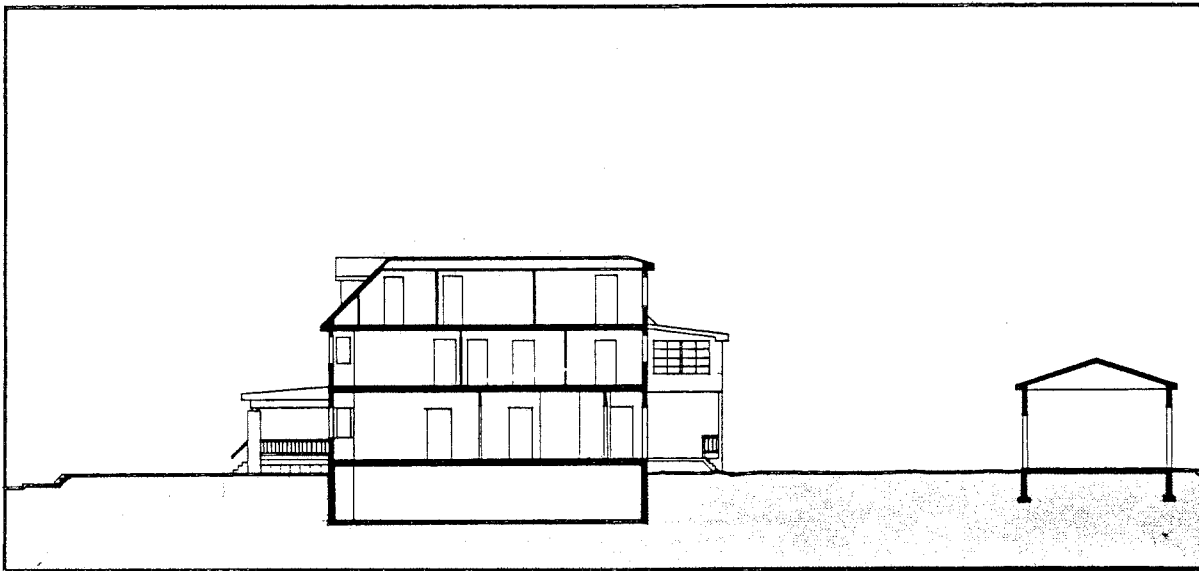
Front Elevation

scale 1:200



Back Elevation

scale 1:200



Longitudinal Section

scale 1:300

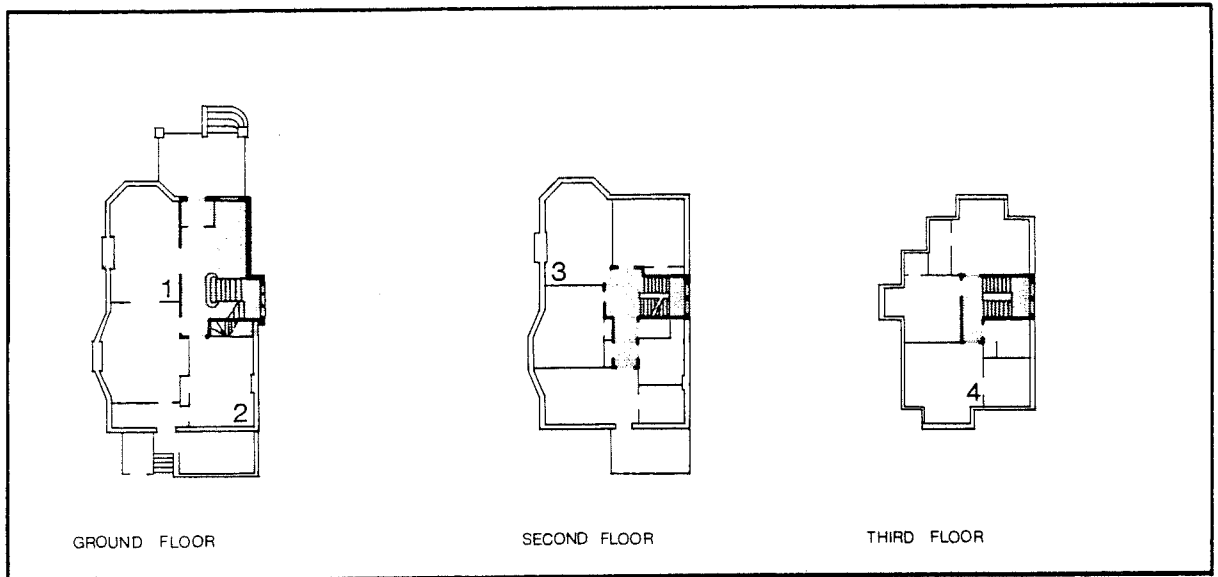
Back Spaces: the secondary spaces that face the back of the lot:

5. Secondary Space: interrelated to the primary space; also entered via hall; windows bow out at the sides and inflect towards the Boulevard.
6. Service Space: entered from the hall and secondary space; opens onto the back space "D".
7. Back Porch Space: entered through the back spaces;

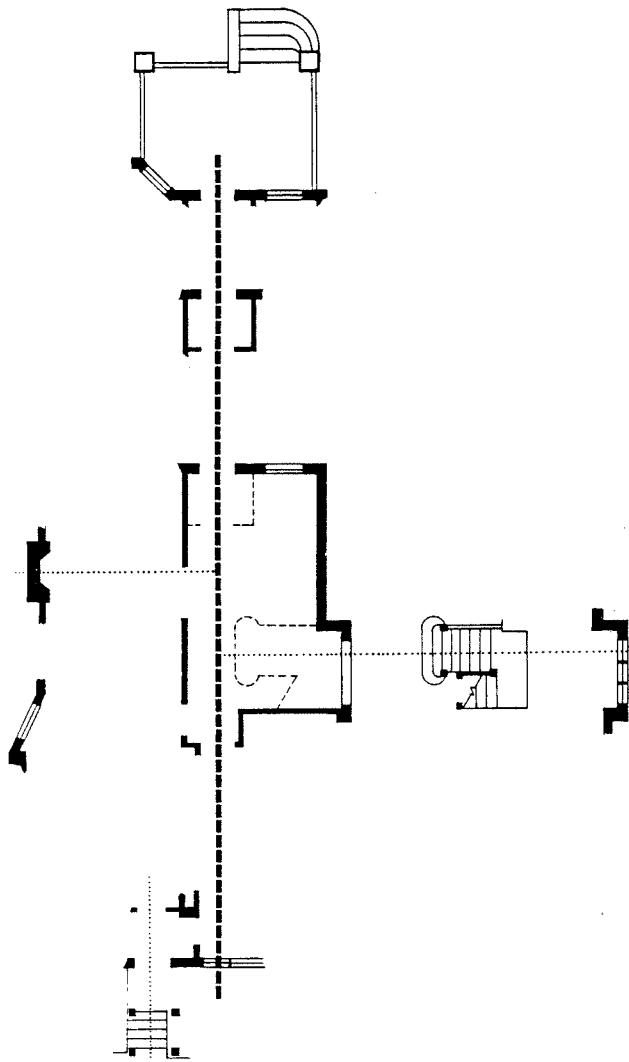
this semi-outdoor space opens onto a stair; faces directly onto the back yard.

The ground floor of the houses consists of an organization of rooms along a major axis; this axis collects both circulation space and rooms horizontally and vertically. The principal axis extends the length of the house from the front door to the back.

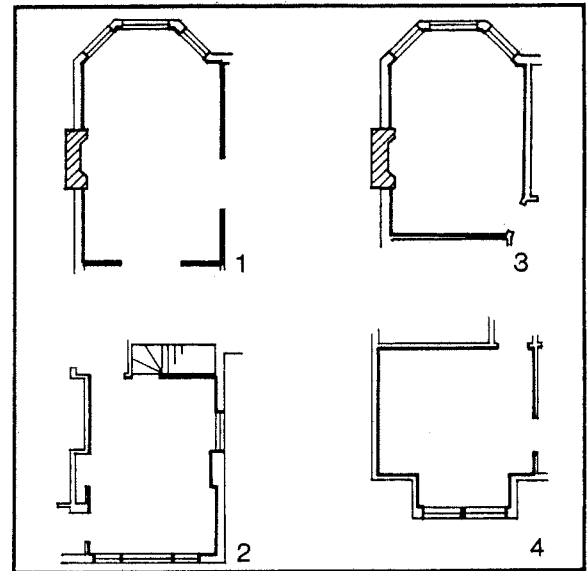
This axis orders space in two ways: one, as space formed separately off of the axis as a destination, and the other, as space which forms an extension of the axis itself.



Hall / Circulation Space



Organization



Primary and Secondary Rooms

The spatial organization of rooms is hierarchical. The principal axis travel through:

- 1) front porch
- 2) vestibule space
- 3) hall space
- 4) service space
- 5) back porch

Minor axes work in conjunction with this major axis, changing direction both horizontally, vertically, and phenomenally, ie. movement on an axis transports itself into visual extensions out of windows and openings.

On the second and third floors, this axis is translated vertically through the stair; movement echoes the ground floor axis. Rooms located both in the front and back are located along a hallway. Rooms are connected to this hallway and are specific destinations with no further extension of space from one room to the next. Each room acts as an autonomous unit, with its own door, window and particular disposition within the house.

Spatial extension from the individual rooms is offered decoriously through the windows to spaces respective to their adjacencies.

The third floor continues a similar order of rooms. Access to rooms extend along the hall space; rooms act as destinations, with all movement either parallel or perpendicular to this axis. Windows extend and translate this axial movement into a visual movement from inside to outside. All rooms have windows.

Middle Space: between external and internal spaces.

The house contains two similar spaces that blend aspects of both the internal and external spaces of the house. These porch spaces are generally located at both ends of the axis of the house, as it contacts the exterior walls. They are attached at one side to the house and are different with regard to exterior spaces that they refer to.

#### Internal/External Relationships

The internal rooms, both back and front spaces, refer directly to the exterior facades; windows and openings that characterize these rooms are expressed on the exterior.

#### Movement

The hall and circulation spaces of the house vary in importance vertically. Circulation and hall space diminish in size at the upper floors, and movement is to each room as a series of destinations rather than one sequence.



Tentative Observations:

1. The House is organized as a progression of external and internal spaces around an axis.
2. The House creates external space.
3. External progression from street to facade:
  - curb
  - sidewalk
  - bush
  - lawn
  - steps
  - porch
  - facade
  - front door
4. The House creates internal space.
5. Internal progression of space is organized perpendicular to the street with destination spaces perpendicular to the main circulation.
6. The Ground Floor is divided into two distinct areas:
  - a) principle spaces (front spaces) aligned with the street, and entered from the front;
  - b) service spaces (back spaces) aligned with and entered through the back.
7. The House and Lot relate in simple terms of a confirmation of contraries:
  - front space - back space
  - interior - exterior
  - principle - service
  - formal - informal

These contraries gather emphasis and are coincident at all middle spaces, ie. porches.

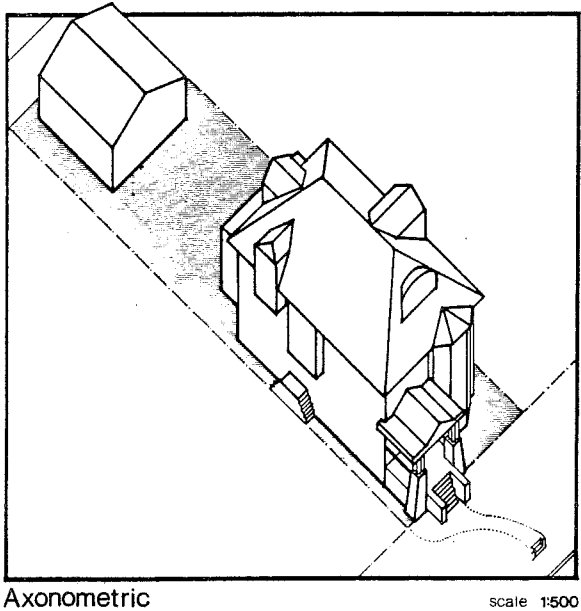
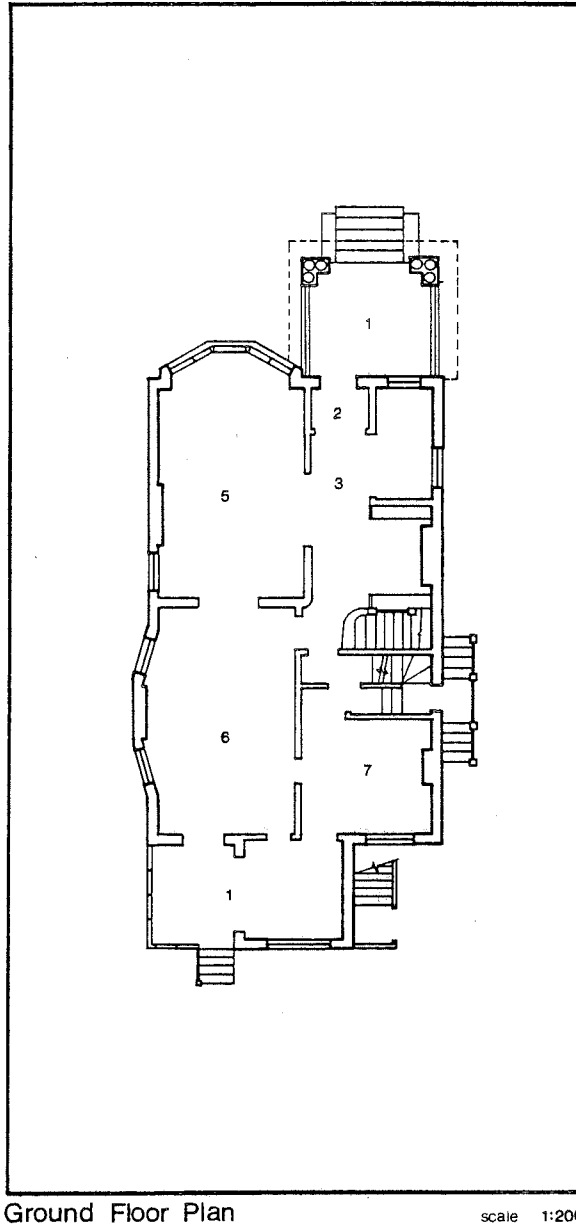
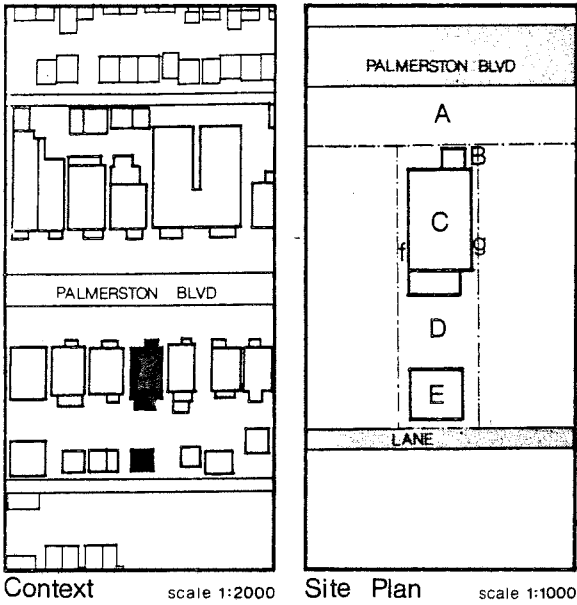
Building  
City/Street  
Time

House "B" Detached  
Palmerston Boulevard, Toronto  
1908, approximately

This house has undergone several transformations since its construction. It is currently a combined use of a professional office and single family home. While the internal changes have been made throughout its life span, the external appearance of the house has not changed. Its original plan was almost identical to its neighbour's, House "A", though its external architectural language is considerably different.

Architect / Builder	unknown	
Lot Size	11m x 38m	Lot no. 113
Lot Area	418 sq. m.	
House Size	7.9m x 16.5m	N·F·A 238 sq. m.
Coach House		N·F·A
No of Stories	2 + attic	No·rms· 14
G·F·A	314 sq. m.	
Coverage	75%	
Density		
Type of use	Office and single family residential	
Type of construction	Brick and stone	
Location	East side, mid-block	
Access	Rear lane access only	
Sources	Measured drawings supplied by Klaus Dunker, Architect City Directory, 1908	





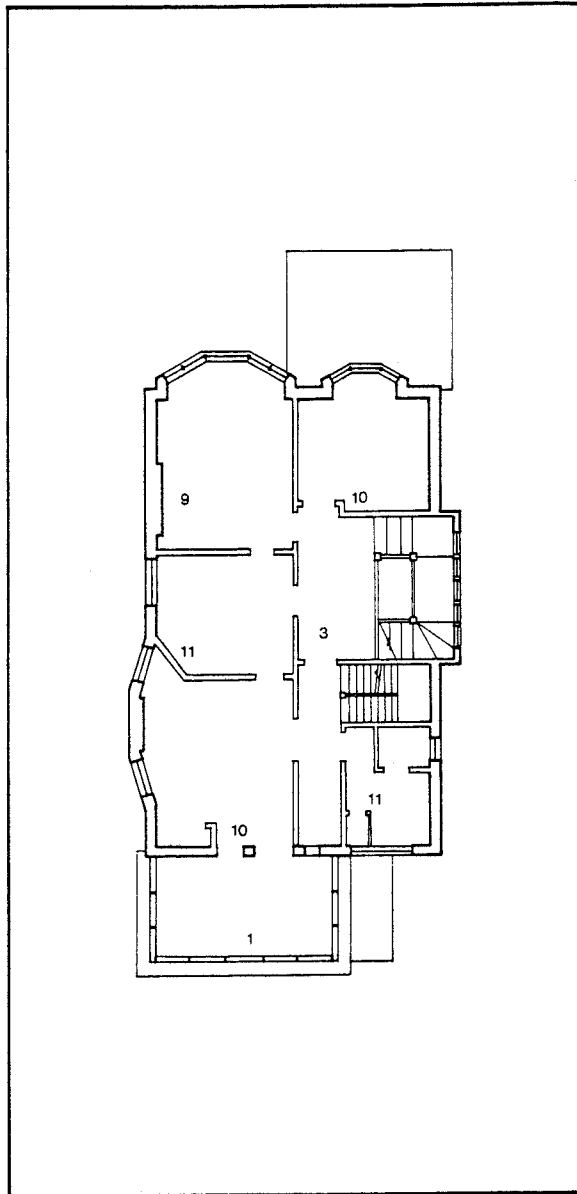
House "B" Converted

House "A" has been examined exclusively in terms of contrasting spatial properties. House "B" analysis will focus on change, the time attribute of space, and will look at how space manifests aspects of time.

Under the same three general categories of external, internal and middle space, the effects of time and change will be examined.

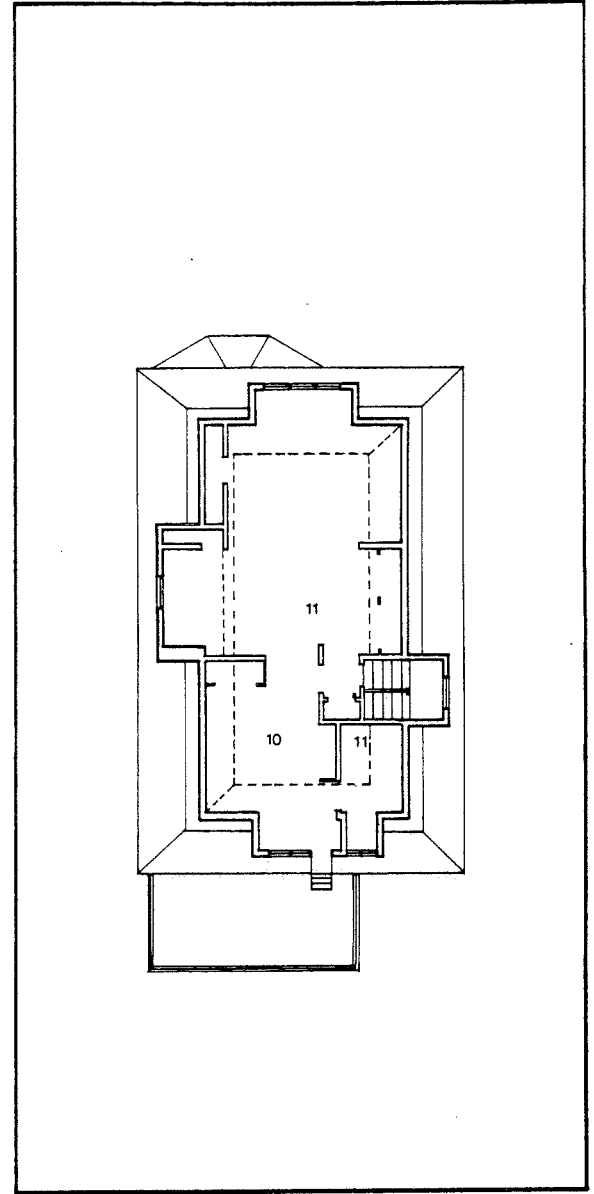
External Spaces:

Outdoor spaces behave somewhat like rooms; elements of the spaces respond temporarily to seasonal change. The rooms are furnished in the good weather by foliage of the trees which shade and define individual spaces, and more or less obscures the appearance of the upper storeys of the house, so that the porch then becomes the major identifiable representation of the house.



Second Floor Plan

scale 1:200



Third Floor Plan

scale 1:200

**Key**

- 1 PORCH
- 2 VESTIBULE
- 3 HALL
- 4 DEN
- 5 LIVING ROOM
- 6 DINING ROOM
- 7 KITCHEN
- 8 BATHROOM
- 9 MASTER BEDROOM
- 10 BEDROOM
- 11 ROOM

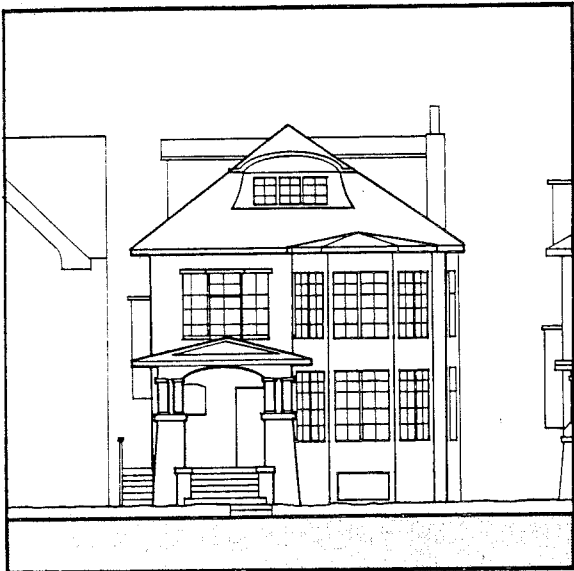
The rooms are also furnished by man-made planting and temporary shading devices. These rooms are left empty in the winter months and the spaces which were previously formed by trees' foliage now tend to melt into one large collective space.

Trees also respond in a more permanent fashion to long periods of time. While the trees reflect the seasons' accelerated process of change, in overall, gradual ways they are growing and maturing, then wearing and deteriorating with

age. At the same time, minimal evidence of physical change has been reflected on the exterior face of the house.

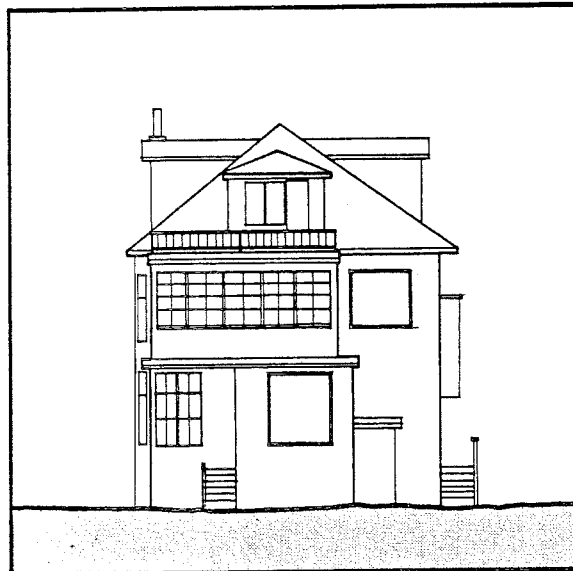
Internal Space:

Internally, very different correspondences of time can be understood. In light of the spatial organization typical of House "A", House "B" can be understood as a succession of spaces that move along an axis. Each space then takes on a specific role.



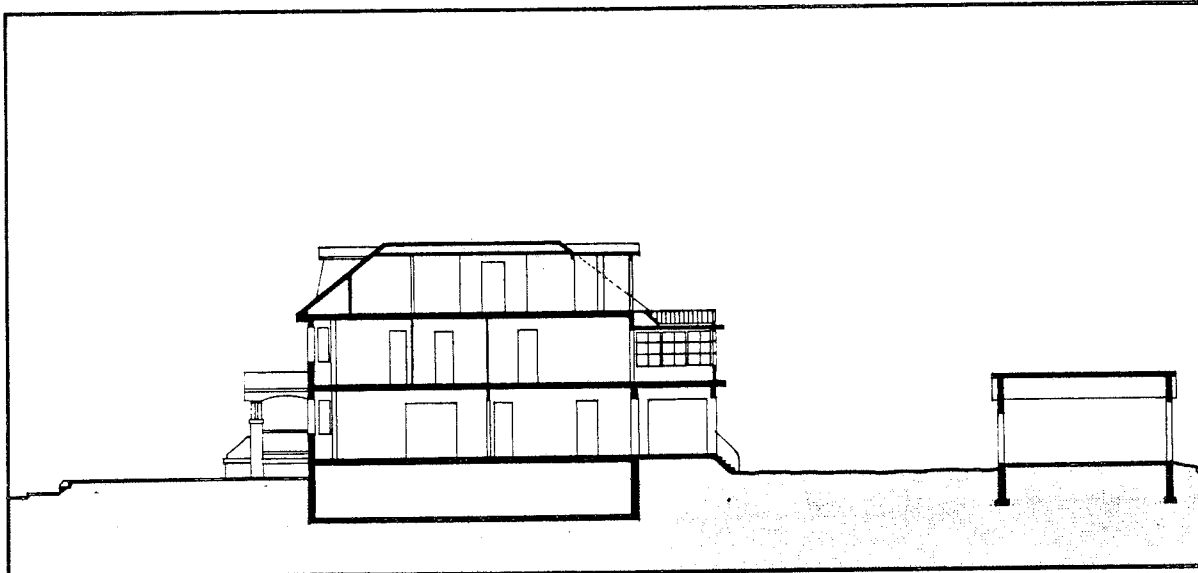
Front Elevation

scale 1:200



Back Elevation

scale 1:200



Longitudinal Section

scale 1:300

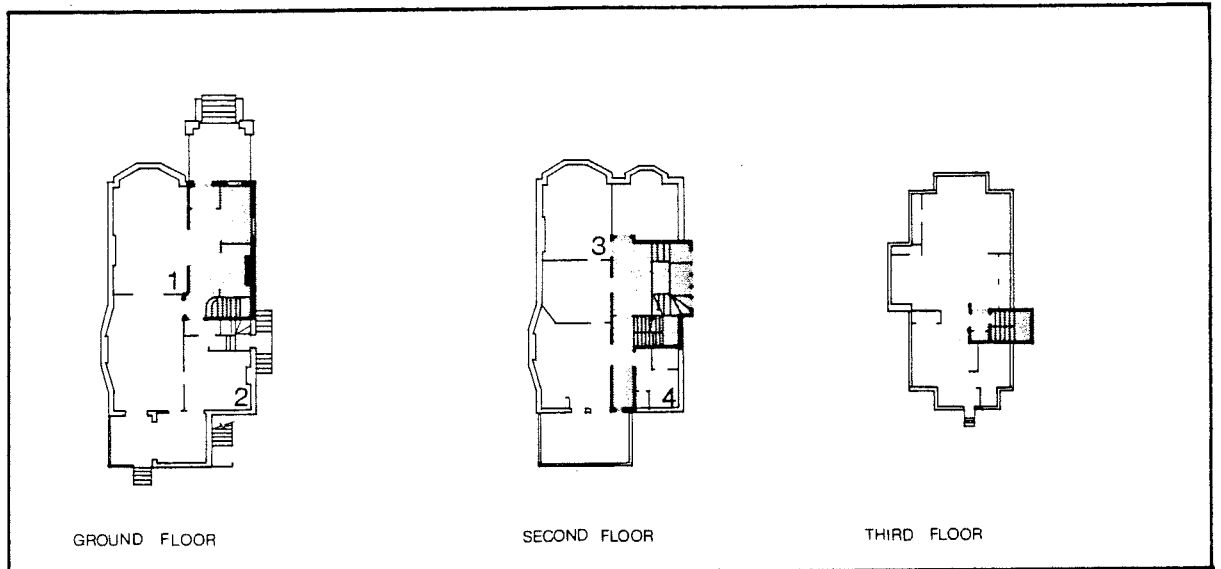
The Porch as a bridging space between external and internal spaces will be discussed later; however, at this point, it is important to note how it initiates and ties together the external and internal axis, from which the vestibule space forms the first in the sequence:

- Porch
- Vestibule space
- Hall space
- Primary space
- Back spaces
- Back porch

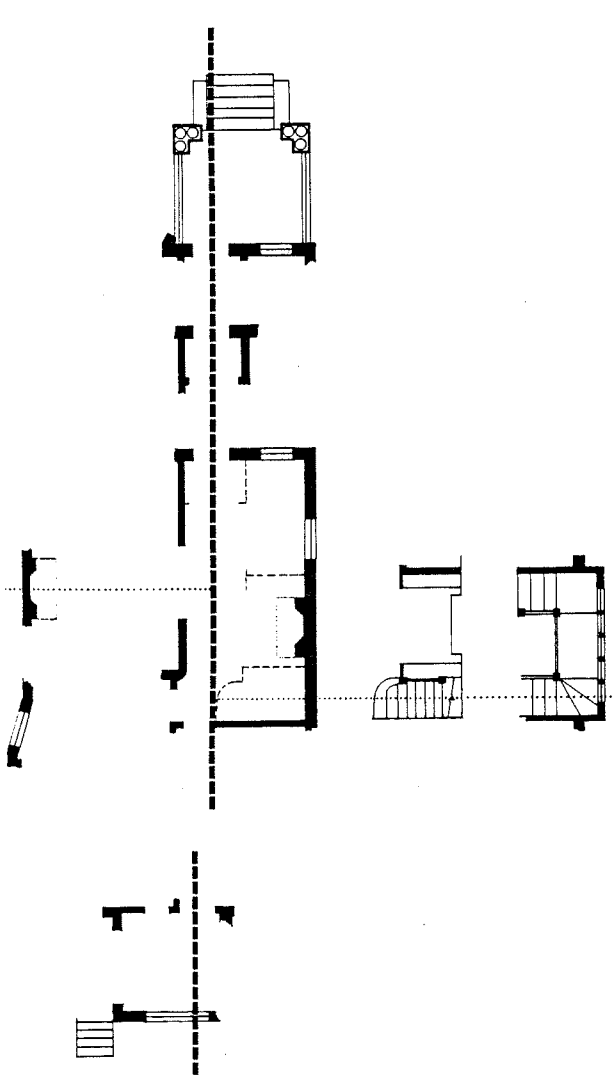
The Vestibule is the first internal space of the house.

Its smallness partially reflects its transitional nature. Employed only for specific durations for coming and going, at the vestibule guests are greeted and then are introduced shortly to the hall space.

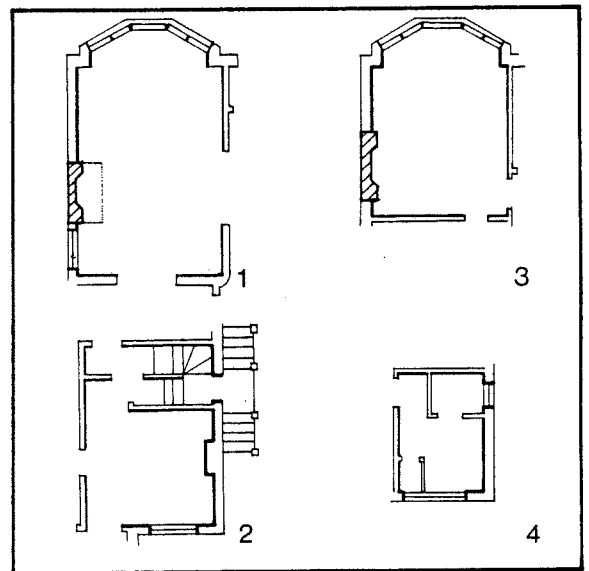
The hall space is partially a space for waiting in; a seat is provided around a fireplace and the stair is located nearby. From the hall, views of the rest of the house are offered, and it is here that the internal house is presented for the first time to a visitor.



Hall / Circulation Space



Organization



Primary and Secondary Rooms

The primary space and its inter-related back space act as destination spaces. More time is spent in these spaces, and are subject to occasional uses, such as parties and entertaining. They then possess the facility of expanding to form one large room rather than two adjoining rooms.

The back service space is more subject to the cycles of food preparation and occupies a position of great importance in the daily habits of the occupants. A great deal of time is spent in this space.

The upper floors of the house are less public and thus contain the private spaces. Bedrooms and their attendant service rooms are used within a cycle of occupancy. Bedrooms, while used for at least eight hours every day, are private spaces and are characterized by the very closed destination nature of their relationship to the axis of house movement.

#### Middle Spaces

Porches as interval spaces are more flexible to both internal and external spaces. As spaces which are normally passed through, they can also take on occasional uses in good weather. The porch is used for a place to sit and observe the street, and enjoys the qualities of both the external and internal worlds.

#### Tentative Observations:

1. The external spaces of the house are subject to both occasional and seasonal use.
2. Spaces of the house are used at different times of the day for varying intervals.
3. The axis of the house is interpreted by two means: time and space. Spatially the axis is perceived as an extension of space through which the house is ordered. The axis is perceived in terms of time by the movement through, which is subdivided into public and private degrees of penetration. The public realm of the house is terminated on the axis at the hall space, where "waiting" then occurs; the private movement along the axis proceeds past the hall, by the primary, secondary, and back spaces, or alternately through the vertical route to the private upper floors.
4. Ground floor spaces are larger and are inter-related in order to accommodate special occasions where larger spaces are required.
5. Back service spaces are located for reasons of convenience and frequency of trips in and out to the back exterior space.
6. Middle spaces are used both intermittently and for extended periods of time, subject to weather conditions.



# House 'B' Converted

## Analysis of Change

### House "B" Converted

#### Analysis of Change over Time:

The period of time between the original construction of the house in 1906 and the present time has witnessed a wide classification of changes. The house when first built reflected a specific era and culture. The architecture was suited to a form of family structure and was stratified hierarchically, both internally and externally on the Boulevard

This beginning idea has changed to accommodate history and growth on the Boulevard, subject to the uses it has experienced. In this case, the house has shifted from a single family home to a house used by a physician as a residence and office. It then shifted briefly to an apartment house with one rental unit per floor, and is presently again a professional office and home for an architect and family.

#### Analysis of Changes

##### External Change:

The external parts of the house as originally laid down have remained virtually untouched. The presence of a stair to the upper apartment appears on the side of the house and a small porch addition at the rear has been added. The physical image of the front elevation of the house to the Boulevard seems to have remained intact.

##### Internal Change:

The original plan for House "B" begins with a strong set of spaces, axially organized. The ground floor contains the larger, more public spaces of the house and respective service spaces.

The upper floors are somewhat smaller with closely graded private spaces.

In the first set of changes, under the ownership of the doctor, the original living space is subdivided into small examination rooms. An exterior stair is introduced to allow private access to the upper apartments; a bathroom is shifted to accommodate the stair to the third floor.

A staircase extends up from the basement to the ground level at the back yard.

Interior changes indicate minor walls that are opened up while others are closed, ie. doorways.

On the second floor at the back, typical addition of walls occur within a designed space.

In the second plan showing changes, this time as a professional office and home, the spaces, instead of being further subdivided, take on another internal revolution back almost to the original layout of large rooms. The doctor's examining rooms are noticeably absent; previously subdivided spaces have become open, and, again, doorways filled in, partitions added and removed, doorways opened up.

The most noticeable change occurs on the third floor where the entire floor has been opened up to become one large room.

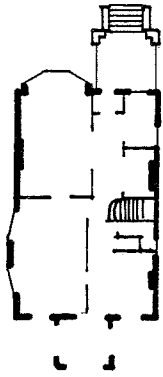
#### Middle Space:

The front porch has not changed. However the rear porch, having once been isolated as an extension of the back space, has grown accretively, by a) extending the semi outdoor space, b) absorb previous outdoor space, make it indoor space, and c) add further semi-outdoor space, etc.

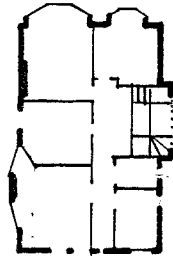
#### Tentative Observations:

1. There is less noticeable change on the exterior front faces, as growth occurs more readily at the back of the house.
2. Internal change takes place within a prescribed shell in two ways:
  - a) By addition: walls are added, space is subdivided into smaller spaces.
  - b) By subtraction: walls are removed, space is opened up to form larger spaces.
3. There are permanent and less changeable areas of the house:
  - a) shell of the house
  - b) vestibule, hall and circulation spaces
  - c) stairs
  - d) front porch
4. Porch Spaces: alternatively respond in both a closed and open way to both weather and the exterior spaces that they address.

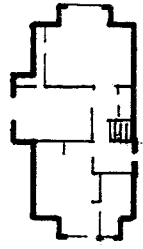
HOUSE B : as built 1906



Ground

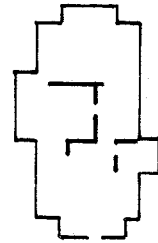
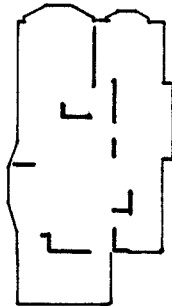
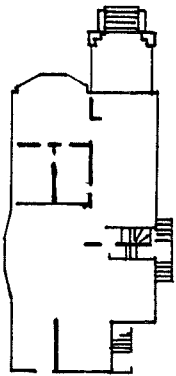


2nd

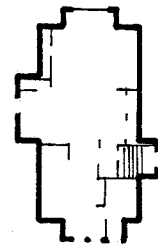
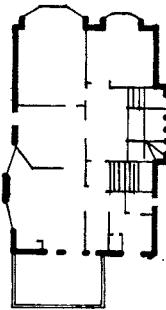
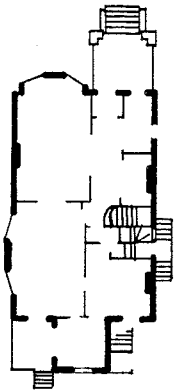


3rd

First alteration : 1940



Second alteration : 1978



# Comparison of House Analyses

## Introduction

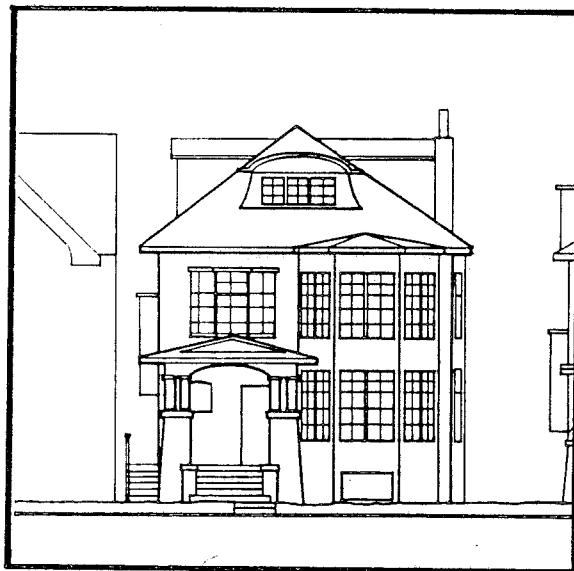
At this point, a comparison can be made between House "A" as built in 1906, and House "B" as altered in 1978. The emphasis at this stage of the research will be to identify and make observations of change and permanence as they refer to criteria upon which further examples may be classified.

