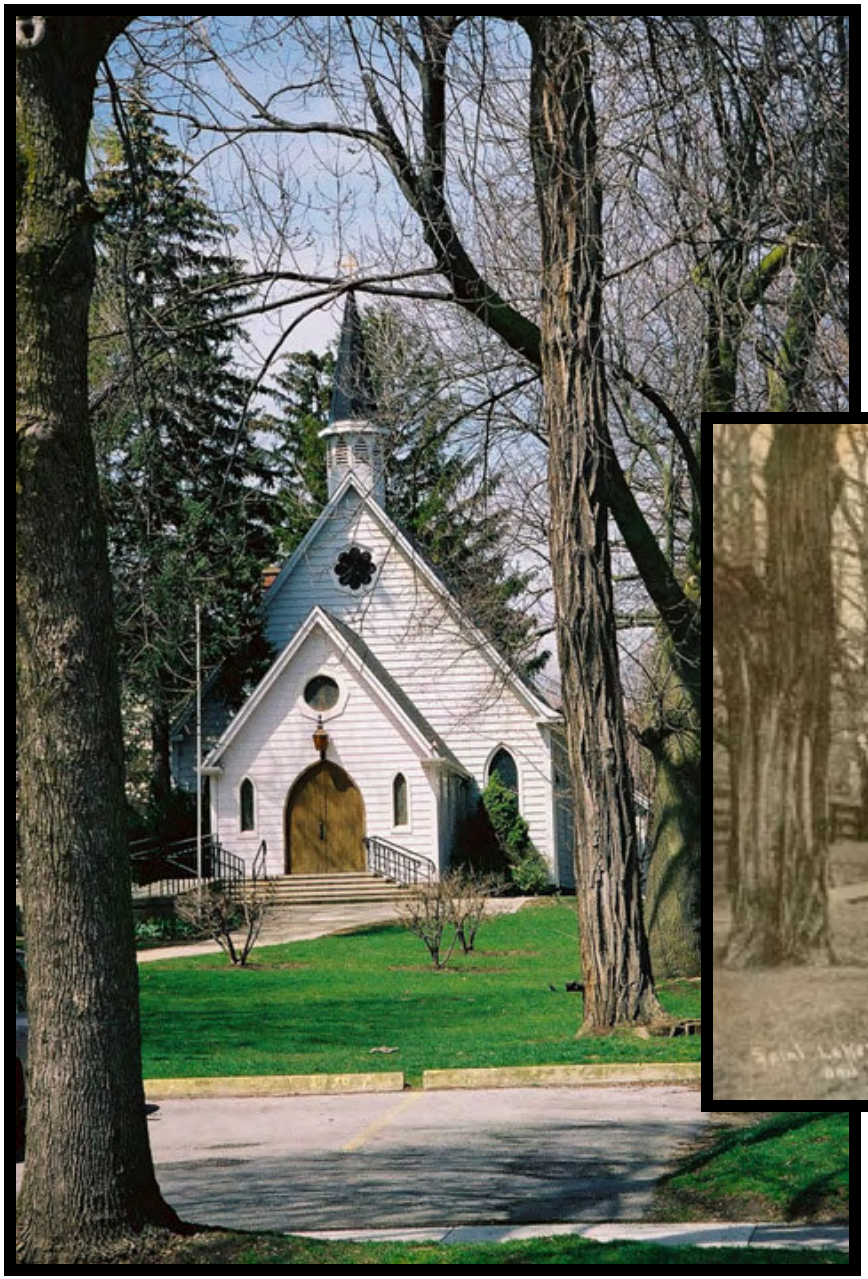
Keeping Place:

Heritage-Based Urban Design Guidelines for Downtown Burlington



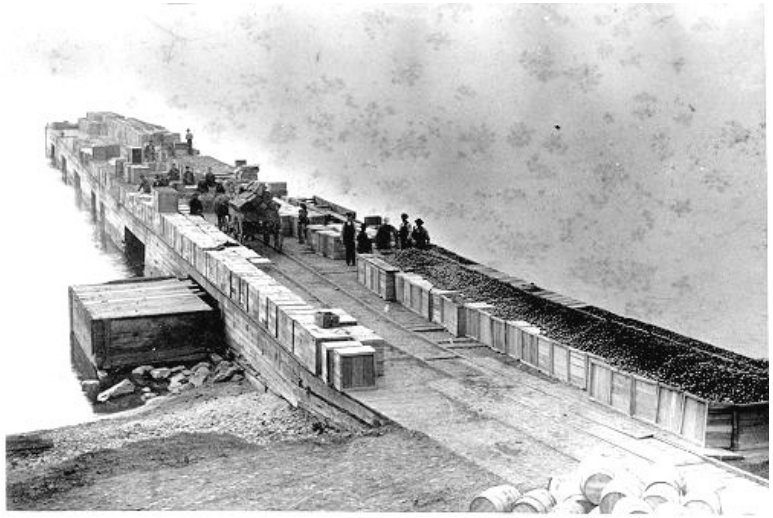


Phillip H. Carter Architect and Planner
In association with Paul Oberst Architect
November 2006

KEEPING PLACE:
HERITAGE-BASED URBAN DESIGN GUIDELINES FOR DOWNTOWN BURLINGTON

Foreword

Downtown Burlington has long been valued as a distinct place in the wider municipality. From the small port of Wellington Square, it evolved into the largest settlement in Nelson Township. It grew from a village into a town, with substantial shops, an industrial presence, and an abundance of historic houses on a pedestrian-scale street grid.
Keeping Place means conserving and maintaining the historic resources and qualities that give the downtown its distinct character.



Apple crates at the wharf in Burlington, 1904

Acknowledgements

The production of these guidelines depended on the work of many people besides the authors.

History of Burlington:
Many sources are listed in the bibliography, but special mention must be made of Claire Emery Machan's *From Pathway to Skyway Revisited.*

Building Histories:
Decades of volunteer work have gone into the creation of Heritage Burlington's Inventory of Historic Resources, which has been an invaluable resource.

The Historic Photographs:
All of the historic photographs in this document come from the *Burlington Images* website, a joint project of the Halton Information Network, the Burlington Historical Society and the Burlington Public Library.

Mapping:
Base mapping was provided by the City of Burlington. The City of Burlington:

City of Burlington:
Thanks to Heritage Burlington for initiating the project and providing background research. Thanks to Burlington Council for supporting and funding the project. Thanks to Bruce Krushelnicki, Director of Planning and Building, and other City staff who assisted with the project.

Special credit goes to Alana Mullaly, Policy Planner, who served as our liaison with the City. Her knowledge and judgment were reliably helpful.

KEEPING PLACE:
HERITAGE-BASED URBAN DESIGN GUIDELINES FOR DOWNTOWN BURLINGTON

Table of Contents

PART A Introduction

Section 1 Introduction 3

1.1 The Precincts 4
1.2 Urban Design Guidelines 6
1.3 Other Governing Documents 7
1.4 Existing Cultural Heritage Resources 8
1.5 Heritage Character 10
1.6 Other Heritage Features 11

PART B Heritage Design Handbook

Section 2 Architectural Styles 15

2.1 Heritage Styles—Residential Buildings 16
2.2 Heritage Styles—Commercial Buildings 36
2.3 Heritage Styles—Agricultural and Service 39
2.4 Non-Heritage Styles—Residential Buildings 40

Section 3 Heritage Design and Details 42

3.1 Introduction 42
3.2 Composition 42
3.3 Entrances and Doors 43
3.4 Windows and Shutters 46
3.5 Bay Windows 47
3.6 Gable Ends 48
3.7 Dormers 49
3.8 Porch Design 50
3.9 Brickwork 51
3.10 Wood Siding 53
3.11 Fencing 54

PART C Design Guidelines

Section 4 Building Burlington 57

4.1 Overview 57
4.2 Heritage-based Guidelines 58

Section 5 Existing Heritage Buildings 59

5.1 Overview 59
5.2 Historical and Technical Research 60
5.3 Building Maintenance 61
5.4 Renovations to Heritage Buildings 69

Section 6 Existing Non-Heritage Buildings 73

6.1 Design Approaches 73

Section 7 New Development 75

7.1 Overview 75
7.2 Contexts 76
7.3 St Luke's and Emerald Precincts 77
7.4 Downtown Core and Wellington Square Precincts 81
7.5 Old Lakeshore Road Precinct 89