The common properties of change between House "A" and "B" occur primarily on the exterior, in the form of "no change".

Although House "B" has been intensely altered, no noticeable difference between the houses are apparent on their facades. Their particular house image has been retained and disguises any interior changes.

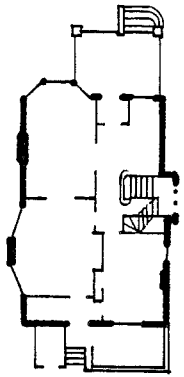


HOUSE A

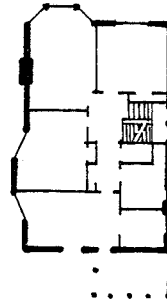


HOUSE B

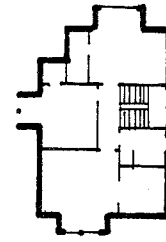
HOUSE A: as built 1906



Ground

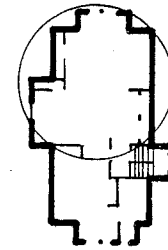
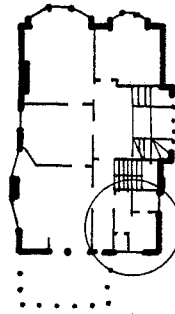
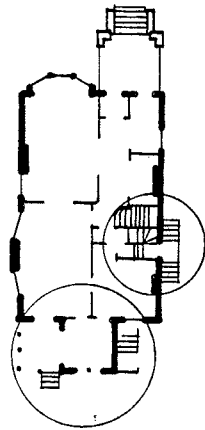


2nd



3rd

HOUSE B: alteration 1978



The relationship that had earlier existed between internal space and external representation ie. windows, doors, openings, etc. as references of the rooms they belong to, no longer expresses a clear relationship.

The internal spatial order so clearly indicated in House "A" although remaining intact up to the present with little apparent change, has been capable of handling change in an altogether different guise.

This change has been primarily one of useage and naming of spaces.

As the house has aged, so has the generation that once occupied the house. The house has remained the same while the family structure has changed.

The delicate family framework, in conjunction with a culturally elaborated house form has suffered a disjuncture; rooms and spaces no longer refer to a lifestyle that once typified the house's origins.

Instead, House "A" has been able to reuse the many rooms as malleable spaces such as hobby rooms, sewing rooms, spare rooms, etc., that are capable of accomodating the needs of a smaller family.

House "B", on the other hand, has been changed more actively. The internal workings of the house have shifted, as the usage has gone through fairly radical transformations.

The two houses' spatial organization represents two extremes that exist on the Boulevard: one house unaltered, the other significantly changed, both not indicating any visual evidence of this on the Boulevard as expressed by their facades.

As will be seen later, these tendencies of change and absence of change will be looked at from a collective point of view on the level of the entire Boulevard, and the Boulevard's relationship to the city at large.

At a more detailed level, the principal and secondary rooms in both Houses "A" and "B" demonstrate significant traits.

Rooms found in House "A" have remained intact as autonomous pieces. Each room is enclosed with a window, a door, and a direct relation to the circulation system.

Rooms found in House "B", in particular Room 1, have been opened up, reverting closely to its original state, although the opening to the hall has been increased.

Room 3 has received a stair, and has thereby reduced its original area. Room 2 has been opened to form an en suite relationship to the adjacent room. Room 4 has been infilled to form smaller compartments.

Middle spaces in both houses adapt change incrementally and show only a minimal physical evidence of alteration.

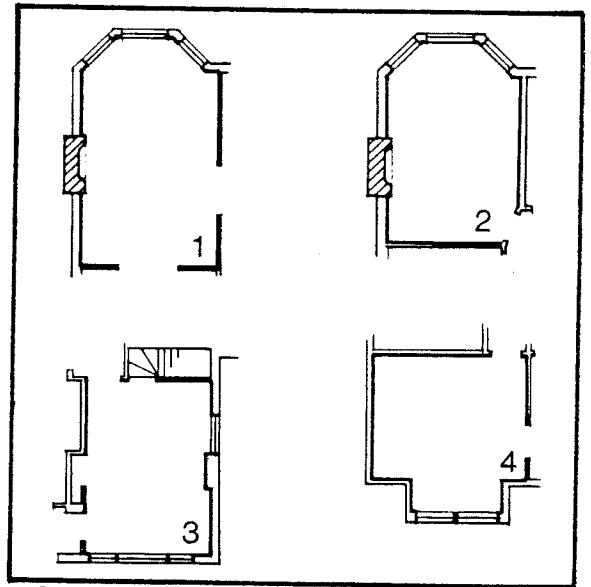
Observations:

1. Both Houses "A" and "B" have accomodated change.
2. Change occurs in three ways:
  - a) Adaptive: The physical space remains the same, but the use adapts to the room. ie. bedroom becomes study, etc.
  - b) Additive: Existing large rooms are infilled.
  - c) Subtractive: Crowded subdivided spaces are opened up within one original room; several rooms are opened up to form one large room within the original shell of the house.

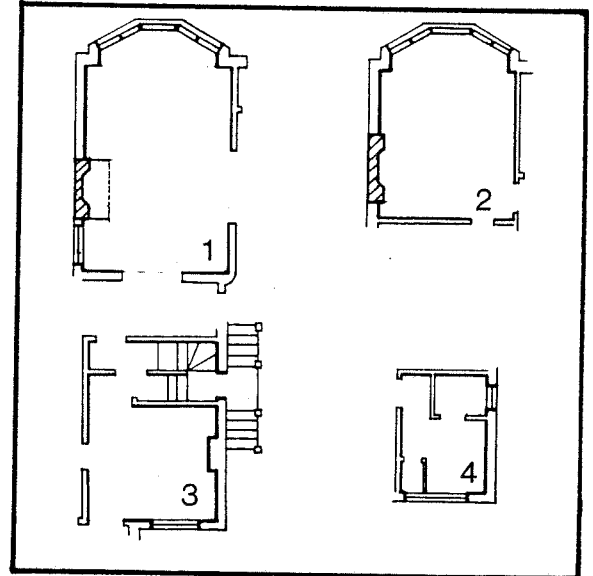
Propositions:

1. Large rooms accomodate further subdivision of space and seems the most frequent mode of change within the original houses.
2. The Room is the basic unit of the house and contains an autonomous authority that mirrors the house in miniature: an entrance, an enclosed space, an opening to the outside.
3. The house must be capable of accomodating changes to avoid being removed completely.
4. Small spaces lend themselves more to expansion and adapt less easily to subdivision.

ROOMS



HOUSE A



HOUSE B

Key

House A	House B
1. living room	living room
2. master bedroom	master bedroom
3. kitchen	kitchen
4. bedroom	room

Building  
City/Street  
Time

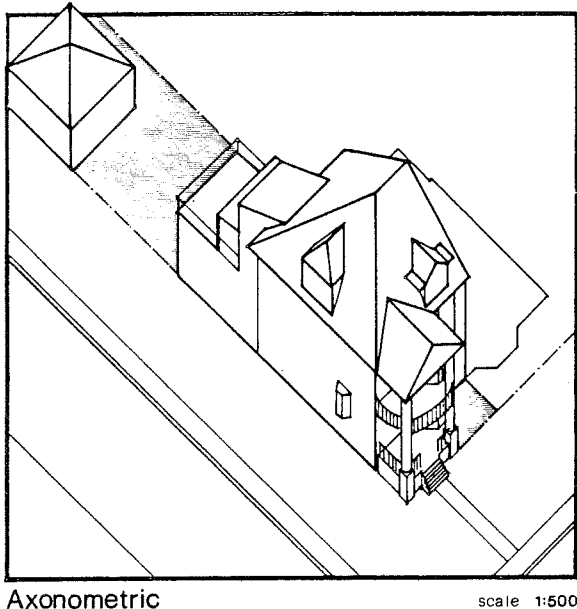
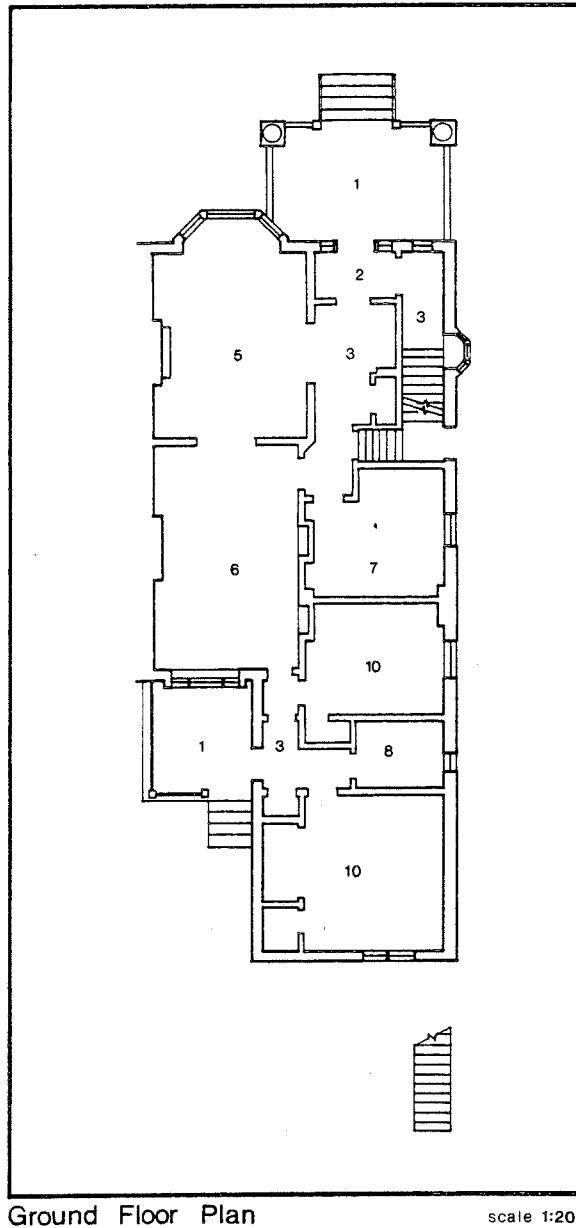
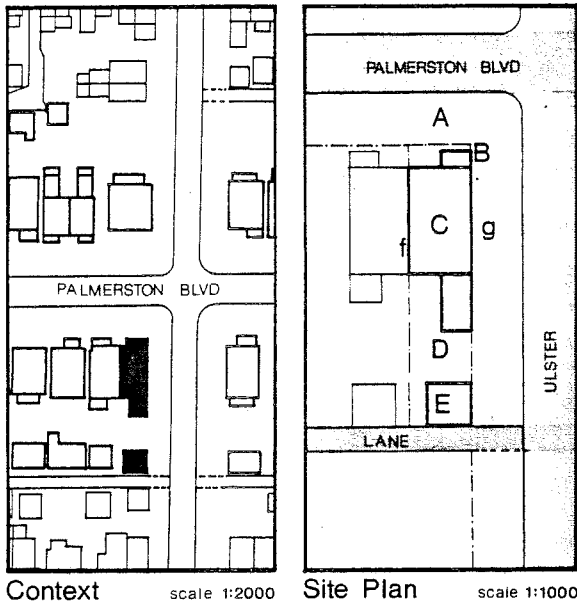
House "C" Semi-detached  
Palmerston Boulevard, Toronto  
1906 approximately

The corner location and double storey porch of classical design give this Palmerston house its distinctive quality. The porch enters into the landscape of the Boulevard and expresses the status of the house. Although semi-detached, the scale and prominence of the porch makes atonement for the straightforward character of the house. A further announcement of this comes from the entrance door, and its elaborate detail. The house contains three apartments on three floors; the renovation work has only minimally altered the internal workings of the house.

Architect / Builder	unknown		
Lot Size	8m x 38m	Lot no.	285
Lot Area	304 sq. m.		
House Size	8m x 20m	N.F.A	260 sq. m.
Coach House		N.F.A	
No of Stories	2 + attic	No. rms.	15
G.F.A	325 sq. m.		
Coverage	106%		
Density			
Type of use	Residential (three units)		
Type of construction	Brick and stone		
Location	Southeast corner		
Access	Side street and rear lane		
Sources	Measured drawings by E. K. Storey, J. K. Brown		
	Original building permit		







This is the first house in the second grouping of houses to be analysed. The observations and propositions raised in the earlier analyses of Houses "A" and "B" will be further considered. At the end of this section, further tentative observations and propositions will be made.

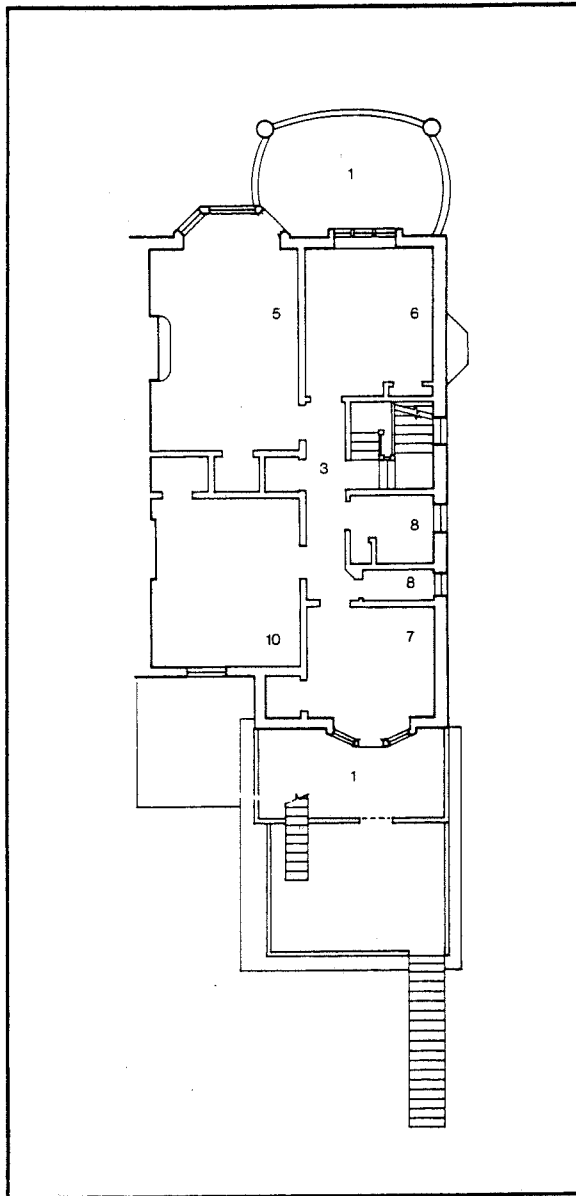
External Spaces:

This house, situated on a corner lot, is built right up to its side lot line. Along the length of this lot line several additions have been made to the rear

of the building, which have greatly reduced the size of the back yard.

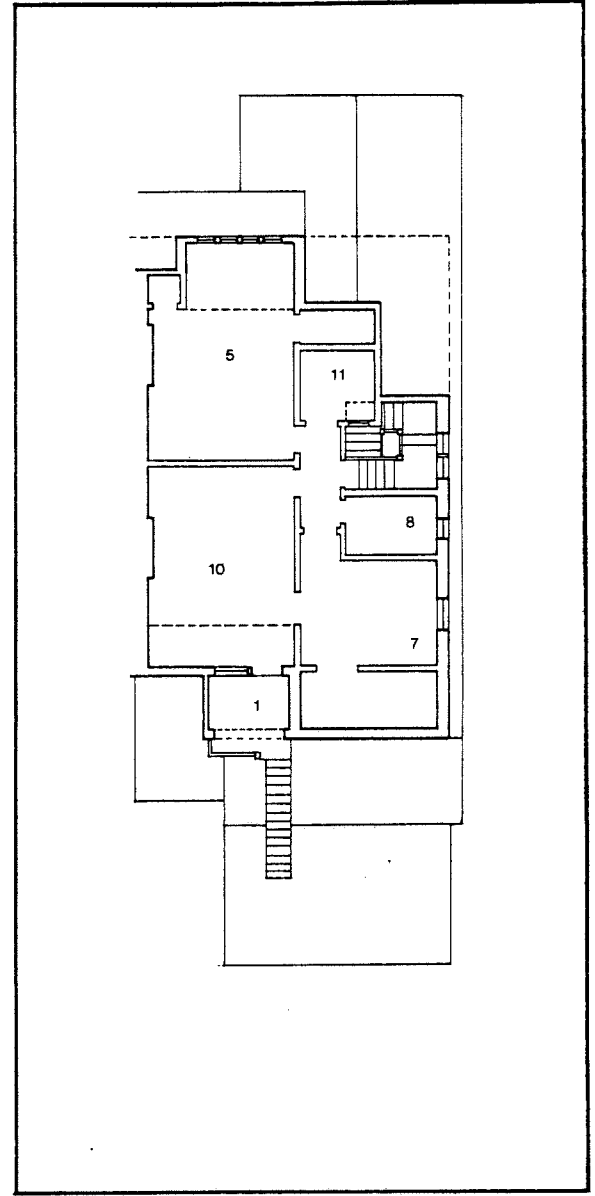
Dispersed planting meant as replacements for an original tree that has been lost, have not been able to define the external spaces in the manner they have been established along the Boulevard.

While there is a basement entrance off the side, and later additions have placed windows facing the side street, there is little to suggest that the original builder was aware of the



Second Floor Plan

scale 1:200



Third Floor Plan

scale 1:200

Key

- 1 PORCH
- 2 VESTIBULE
- 3 HALL
- 4 DEN
- 5 LIVING ROOM
- 6 DINING ROOM
- 7 KITCHEN
- 8 BATHROOM
- 9 MASTER BEDROOM
- 10 BEDROOM
- 11 ROOM

potential of a corner building. Upper and lower rooms do not have any major windows on the side face, and the landscaping has not enhanced the building's siting.

The site is served via the rear lane and also has access to the garage by the side street. Outdoor stairs from the rear of the house provide a secondary means of egress.

Internal Spaces:

As noted before, the original plan of the house takes no advantage of its corner site. The

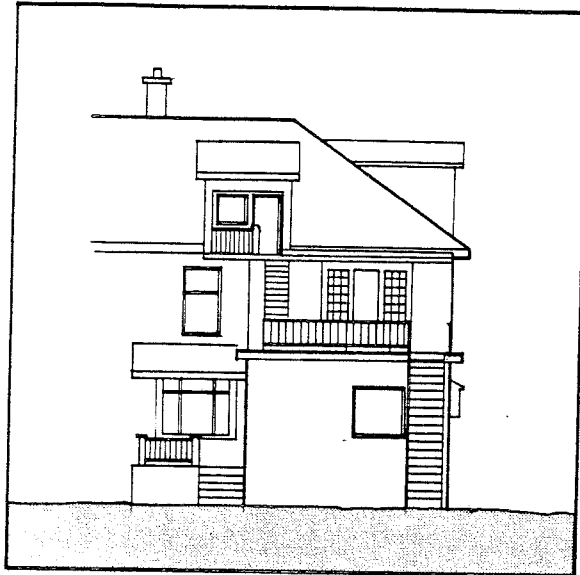
primary and secondary rooms are located along the party wall of the house. The side facade is made up of small openings for service spaces. This plan would be improved by being reversed, so that the public rooms received better siting on the corner and the service rooms were then internalized.

The ground floor apartment is a two bedroom unit, more or less axially organized, though the axis is rather twisted at the back addition. Nevertheless the axis does proceed through the porch to the hall; the primary and secondary spaces open



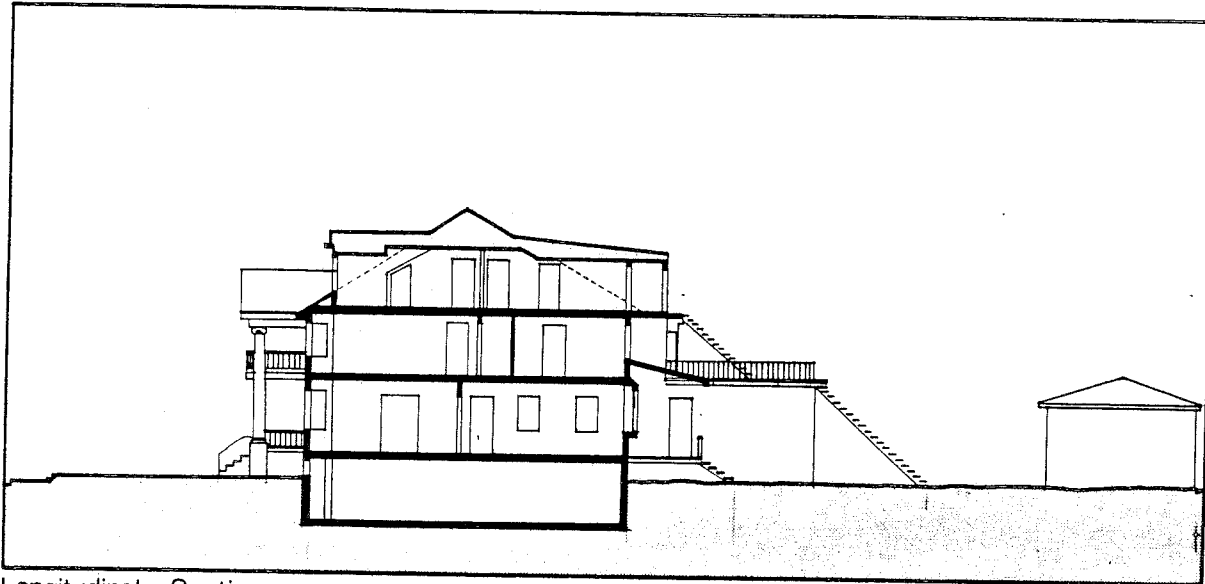
Front Elevation

scale 1:200



Back Elevation

scale 1:200



Longitudinal Section

scale 1:300

off of the axis. The axis then shifts to bypass the kitchen and leads through the secondary space to the opening to the back porch and the back bedrooms.

The original stair has been replaced by a smaller version which leads up to the second and third floor apartments, both one bedroom units.

The second floor plan in particular demonstrates the failure of the house to relate its in-

ternal spaces to its exterior. The windows on the side street are small ones from the bathroom and the stair landing.

The third floor reacts in a similar fashion, with stair, bathroom, and kitchen openings on the side facade, and all major rooms internalized.

The organization of these upper floors is made by an axial hallway which is however quite narrow and entirely internalized.

### Middle Space:

Each floor has been given a back space either as a roof deck or as a small enclosed porch, with access back to grade. The front porch, although used at both the ground and second floors seems at odds with both the plan and scale of the house. Its ambiguity exists both as a component of the Boulevard as a piece in the landscape, and as a porch attached to the house. This porch makes more sense as a piece in the landscape.

### Tentative Observations:

1. This organization of rooms fails to take into consideration the building's siting as a corner house facing onto two streets.
2. The corner house must reorganize the position and distribution of rooms to take advantage of its urban position.
3. The porch, in particular the two storey porch, can act as the major signifier of the house.

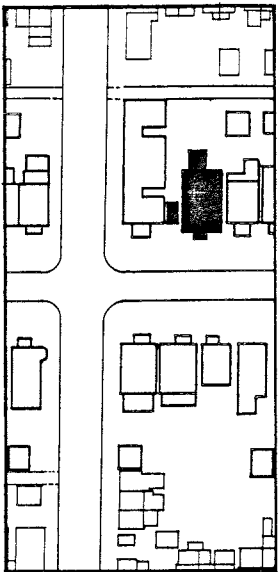
Building  
City / Street  
Time

House Type "D" Detached  
Palmerston Boulevard, Toronto  
1905

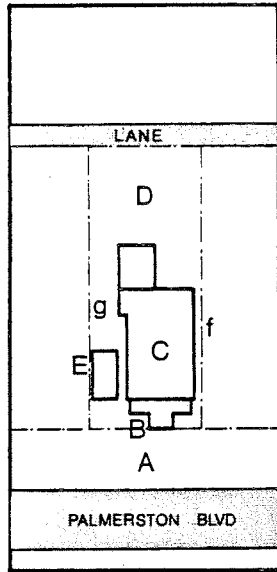
This house presents a charming face to the Boulevard, symmetrically arranged, with a strong protruding porch supported by large columns. This house has experienced a considerable degree of change, and offers a more difficult problem of determining how it might have originally looked like. The house contains a ground floor apartment with its own entry from the front porch. The upper apartment takes up both second and third floors and has its access from the side. This is also one of the few houses on the Boulevard that includes a garage at the front of the site.

Architect / Builder	L. Lelici		
Lot Size	15.2m x 38m	Lot no.	131
Lot Area	580 sq. m.		
House Size	10.9m x 20.4m	N·F·A	325 sq. m.
Coach House		N·F·A	
No of Stories	2 + attic	No. rms.	16
G·F·A	407 sq. m.		
Coverage	70%		
Density			
Type of use	Residential (2 units)		
Type of construction	Brick and concrete, with frame and cement stucco		
Location	West side, mid-block		
Access	Front drive access, plus rear lane		
Sources	Measured drawings by E. K. Storey, J. K. Brown Original building permit		

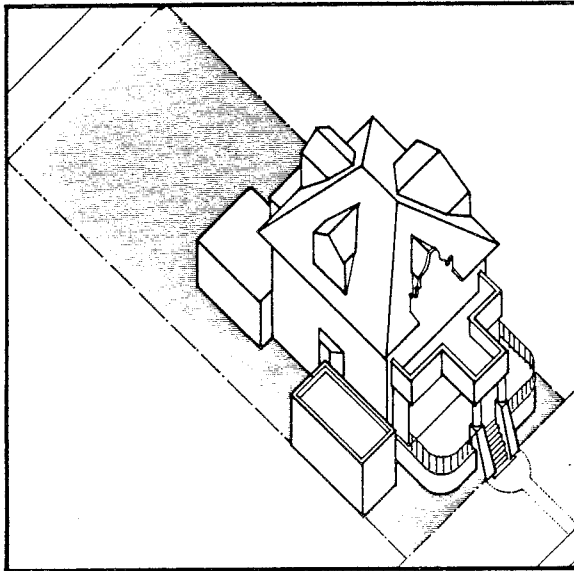




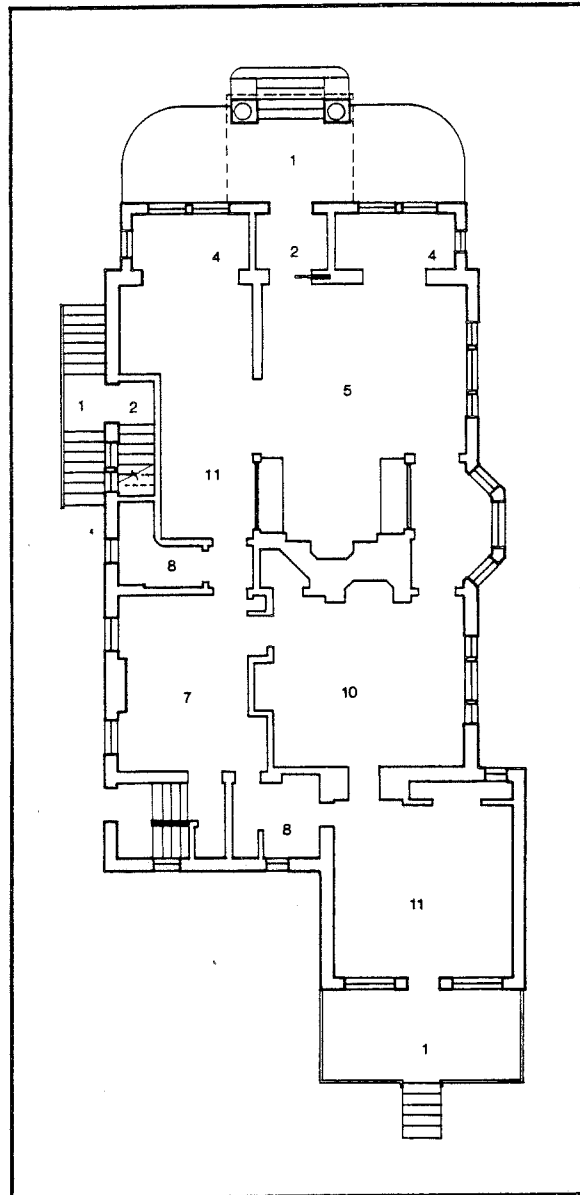
Context scale 1:2000



Site Plan scale 1:1000



Axonometric scale 1:500



Ground Floor Plan scale 1:200

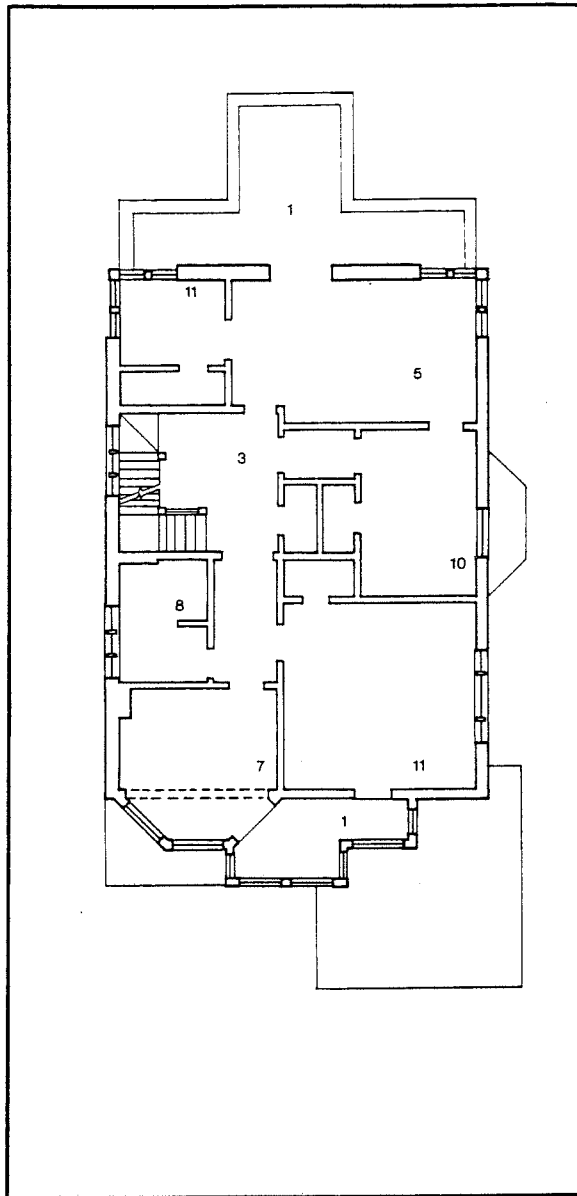
External Spaces:

Like many of the houses on the Boulevard, the siting of the house on its lot has a direct relationship to how internal spaces and openings work.

A house may have been conceived and constructed as an isolated building on a large lot near a street corner. Since the Boulevard was built incrementally, this same isolated house could find itself now surrounded by building on all of its edges.

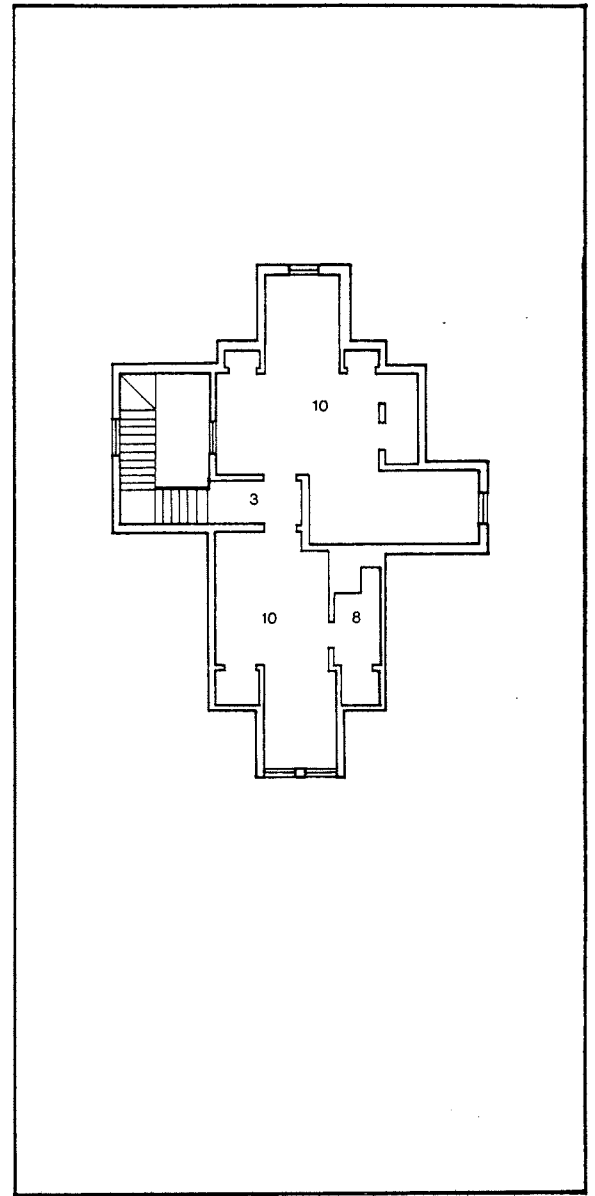
This is in fact what has occurred with House "D". Externally the house has been shifted to the north part of the large site to produce an ample sideyard for a driveway. The form of the roof and position of gables arranged in all four directions establishes the free standing pavilion character of the house. The later construction of a large apartment building directly to the south of the house on the corner lot has overshadowed the house and made it appear dark and cramped in retrospect.





Second Floor Plan

scale 1:200



Third Floor Plan

scale 1:200

Key

- 1 PORCH
- 2 VESTIBULE
- 3 HALL
- 4 DEN
- 5 LIVING ROOM
- 6 DINING ROOM
- 7 KITCHEN
- 8 BATHROOM
- 9 MASTER BEDROOM
- 10 BEDROOM
- 11 ROOM

Internal Spaces:

The symmetrical facade as an external reference to the order of rooms internally as in House "A", is actively refuted in this House "D". While the facade is indeed symmetrical, no such symmetrical or ordered spaces appear in the ground floor or upper floor plans.

The vestibule space as a syntactical remnant of a central hall plan is flanked by two small studies, which face into spaces of different size and character. The axis set up from the exter-

nal disposition of porch and external axis is terminated visually at the fireplace.

Movement is shifted across the room and runs along the external face of the building which has a large amount of glazing made apparent. This passage feeds into further back spaces and continues to the back opening. The area formed on the opposite side of the vestibule contains the servant spaces for the house. These spaces have north faces and lack the view or openness that the public side possesses.



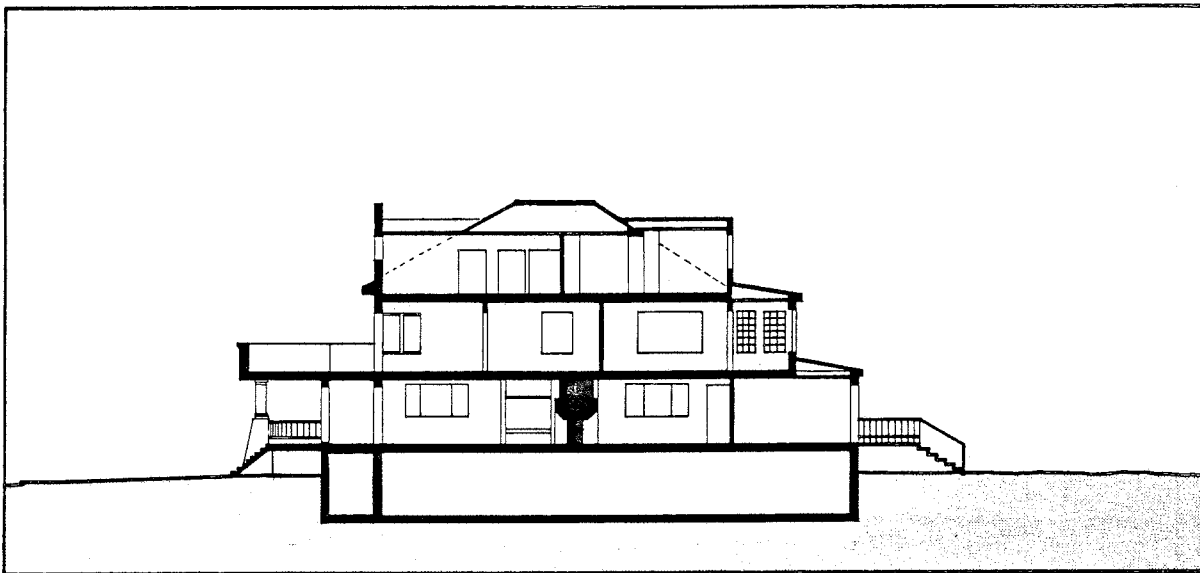
Front Elevation

scale 1:200



Back Elevation

scale 1:200



Longitudinal Section

scale 1:300

The north side of the house contains the only stairs, one of which is entered from the side and goes directly to the upper apartment, working completely independently of the ground floor apartment below.

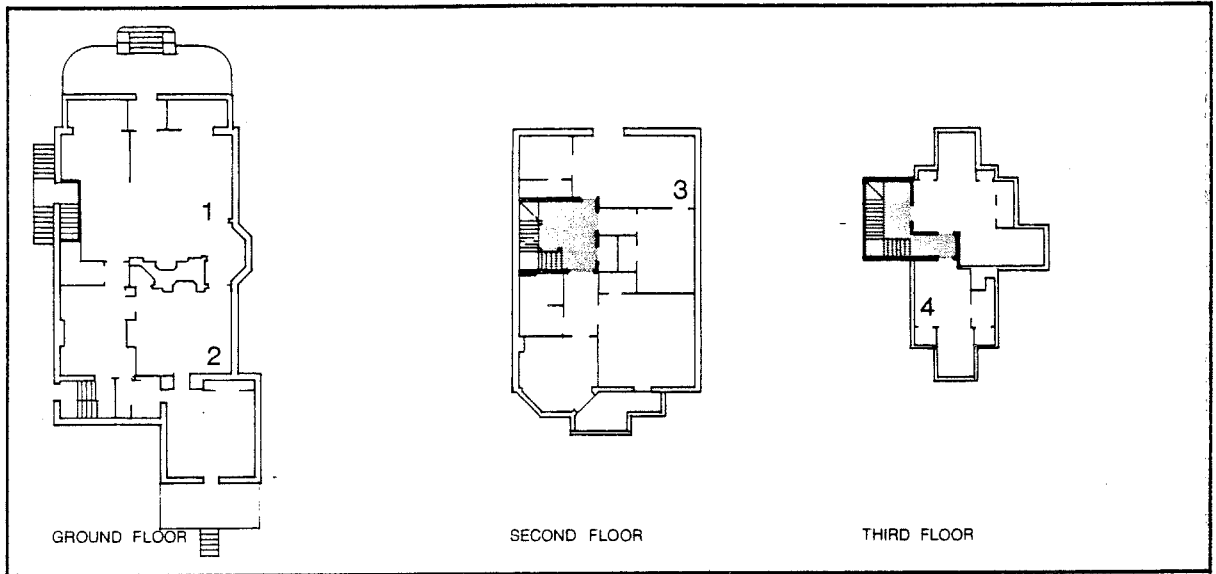
Instead of an ordered axis of movement as found in Houses "A" and "B", this house uses the fireplace as a fulcrum around which are organized the spaces of the ground floor.

The double height hall space at the top of the tight stair at the upper apartment appears gigantic. From this space, the

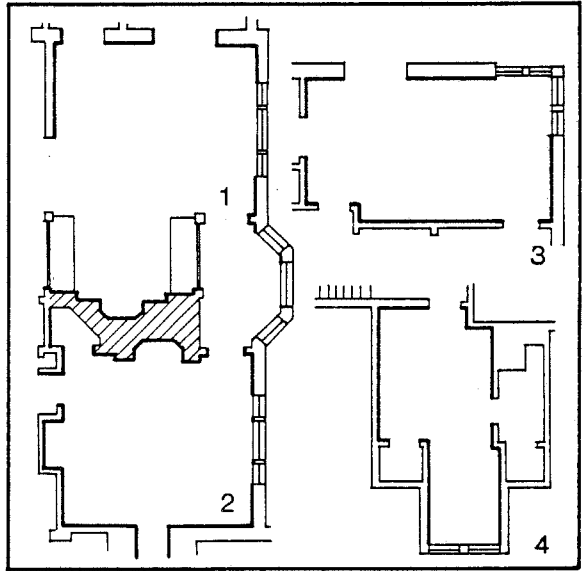
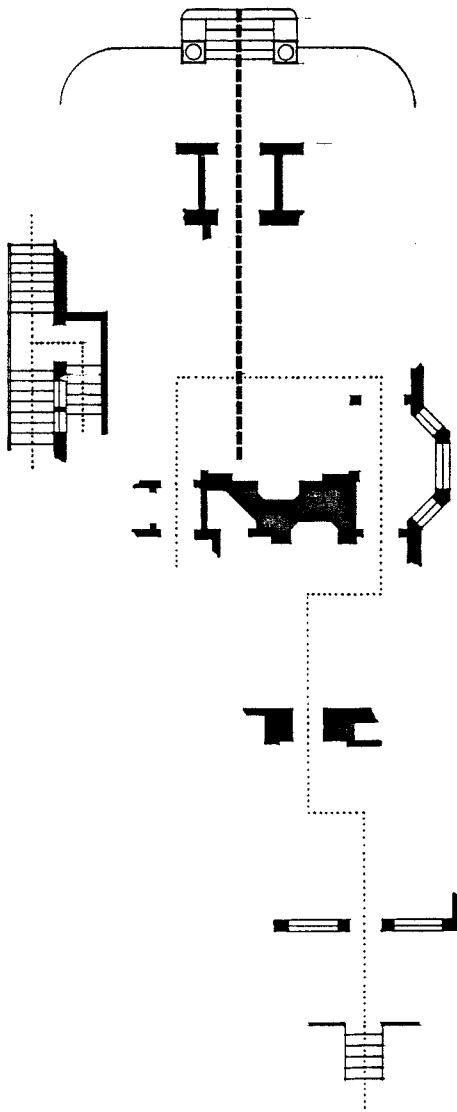
circulation proceeds in a direction perpendicular to the street, serving both the front and back spaces.

The front space is composed of two spaces, one large, one small; both are inter-related and lie behind a symmetrical external disposition of window openings. From these rooms access is given to the roof deck over the front porch of the house.

The middle space is entered from the hall and from the front room. It has a window opening to the south.



Hall / Circulation Space



Primary and Secondary Rooms

Organization



The back spaces continue to place both principle and secondary rooms on the side respective to their size and significance. The relative largeness of the rooms on the side of the driveway (south) distinguishes the room as a principal room, whereas the bathroom and small kitchen are placed on the north side and are smaller rooms.

The upper plan of the apartment consists of three rooms with ample storage facilities. Their orientation again reflects the physical sense of the building as it occupies its lot. Borrowed light from the north is drawn through the double height hall space through windows of similar alignment.

Middle spaces:

Middle spaces in this house are retained primarily on the front of the house. The upper part of the porch extends over the exterior stairs and emphasizes an axis of entry that is significantly opposed internally.

Tentative Observations:

1. The external symmetrical organization of the facade does not express the relationships of rooms internally as a balanced plan.
2. The external position of the house on its lot has arranged an open space to extend along two faces of the house to set up optimum light conditions and thereby set up heirarchical conditions for the plan.
3. The disintegration of the hall space that was formerly part of the house at the ground floor has been sectionally spliced away at the ground floor. It makes a re-appearance as a two storey space at the entrance for the second and third storey apartment, acting as a paradox.
4. Size and organization of rooms with respect to a house's orientation on a north/south street can express elements of good planning and design.
5. The ground floor is organized spatially around a central fulcrum, while the upper floors continue to mirror an organization that is a remnant of the house's earlier structural order.

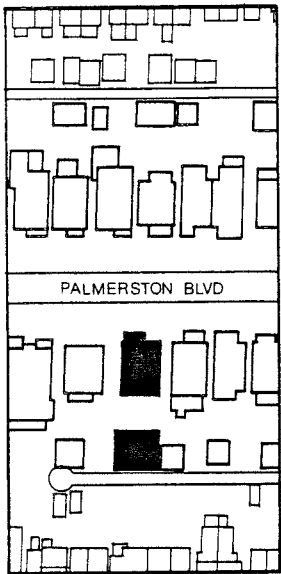
Building  
City / Street  
Time

House "E" detached  
Palmerston Boulevard  
1906

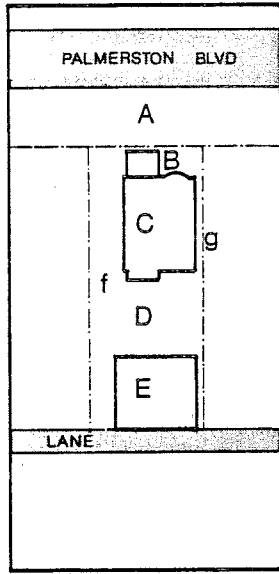
This Palmerston house is one of the few large houses with a centre hall plan. It occupies a very large lot with a coach house in the rear. The plan organization is effectively laid out with large well-proportioned rooms. On the south side of the house, these rooms deflect their windows to take advantage of the orientation and ample side yard. One of the striking features of the house is the glass enclosed porches that mark the various entrances.

Architect / Builder	J. A. Marvey	
Lot Size	15.2m x 38m	Lot no. 243
Lot Area	580 sq. m.	
House Size	14.6m x 9.7m	N·F·A 315 sq. m.
Coach House	10.4m x 10.9m	N·F·A 200 sq. m.
No of Stories	2 + attic	No·rms· 13
G·F·A	354 sq. m.	
Coverage	79%	
Density		
Type of use	Residential (3 units)	
Type of construction	Brick and wood frame	
Location	East side, mid-block	
Access	Front drive and rear lane	
Sources	Measured drawings by E. K. Storey, J. K. Brown Original Building Permit	

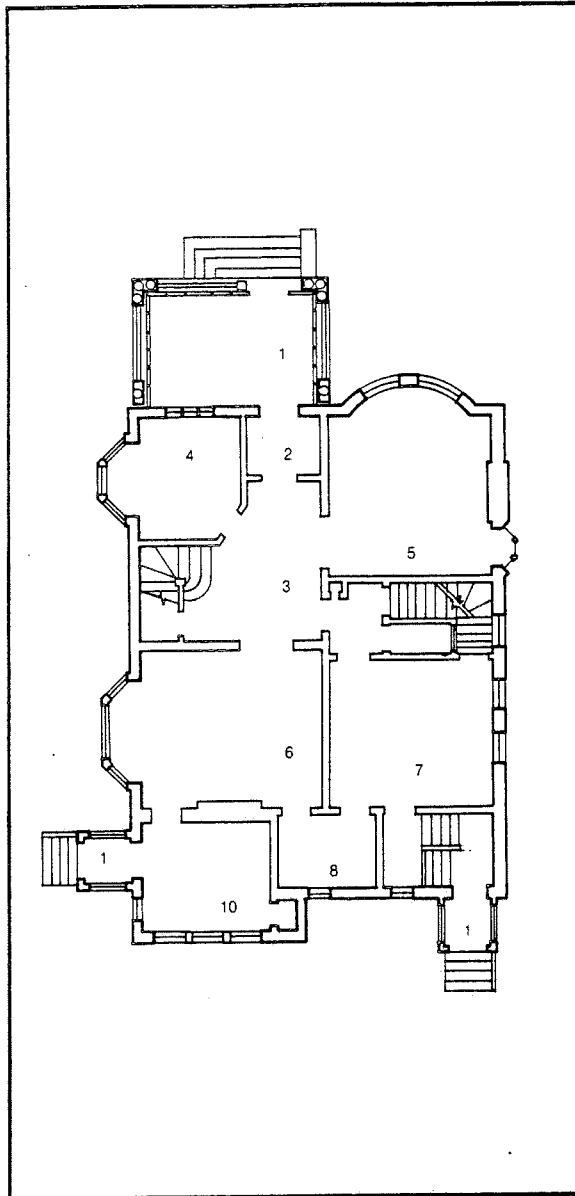




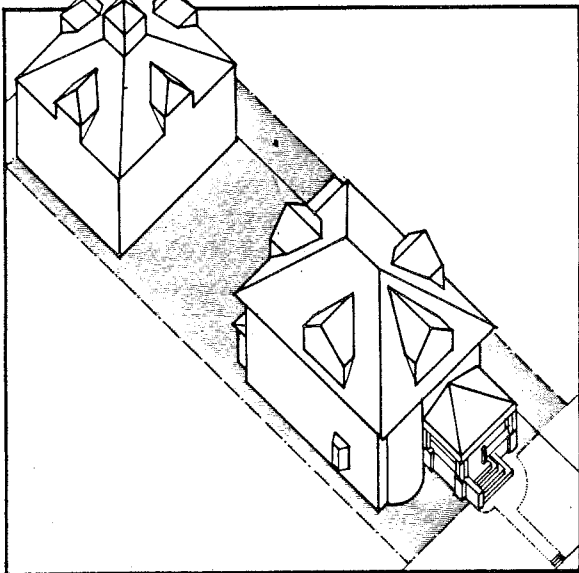
Context scale 1:2000



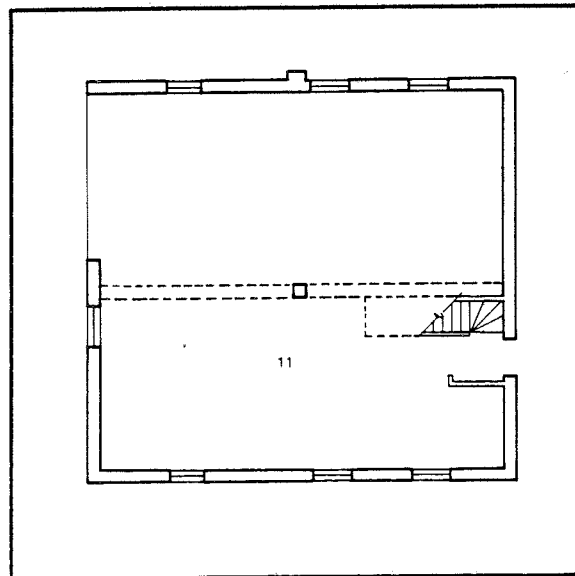
Site Plan scale 1:1000



Ground Floor Plan scale 1:200



Axonometric scale 1:500

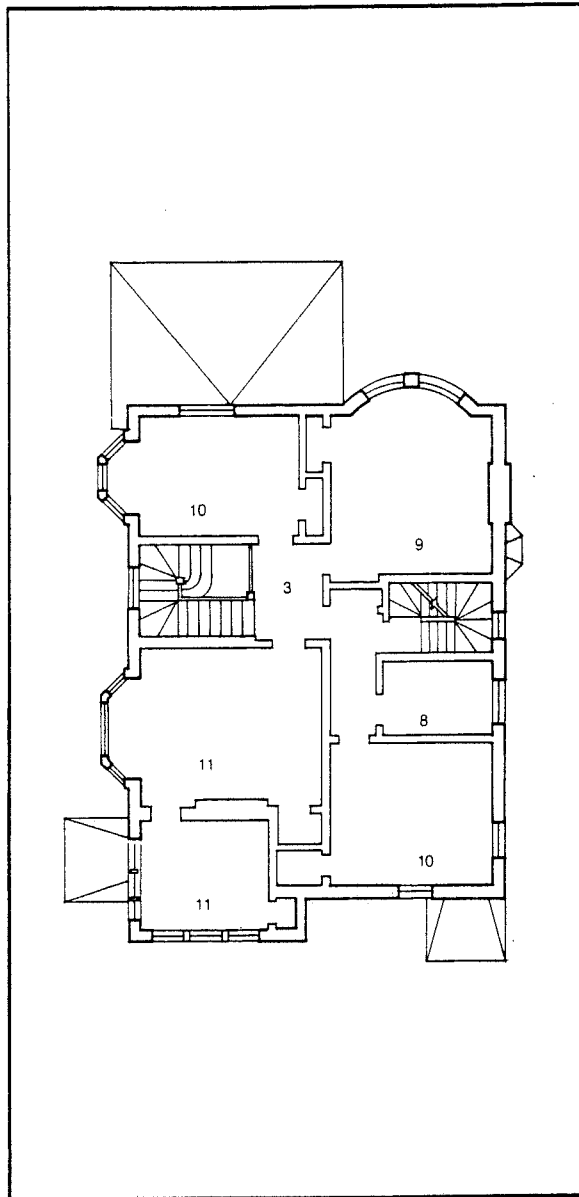


Coach House Lower Plan scale 1:200

External Spaces:

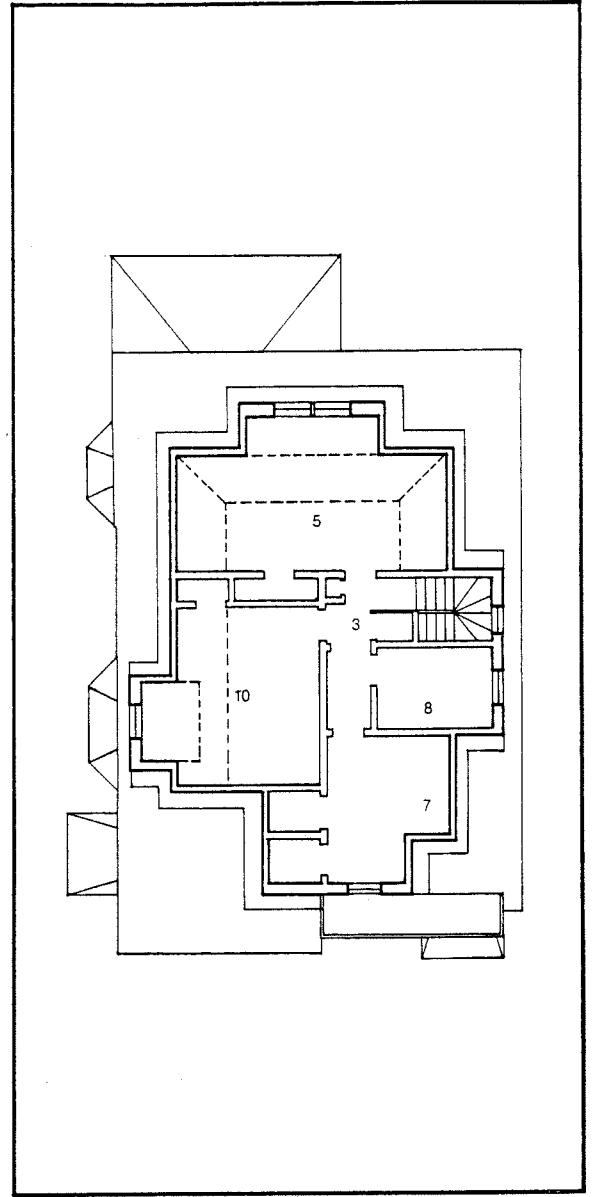
Similar in ways to House "D", this house occupies a large lot. The house shifts to the north end of the site and makes a side driveway and ornamental garden space. The alignment of the front of the house is the same as the houses surrounding it. The back of the site is also serviced by a lane and has a coach house located adjacently. Both house and rear coach house sit within a green landscape. Both have similar roofs that are oriented in four directions, although only one refers to the axis of entry.





Second Floor Plan

scale 1:200



Third Floor Plan

scale 1:200

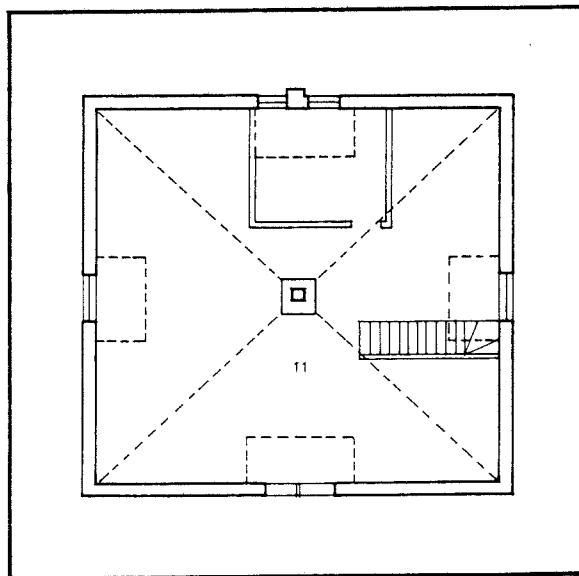
Internal Spaces:

The plan of the house has a central hall space. The vestibule, is located between two front rooms, leads to a truncated cruciform shaped hall. The two sides of the axis of entry have stairs, one being the principal stairs and the other for servants.

The two rooms that are split between the vestibule and the hall differ in size and characteristics. The large room contains a rounded bay onto the Boulevard and a small projecting oriel window deflecting to the small side yard. This room contains a fireplace and is entered off of the hall.

**Key**

- 1 PORCH
- 2 VESTIBULE
- 3 HALL
- 4 DEN
- 5 LIVING ROOM
- 6 DINING ROOM
- 7 KITCHEN
- 8 BATHROOM
- 9 MASTER BEDROOM
- 10 BEDROOM
- 11 ROOM



Coach House Upper Plan

scale 1:200



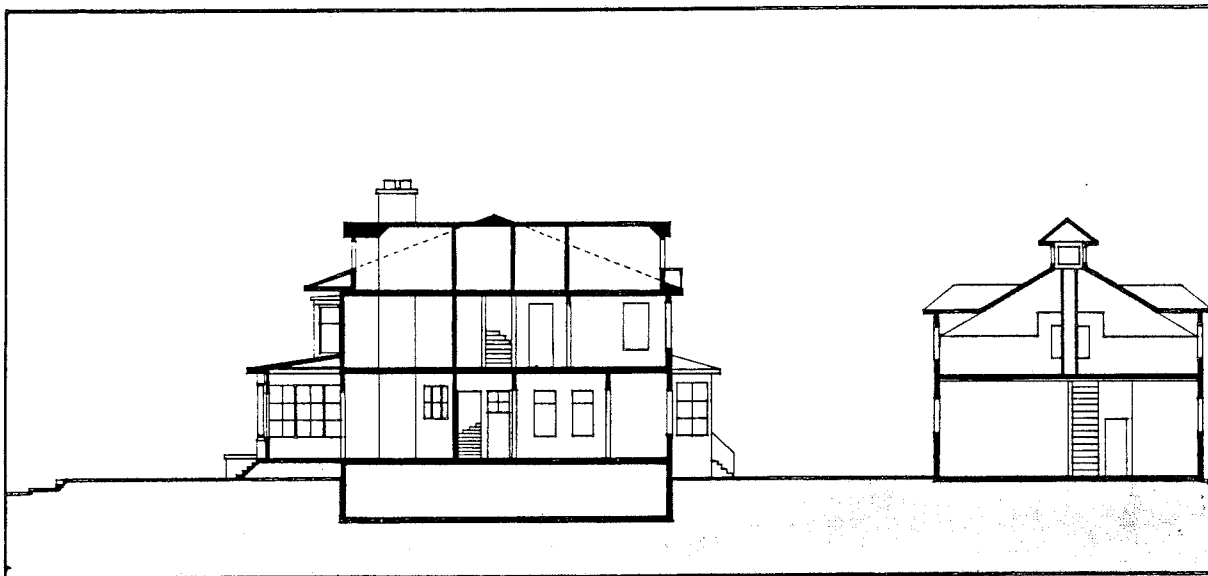
Front Elevation

scale 1/200



Back Elevation

scale 1/200



Longitudinal Section

scale 1/300

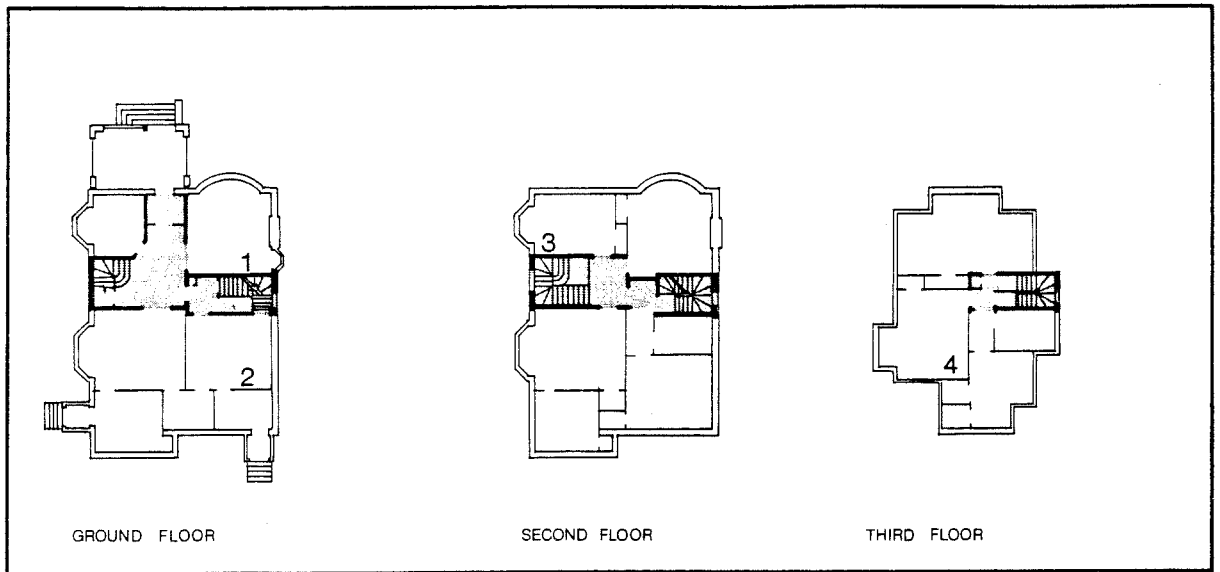
The smaller room contains a high stained glass window to the Boulevard (inside the porch) and also has a large projecting bay window to the large side yard at the driveway. This deflection to the side of the lot treats the principle space as a secondary space.

The plan, because of its generous width, produces room less forced internally, and therefore better proportioned and multi-directional. The back spaces continue this distinct idea of each room.

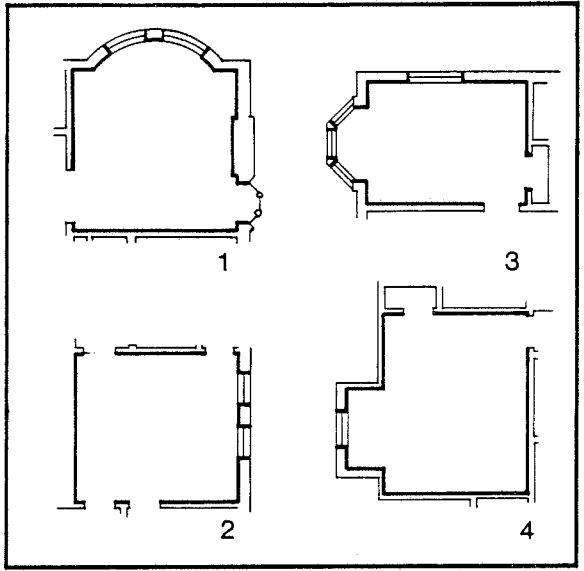
Unlike House "A" and "B", where

the hall space acts as a space that mainly serves other spaces as destinations, this hall space arbitrates the three principal rooms at each extreme edge. It also has the capacity of becoming a contiguous extension of the principal rooms in special occasions, such as parties.

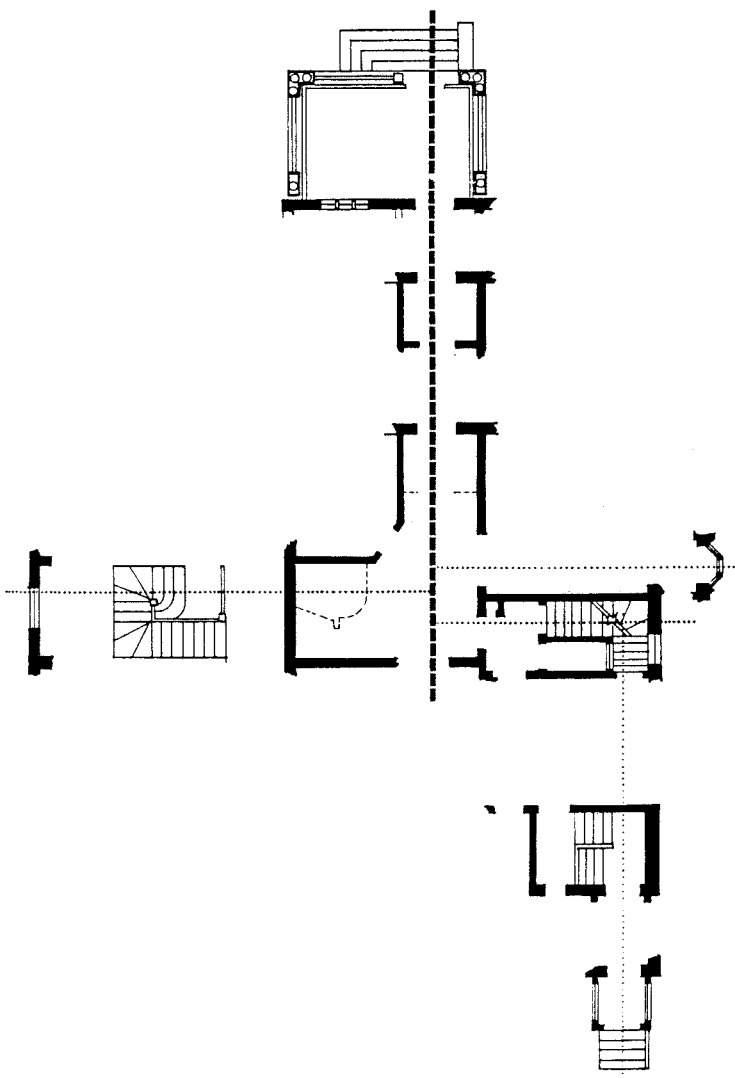
Circulation to the apartments on the upper floors is accommodated by both staircases; the spaces have not been subdivided to provide separate entry areas. This arrangement of common space at the main hall and stair severely compromises the quality of the ground floor apartment.



Hall / Circulation Space



Primary and Secondary Rooms



Organization

The disposition of the second floor apartment's rooms is very much like the ground floor, though the area of the central hall space is much reduced. Each room is treated as a distinct autonomous unit, and the rooms are very well proportioned and generous in size.

The third floor attic apartment is of course much smaller than the lower two floors, and is reached by only the servant stair. The window openings of the attic apartment are contained in the four gables which all point in different directions. The circulation of this apartment is extremely cramped and detracts from the possible spaciousness that this floor could possess.

The coach house in the rear has not been renovated and is rented as a garage. The size of the coach house is very close to the size of the house. As it is now used, there is no recognition of its potential as a two storey home. Its relationship to the back garden is non-existent with its only entrance off the side driveway.

The coach house sits like a pavilion structure, being very cubic in volume and with its four directional gables and small belvedere at its peak.

#### Middle Spaces:

Entry into the house takes place on three sides of the house. The main entrance porch shows evidence of its original open condition. The infill of glass panels have added to the house's adaptive response to the climate; both layers reinforce one another.

The side entry porch from the driveway, although smaller, contains a stair, and is also glass enclosed. It sits in a fine narrow strip of landscape.

The rear entry is very much like the side entry, again of glass construction and rising out of the back lawn.

All three spaces project into the landscape of the house's surroundings and give noticeable reference to the ideal "house in a landscape".

# HOUSES C, D, & E

## Observations

1. Organization of rooms should consider the building's specific siting on its lot, and its location within the street network.
2. The corner house exhibits special conditions which should be reflected within the internal organization.
3. Both the exterior and interior can have separate identities.
4. The house's position on its lot can determine conditions of optimum lighting, and set up heirarchical conditions.
5. Sectional changes affecting major elements in the house can produce paradoxical relationships.
6. The porch can act as a major signifier for the house, or as an independent element in the landscape of the Boulevard.
7. Size and orientation of rooms can be planned to optimize a house's orientation on a north/south street.
8. Various forms of internal organization exist:
  - a) Central Hall Plan
  - b) Fragmented Axial/Fulcrum Organization
  - c) Major and Minor Axis Organization
9. The size of the lot has a consequence on the spatial organization of the house, the size and proportion of rooms, and their internal directionality.
10. The presence of a large building such as a coach house can change the character of the back space, and upgrade the rear lane system.
11. A house on a lot can act autonomously to the lane system.

# Propositions

1. The ideal Palmerston house is a mansion that sits in a landscape.
2. The concept as it pertains to Palmerston Boulevard is one house on one lot.
3. The idea translated becomes a detached house and garden facing a landscaped Boulevard. This idea is interpreted as a type-example of imitative form.

## Variables - Level of House

(as size and social status decrease)

- less articulation of entry
- overall reduction of amenity and size of internal spaces (restricted widths)

## Variables - Level of Lot in Relationship to the Structure of the Boulevard

(as size and social status increase)

- choice of lot size and orientation
- optional servicing possibility, given the autonomy of the lot that has its own front driveway and rear lane access.
- position and location on a choice of block sizes

4. The ideal is fractured and perceivable only in fragments as built on the Boulevard.
5. These built ideas are subject to constant changes of time and space.



Building  
City / Street  
Time

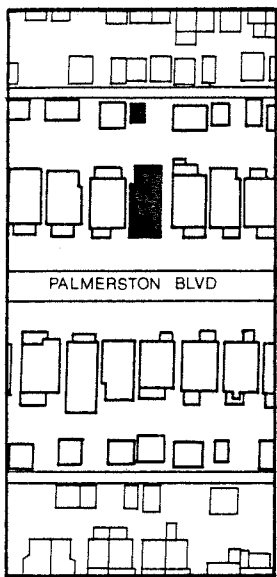
House "F"  
Palmerston Boulevard, Toronto  
1906

This house is different from most of the houses on the Boulevard. Its third floor attic is not used as floor space because the height of this house is not as high as its neighbours. There is no access to the attic by stair. The front porch of the house has been built in rather decisively, though the structure of the porch is still apparent. The house has been loosely divided into a one bedroom ground floor apartment and an upper two bedroom apartment. Because there is not a third floor, the coverage percentage of this house to its lot is far lower than most.

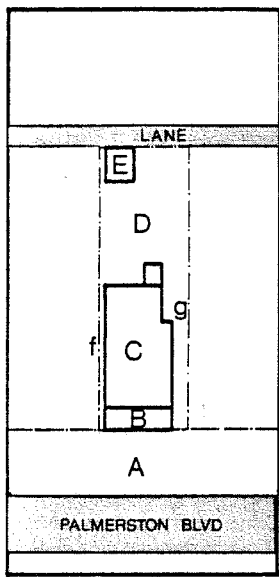
Architect / Builder	J. A. Marvey		
Lot Size	12m x 38m	Lot no.	302
Lot Area	456m		
House Size	8.8m x 19.3m	N·F·A	200 sq. m.
Coach House		N·F·A	
No of Stories	2 + attic	No·rms·	13
G·F·A	260 sq. m.		
Coverage	58%		
Density			
Type of use	Residential (2 units)		
Type of construction	Brick and wood frame		
Location	West side, mid-block		
Access	Rear lane only		
Sources	Measured drawings by E. K. Storey, J. K. Brown Original building permit		



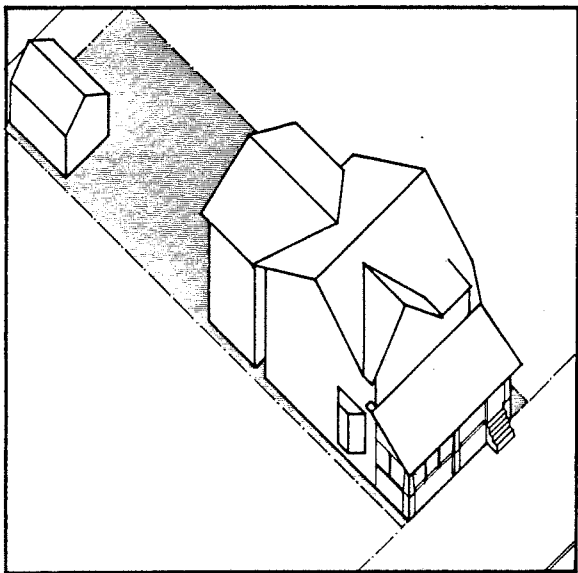




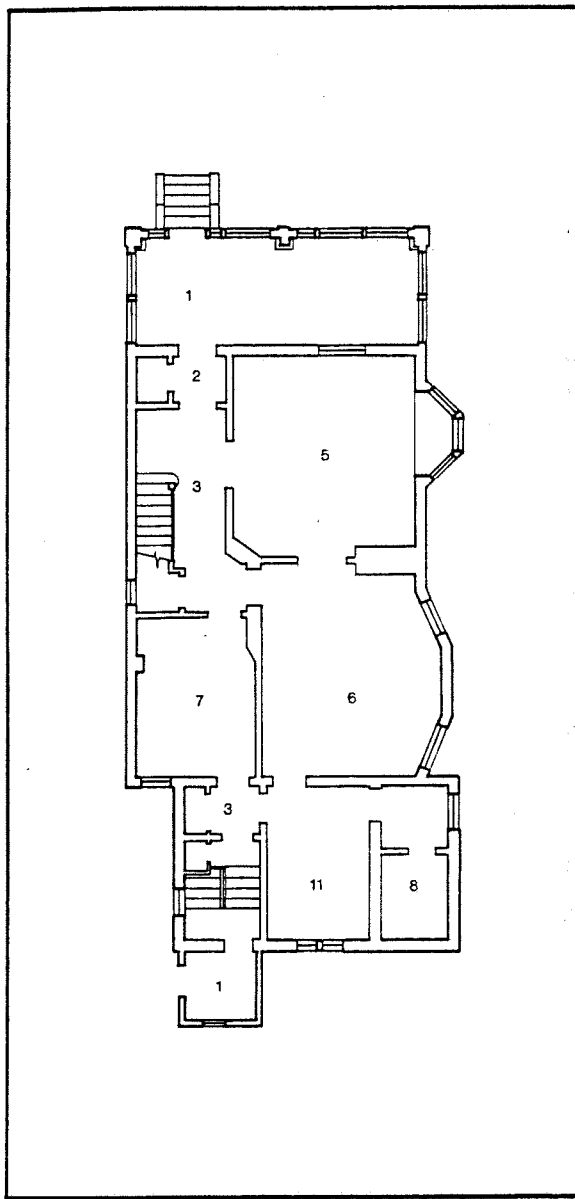
Context scale 1:2000



Site Plan scale 1:1000



Axonometric scale 1:500



Ground Floor Plan scale 1:200

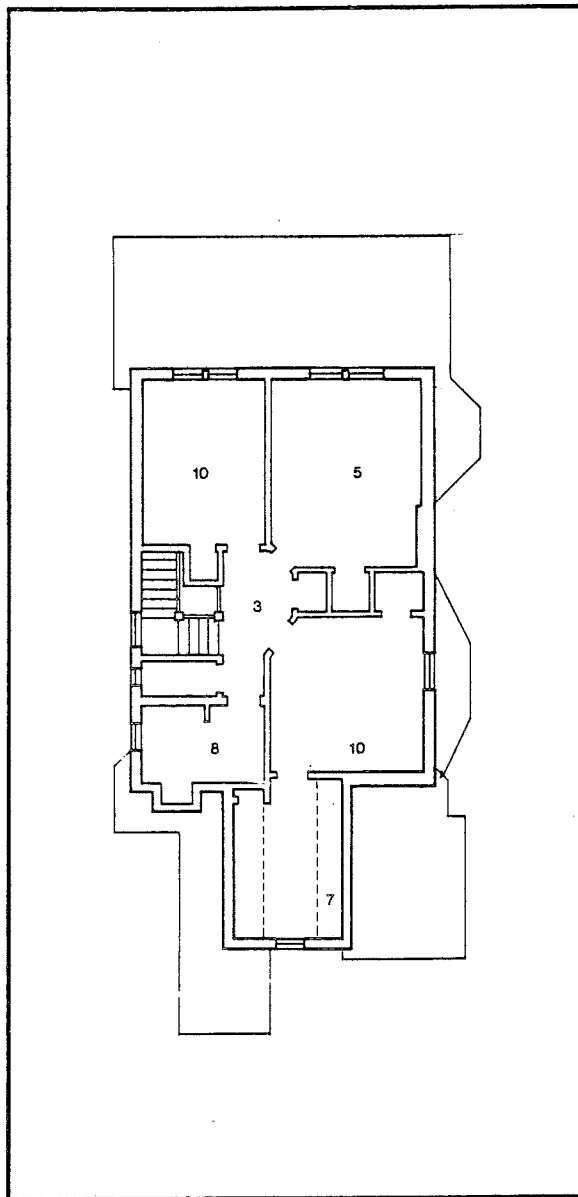
External Spaces:

In a rather crude manner, the front external space has been delineated by a chain link fence, thus departing quite radically from the norm of the Boulevard. The axis to the front entrance is also lined with the chain link fence, as is the walk to the rear of the house. The house's front facade has been replaced with the built in facade of the porch so that the defensive character of the house is emphasized by a further barrier placed between the front door and the Boulevard.