Section 8 Sources 94

8.1 Documents Available for Guidance 94
8.2 Bibliography 94
8.3 Internet Sources 96

Appendices 97

Appendix A National Standards and Guidelines 99
Appendix B Glossary of Architectural Terms 101

PART A

Introduction

Section 1. Introduction

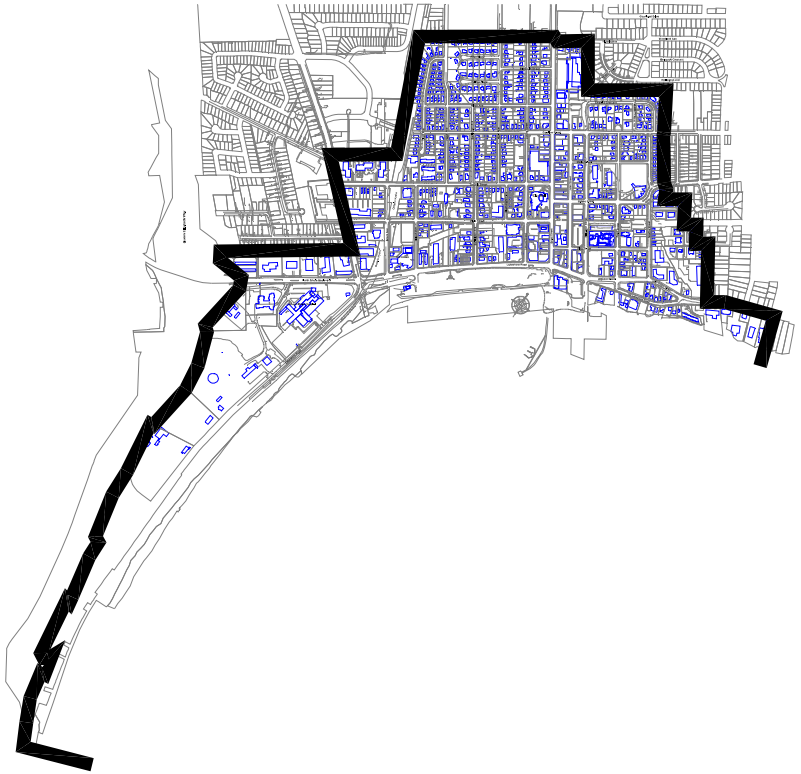
This document is designed to provide assistance in the identification of important elements of built heritage, to provide information about maintaining and preserving heritage buildings, and to provide guidance in evaluating proposals for renovation and new construction so that the historic character of downtown Burlington is enhanced and not harmed by future projects.

This document was created in parallel with Official Plan Amendment (OPA) 55, and in compliance with its provisions, as outlined below. This document is concerned with heritage aspects in the Downtown Mixed Use Centre, and the planning precincts within it. The boundaries of the Downtown Mixed Use Centre are shown in the map on the right. In this document, we will use the terms "Downtown Burlington" or "Central Burlington" to indicate the lands and properties within this boundary.

OPA 55 has a number of provisions related to heritage.

Part II—Functional Policies contains several heritage provisions. For example, in Section 6—Design, 6.2.b) contains this objective: "To ensure that the design of the built environment enhances heritage features." And Section 8 is concerned entirely with cultural heritage resources, outlining objectives, principles, and policies to conserve cultural heritage resources and to protect the overall heritage character of an area. The first of the principles, in Section 8.1 a) states: "Cultural heritage resources of significant cultural heritage value shall be indentified, and conserved."

In Part III—Land Use Policies, the criteria for evaluating housing intensification proposals are listed in Section 2.5.2 a). Criterion (xi) states: "Natural and cultural heritage features and areas of natural hazard are protected."



Boundary of Downtown Mixed Use Centre, OPA 55

1.1 The Precincts

Section 5.5 of Part III—Land Use Policies, deals specifically with the Downtown Mixed Use Centre. Section 5.5.2 m) recognizes planning precincts with distinct characters, and calls for specific planning policies for each. The precincts are shown in the map on the opposite page. The cross-hatched areas show the portions of the Downtown that are included in the Downtown Urban Growth Centre.

Heritage is included under General Policies in Section 5.5.3 g), which states: "The Downtown's cultural heritage resources shall be preserved and integrated into new development, where possible, and any development close to cultural heritage resources shall be sensitive to the historic context of the street, and not just of the immediately adjacent buildings, to maintain the character of established areas."