Internal Space:

The vestibule, hall space, and stair are shared common spaces for both the ground floor and upper apartments; these spaces have not been divided or partitioned to provide for separate circulation to the upper floor.

The ground floor has an almost squarely proportioned primary space whose front window now receives only secondary light because of the porch having been built in. This room also has a side bay window though the side yard is quite minimal.



Second Floor Plan

scale 1:200

Key

- 1 PORCH
- 2 VESTIBULE
- 3 HALL
- 4 DEN
- 5 LIVING ROOM
- 6 DINING ROOM
- 7 KITCHEN
- 8 BATHROOM
- 9 MASTER BEDROOM
- 10 BEDROOM
- 11 ROOM

The secondary room has a large deflecting window on the same side yard. The secondary room is larger than the primary room. Its distinctive public character and its en suite relationship to the primary room make it an awkward choice for its present use as a bedroom.

The back spaces, including the kitchen and the back room addition are all small rooms with windows to the back yard.

The upper floor is an awkward arrangement of rooms as used for an apartment. Originally the upper floor was quite clearly three bedrooms and a bathroom off of a central semi-circular hall space directly off the stair.

With the addition of the back room, this arrangement was thrown off balance. The back addition demands an en suite relationship with a room that is most properly suited to be a bedroom. In the apartment disposition of rooms, the kitchen is indeed ensuite to the main bedroom, and at the opposite end of the house to the front primary space of the apartment.

Middle Spaces:

The porch, as previously noted, has been infilled quite solidly though the porch structure is still apparent, and the interior space still retains porch characteristics. Because this porch extends across the full frontage of the house, most noticeably the front room, the infilling of the porch has effectively blocked up the primary space's front relationship to the Boulevard. In more successful examples of infilled porches, the porches only extend over a portion of the house front, that is the front door, vestibule, hall space and stair positions, leaving the front primary space's openings free to the street.

Building  
City / Street  
Time

House "G" Semi-detached  
Palmerston Boulevard  
1907

House "G", located on a corner site, is currently in the process of being renovated. The renovation has divided the houses into two apartments; the lower two bedroom apartment occupies the basement and ground floor, and the upper three bedroom occupies the second and third floors. The access to the house has been radically altered. The traditional front door and porch have been blocked off, and the new "front door" is off of the side street. While this is probably the first built response this house has made to its corner position, it is unfortunately now treating the Boulevard as its side yard.

Architect / Builder	J. H. Stanford		
Lot Size	8m x 38m	Lot no.	322
Lot Area	304 sq. m.		
House Size	7.3m x 19.7m	NFA	200 sq. m.
Coach House		NFA	
No of Stories	2 + attic	No. rms.	14
G·F·A	270 sq. m.		
Coverage	87%		
Density			
Type of use	Residential (2 units)		
Type of construction	Brick and wood frame		
Location	Southwest corner		
Access	Lane access and side street access		
Sources	Owner's drawings		
	Original building permit		

### External Spaces:

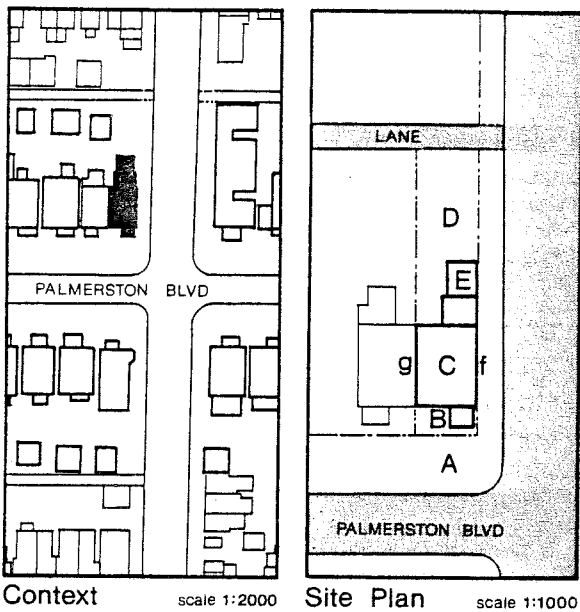
The action of moving the entrance has singularly changed all of the outdoor relationships.

If the main entrance is at the side, then the house's side is now its "front", but since the house is built right up to its side lot line, the "front" external space is non-existent.

The side facade of the house, which would now be its "front", has the same problem as House "C" (corner lot) exhibited, with only small openings related to service spaces opening onto the side street. This face then is unable to fulfill the "duties" of front space.

At the original front of the house, while the main openings remain in their front positions, the axis of progression is abruptly halted at the Boulevard sidewalk. The porch is converted to a greenhouse addition and there is no entrance of any sort facing the Boulevard.

There is access from the side street to the garage which faces the side street. Is this house then converting to a modern suburban type? The garage and the front door are now at the same grade and at the same face, making the garage part of the front facade.

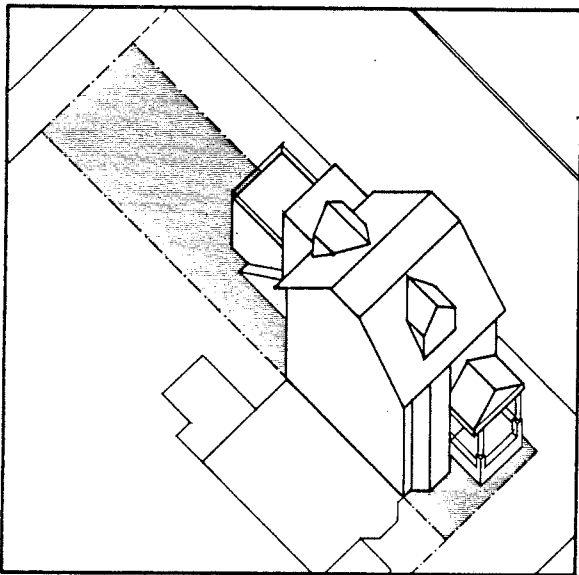


Context

scale 1:2000

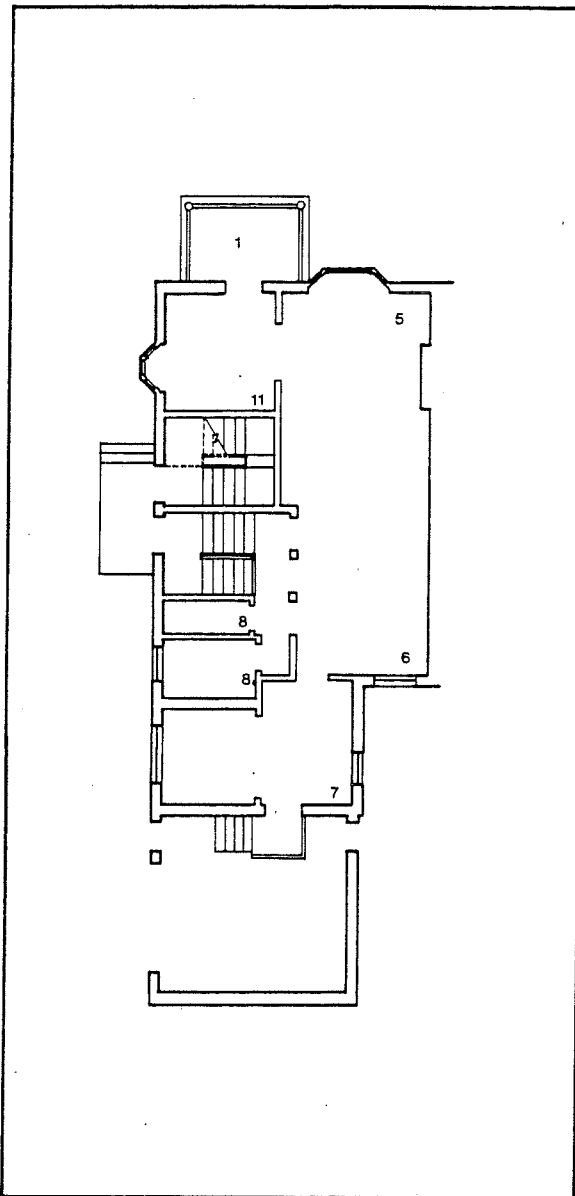
Site Plan

scale 1:1000



Axonometric

scale 1:500



Ground Floor Plan

scale 1:200

Internal Spaces:

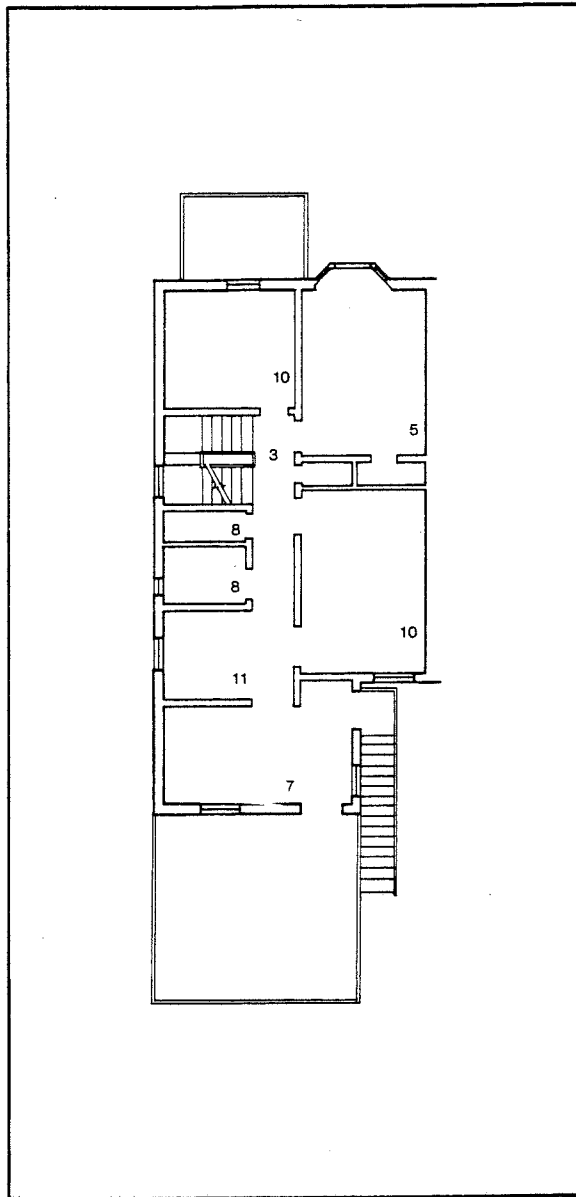
The original organization of the house at the ground floor level has been particularly erased. The blocking off of the front entrance is co-ordinated with the entire removal of the front spaces within: the vestibule, the hall/reception and the stair.

The primary front space remains in the same position though it has been expanded to an "open plan" concept by the removal of the secondary space and service space demarcations. The service space (kitchen) is now located in a back addition.

The new entrance is at grade. The "vestibule" space becomes a half flight of stairs to the main floor, a rise that previously took place at the outside porch steps. The hall/reception space is not deemed necessary in this open plan.

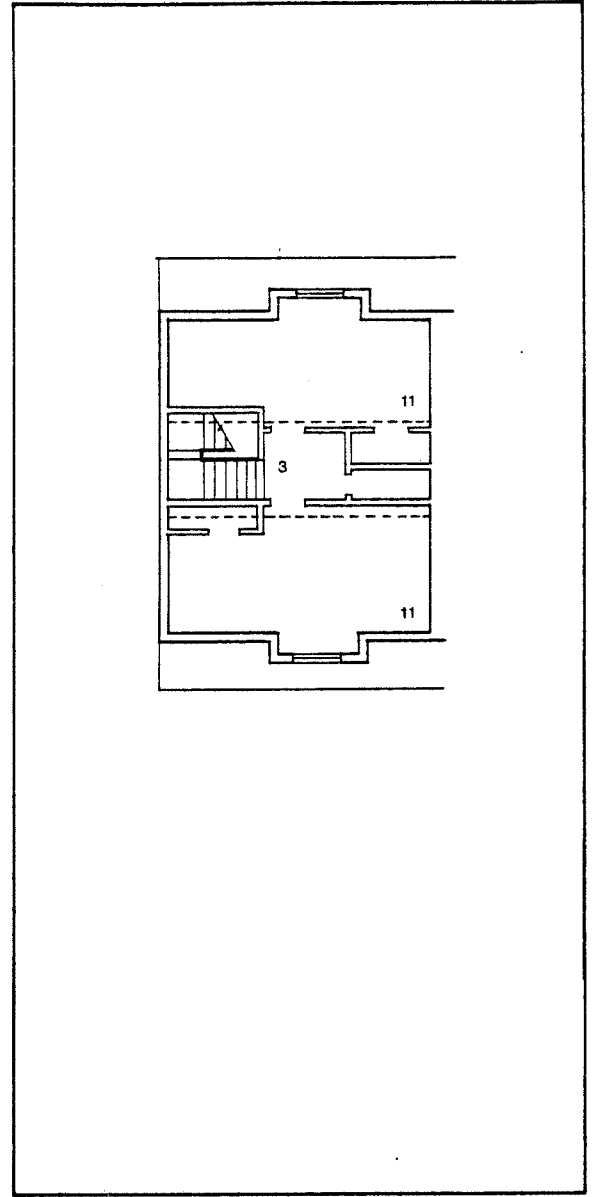
The original plan, like House "C", make little use of its corner site; the large primary and secondary spaces are located at the party wall, and all small service spaces are located on the side street face.

Private bedroom spaces are located in the basement (plan is not shown), down a half-flight



Second Floor Plan

scale 1:200



Third Floor Plan

scale 1:200

Key

- 1 PORCH
- 2 VESTIBULE
- 3 HALL
- 4 DEN
- 5 LIVING ROOM
- 6 DINING ROOM
- 7 KITCHEN
- 8 BATHROOM
- 9 MASTER BEDROOM
- 10 BEDROOM
- 11 ROOM

of stairs from the front door. Has this plan then become a modern suburban split-level type?

The upper three bedroom apartment is of a more traditional nature. The lay-out of rooms is organized about a hall axis, primary rooms at the front, service spaces at the back, although the same problem of service spaces on the side face with primary space internalized still exists on this floor. The upper apartment has a separate entrance door adjacent to the main floor entrance and has a new set of stairs leading to the second floor.

Middle Space:

This house, with the blocking off of the former main entrance, and the conversion of the front porch to a greenhouse (not yet built) with no entrance to the Boulevard, does not possess a middle space any more. There is no possible location for a porch at the side entrance because of the lot line location. The trace of the former porch is still quite apparent as the infill of the porch will be of glass panels, with the original structure of the porch left untouched.

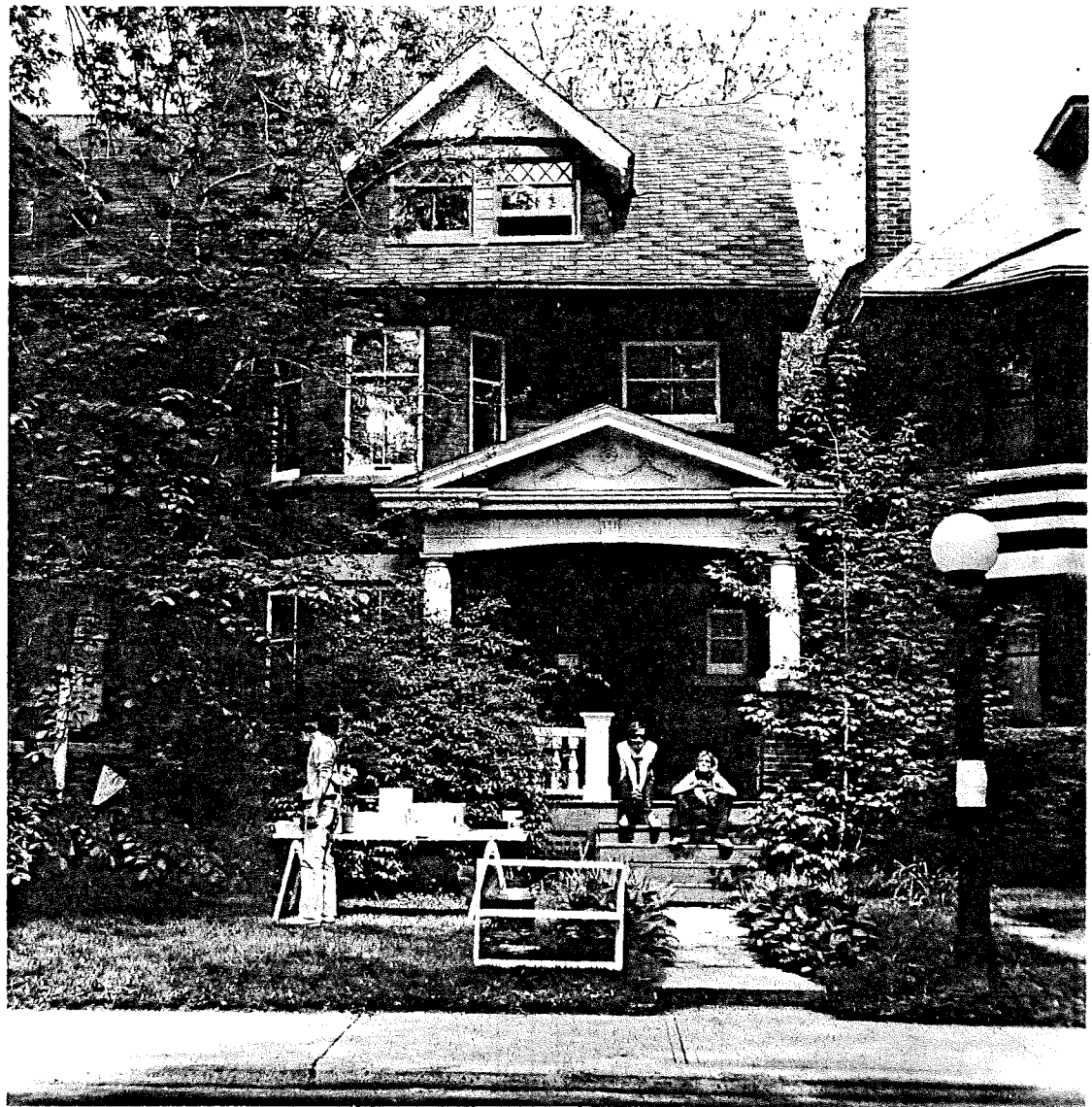
Building  
City / Street  
Time

House "H" Semi-detached  
Palmerston Boulevard, Toronto  
1906

House "H" is a semi-detached house that is divided into three apartments on three floors. The individual planting of the front yard tends to "detach" the house from its adjacent partner because of the defining nature of the vegetation. The house is one of the few that does not have either back lane access or a front drive. Though it is a modest example of a Palmerston house, the building nevertheless maintains the necessary elements in order to fulfill its function as a part of the collective Boulevard. It is also one of the few houses that has not built a back addition.

Architect / Builder	A. B. Stroud		
Lot Size	8m x 41m	Lot no.	124
Lot Area	328 sq. m.		
House Size	7.2m x 16m	N·F·A	213 sq. m.
Coach House		N·F·A	
No of Stories	2 + attic	No·rms·	13
G·F·A	273 sq. m.		
Coverage	83%		
Density			
Type of use	Residential (3 units)		
Type of construction	Brick and stone		
Location	East side, mid-block		
Access	No access by vehicle		
Sources	Measured drawings by E. K. Storey, J. K. Brown Original building permit.		





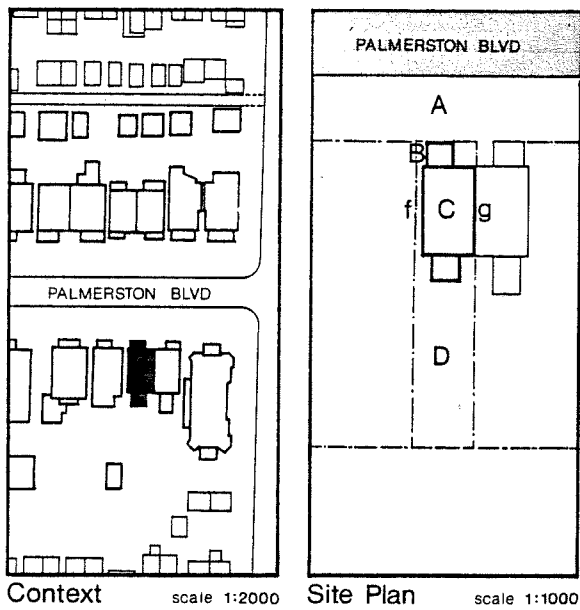
External Spaces:

The house possesses a well planted front yard at the house edges. The "overgrown" bushes places the building in a more country-like setting, and also gives the house a more detached quality. The side yard leaves just enough room for a path to the back spaces.

Because the house does not have a back lane, or a shed or garage, and has not made any back additions, the back external space seems very long in comparison to other house lots, though the narrowness of the lot does not allow much sun penetration.

Internal Spaces:

This house is an example of the problem that occurs when the stair is placed opposite to the vestibule and hall space on the other side of the house. When faced with the problem of vertical subdivision of floors, it is impossible to separate the stair and hall for upper floor access without isolating the primary front room of the ground floor apartment. Thus, the front hall from which the primary and secondary rooms open must be shared by the two upper apartments. This arrangement seriously compromises the circulation of the ground floor. There

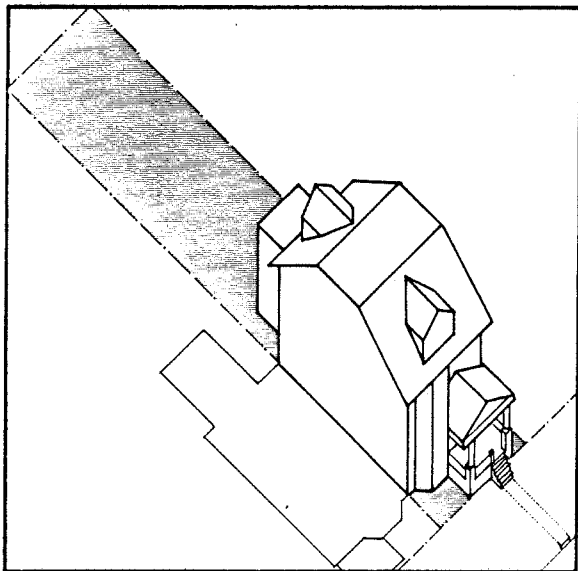


Context

scale 1:2000

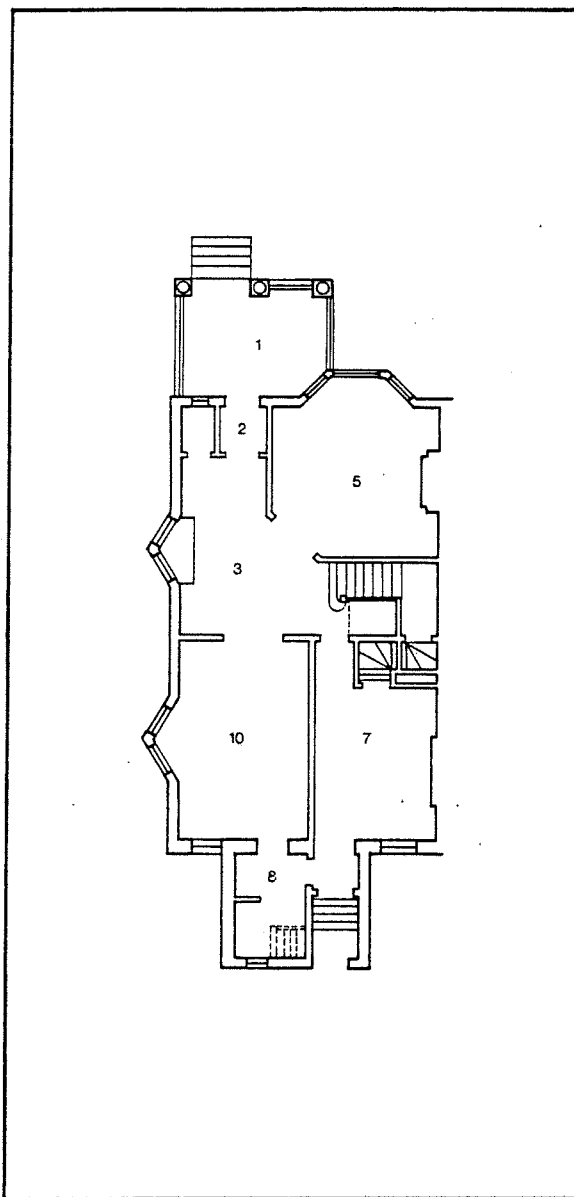
Site Plan

scale 1:1000



Axonometric

scale 1:500



Ground Floor Plan

scale 1:200

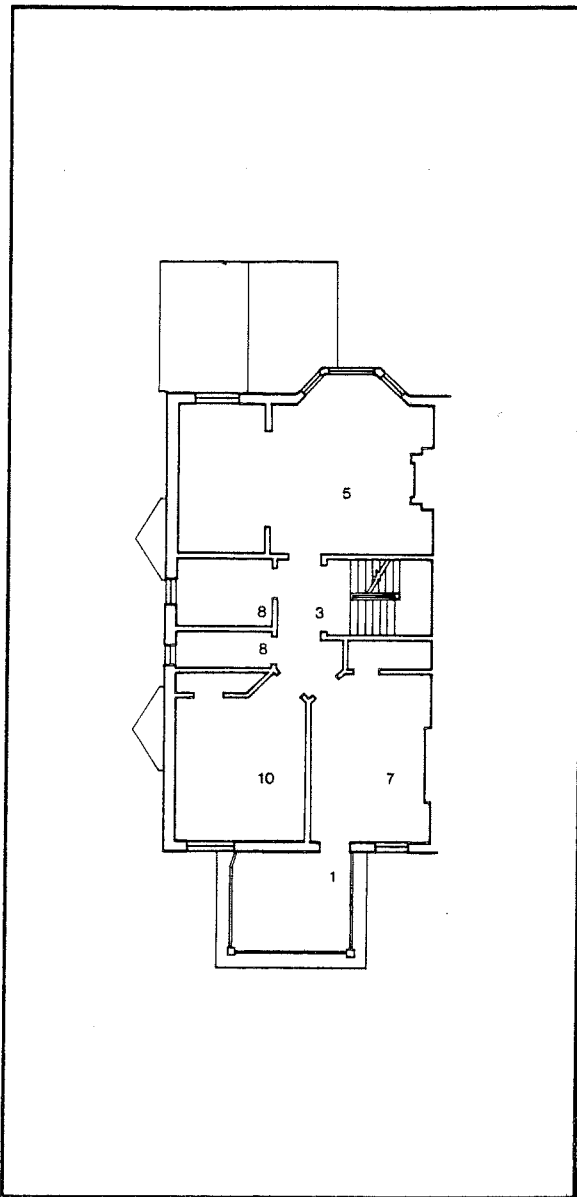
is, in effect, no private space for this apartment.

The secondary space of the original house plan is now a back bedroom, although its large opening to the front hall and its architecturally public character tend to make it an unsuitable choice for a bedroom.

The size of the hall is considerable. In fact, it seems a bit oversized for the area of house that it serves. This is due again to the poor location of stairs. The hall must stretch over to

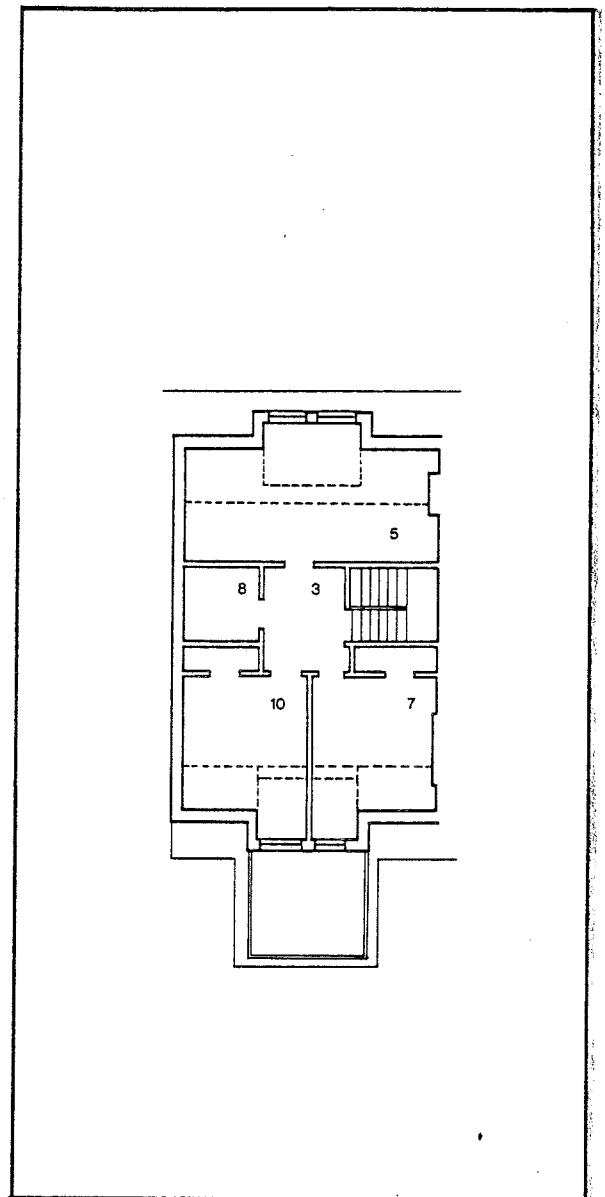
the stair and also serve the front entrance, primary and secondary spaces.

The upper apartments are fairly standard; the second floor one-bedroom apartment has a very narrow hallway to connect the front primary space with the back kitchen and bedroom. This is a function of the lesser width of the house, and aggravated by the design of the stair. The stair is a scissor stair which eats up much of the width of the centre of the house; a more typical straight run would



Second Floor Plan

scale 1:200



Third Floor Plan

scale 1:200

- Key
- 1 PORCH
  - 2 VESTIBULE
  - 3 HALL
  - 4 DEN
  - 5 LIVING ROOM
  - 6 DINING ROOM
  - 7 KITCHEN
  - 8 BATHROOM
  - 9 MASTER BEDROOM
  - 10 BEDROOM
  - 11 ROOM

have eased the circulation problem.

The attic floor, while reduced in area, has a more generous central hall space connecting the front and back. This hall seems to recall a more pavilion like aspect of the house because of its square proportion and equal openings on each wall, even though the side "wings" do not exist. This larger hall is made possible by the fact that at the third floor, the second stair landing is not necessary.

Middle Spaces:

The porch of House "H" plays an invaluable role in lending the smaller house an air of wealth and dignity. It also separates itself from the adjacent house to promote a detached quality and leaves the front room free for light.

Building  
City/Street  
Time

House "J" Semi-detached  
Palmerston Boulevard, Toronto  
1906

House "J" is a large semi-detached type that has been subdivided vertically to form three apartments on three floors, all two bedroom units. The apartments are all spacious with a common front entry through the porch. The coverage percentage is quite high because of a large back addition. This addition has facilitated the arrangements of the three apartments so that they tend to preserve traditional house spaces, ie. vestibule, hall/reception, primary and secondary spaces. Although this house is semi-detached, its width and the fact that its facade is entirely different from the house that it adjoins seems to give the house a distinctly detached perception.

Architect / Builder	J. H. Stanford		
Lot Size	10m x 38m	Lot no.	134
Lot Area	380 sq. m.		
House Size	8.6m x 19.5m	N·F·A	325 sq. m.
Coach House		N·F·A	
No of Stories	2 + attic	No·rms·	16
G·F·A	390 sq. m.		
Coverage	103%		
Density			
Type of use	Residential (3 units)		
Type of construction	Brick and stone		
Location	West side, mid-block		
Access	Back lane only		
Sources	Measured drawings by E. K. Storey, J. K. Brown		
	Original building permit		



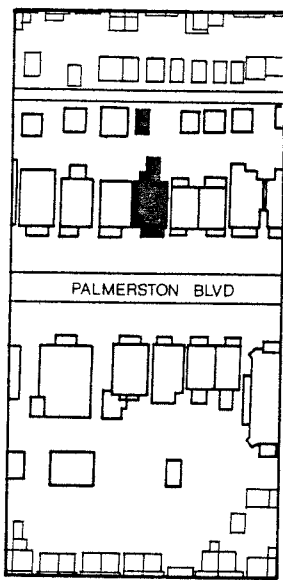
External Spaces:

House "J" possess a traditional set of exterior elements that form a progression to the front facade. ie. the large tree shading the house and the plantings at the porch frame the entrance to the house. Bushes planted at side lot lines tend to contribute to the autonomous nature of this house, making it appear more as a detached type than the semi-detached that it is. The planting at the side yards however, takes away from the quality of the collective "lawn" of the Boulevard.

The house's width, while aiding the internal workings of the plan, makes its side yard only wide enough for a small side-walk to the rear yard, which is itself rather diminished because of the back addition and the garage.

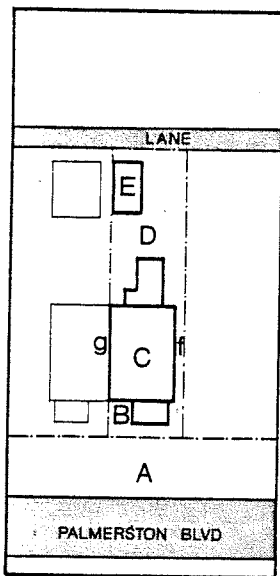
Internal Space:

Fundamental to the facility with which this semi-detached house has been subdivided is the disposition of the elements Vestibule, Hall, and Stair. Because they are placed in an efficient manner on a common side



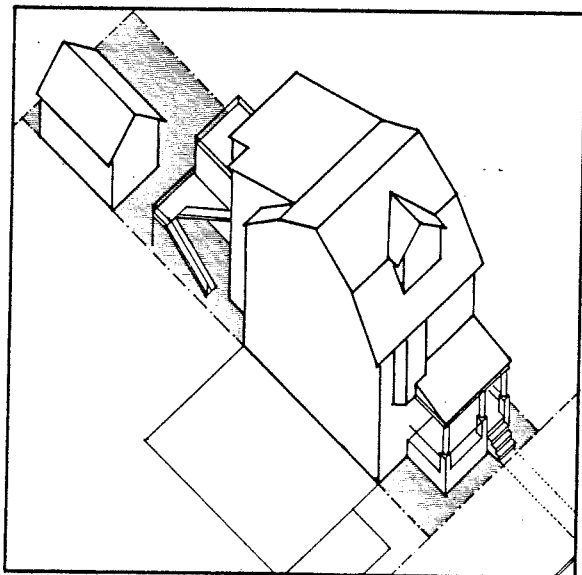
Context

scale 1:2000



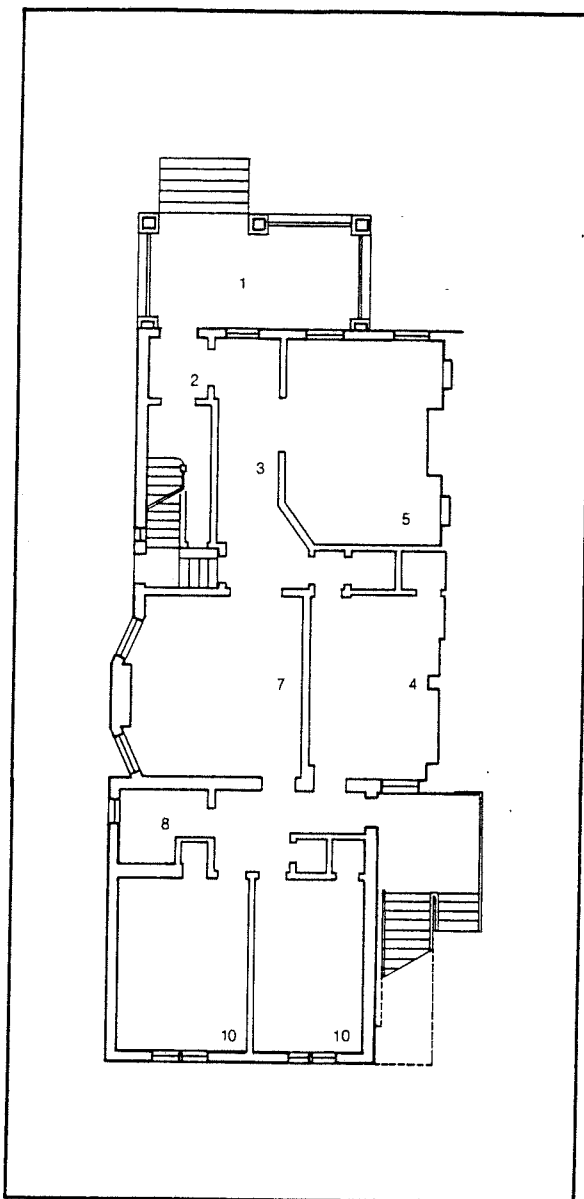
Site Plan

scale 1:1000



Axonometric

scale 1:500



Ground Floor Plan

scale 1:200

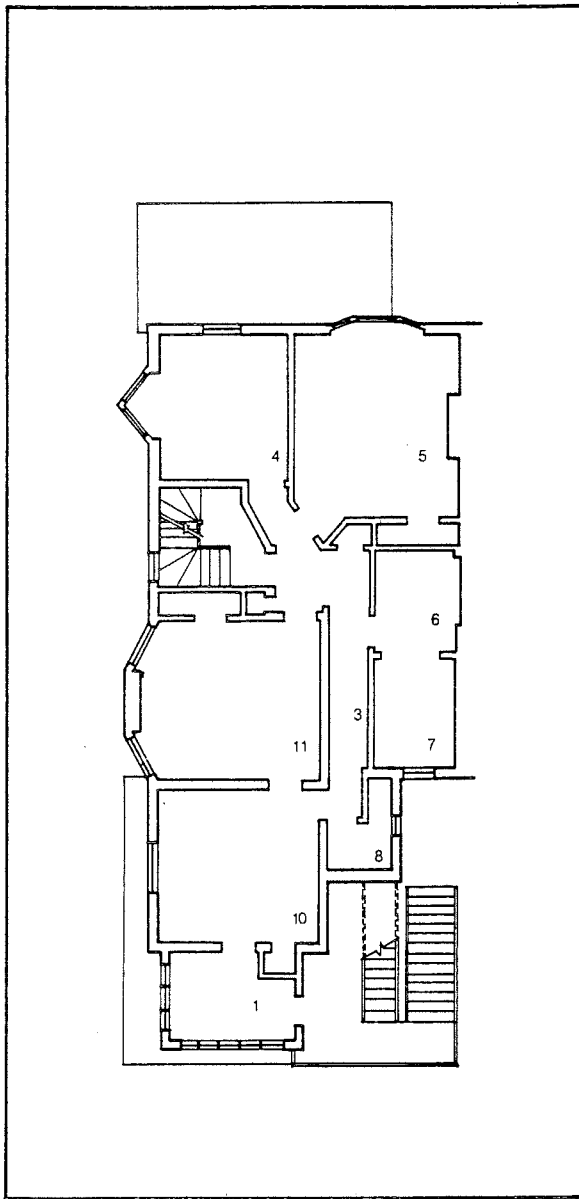
of the house, the rest of the plan area on all floors is free to be used as required. At the Ground Floor, the addition of two bedrooms at the back space allows the remaining ground floor spaces to perform in much the same manner as the original.