Sections 5.5.4 through 5.5.9 delineate objectives and policies for the several planning precincts created under Section 5.5.2 l), as referenced above.

Heritage provisions for the various precincts include:

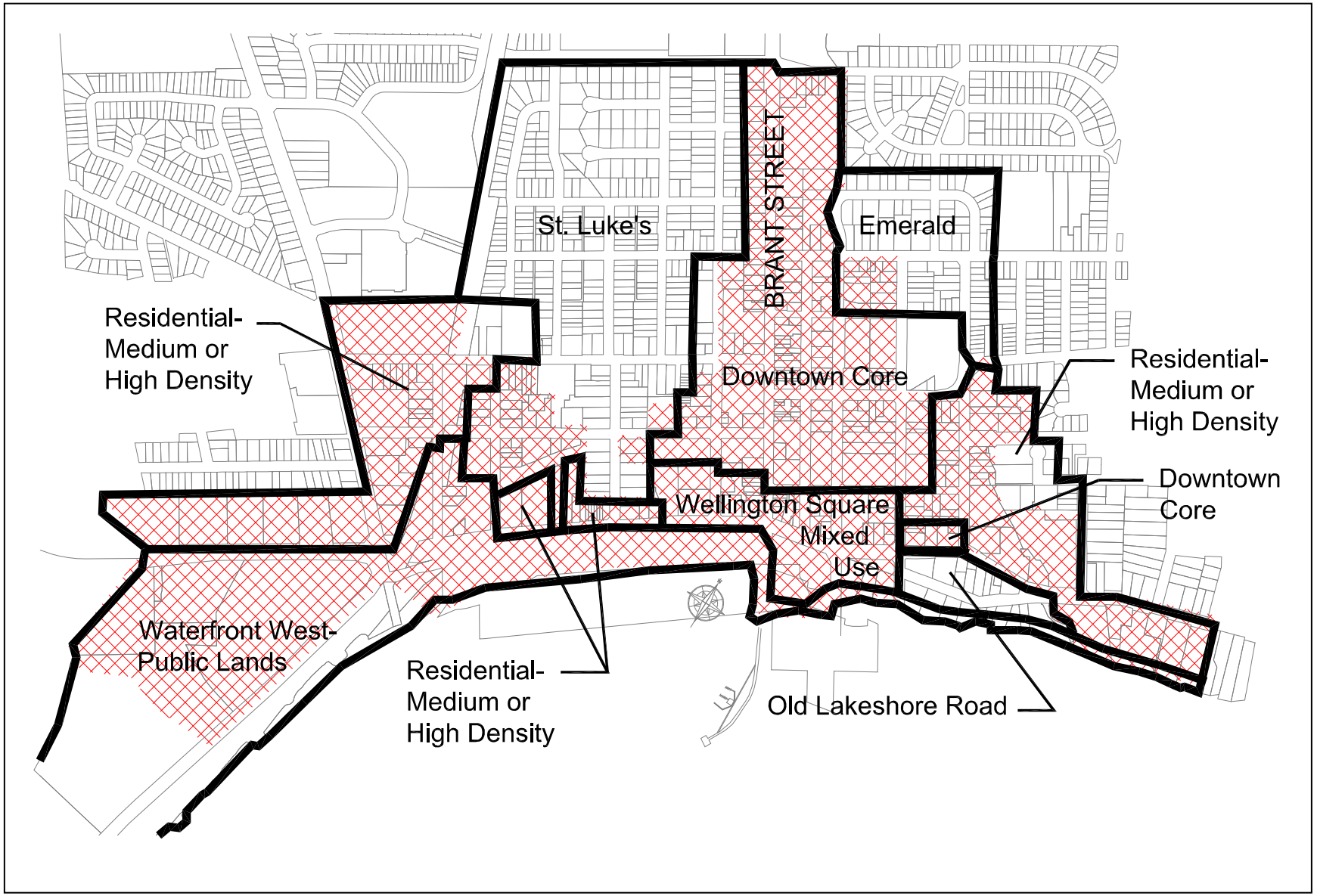
> **5.5.4** The St. Luke's and Emerald Neighbourhood Precincts
>
> **Objective** a) To preserve the stable residential and heritage character of these neighbourhoods, and to ensure that any redevelopment is compatible with the existing character of the neighbourhoods.
>
> **5.5.7** Old Lakeshore Road Precinct Special Study Area
>
> **Further Study** b) To undertake further study to determine the appropriate building forms, intensities and heights within this precinct, taking into consideration such matters as precinct character, heritage conservation, lake views, shoreline conditions, shoreline protection, development setbacks from the lake, public access to the lake and redevelopment opportunities.