A strong major axis is maintained after a slight shift from the vestibule to the hall. The primary space opens off of the major axis and the secondary space is an extension of the axis, which ends in the back bedrooms.

The rooms themselves are all of generous proportion and well-disposed.

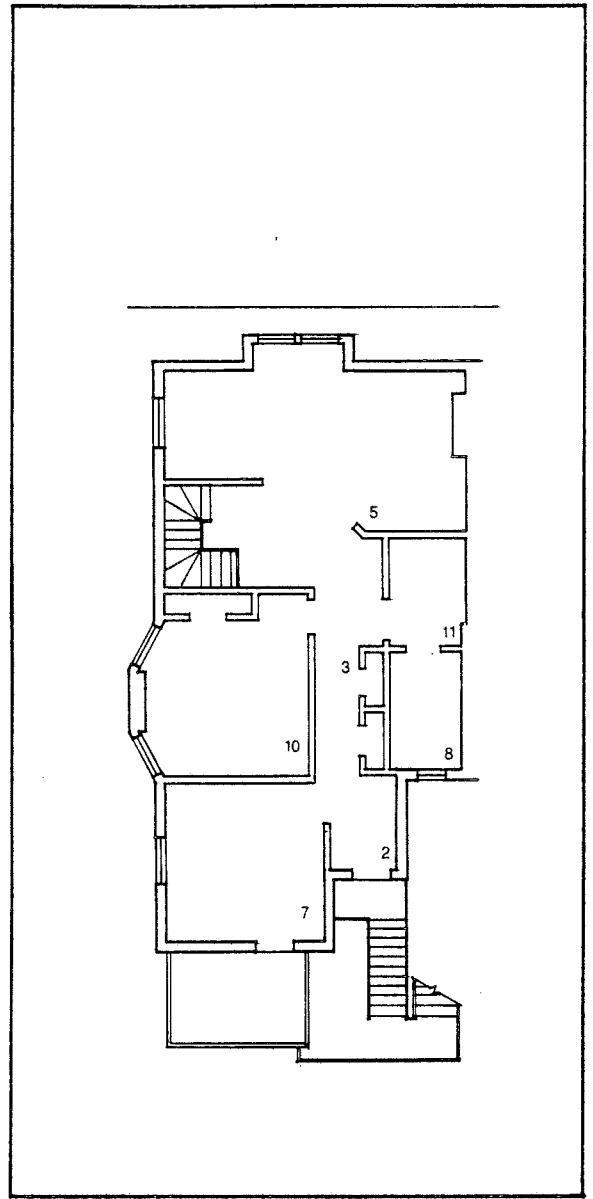
The vestibule retains its traditional role for the three separate apartments. In this space the axis leading in from the Boulevard is divided: one to the Ground Floor apartment and the other vertically through the stair hall.

The second floor organization maintains a spatial relationship of primary spaces at the front with the secondary rear space, service space, private back spaces at the bedroom, and



Second Floor Plan

scale 1:200



Third Floor Plan

scale 1:200

Key

- 1 PORCH
- 2 VESTIBULE
- 3 HALL
- 4 DEN
- 5 LIVING ROOM
- 6 DINING ROOM
- 7 KITCHEN
- 8 BATHROOM
- 9 MASTER BEDROOM
- 10 BEDROOM
- 11 ROOM

out to the deck, all organized about an essentially straight axis. The addition of the back bedroom necessitates the partitioning at the kitchen to provide a secondary axis, the service hall, which runs by the kitchen and dining spaces to the bathroom.

The third floor is organized about a single axis, with a large primary space at the front secondary space, service space, and back private space, ending in the opening to the rear stairway.

Middle Space:

The porch performs an important transitional role in the gathering of the three separate units together into one entrance. The porch again reinforces the autonomous nature of the semi-detached house by its physical separation and different facade from that of the adjoining house's porch.

Where a house has been subdivided to form several units, the porch can act as a necessary extension of the vestibule space and also performs the role of "public" space within the multiple dwelling.

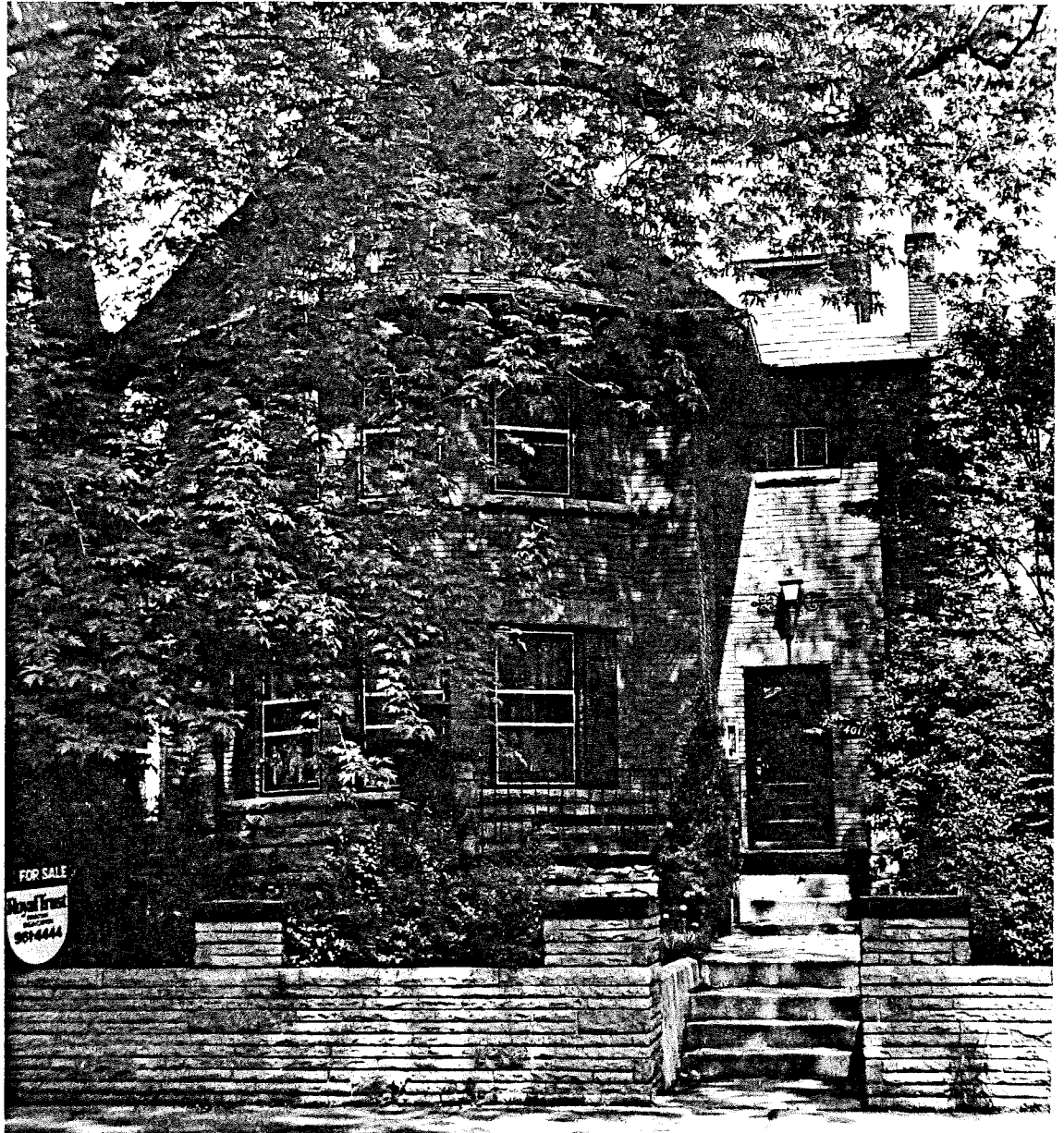
Building  
City / Street  
Time

House "K" Detached  
Palmerston Boulevard, Toronto  
1906

This Palmerston house has been converted so that it presently contains two 2-bedroom flats, 3 separate rooms, and one bachelor apartment. Through a two storey back addition, the house has increased its gross floor area substantially and has a very high GFA/lot area percentage. The house is quite wide and leaves little side yard space, although there are side deflecting windows at both sides of the house. Even though there are now six rental units compared to the original family use, the renovation work performed is, in fact, minimal.

Architect / Builder	J. A. Marvey	
Lot Size	11m x 38m	Lot no. 294
Lot Area	418 sq. m.	
House Size	10m x 17.5m	N·F·A 268 sq. m.
Coach House		N·F·A
No of Stories	2 + attic	No·rms· 16
G·F·A	395 sq. m.	
Coverage	94%	
Density		
Type of use	Residential (6 units)	
Type of construction	Brick and stone	
Location	East side, mid-block	
Access	Back lane only	
Sources	Measured drawings by E. K. Storey, J. K. Brown Original building permit	





External Space:

This lot is somewhat of a departure from the norm in its demarcation of exterior space. The presence of a two foot height wall separates clearly the public sidewalk from the front external space.

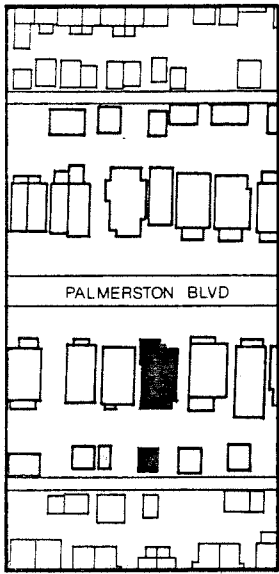
The tree in front of the house in full foliage obscures most of the house; since the porch has been virtually removed, there does not appear to be any specific representation of the house to the Boulevard.

The progression of varying de-

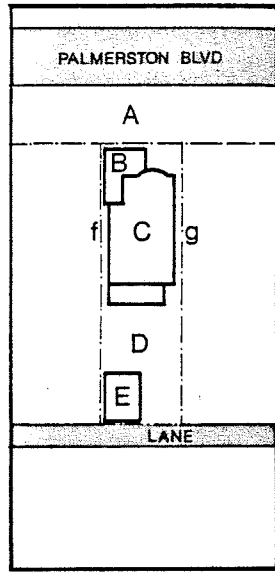
gresses of public and private realms which is the norm in other houses has been discarded at this house for the above reasons, and therefore does not contribute much to the collective image of the Boulevard.

Internal Space:

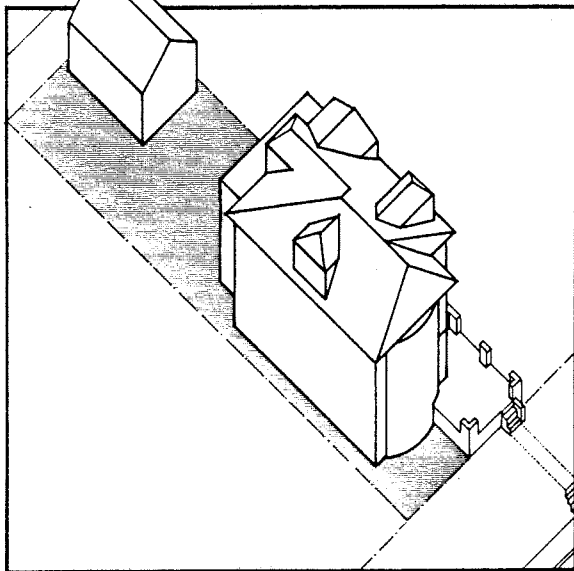
The renovation of the house has been simply carried out by blocking and locking doors. The original ground floor hall space has been taken over by a bedroom by locking the doors off of the vestibule space and



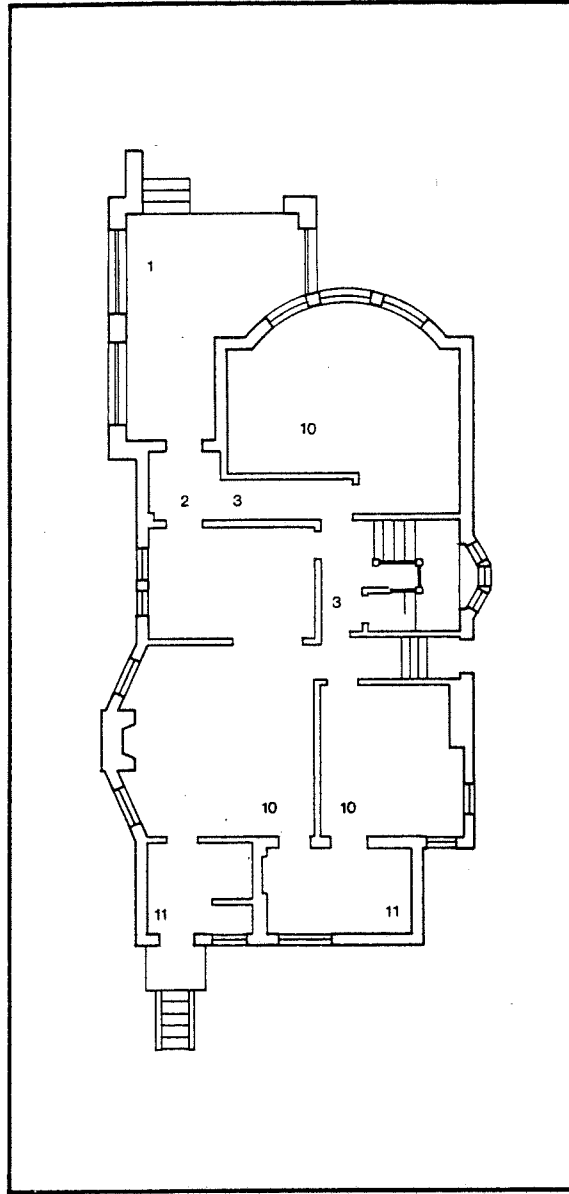
Context scale 1:2000



Site Plan scale 1:1000



Axonometric scale 1:500



Ground Floor Plan scale 1:200

the stair hall. This has compelled the small vestibule to contain the compressed usage of both waiting/reception and the entry space.

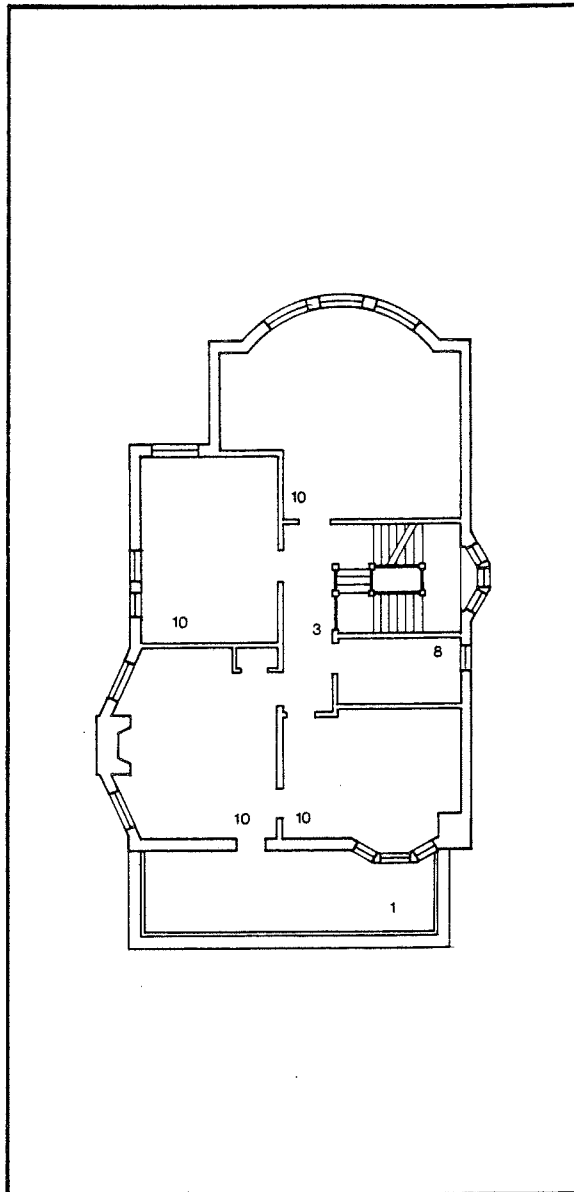
The position of the stairs, that is, on the opposite side of the house, forces the renovation to isolate the original primary front room from the remainder of the house; this front room now forms one rental unit. The larger 2-bedroom unit formed by original back spaces is thus not able to have a street face.

The original axis of the house, which formerly would have func-

tioned as: vestibule to hall space to primary space (as destination) to secondary space to service space, has been erased and now is funneled through a narrow hallway to the stairs.

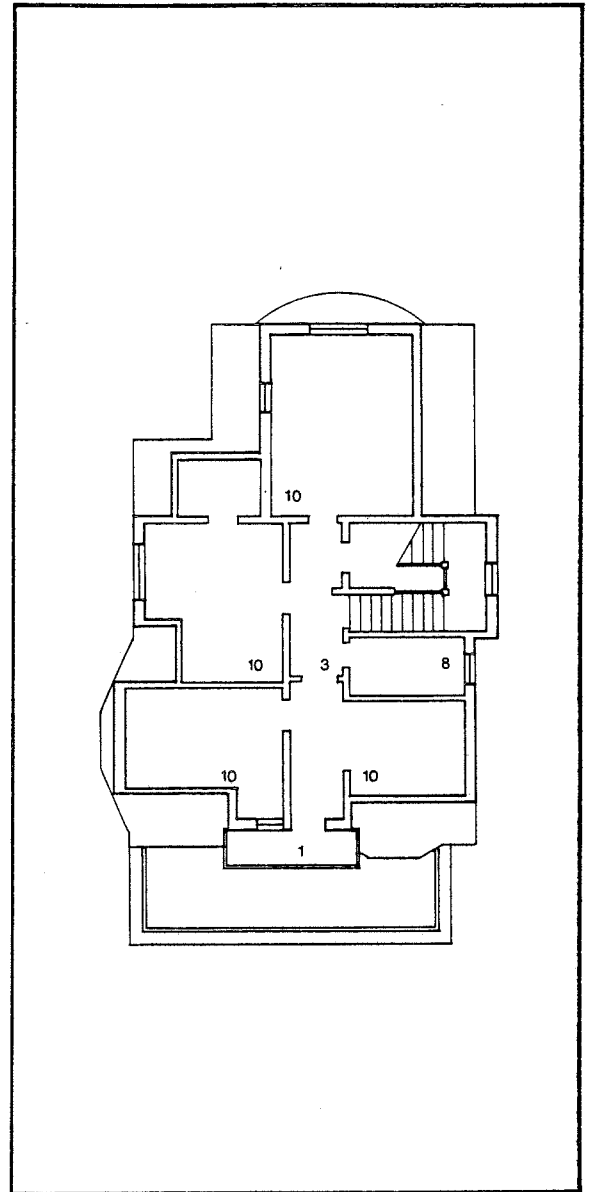
The stairs, once a minor axis of the original house, is now the stronger axis as the main circulation space within the multiple dwelling units.

The upper floor changes are again accomplished by locking original doors. The second floor is subdivided into 2 separate rooms (2 rental units) and one bachelor unit with shared bath-



Second Floor Plan

scale 1:200



Third Floor Plan

scale 1:200

Key

- 1 PORCH
- 2 VESTIBULE
- 3 HALL
- 4 DEN
- 5 LIVING ROOM
- 6 DINING ROOM
- 7 KITCHEN
- 8 BATHROOM
- 9 MASTER BEDROOM
- 10 BEDROOM
- 11 ROOM

room. The circulation of the second floor has not changed from the original, because what were once four separate bedrooms have been left spatially intact.

The third floor/attic circulation duplicates the second floor with the addition of a locked door at the head of the stairs to distinguish the third floor as a separate 2-bedroom unit.

While the expedient method of renovation by blocking and locking doors is not particularly attractive, it has a possible advantage of being relatively simple to convert back to its

original state or to be renovated further. The original staircase is intact, though badly cramped, and the disposition of rooms seems largely the same as the original version of the house.

Middle Space:

The upper structure of the original porch has been removed. While the original lower structure of the porch still retains a transitional role, it has lost most of the qualities that porches enjoy, that is, the ambiguous relationship as both an external and internal space.



### Corner House

The examples studied so far have included an array of houses, two of which are located on corners. This further example is also a corner house, but unlike the previous examples, makes a very strong reference to its siting. The service and entrance sequences common to the earlier examples is shifted here to allow the public rooms of the house

to take advantage of the open side to the side street.

The frontal bay window, so common an element on typical Palmerston houses, is taken around the corner to offer a multi-faceted window opening, while the porch maintains its frontal relationship to the Boulevard. The house accommodates both streets and sits in a landscaped lawn that travels around the corner.



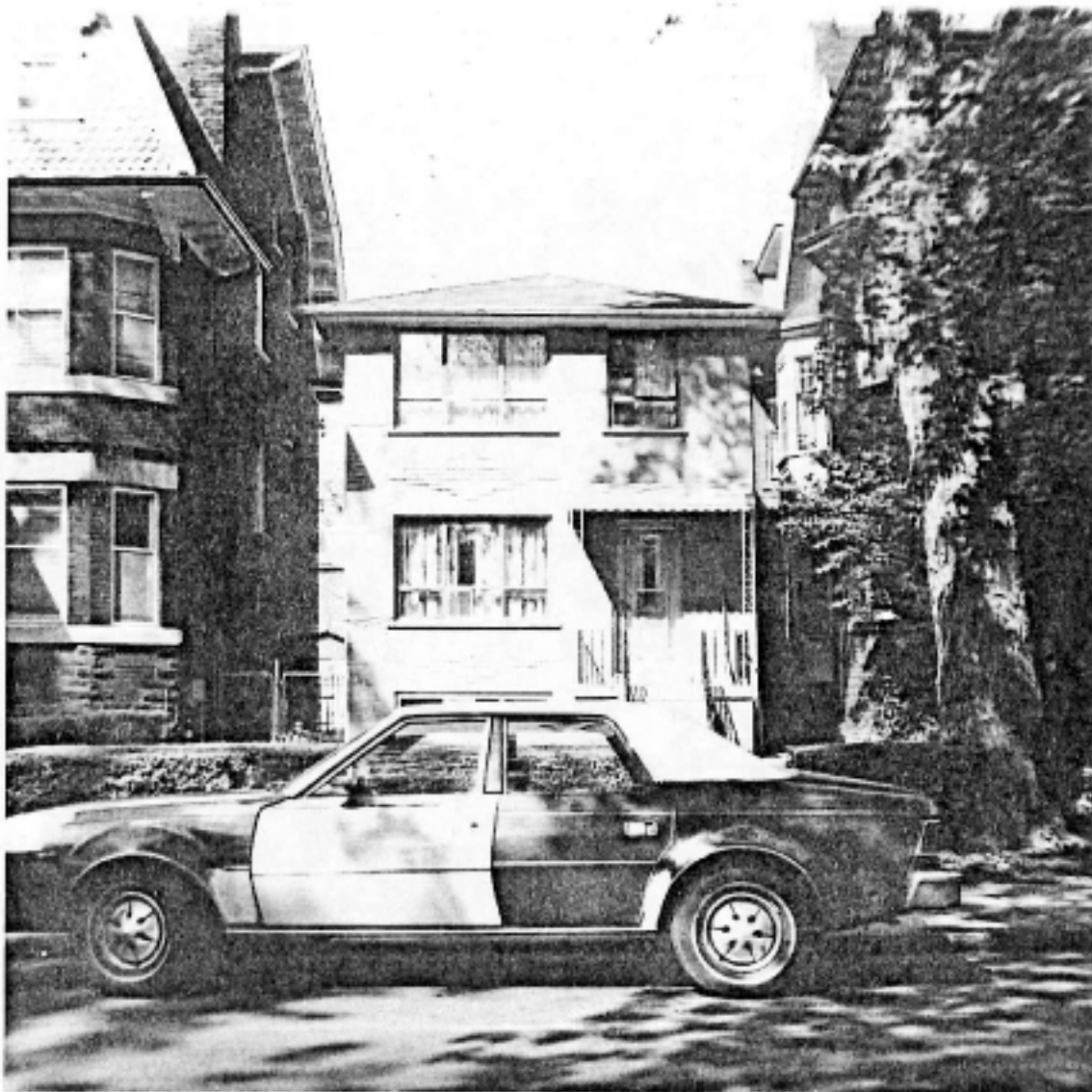
### George Weston House

This, the largest house on the Boulevard, has a central hall plan. It also has probably the largest coach house on the lane. The house sits centrally on two lots, on the east side in the middle of a small block.

The physical location and architectural characteristics of this house make it "ideal" in many ways. The mansion sits

surrounded in a landscape, its entrance oriented to the Boulevard. The entrance is composed of highly detailed doors and elaborate windows with the porch that symbolizes the house's status on the Boulevard. Although it is not exactly a pavilion type villa in a landscape, approachable from all four sides, the formation of the four gables on the four sides of the roof suggests fragments of its ideal aspirations.





### Suburban House

Huddled between gigantic monoliths to each side, this suburbanhouse has built on the combined lots of two adjoining properties. The suburban triplex, complete with its enclosing hedge, metal porch and aluminum door, with the ground floor sunken below grade, has been absorbed into the Boulevard.

The juxtaposition that results between this suburban house and the typical Palmerston house has rather surprising things to say about both. Externally, each

house testifies to a specific vision appropriate to its own time.

The elements of the Boulevard recover this meagre house into its larger order and point to an absence of such elements in the suburbs.

Criteria relevant to the suburbs might be sought from the Palmerston house. Its ability to accommodate change, and family size, and its collective quality of creating a public landscape are qualities that could equally be applied to the suburbs.

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## BUILT FORM

The uniqueness of Palmerston Boulevard's built form emerges from a multiplication and repetition of simple principles that unite and give individuality to the houses. Mere alignment of houses set back a common distance from the Boulevard on both sides enable the houses to individually and collectively make the space of the Boulevard.

This forward position of the solitary house on its lot emphasizes the Boulevard side as a front space and creates a back space. The ten house examples studied verify these propositions.

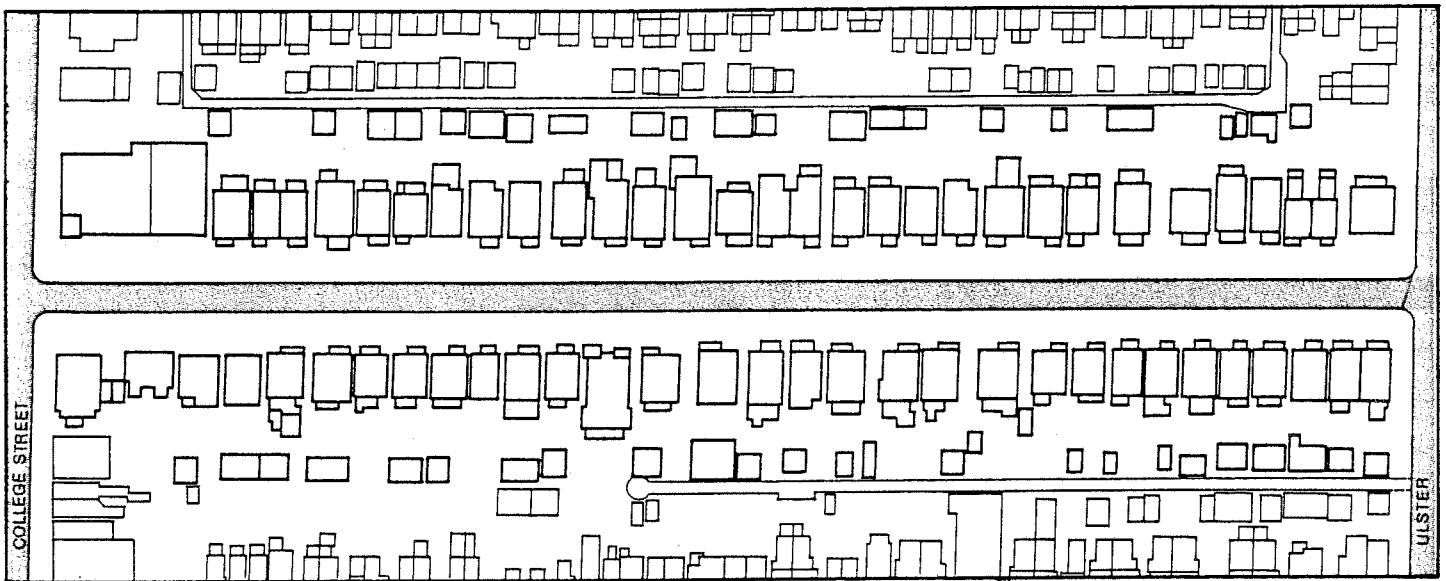
The aggregate of houses that constitute the Boulevard make the front space in a positive manner. The back space lacks the precise definition that alignment produces. The overall sense of the Boulevard works in two ways in the realm of movement.

Movement that takes places parallel to the Boulevard, be it vehicular or pedestrian, experiences the collective aspect of the Boulevard. Although the houses are mostly detached, this separateness is overcome in the collective street, and the houses put forward a strong wall of building to the Boulevard. The combined influence of jutting bay windows, angular gables and individual facades give the wall a distinct richness.

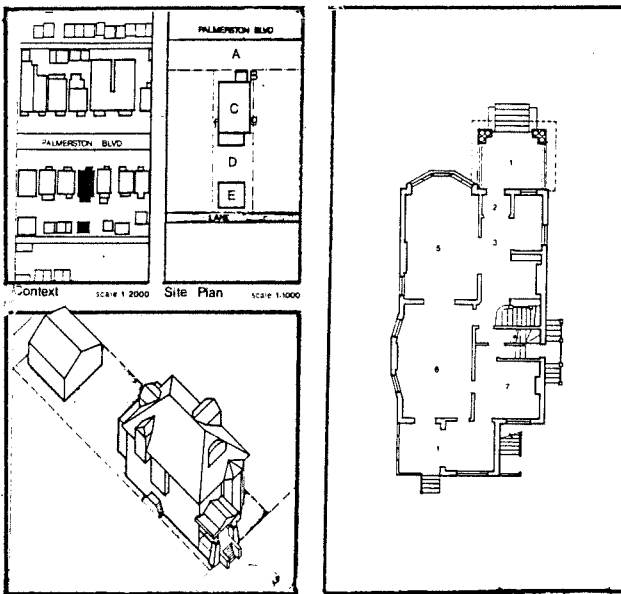
Movement perpendicular to the Boulevard brings the individual aspects of the house into play. The overall mass of the house, its proportion, its facade, its singular features, make it recognizable and unique amongst other houses. The highly elaborate roof and roof gables define the house tops clearly and strongly.







Palmerston Boulevard - Built Form



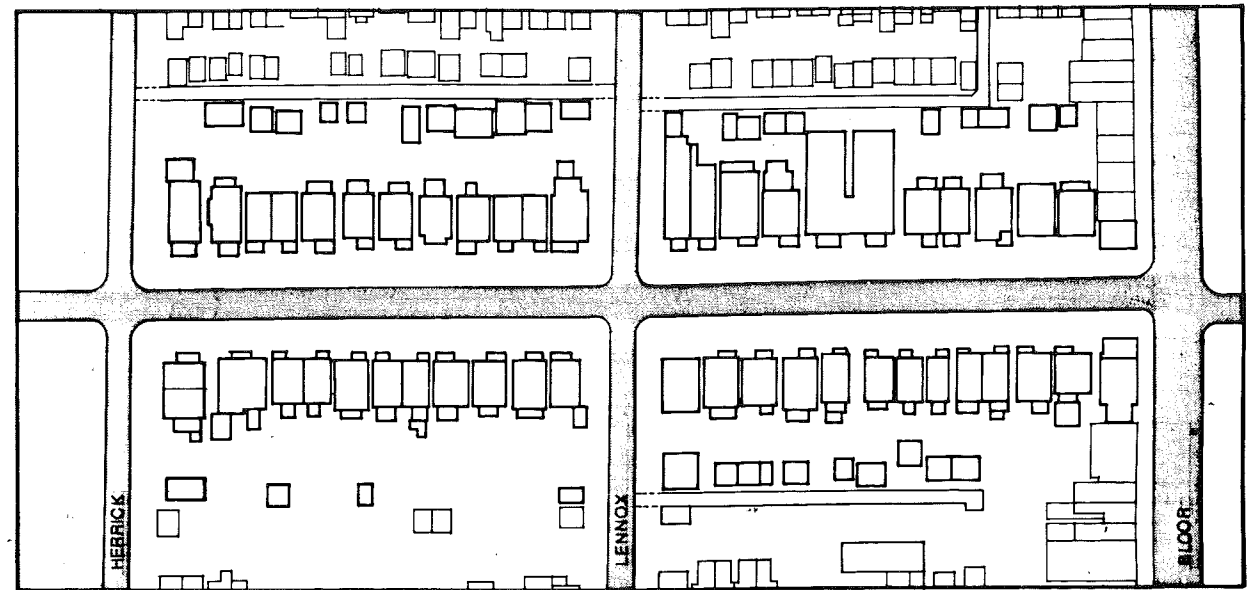
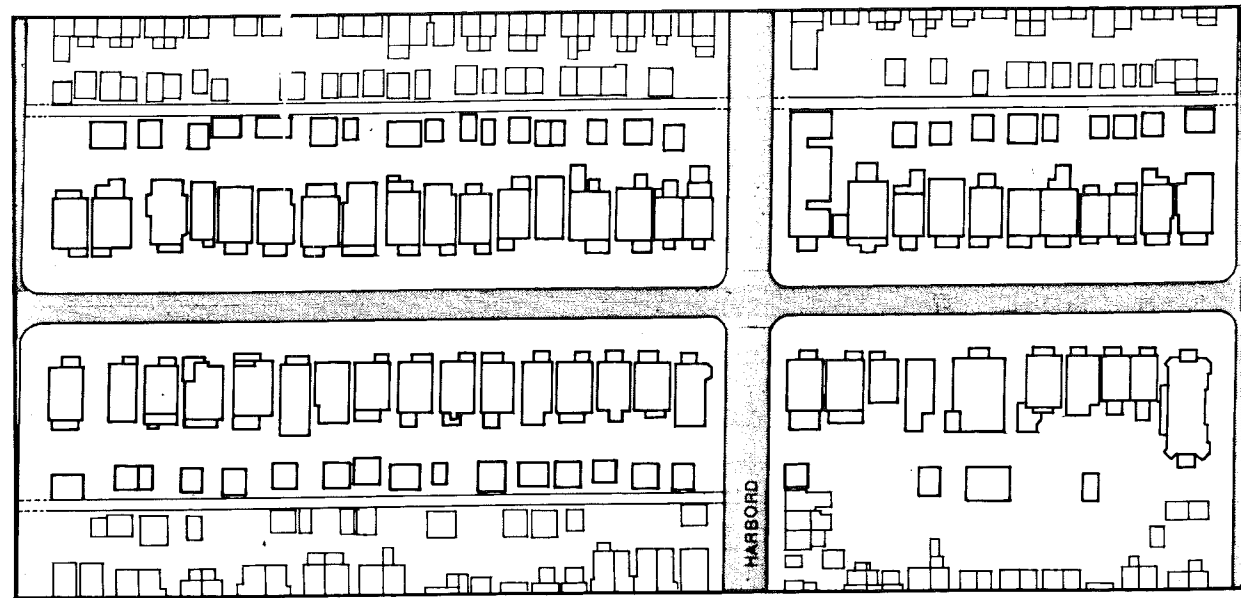
The plan illustrating built form on the Boulevard demonstrates many of the conditions found along the Boulevard: the individual house, and its relationship to its lot, the size and position of rooms and the methods with which spaces between houses are dealt with internally and externally.

Houses are raised several feet above ground which gives the basement light and ventilation. The difference in height is dealt with externally by the porch space and outside steps.

The ground floor facade usually consists of a projecting bay window of the primary front space, and a fairly elaborate porch that shelters the front entrance and a smaller window to the vestibule or hall space.

The second floor has alternating punched and bay windows. Bay windows are either continuations of the ground floor bay window or occur symmetrically above the porch. The second floor bay reflects the largest room of the second floor, either the master bedroom or the primary front space of an upper apartment.





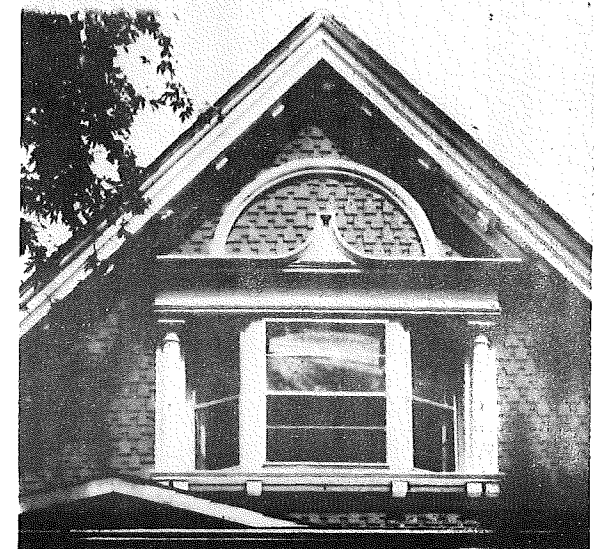
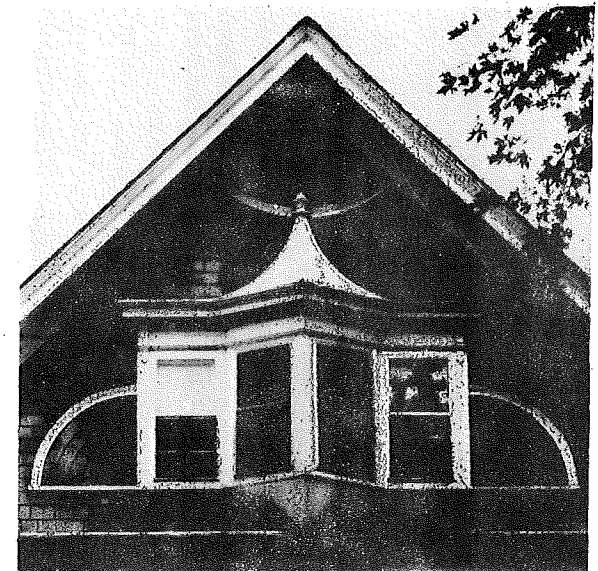
The most important feature of the third floor/attic is the gable. The combination of gables and receding roofs form the highly distinctive roofscape of the Boulevard.

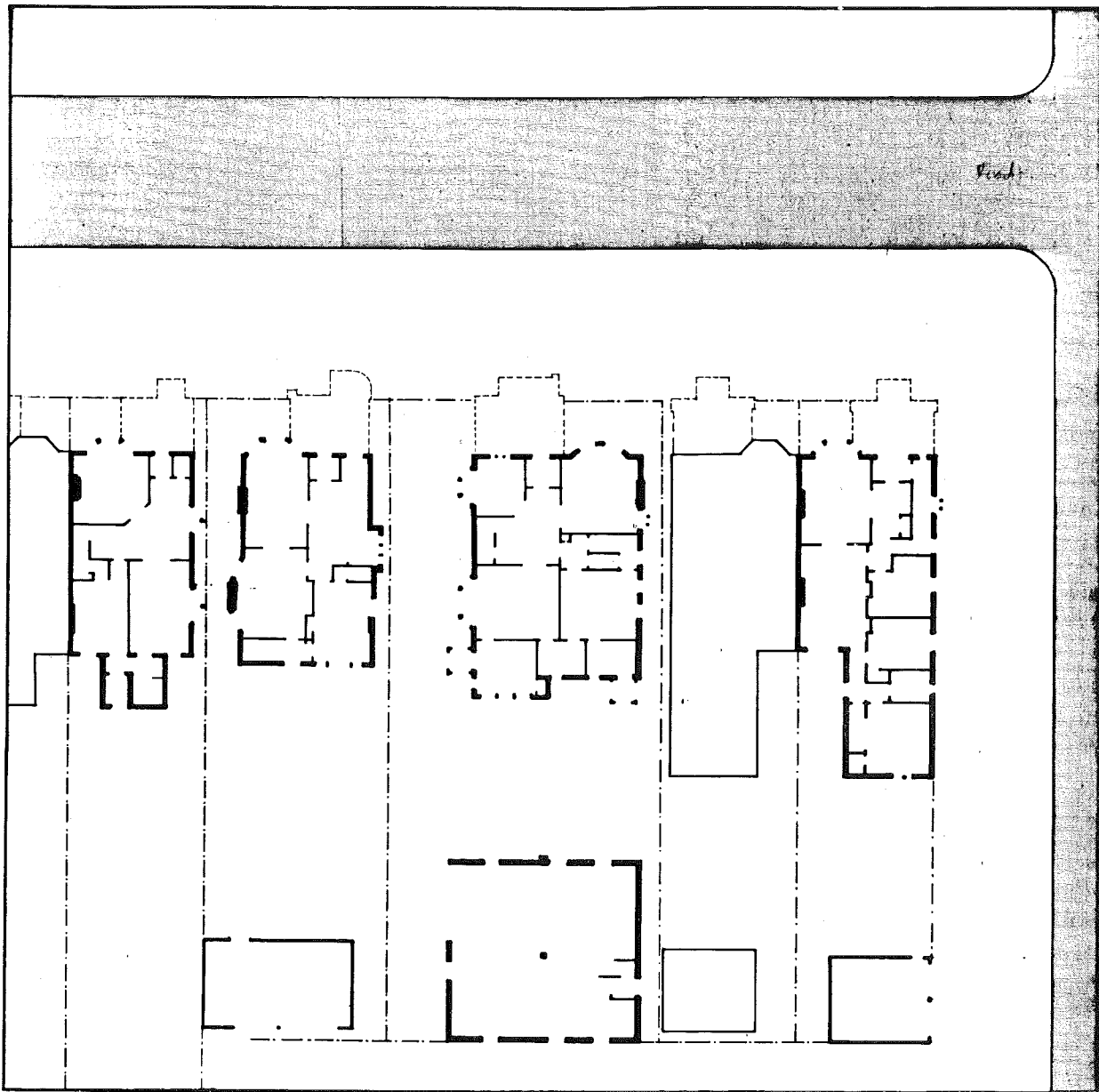
The gable is highly ornate, and, after the porch, is the most elaborately detailed piece of the facade. It functions in counterpoint to the porch. Where the porch weights the facade assymmetrically about the entrance, the gable will reassert the cubic volume of the house by a symmetrical location.

Conversely, some gables tend to echo the positioning of the porch and thereby divide the house into two vertically prominent pieces. This has an effect of making the building appear taller.

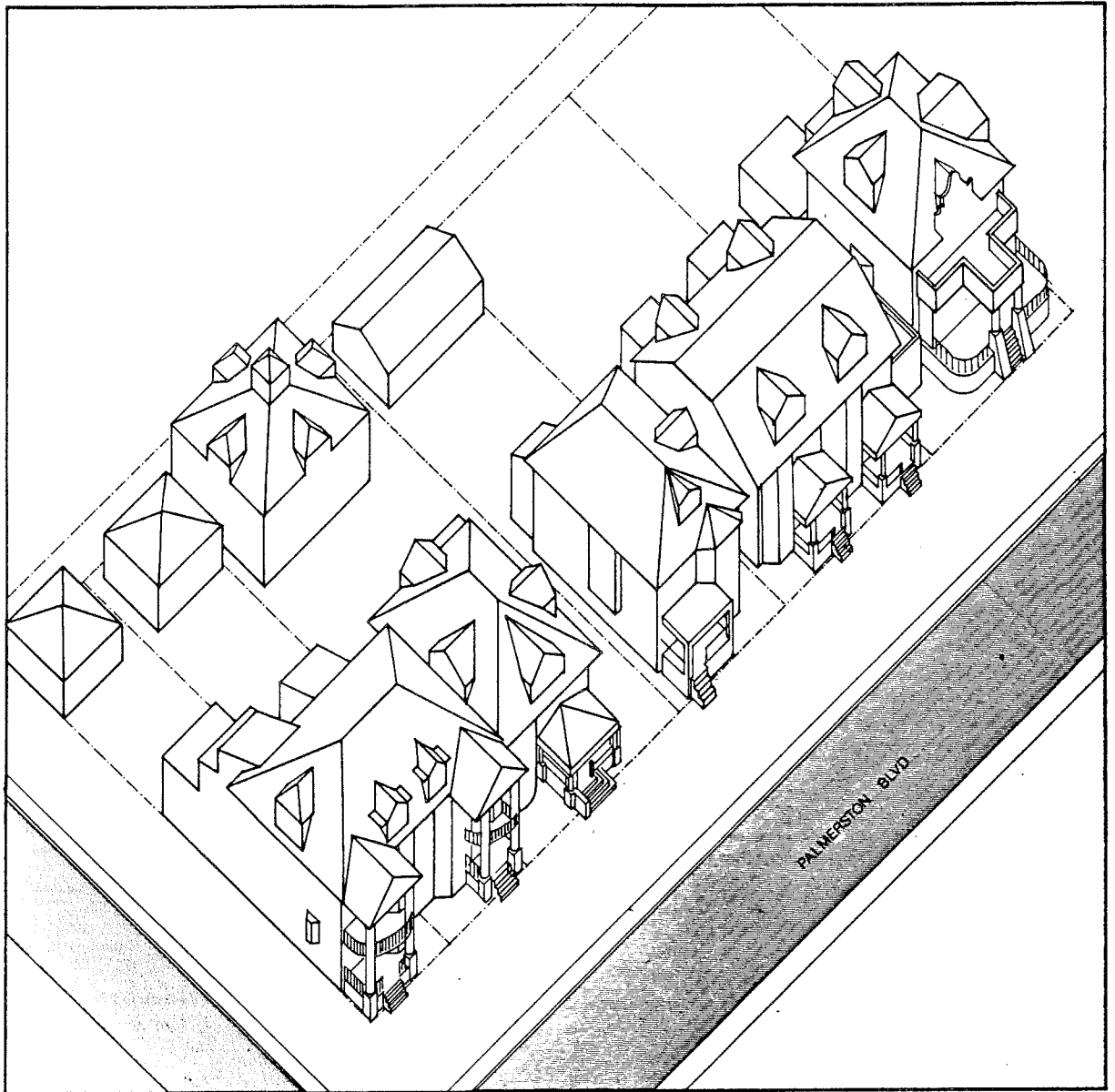
The gable is similar to the porch in that it is a projecting element; it is seen in relief of a receding roofline, as a porch is seen in relief of the front face of the body of building.

Gables also recall a remnant of the pavilion ideal when they are placed on all four sides of a hip roof.





Plan · Built Form



Axonometric

scale 1:500



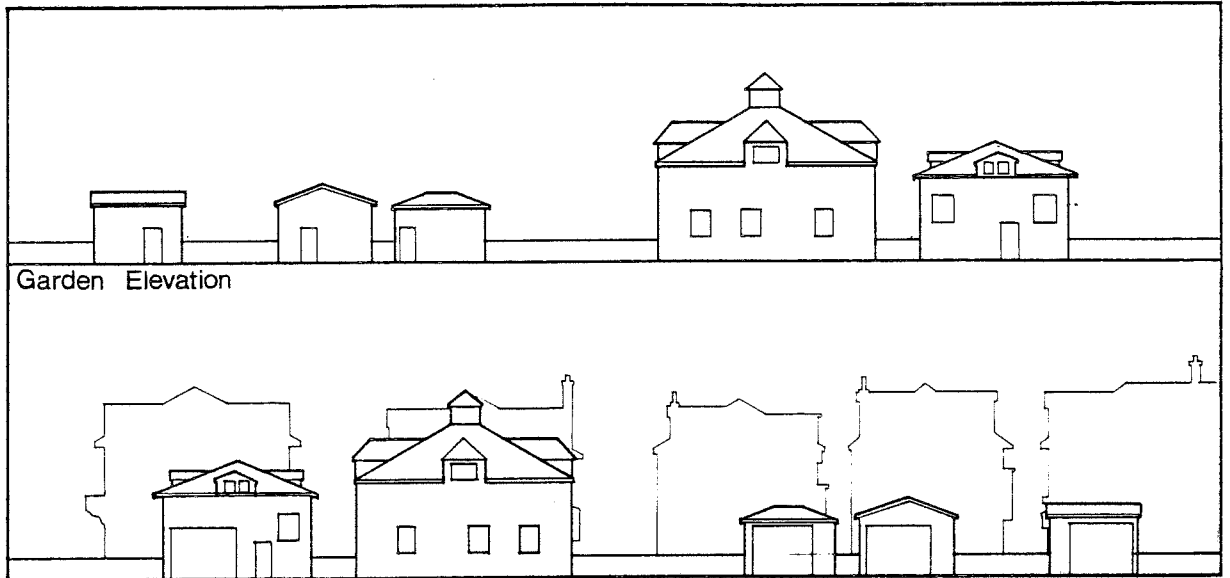
Cross-Street Elevation

The front elevations are paradoxically diverse and yet similar. Each house is uniquely different from the next by reason of its architectural language, yet the elements are typologically alike so that all the differences are able to be read collectively; house to lot, lot to block and block to the Boulevard.

The side elevations of mid-block types are generally made up of irregularly placed small openings in a field of brick. There are usually small bays in both hall spaces or stairs and at the primary and secondary rooms.

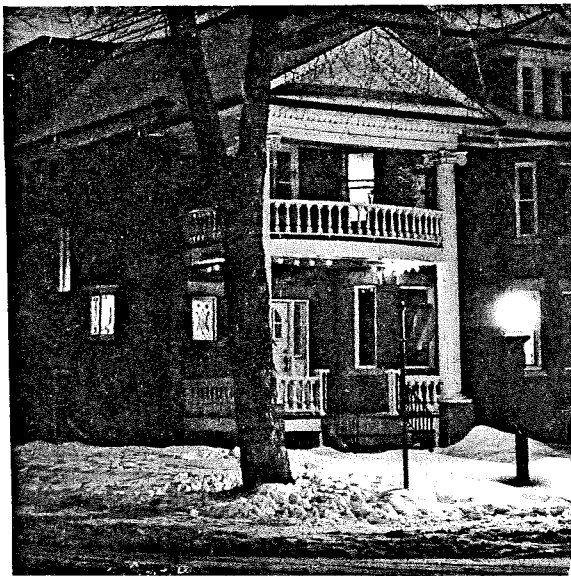
The many sideyard conditions that occur have direct implications on the plan and its elements (ie. doors, windows, disposition of rooms). Tight sideyard spaces between houses produce bay windows that look only to the Boulevard and the back yard. The middle panel is either solid or is a window of opaque or stained glass. The house with a larger lot and consequently larger sideyards extends bay windows that maximize light and view in all three directions, thereby charging the sideyard with more importance; this is also reflected in the size and disposition of rooms.





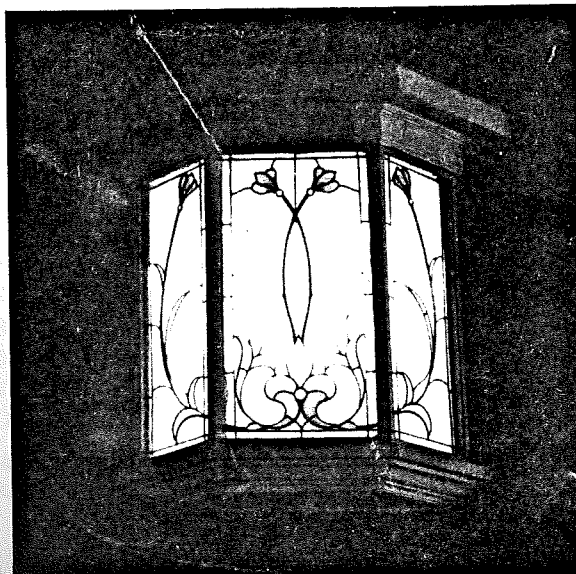
Garden Elevation

Lane Elevation



Rear elevations are very irregularly composed of rather larger openings from service spaces (kitchen, bathrooms) and back porches either open or in-filled at the ground level. The second floor exhibits bedroom windows, usually symmetrical and terminates with a gable at the third floor.

However, because most houses have built back room additions, the rear facades are usually haphazardly composed. Where houses have been converted, the back roofs of additions are used as decks for upper apartments.



As has been noted previously, the Boulevard face shows minimal external changes from the original street facade, the bulk of change having occurred at the rear yards.

The individual elements of doors and windows take on a new significance at night, when the brick field of the house disappears and the openings are seen as abstract pieces on a dark wall. At night, the windows and the porch compose the image of the house on to the Boulevard.

# LANDSCAPE



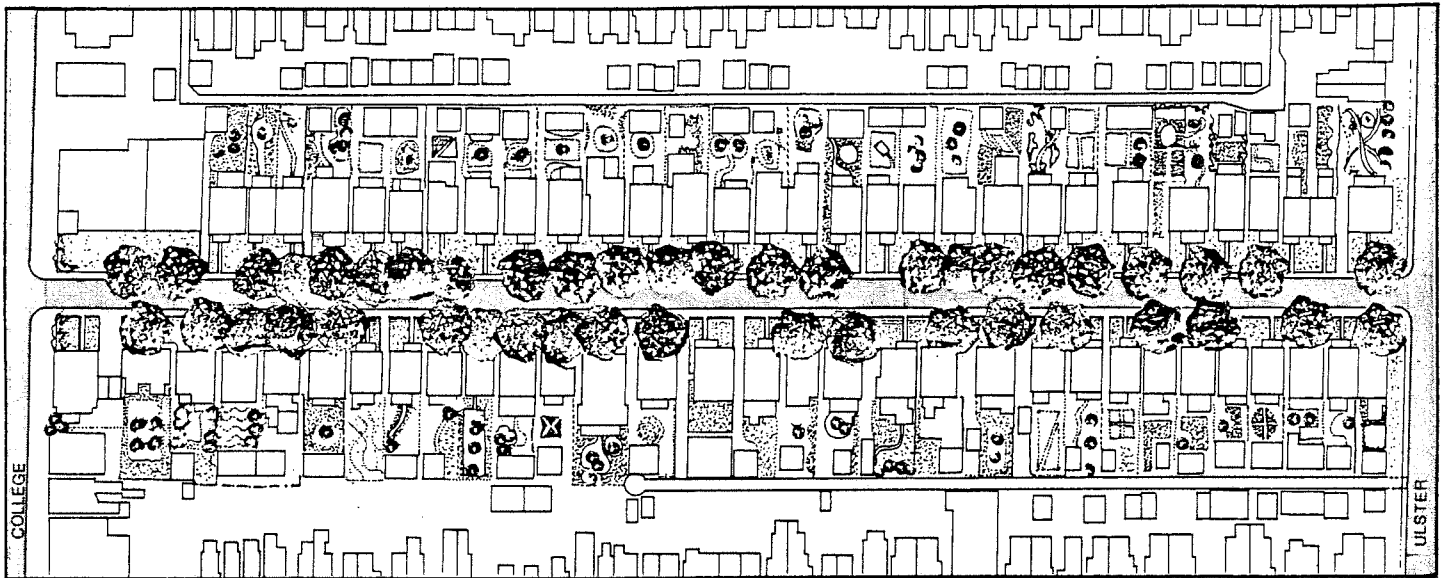


The first inhabitants of Palmerston Boulevard were not able to enjoy the fruits of their farsightedness. The rows of trees planted by them seventy years ago, have grown to majestic size and have given the Boulevard a grandeur that it did not have when it was first built. The Boulevard in all probability looks far better now than it did when first settled.

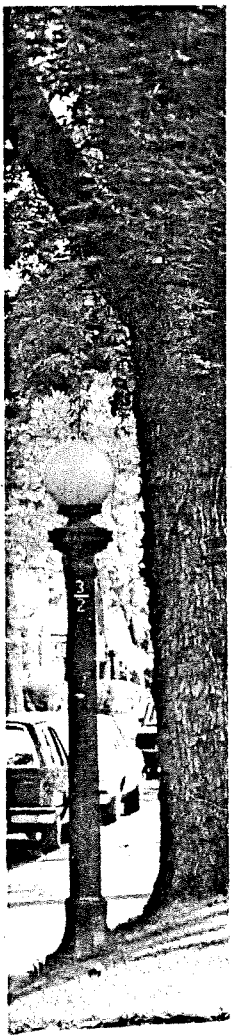
Each yard of the houses contributes to the overall temper of

the Boulevard. Individual and collective aspects of the landscape come together to give meaning and character to the street.

At the individual level of the house, the greenery of the landscape sets the house apart on its particular lot. The Boulevard consists of lines of trees, lawns, bushes, and smaller landscape elements, the most notable being the cast iron street lamps.



Palmerston Boulevard · Landscape

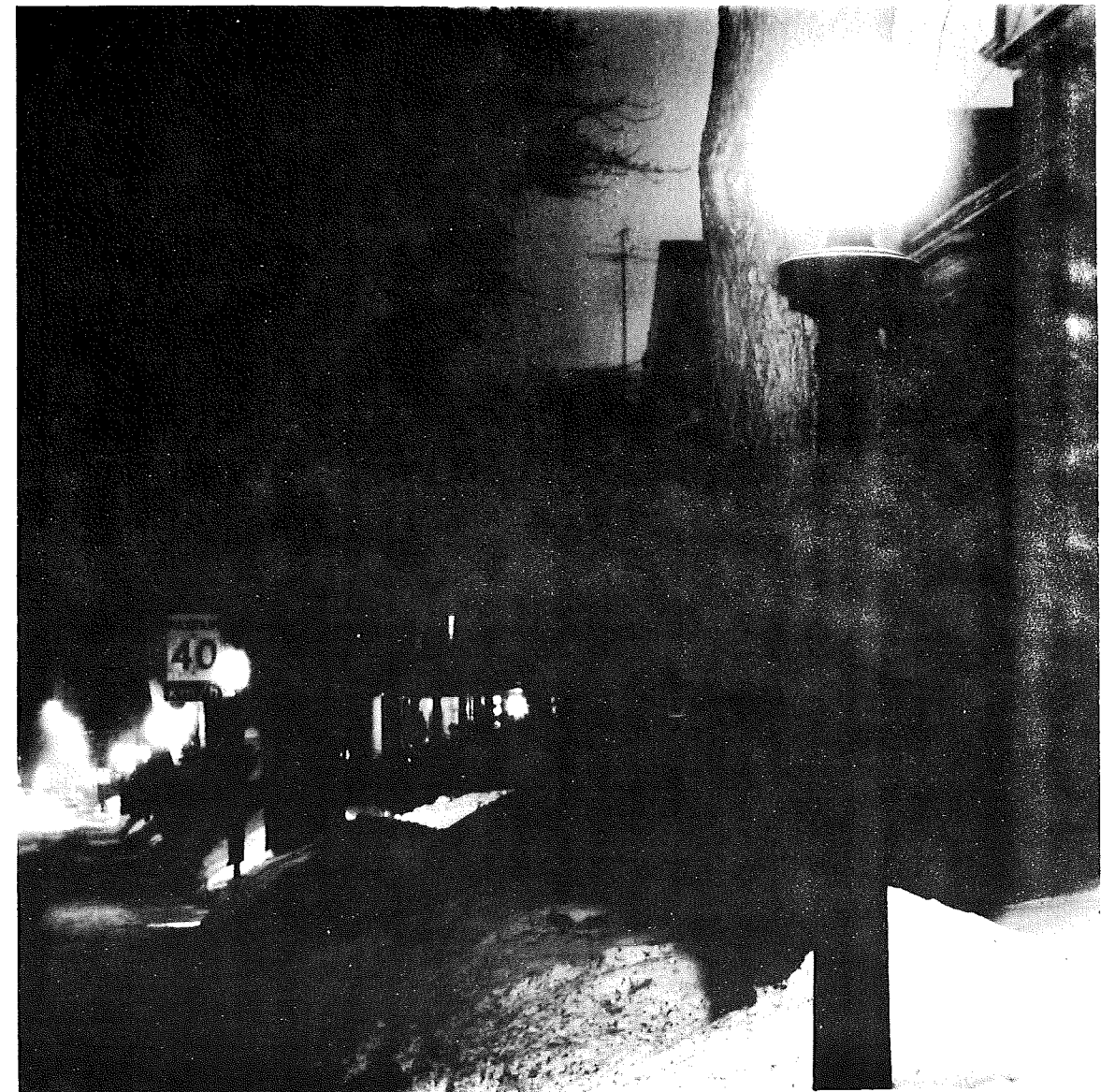
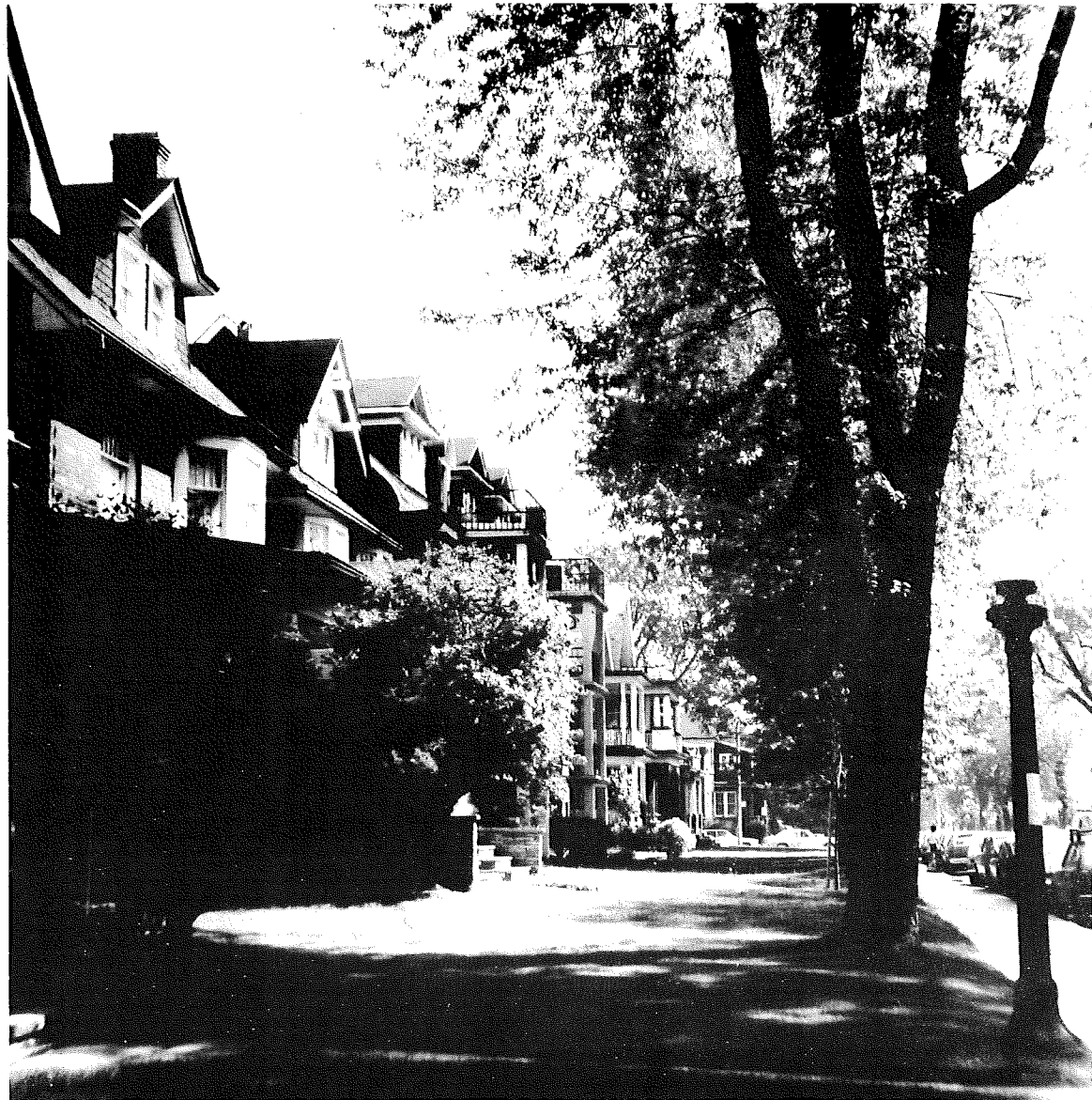
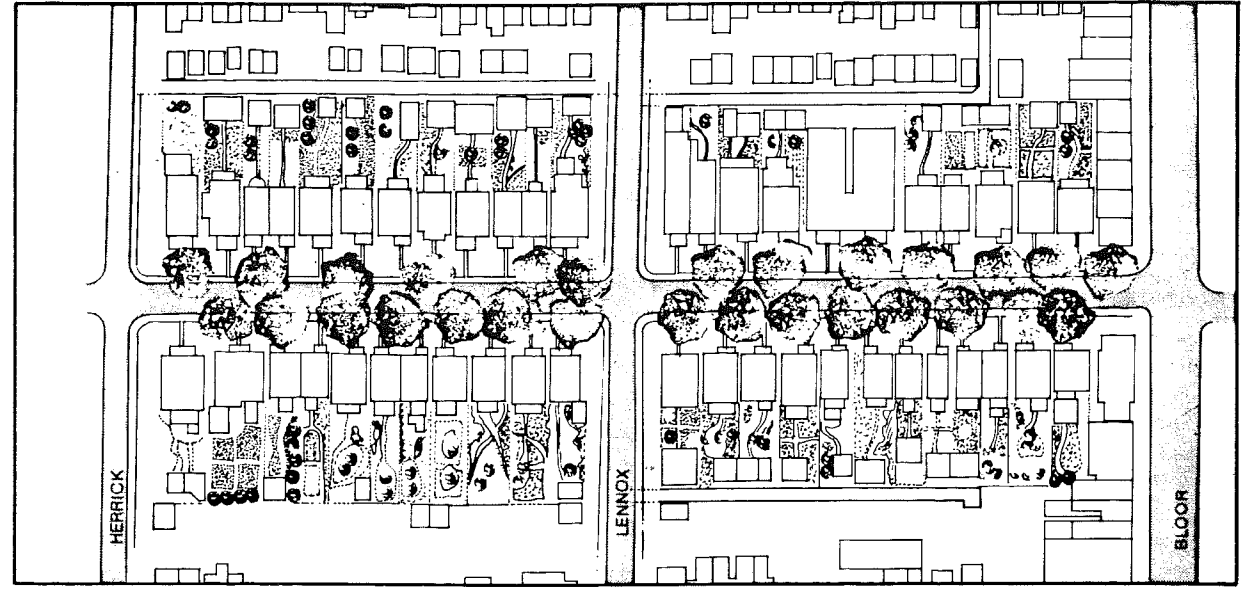
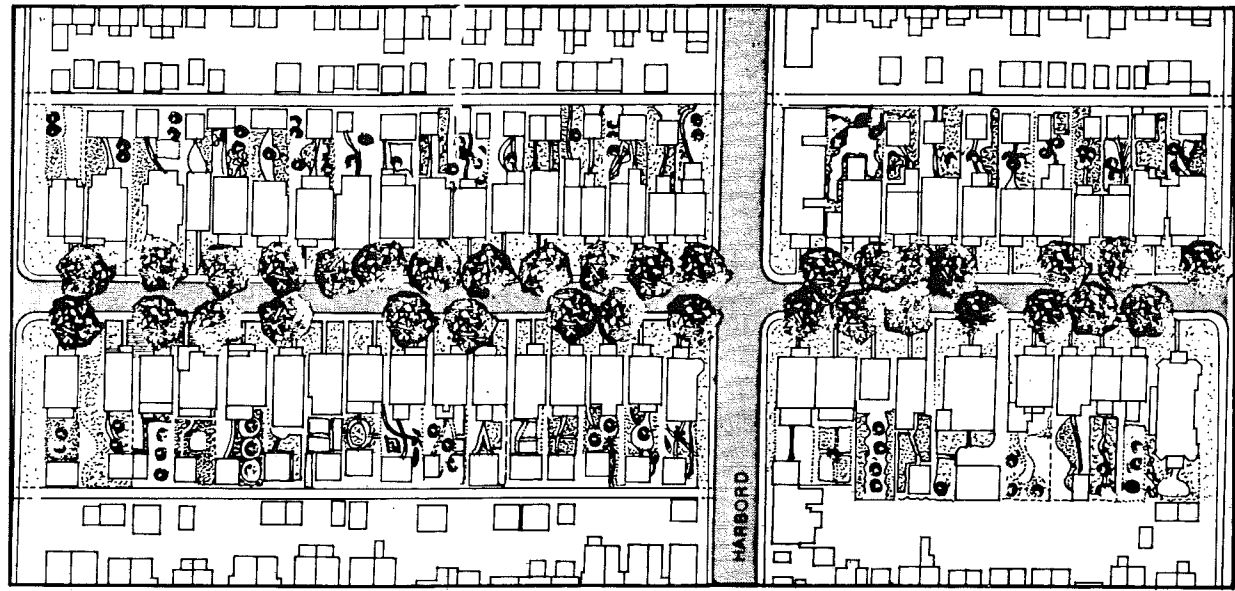


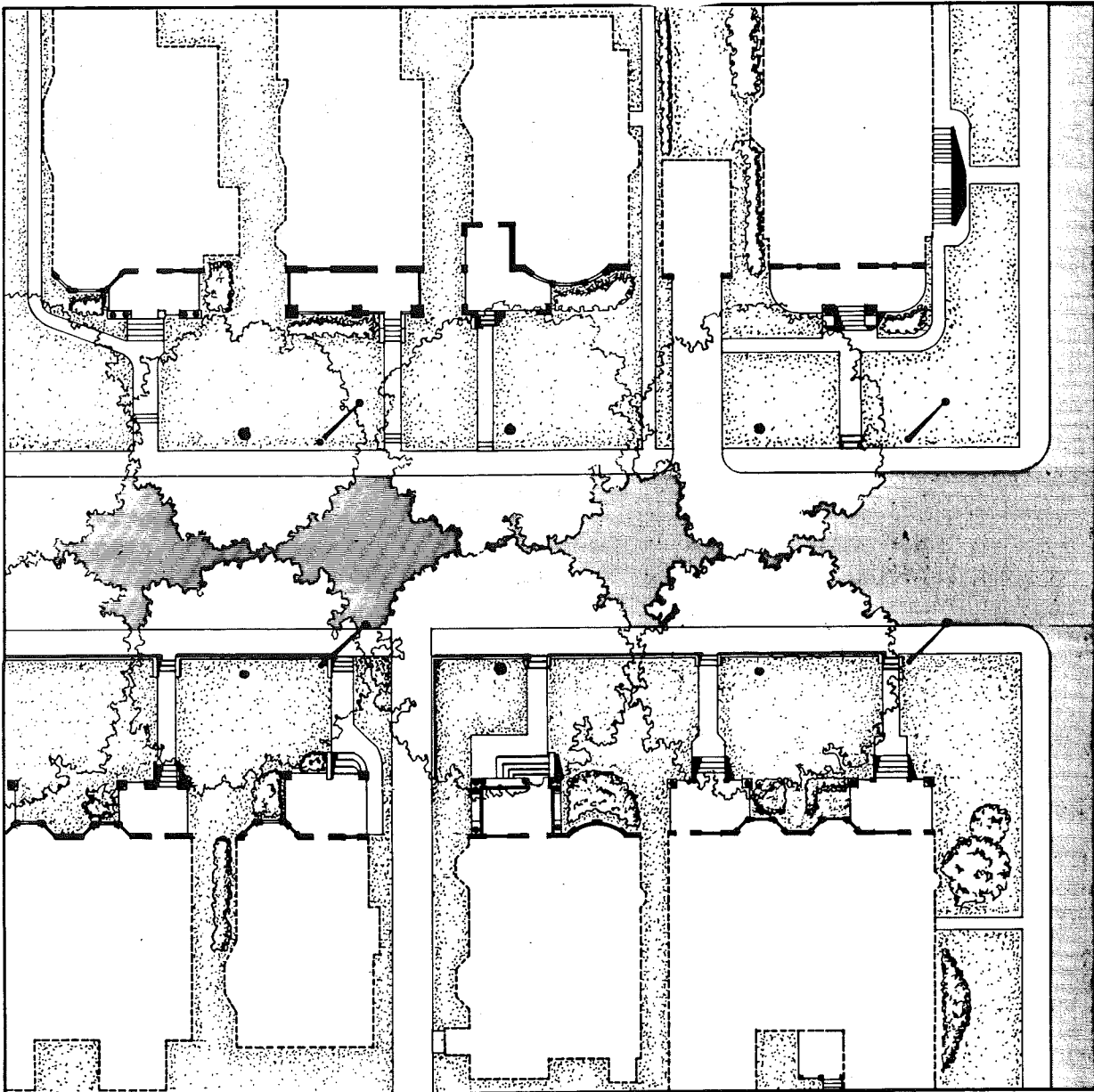
The elements of the landscape are:

- trees
- lamps
- lawns
- steps
- bushes
- flowers
- porch steps

The elements also include the porch which is discussed later.

Movement with respect to these elements work to define and give qualities to both the Boulevard and the respective houses. The trees and street lamps define the space of the Boulevard as a passage. When movement occurs perpendicular to the Boulevard towards a house entrance, the landscape elements work to punctuate entrances and mark edges in a different way. This change in direction that allows the elements of the Boulevard to work alternately in unison and independently has many subtle nuances that at the detailed level of a series of houses explains for instance the cumulative nature of the lawns of the Boulevard.





Plan · Landscape

Typical of a set of conditions found along the Boulevard, these houses as drawn emphasize the role the landscape plays in the conception of the house in a landscape.

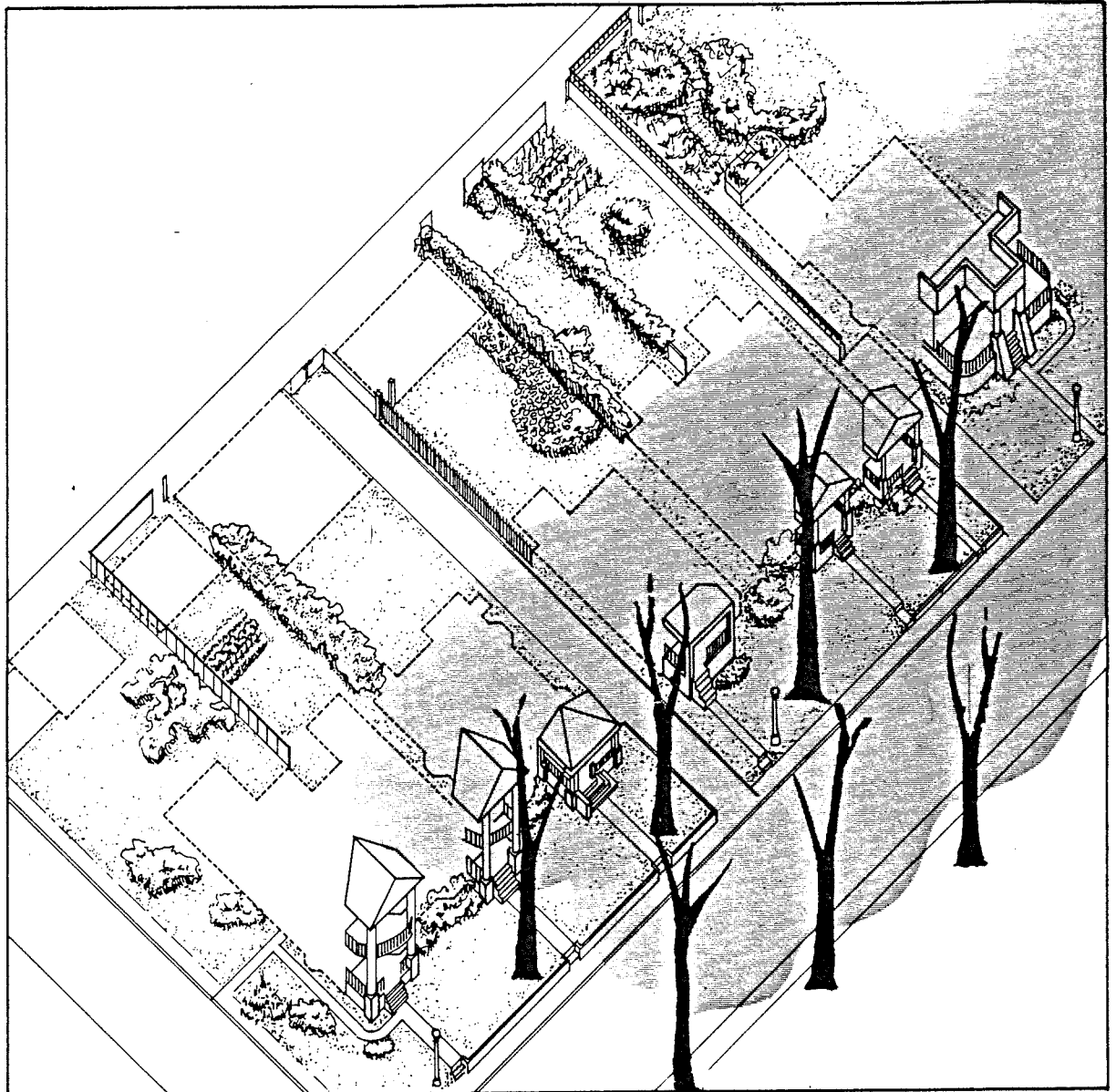
The front space of the lawn particular to each house is slightly raised above the level of the sidewalk by a few steps. This slight difference allows the sidewalk extension to the porch to descend slightly into the grass of the lawn; thus, a view across the lawns tends not to include the individual

walks, but an illusion of one long green carpet.

The edge which delimits the public sidewalk is carefully controlled by means of curbs to most lawns. Along with the presence of street lamps, the strong order of trees and small curb walls give strong definition and qualities to this edge.

The houses with larger lots draw in the lawns of the Boulevard to wrap around its side-yards into the back space of



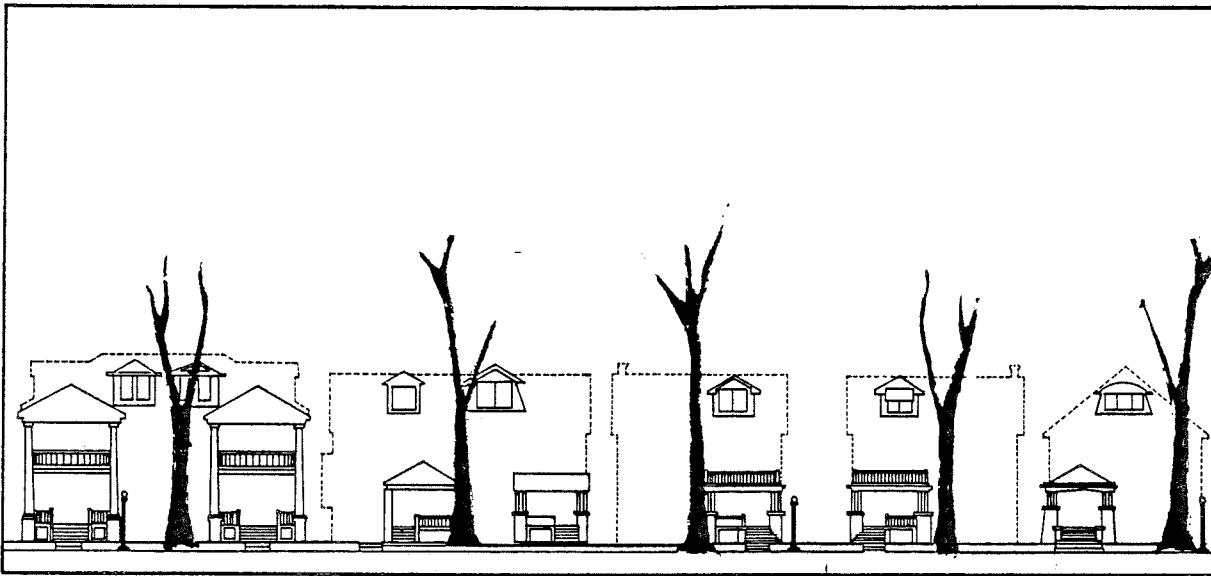


Axonometric

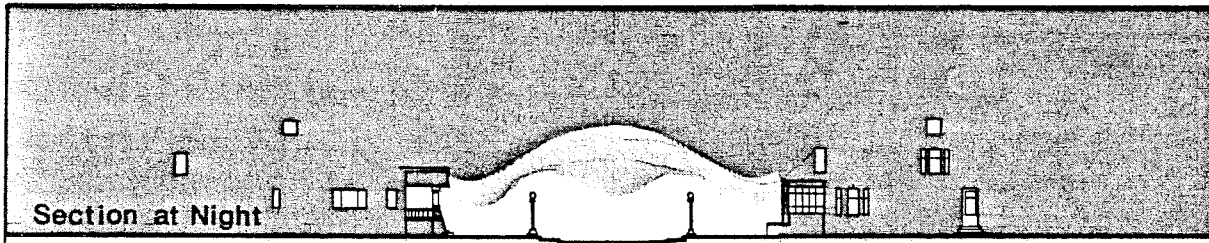
the house. The back yards, unlike the collective appearance of the front, become highly personalized spaces, that can include any type of garden. Very different from the front garden, the back spaces usually have fruit trees, small vegetable gardens or simply yards for relaxation. The private enclosed garden in the back is the opposite of the public and open character of the Boulevard side of the house.

One of the principle roles that the vegetation plays is to pro-

vide alternative lighting conditions for the Boulevard. By day, the trees provide both shade and cooler temperatures. They create a large vaulted hall much higher than the houses themselves when one moves parallel to the Boulevard. By night, the trees vanish and are superseded by the light provided by the street lamps, windows, and porch lights. The volume of the Boulevard then is defined by the height of the street lamps.



Elevation · Winter



Section at Night

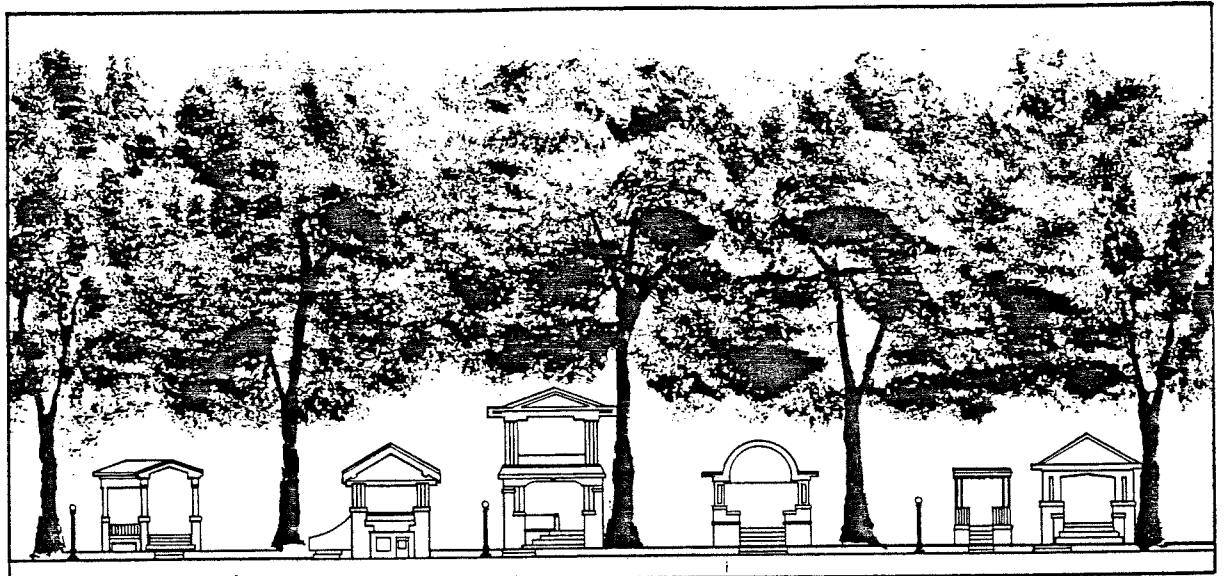


Section by Day

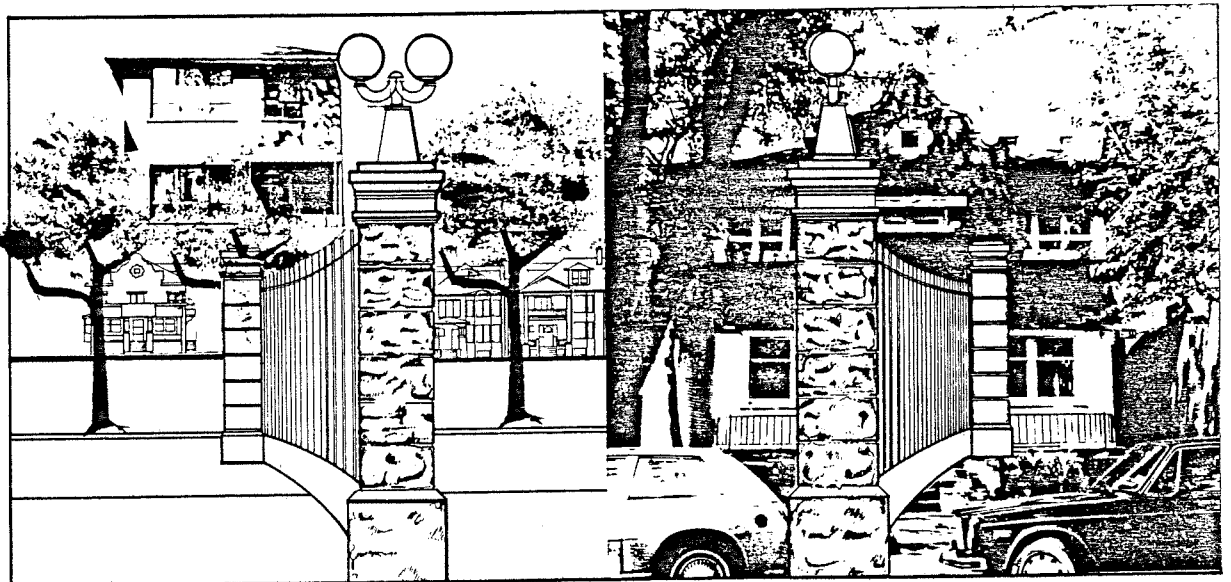
On a larger seasonal level, the trees shed their foliage in the winter months and increase the penetration of limited winter light into the rooms of the houses. In winter, the prominence of the wall of the houses comes into the foreground, with the porches and gables thrust furthest forward. They thereby bear the representative aspect of the house. The opposite occurs in the spring and summer months when the foliage, now obscuring the heights of the houses behind, tends to make the once pronounced gables disappear. The porches underneath the canopy of the trees

act like small temples in the landscape of the Boulevard.

While the highly ordered aspect of the trees act to define and punctuate the Boulevard at the level of the ground, a view out of the upper gabled windows conjures an image of a bucolic country landscape, with fragments of a large forest that are still perceivable. As an image of a very different kind for a treed boulevard in the city, the image of a large forest in all directions is an echo of the ideal of an isolated building in an open landscape.



Elevation · Summer

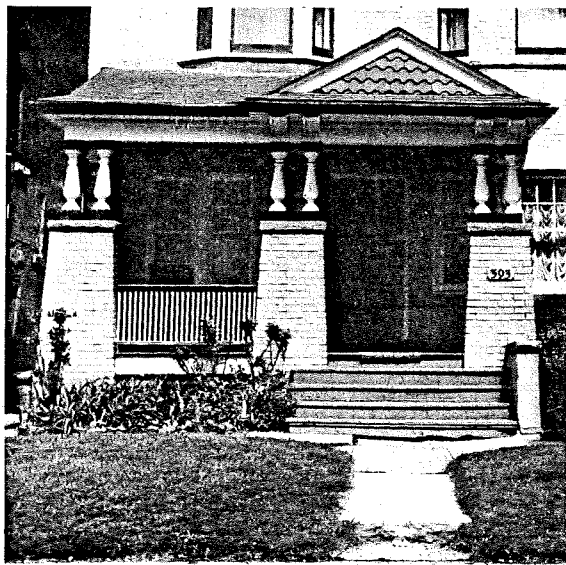
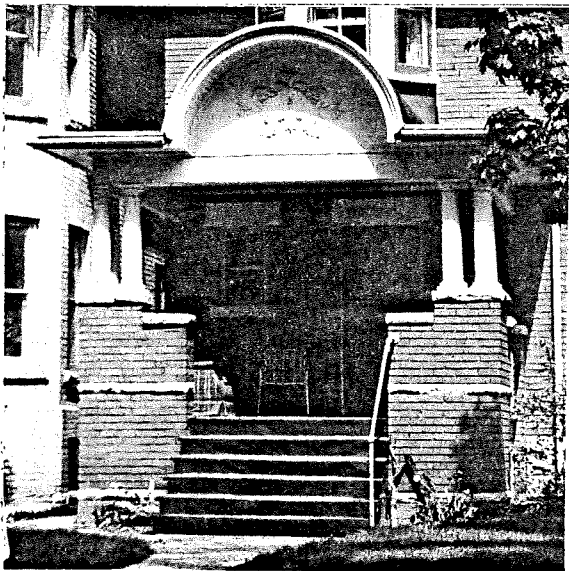


Gates to the Boulevard

There are two sets of gates located at both entrances to the Boulevard, at College Street and Bloor Street. They distinguish the enclave of the Boulevard. The landscape, in conjunction with the gates, gives the impression of an approach to a large estate. The trees act as an alle to endorse the notion of approach that ideally culminates with a villa at the end. Like the fragmented ideals of the Boulevard, the

villa never materializes at the end of the Boulevard. A change of direction perpendicular to the alle of trees causes a shift in space and creates a provocative juxtaposition.

The alle approach and final destination are ironically stated at any house on the Boulevard. The ideal is substituted for the typical yet characteristically human Palmerston house.



## THE PORCH

The porch is a prologue between internal and external spaces and thereby takes on special importance in the landscape and built form of the Boulevard.

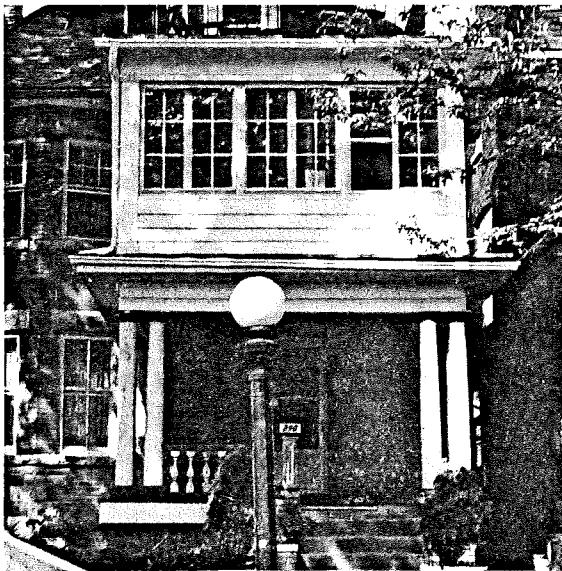
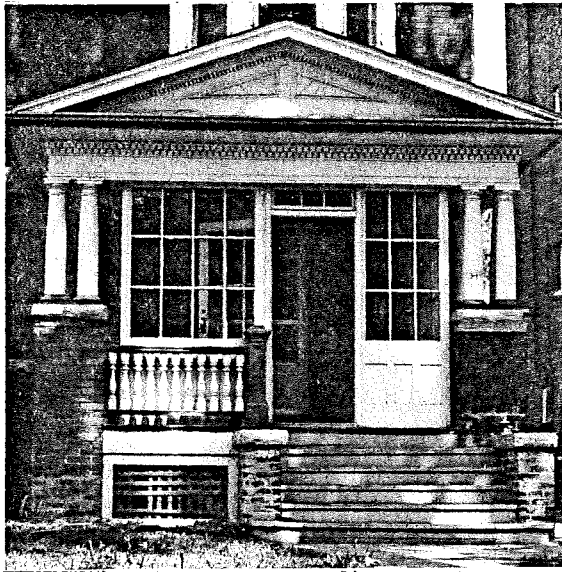
Raised above the level of the Boulevard, the porch has alternating qualities of an open and closed nature. The roof is built as a pediment supported by oversized columns that sit on a large base. The base is

trimmed at its edges by railings, all being independent of the house behind.

The openness of the porch moderates the seasonal changes. The introduction of glass enclosures or less permanent sun shades reflect the fragility dependent on the house and its owner.

The appearance of the porch and its relationship to the house behind are directly related to a desire to portray an image of social position.





The size and ornateness of the porch can either coexist as an independent part of the house, having a completely different character, or alternately, it can usurp the house behind it completely, as in the case of some double height porches.

The porch functions as a quasi-public outdoor space at the ground level and when it appears as a balcony on the second floor. The alignment of houses

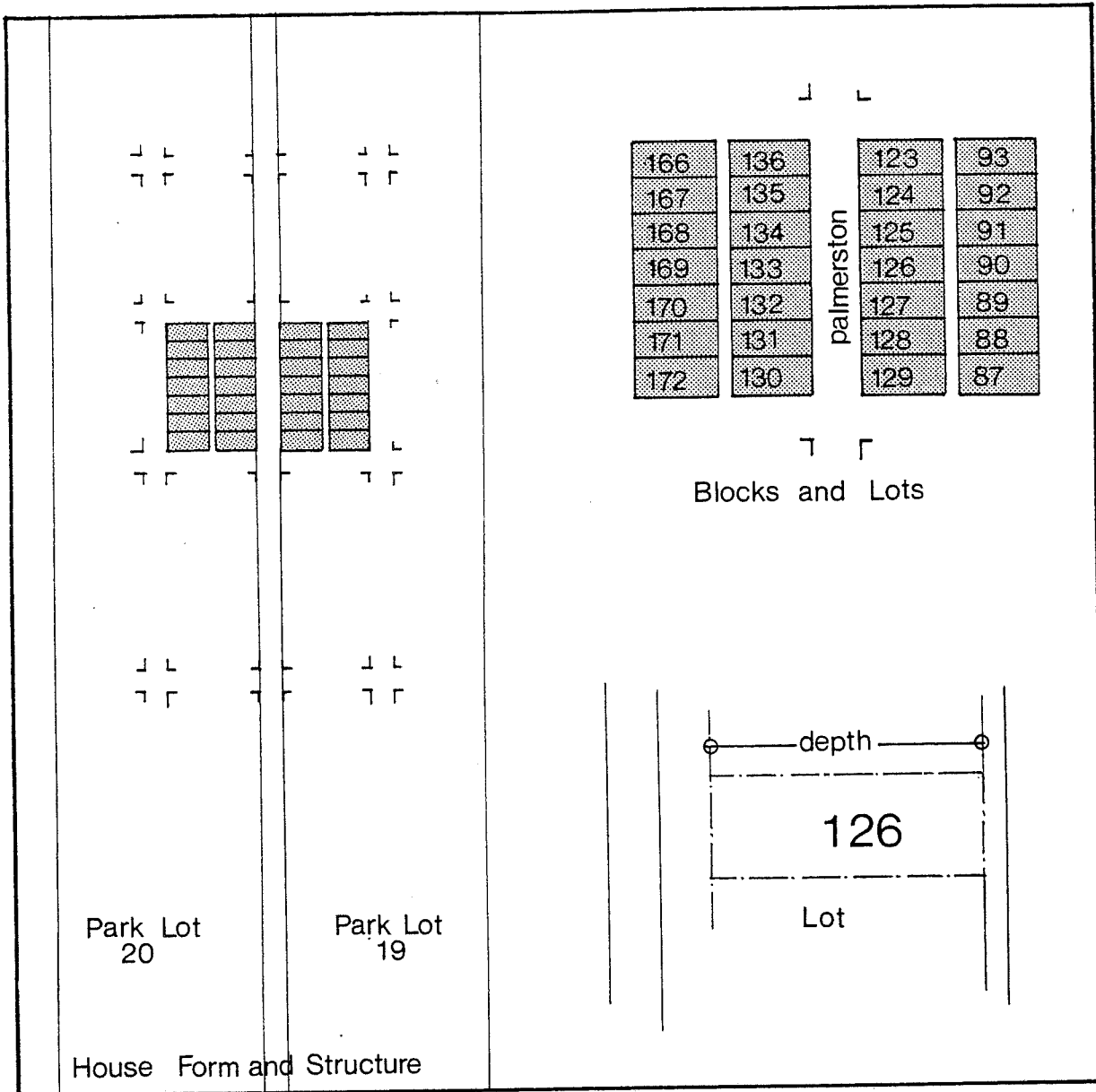
on the Boulevard with porches set well forward with open sides, allows uninterrupted interconnected views over great lengths of space. When glanced suddenly when leaving or entering a house, this view lends a dramatic theatrical sense to the street.

As a symbol, the porch is an ideal fragment of earlier times. The porch metaphorically and physically refers to a temple in a landscape.

# STRUCTURAL CONCEPTS

## Introduction

The previous sections have tended to observe the phenomenon of Palmerston Boulevard in factual ways that document and observe criteria. Tentative observations have been made and propositions put forward. This section collects these observations and restates them in a more detailed manner. The classifications of information are not intended as definitive categories of statements, as much as they refer to areas of research that are pertinent to Palmerston Boulevard, while at the same time can serve to initiate further research beyond the scope of this study.



Park Lot  
20

Park Lot  
19

Blocks and Lots

Lot

126

depth

House Form and Structure

## House Form and Structure

As the Historical Section dealing with the subdivision of land has pointed out, the area of Palmerston Boulevard came into being as a result of the extension of the Park Lot system from the city expanding westward.

The width of each park lot already contained the mathematics which set down the structure implicit in the size of lots and blocks. The basic units of this system operate around the making of:

1. streets;
2. blocks containing lots that in early stages are numbered and equally spaced;
3. lots of certain width; and
4. the lane/service system to the Boulevard.

These were all to be the agents that could accomodate variables.

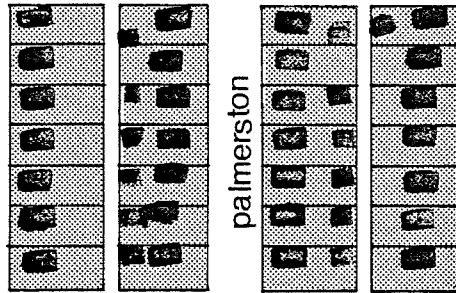
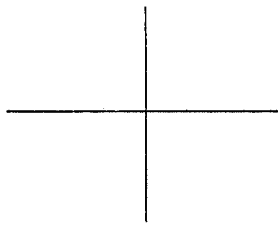
The similarities that existed at this early stage between the equally sized blocks and lots

that fronted onto Palmerston, Euclid, and Markham Streets, illustrated the partial indifference the structure had to any street. The only departure at this time was the four meter difference of greater width on Palmerston.

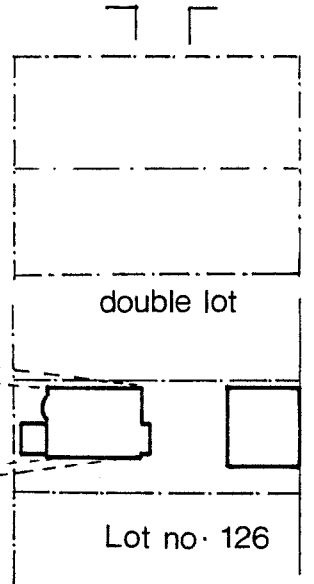
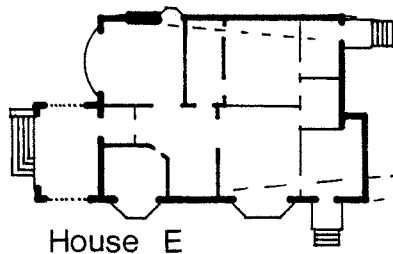
The lot, as the smallest unit, was numbered and identified, and already had a relationship to the form of the house that would eventually be built. The length/width relationship set the shortest dimension along the Boulevard as frontage and at the back face of the rear lane.

The lot is set perpendicular to both the Boulevard and the lane system. The unit of the lot was to be repeated along the length of the Boulevard.

The orientation of the Boulevard, north/south, sets the position of the lots. The frontages face either east or west, depending on what side of the street the lot is situated.



Ideal House



One House One Lot

### One House, One Lot

The idea that emerges from this structure is "one house on one lot". The complex subdivisions that take place later on, and their attendant house forms (semi-detached or detached) never entirely fill up the block, and form a solid wall. Stasis occurs when all of the lots have one house on them.

The house form that results is set perpendicular to the Boulevard and to the Boulevard's north/south orientation. Adjoining conditions were determined to a certain extent by the location of the lot (ie. mid-block or corner locations).

The house form is autonomous and is dialectically connected to the form of the Boulevard.

### The Ideal House & Ideal Lot

The structural system set down offers variables that are subject to varying degrees of social status and wealth. The physical capacity of the lot to absorb and exploit variables is reflected primarily in the lot's width. The greater the

lot's width, the greater flexibility the built form will have.

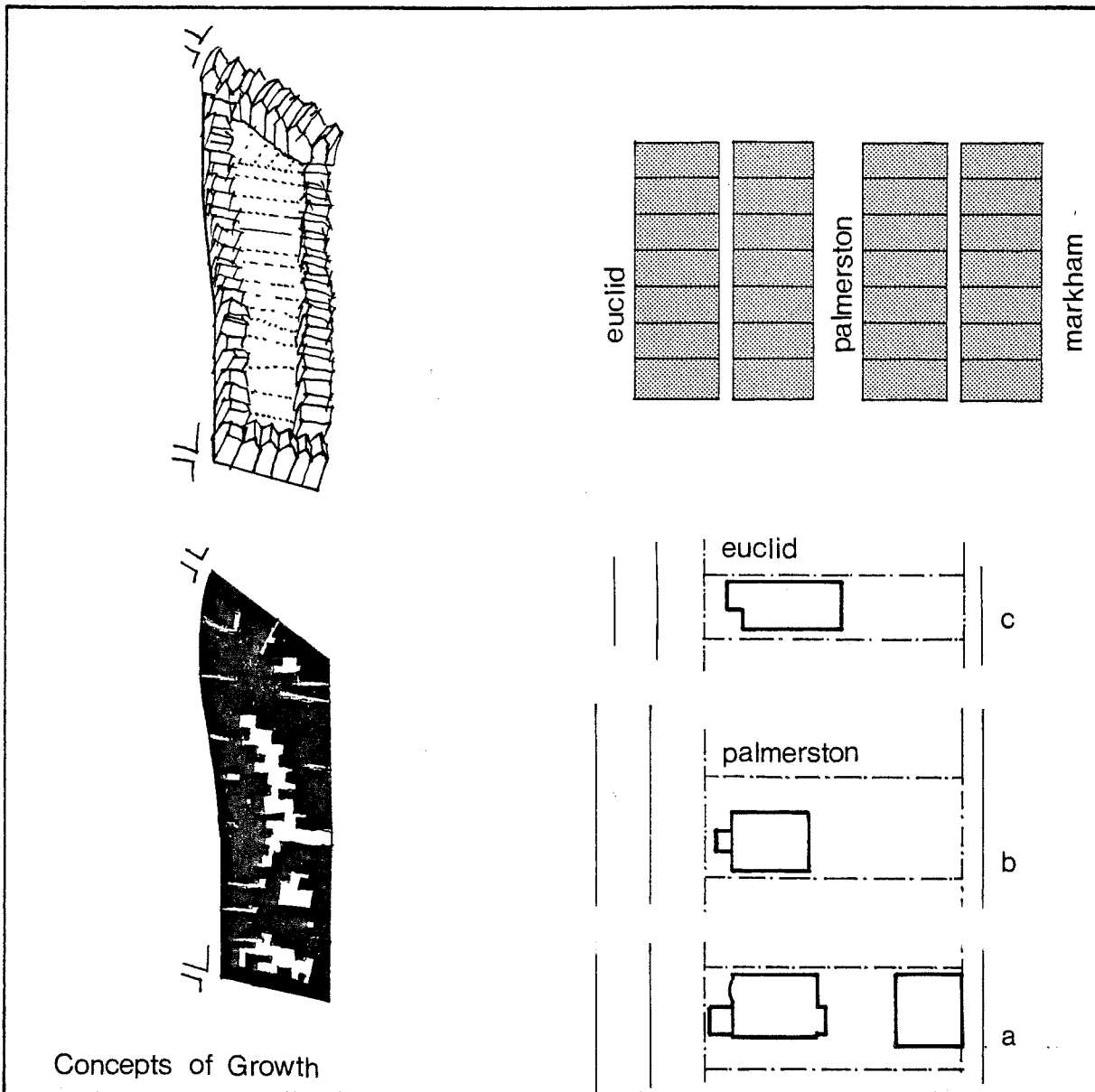
This major attribute is demonstrated by the internal organization of houses that sit on wider lots. The presence of the centre hall plan, and the disposition of rooms to take the most advantage of all local lot conditions and orientations bear witness to the flexibility of manipulation of the variables.

The relationship, therefore, that exists between the house form, its respective lot, and particular orientation tends to reinstate the north/south grid as a system that, with a good plan, can maximize optimum conditions by internal plan modifications.

The house illustrated is example "E" showing a strong relationship to its driveway emphasized by the order of rooms and large amounts of glass openings facing onto it.

The optimum location for the house on the block would be:

1. A small block, in a
2. Mid-block location, with a
3. Large house on a double lot.



Concepts of Growth

Concepts of Growth

Implicit in the first concept of land division and parcelling is an idea of the future growth.

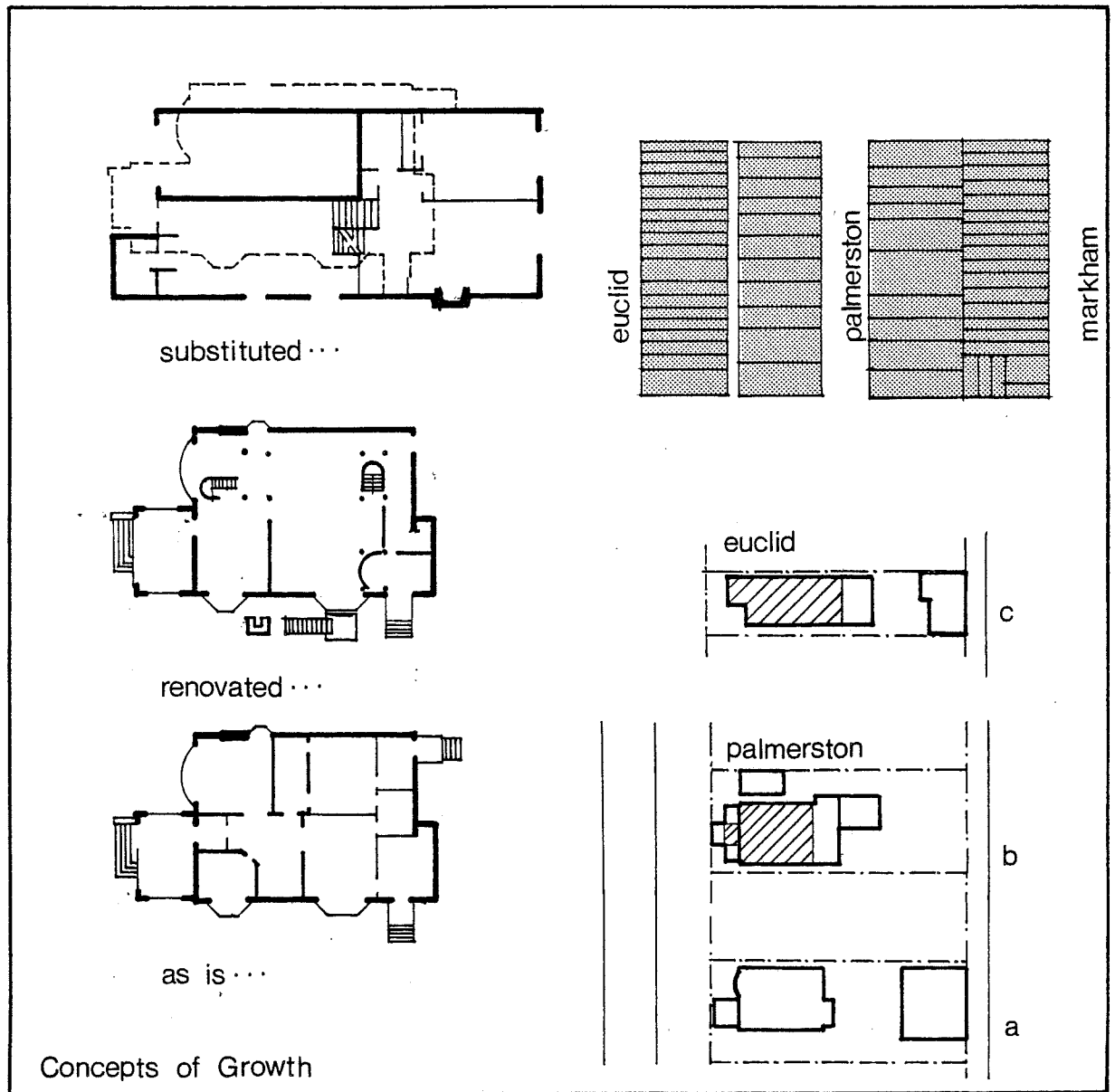
The Palmerston lot is characteristically long and narrow. The narrowness is a traditional Anglo-Saxon inheritance, illustrated by the medieval example of Worcester, England. Unlike the Worcester example, though, the block never fills up completely.

Examples "a", "b", and "c" illustrate a range of detached

house types; "a" and "b" are Palmerston examples, and "c" is taken from Euclid Avenue. In examples "b" and "c", the original house form has been extended into the external spaces of the lot. Growth takes place primarily as additions at the rear of the lot.

Example "a", however, seems to illustrate no physical changes in the manner of enlargements. Like House "A" studied earlier, change takes place by the method of adaption. Rooms are simply used differently without making any physical changes.





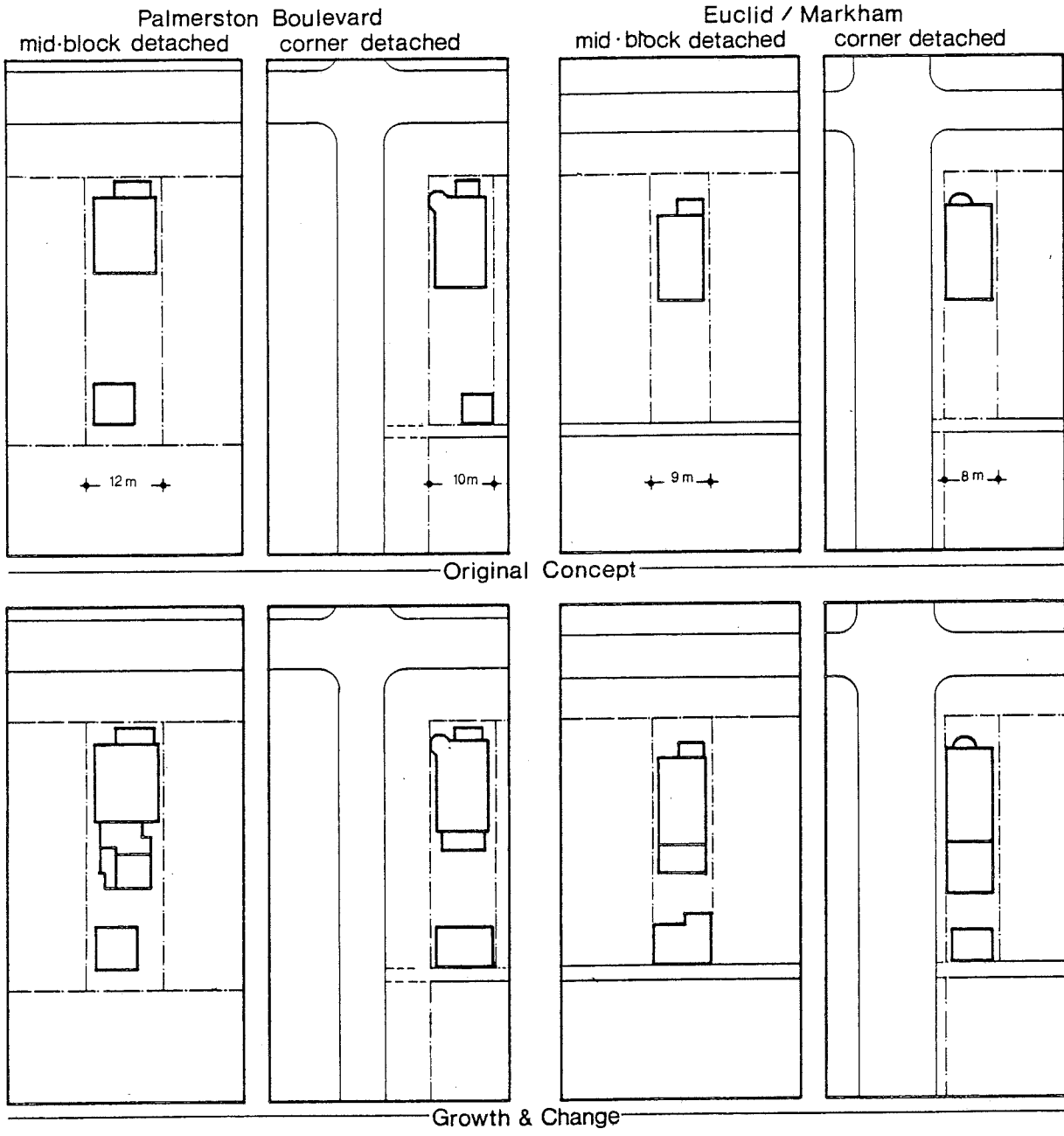
The controlled growth of Palmerston lots through incremental sale contrasts strongly with the discordant lot characteristics of Euclid and Markham. The numbering system that describes the lots tells partially how the street grew. In Palmerston's case, the street grew lot by lot, and block by block northwards.

The blocks and their respective lots show a substantial change between when first laid out and the present. The size of Palmerston lots are wider than the adjoining lots on Markham Street and Euclid Avenue. Palmerston has maintained a large

lot size while Markham and Euclid increasingly have intensified the subdivision of lots. The original unit of one lot has in some cases been subdivided into three lots.

The range of changes that have taken place on the Boulevard operate individually at different times and in different ways, some of which are:

1. additions
2. subtractions
3. renovations
4. new usage
5. no change
6. complete substitutions



Original Concept

Growth & Change

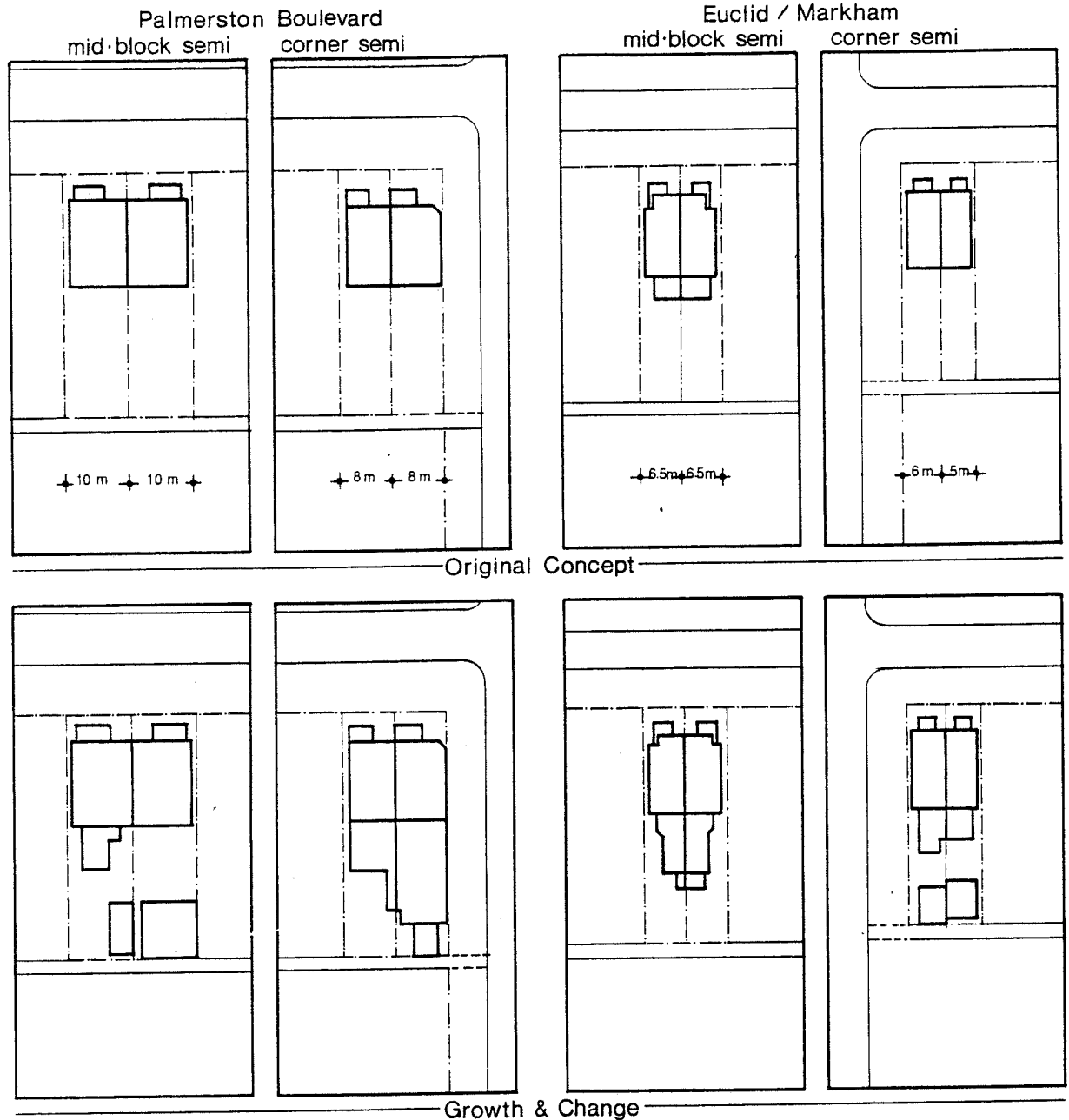
The selected neighbourhood examples are taken from Palmerston Boulevard, Markham Street, and Euclid Avenue. The examples are used to contrast:

1. the original concept and the present state, under growth and change.
2. Positions on the lot
  - a) mid-block, and
  - b) corner location.
3. Detached and semi-detached types.
4. Widths of lots.

The lot depth is the same for all of the examples. The orientation is perpendicular to the street and all houses are located on the west side of a street with lane service.

Lot Width

Palmerston has both detached and semi-detached examples of houses. The difference in character on the level of the three separate streets, between houses is attributable to the lot widths. Palmerston is more generous in the spacing between houses because of this greater width.



Aspects in this respect show marked differences which start to explain the complex notions of growth and change. In the wider Palmerston detached house examples, growth occurs mostly at the back. The examples chosen reflect an extreme condition of this extension. The corner example reflects the norm more closely; growth or change occurs internally in the Palmerston house and makes limited appearances externally. One of the explanations for the external growth that ap-

pears on the Euclid and Markham examples is an acute shortage of space. This is a result of the physical restraints of the lot width and its corresponding effect of the internal spaces. This tightness, in conjunction with the overall changes of occupancy and densification of the area, tends to produce a burst of extension and additions.

This demand for more space, as an assumed requirement applies to all of the examples studied and is a reflection on the original concept.

The original concept of one house/one lot is still in the process of being tested by the complex demands unforeseen and unpredictable that are made on the house and its lot.

The study proposes to look at the foresight of this conception laid down almost one hundred and thirty years earlier under two principle categories:

1. imperceptible change
2. visible change

#### Imperceptible Change:

This type of change is defined as "changes made through accommodation of new usages without any physical alterations."

Imperceptible change is dependent on the spatial properties and architectural elements of the individual room. If the room is designed originally as a generous and autonomous unit within a larger organization (ie. an enclosure with an entrance to the major axis of circulation, a window, and of ample proportion), then it will have the facility to remain the same physically while taking on a new name and usage.

In the case of House "A" on Palmerston Boulevard, the house is still a single family residence. The use of the rooms has changed, however, and bedrooms become studies without any need to alter the rooms physically.

This idea is elaborated further in House Example "K" where it was noted that a single family house was radically altered in use to become a container for six rental units, by an absolute minimum of physical intervention. Here, the doors had locks put on them and the autonomous rooms became rental units.

The Euclid and Markham examples are less able to accomodate imperceptible change because of the original narrowness of the room. The circulation system is originally too tight to comfortably take on new demands, and the rooms are generally too small to change from a bedroom to a semi-public room. This is not to say, of course, that it is not being done, but that where it is done, very poor units are the result.

The Palmerston rooms are pieces unto themselves and are far more capable of handling this type of change.

#### Visibile Change:

Visible change in the Palmerston house takes shape internally in various forms.

The more common type of subdivision occuring is where the house's three floors are converted to three apartments. Examples of this type of renovation are shown in Houses "C", "E", "H" and "J". Crucial to

these conversions is the arrangement of the ground floor elements of vestibule, hall/reception and staircase. Under optimum conditions these pieces can separate themselves from the body of the ground floor cleanly to provide access and entries to self-contained upper units. Example "J" is the best example of a good arrangement of those elements. Examples "E" and "H" typifies the result of an unfavourable disposition of the hall space and stair where a front room is cut off from the rest of the ground floor apartment.

The conversion of each floor to a self contained unit is also dependent on the capability of the rooms on the upper floors to take on a new hierarchy of a primary, secondary, and back/private sequence of spaces, where originally only private bedroom spaces were located.

For any renovation work affecting the internal order of the house, certain elements are subjected most to the changes, and thus must be quite flexibly conceived of. These elements are:

- 1) hall spaces
- 2) rooms: affected by both subdivision enlargement
- 3) additional circulation space

Externally, it is most important to point out that the internal renovations, either radical or minimal, show practically no evidence on the front facade of the house. The original conception of one house/one lot is preserved.

The elements that do show some changes are :

1) The Porch:

The porch is often infilled to provide more shelter. These enclosures are done in a number of ways. Some are very solid and attempt to pull the porch back into the main body of the house by use of heavy building materials framing small openings. Others put up glass panels set inside of the original porch structure so that the porch is still able to function as a distinctly separate representative piece of the house.

2) Details:

Small details show evidence of subdivision by such things as a row of doorbells and often times a discreetly placed second door.

Observations:

1. The original concept of one house/one lot is able to sustain both internal and external changes.
2. The position of the houses, mid-block or corner, have different characteristics. Internal/external relationships of both types can be designed to maximize their location in the urban structure.
3. Detached and semi-detached houses, subject to the variables of lot width, are capable of growth and change.

## Concepts of Infrastructure:

The infrastructure and cross streets that service Palmerston Boulevard work in varying relationships to block lengths, lot widths, and house types.

A lane system can extend as long as the block that it services; on a very long block, such as the block running between Ulster and College Streets, the lane still functions, though it is probably heavily used and a bit more awkward than lanes in short blocks.

Large lots of greater width can afford to be ambivalent to the presence of a service lane. As in Houses "D" and "E", the greater lot width results in the provision of a front drive access. House "D" chooses to have only a pedestrian gate to the lane, while House "E" has taken the option of two means of access both from the Boulevard and the back lane.

The four examples of Houses "a", "b", "c", and "d" illustrate a range of conditions typical of the entire Boulevard.

Example "a": illustrates a small house with lane service. The lane access gives alternative pedestrian access to the back spaces of the house in addition to the vehicular access. The sideyards in this case are

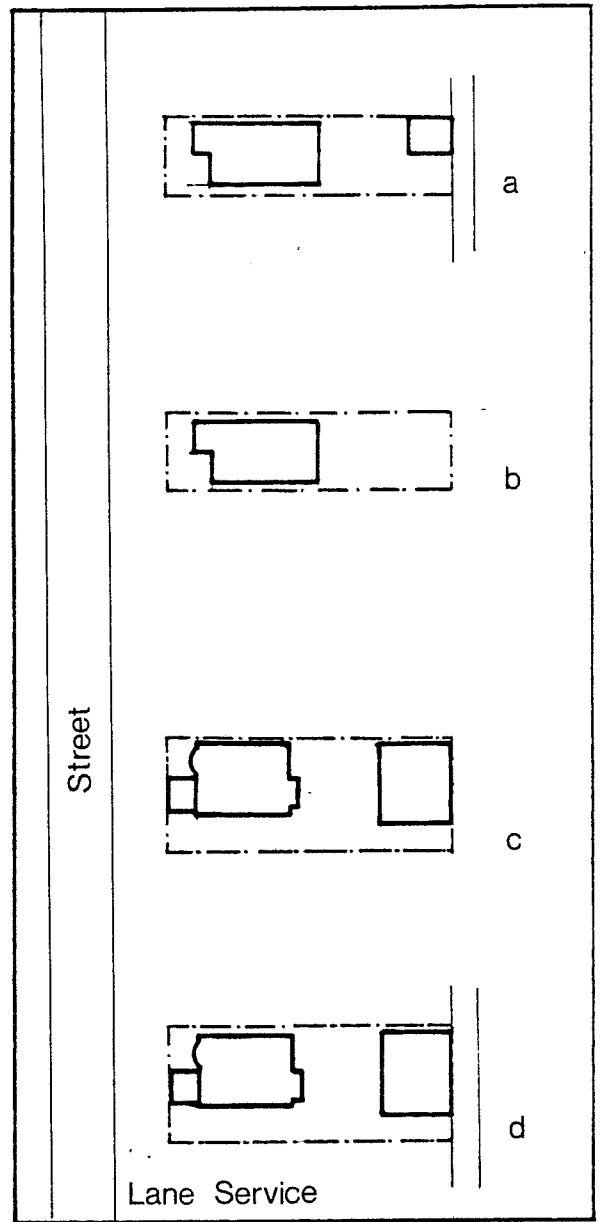
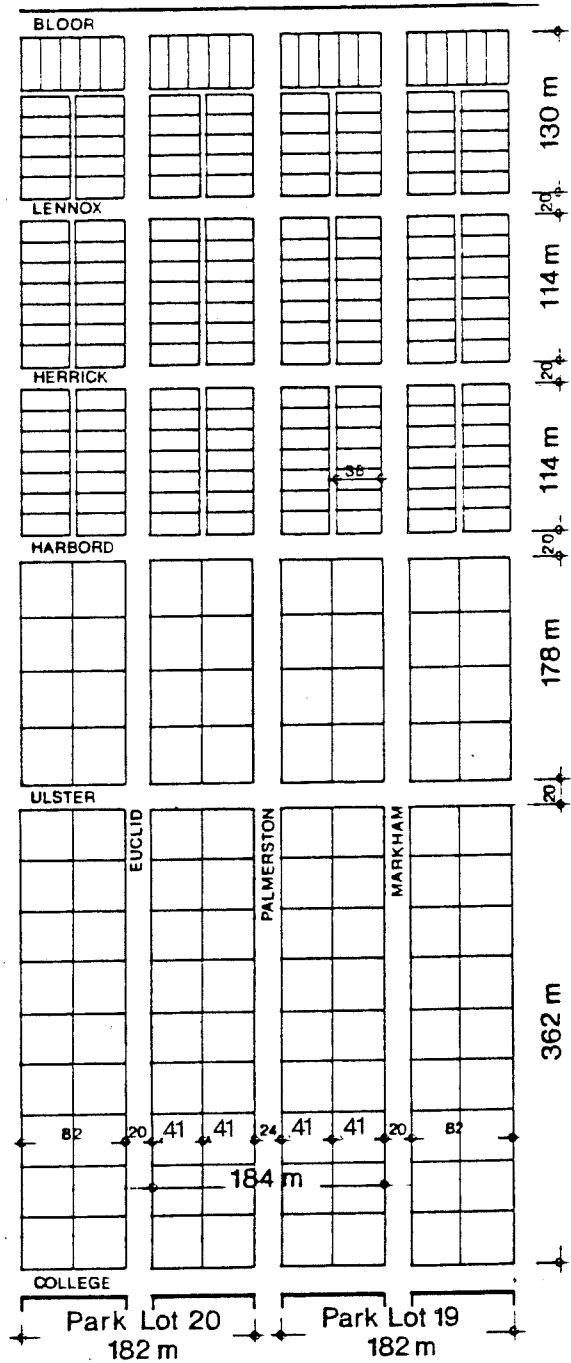
too tight to allow front vehicular access and thereby make the rear lane indispensable to the house.

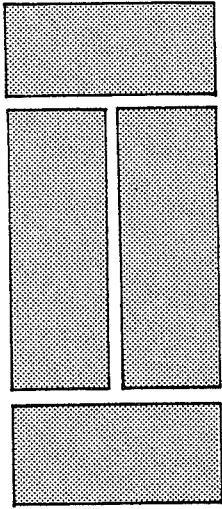
Example "b": has all of the same characteristics of example "a" with respect to the house and lot, but has no lane service, and thereby no option for car access at all. When this condition is multiplied, the demands of street parking is aggravated and usually results in sub-standard amenity.

Example "c": represents the other end of the spectrum. Its lot is far wider and allows the provision of an independent front driveway. This example has no rear lane, so that the position of the house may have been dictated by the necessity of laying out a vehicular access.

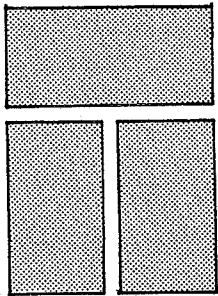
Example "d": shows the same house with lane access, the optimum condition on the Boulevard. The same internal relationships resulting from more generous conditions externally provides an alternate access combined with a back lane to the site.

The presence of the lane system in conjunction with appropriate lot width and house forms become important as a coefficient of both service and amenity.

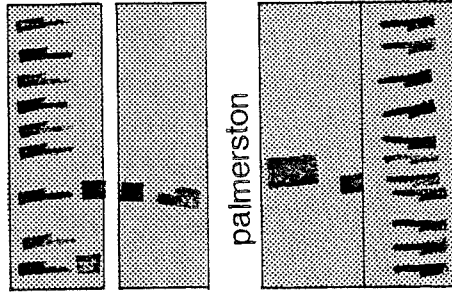




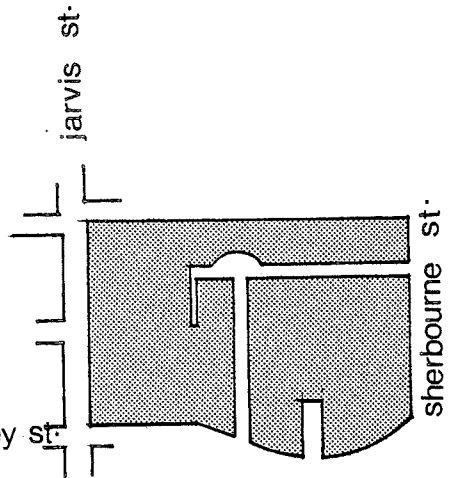
parliament st.



parliament st.



palmerston



jarvis st.

wellesley st.

sherbourne st.

Concepts of Infrastructure



A further comparison of the far reaching ramifications of a lane system on the quality and character of an area can be demonstrated by examples from other areas of the city.

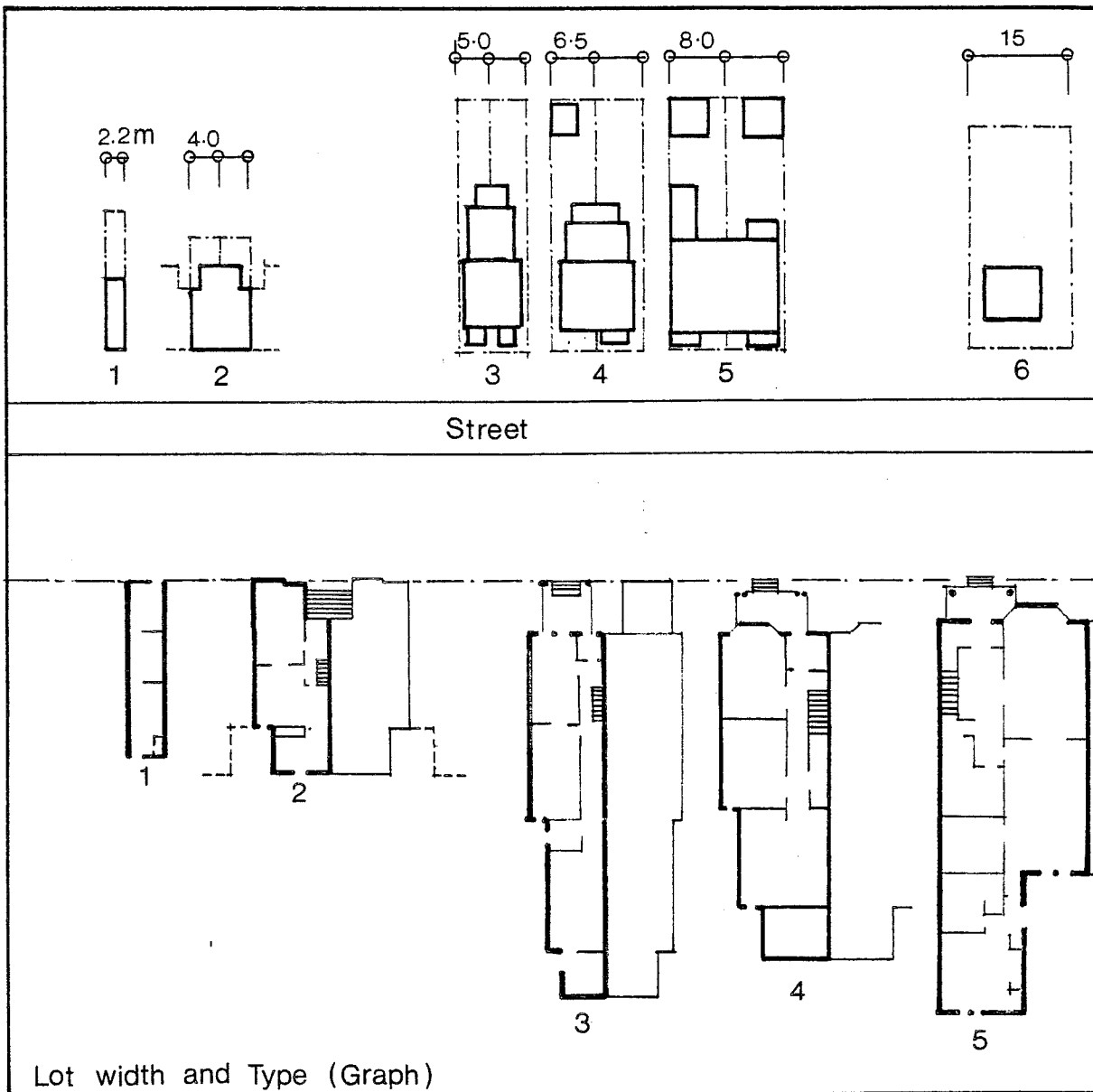
The long block with an "I" formed lane is an example of maximum lane service to maximum number served. (Parliament Street example)

The lower example of a "T" shaped service lane gives lane service to all three blocks.

In Palmerston's example, all lane access points are reached from surrounding streets, never from Palmerston. This tends to add to the "special" nature of Palmerston in the neighbourhood.

The large block shown (Jarvis example) that flanks Jarvis and Wellesley Streets is composed of mansions built on large lots. It shows the lane service to the rear, opening off Wellesley and Sherbourne Streets.

The presence of lane service, its location and size, have an important bearing on the structure and character of an area.



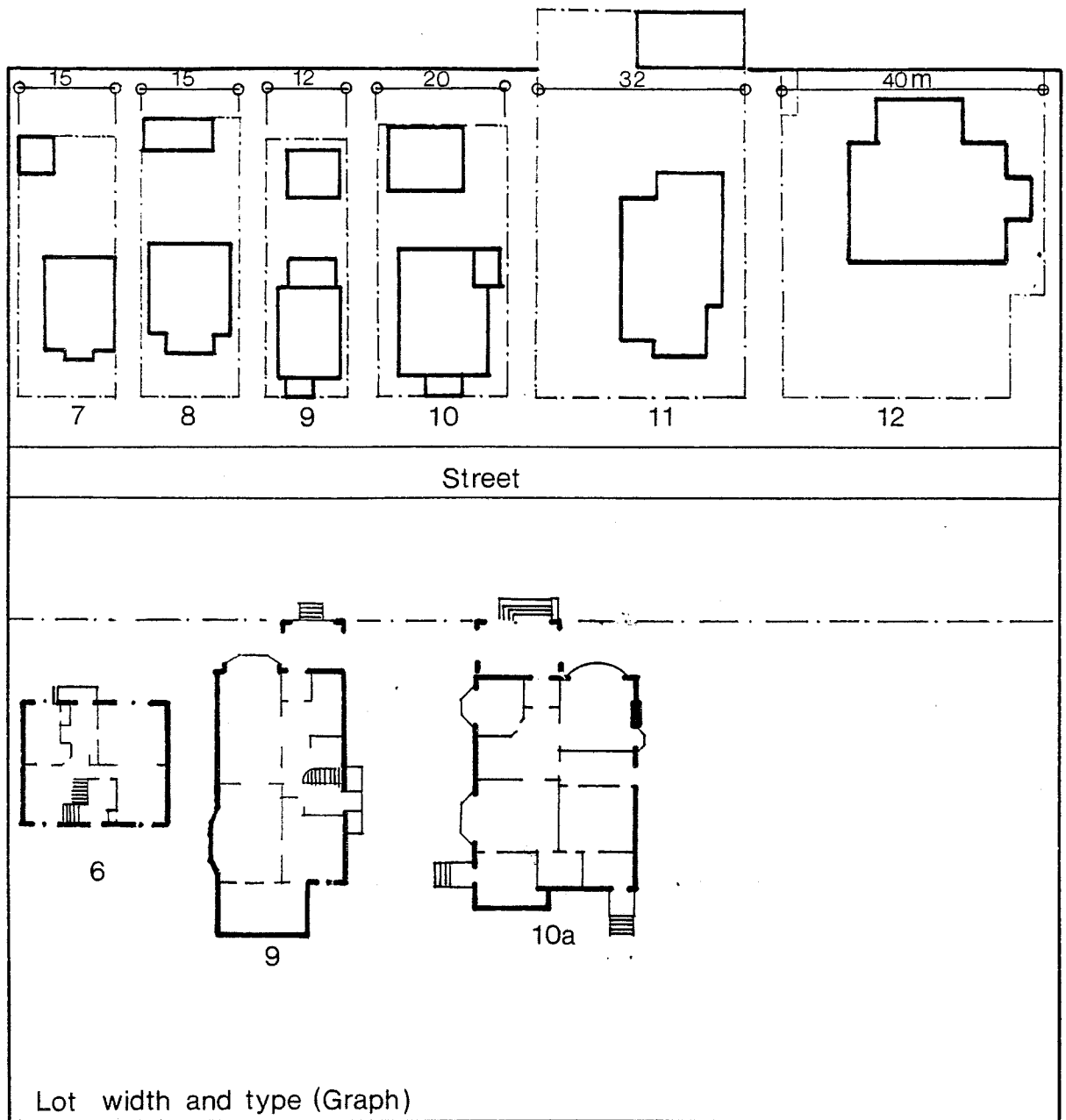
The graphs above chart a set of relationships that relate lot width to house type. The examples have been selected from the Toronto area, and document various extremes. The chart does not suggest that a certain width of lot will guarantee a particular house type, but that the width is the major determinant of house form.

From the extreme condition of the Sydenham house at the far left, to the mansion of Jarvis Street on the far right, (site plans above, ground floor plans below), the room's propensity

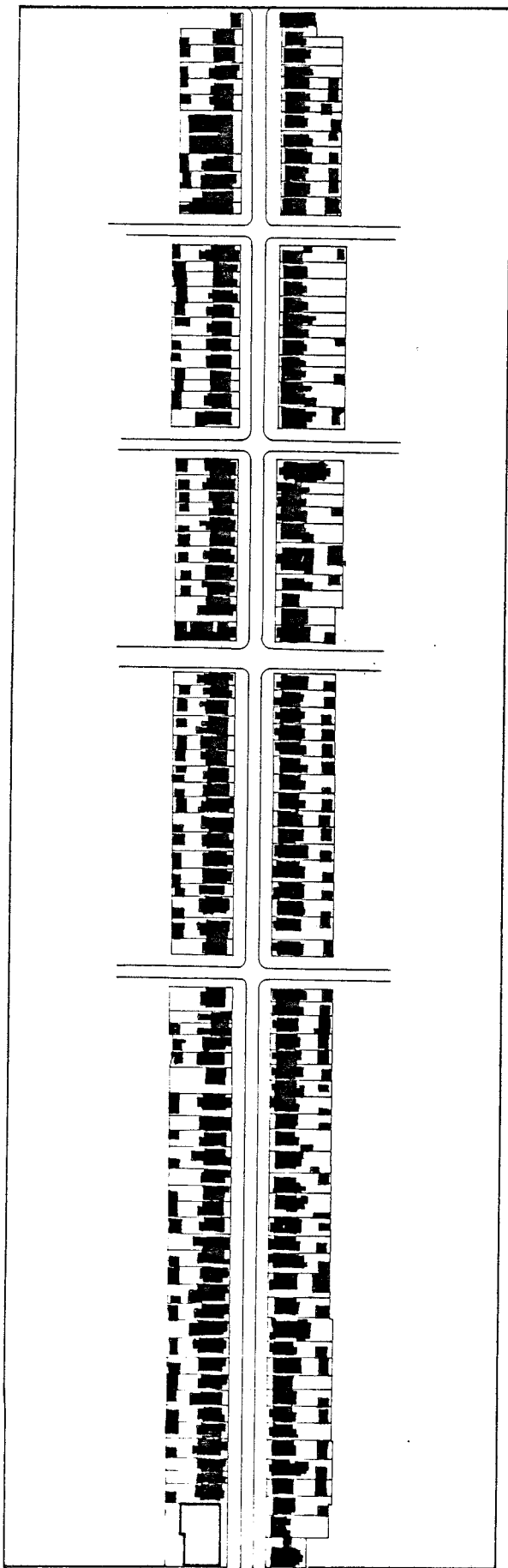
to break away from tight site restrictions is illustrated. The room evolves into an autonomous piece within the house organization, with a clear relationship to the lot and to its orientation on a north/south street grid.

The elements of rooms that vary with lot width and house type are:

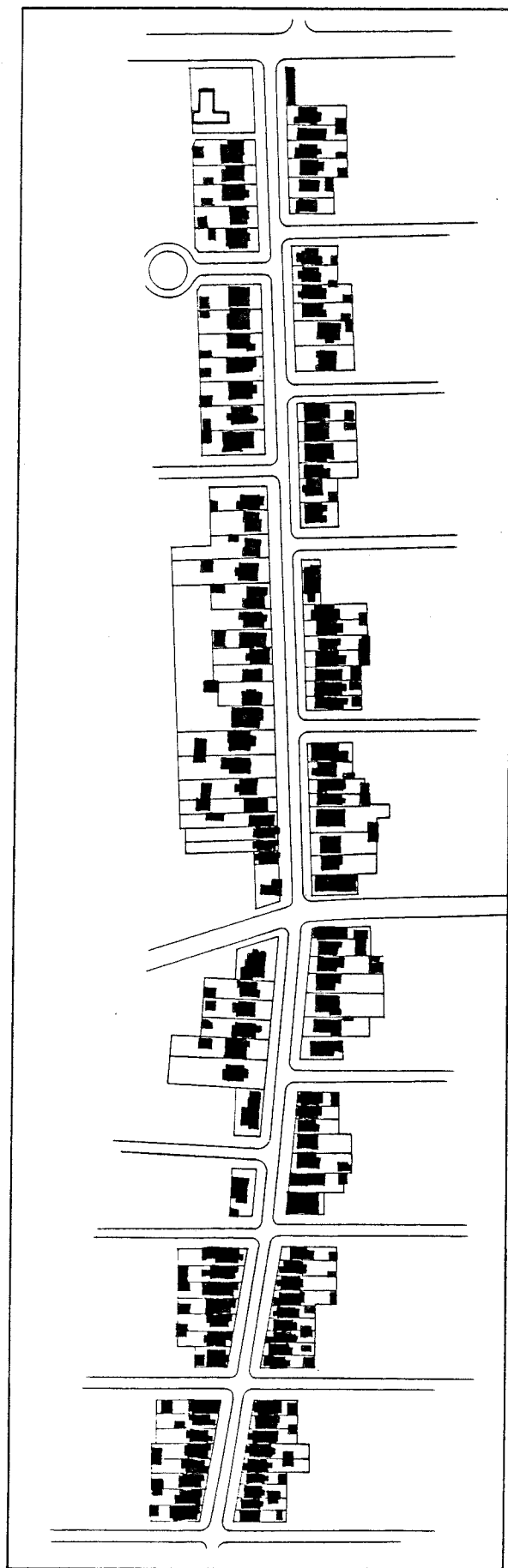
- 1) size and proportion of rooms;
- 2) location of windows and doors; and
- 3) position and orientation of rooms.



- 1 7' 6" residence sydenham st. 1934
- 2 Monteith st.
- 3 Euclid
- 4 Markham
- 5 Palmerston
- 6 Suburban
- 7 Indian road
- 8 High Park blvd
- 9 Palmerston
- 10 Palmerston weston residence
- 10a Palmerston house E
- 11 St George
- 12 Jarvis



Palmerston Boulevard



Indian Road

## Comparative Urban Streets

The City, viewed from a standpoint of growth and change, contains areas that are morphologically different. While new areas of the city are being extended, other older parts are simultaneously dying, or are being renovated. The parts of the city, although interconnected, may not be changing at the same time. Therefore, the absence of external change that characterizes Palmerston Boulevard can be contrasted to other parts of the city that were once like Palmerston, but experienced change in a more accelerated fashion. Not only does this phenomenon operate at the level of streets but also at city to city scales.

Comparative analysis at the street to street scale offers insights into future changes, and can form a base for making better informed judgements when implications of new patterns are proposed.

### Indian Road:

Indian Road, built later than Palmerston, has essentially the same house type, with a comparably strong pattern along its length. Yet, unlike Palmerston's continuity of similar houses, Indian Road's collection of houses does not produce the same effect. The public space of the Road has fewer formal qualities and lacks the delicate balance sustained by the trees and built form on Palmerston. The bend of Indian Road together with its house sizes and spacing in conjunction with intersecting streets, breaks the potential continuity along its length.

## St. George Street

St. George Street, extending from Bloor Street to Davenport Road, has undergone many changes. Formerly a residential north/south street with large lots and mansions, the street has been compelled to make substantial alterations. The street has absorbed a much heavier traffic load, a result partly of its location in the overall pattern of the city streets and its original width which has allowed it to accommodate double lanes.

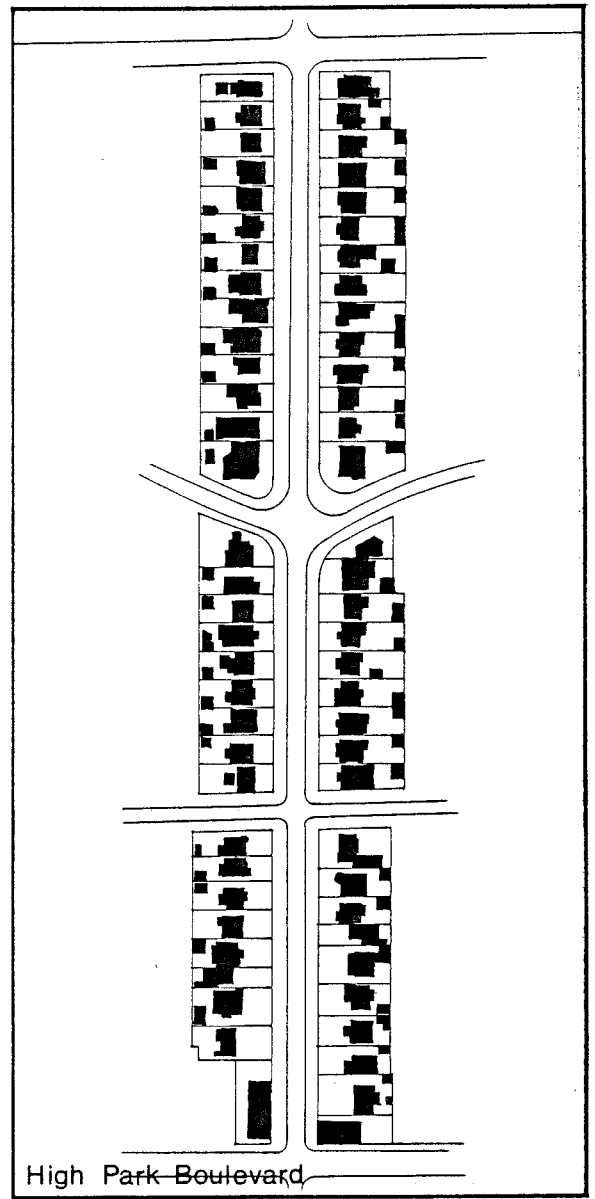
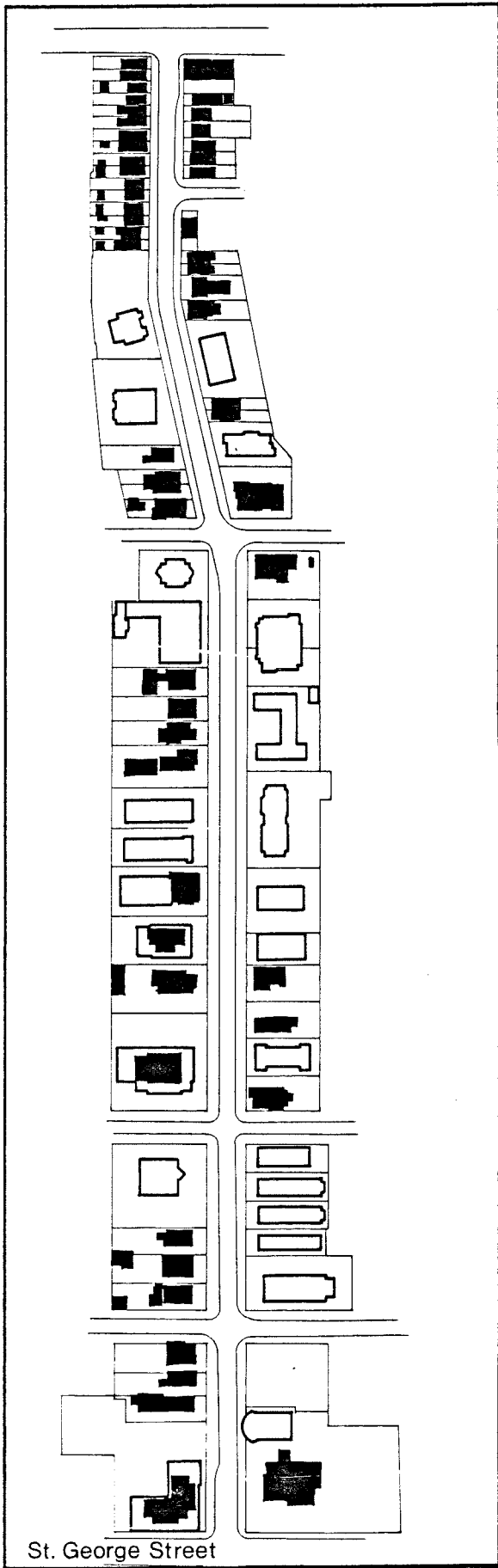
The houses have undergone large scale substitutions. The houses and lots, although larger than the more typical ones in the city, have been amalgamated or assembled in varying degrees. The sizes of the original lots have accommodated many substitutions. Sometimes two original lots were assembled to build a large apartment building, while other lots were assembled to replace the houses with a completely different type of building of an institutional character. Through these changes, however, the concept of one building on one lot has been maintained, albeit on a new level.

St. George Street is instructive in demonstrating change through major substitution that still maintains a major remnant of the original character and concept.

## High Park Boulevard:

High Park Boulevard, more boulevard-like than Indian Road, exhibits many similarities to Palmerston. Being much wider than Palmerston, with houses set well back from the street line, the space of the boulevard is given greater significance. Like Palmerston, High Park Boulevard begins and ends with a set of gates which enhances the street and sets it apart from the surrounding neighbourhood. In addition, the boulevard ends its axis at a major park of the city (High Park) and thus possesses a quality that Palmerston Boulevard may have once aspired to, but could never have.

The buildings along High Park Boulevard are bigger than the Palmerston examples, and the intersections of streets are articulated far more elaborately by the corner lots and their houses.







# SUMMARY

Looking at one street in one city, and studying the houses that make up that street, does not necessarily lead to all embracing generalizations. This research accepts its limitations as a tentative beginning approach to understanding the house and its role in the city.

Nevertheless, the scope of this research, focusing as it does specifically on the nature of Palmerston Boulevard, initiates more detailed investigations to take place, dealing with the relationships between built form and landscape, the relationships between houses and their lots, and the structure of lots to a street.

These are all simple principles, but simple as they may be, the paucity of quality of modern residential development points to a severe lack of comprehension of these relationships, by professionals who are planning and designing houses and streets in the city and suburbs.

The Palmerston house that has formed the basis of this research is a phenomenon in that it has observed change while undergoing change itself. The

detailed investigation of the house through the course of the ten examples has raised a large number of issues that should be further developed as criteria upon which a comparative basis can be founded to better judge houses that are being built today.

These criteria are in fact principles of design that can refer to larger contemporary aspects of the house and its local structure. The implication of new patterns of growth in the city and in the suburbs has not been properly evaluated. This study begins to suggest tools to be used as means to design and evaluate.

On a more detailed level, the analysis of the houses suggests several practical means by which large houses can be made to contain smaller houses, while still preserving a high level of public and private amenity.

Palmerston Boulevard's unique contribution is its endurance through significant densification. Understanding architecturally how this is achieved can illuminate some of the problems posed by the need for higher densities in cities, and the desire to maintain their scale and texture.

Credits

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