To summarize:

Official Plan Amendment 55 has heritage provisions at three levels:

- For the entire City in Part II, and in Part III, Section 2.5.2;
- For the Downtown Mixed Use Centre in Part III, Section 5.5.3;
- And for the Precincts in Part III, Sections 5.5.4 and 5.5.7.

The various provisions outlined above are intended to highlight the concern for heritage expressed in Official Plan Amendment 55. This synopsis is provided here for convenience. For further details and context, refer to the OPA 55 document.



Hatching indicates the portion of the Downtown Mixed Use Centre that is included in the Downtown Urban Growth Centre.

1.2 Urban Design Guidelines

This document is produced in conformance with Part III, Section 5.5.11 of OPA 55 —Urban Design

> **Design Guidelines** a) The City shall prepare and adopt Urban Design Guidelines, specific to each neighbourhood and precinct, reflecting the vision and characteristics of that neighbourhood and precinct.

1.2.1 The Downtown Urban Design Guidelines

Council authorized and adopted the City of Burlington Downtown Urban Design Guidelines, prepared by Brook McIlroy Planning + Urban Design, which is concerned with the Downtown Core, Wellington Square Mixed Use, and Old Lakeshore Road precincts. From a heritage perspective, the Downtown Urban Design Guidelines are welcome in many respects. The first Structural Element described in Section 3.2 is Heritage Buildings. Guidelines on height and massing, particularly the call for pedestrian-scale podiums on taller buildings, with step-backs above, are conducive to creating a street-level experience that is compatible with historic forms. But as Section 5.5—A Note on Heritage, states, "The provision of a comprehensive set of heritage guidelines is beyond the scope of this document."

These Heritage-based Guidelines will provide some guidance, in this Section, on design elements that can enhance the heritage-friendly character of new development in the downtown—by adding some detail to the Brook-McIlroy Guidelines—so that it meets the objective of Official Plan Amendment 55:

> "To ensure that the design of the built environment enhances heritage features."

OPA 55 identifies the Old Lakeshore Road Precinct as a Special Study Area, and it will be discussed in a later section of this document.

1.2.2 Different Approaches in These Guidelines

In view of the Official Plan's differing directives on heritage concerns in the various precincts, this document addresses new development in correspondingly different ways:

- For the St. Luke's and Emerald Precincts, comprehensive urban design guidelines are provided, in Section 7.3 of this document.
- For the Downtown Core and Wellington Square Precincts, this document provides some heritage support to the Downtown Burlington Urban Design Guidelines, in Section 7.4 of this document.
- For the Old Lakeshore Precinct, possible approaches to developing a special area are explored, in Section 7.5 of this document.

What is shared in all the precincts is the recognition that downtown Burlington is a distinct place in the larger municipality, and that its character is shaped and enhanced by its heritage resources, which are to be identified and conserved.

1.3 Other Governing Documents

In interpreting the provisions in this document, reference is to made to:

- The Provincial Policy Statement. Parts related to built heritage are quoted below:

  2.6 Cultural Heritage and Archaeology

  2.6.1 *Significant built heritage resources* and *significant cultural heritage landscapes* shall be *conserved*.

  Built heritage resources:
  means one or more significant buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic or military history and identified as being important to a community. These resources may be identified through designation or heritage conservation easement under the Ontario Heritage Act, or listed by local, provincial or federal jurisdictions.

  Conserved:
  means the identification, protection, use and/or management of cultural heritage and archaeological resources in such a way that their heritage values, attributes and integrity are retained. This may be addressed through a conservation plan or heritage impact assessment.

- Parks Canada Standards and Guidelines for the Conservation of Historic Places in Canada. (An abridged version of the Standards appears in an appendix. See Sources for website where the entire document can be downloaded.)



468 Locust Street


1441 Caroline Street

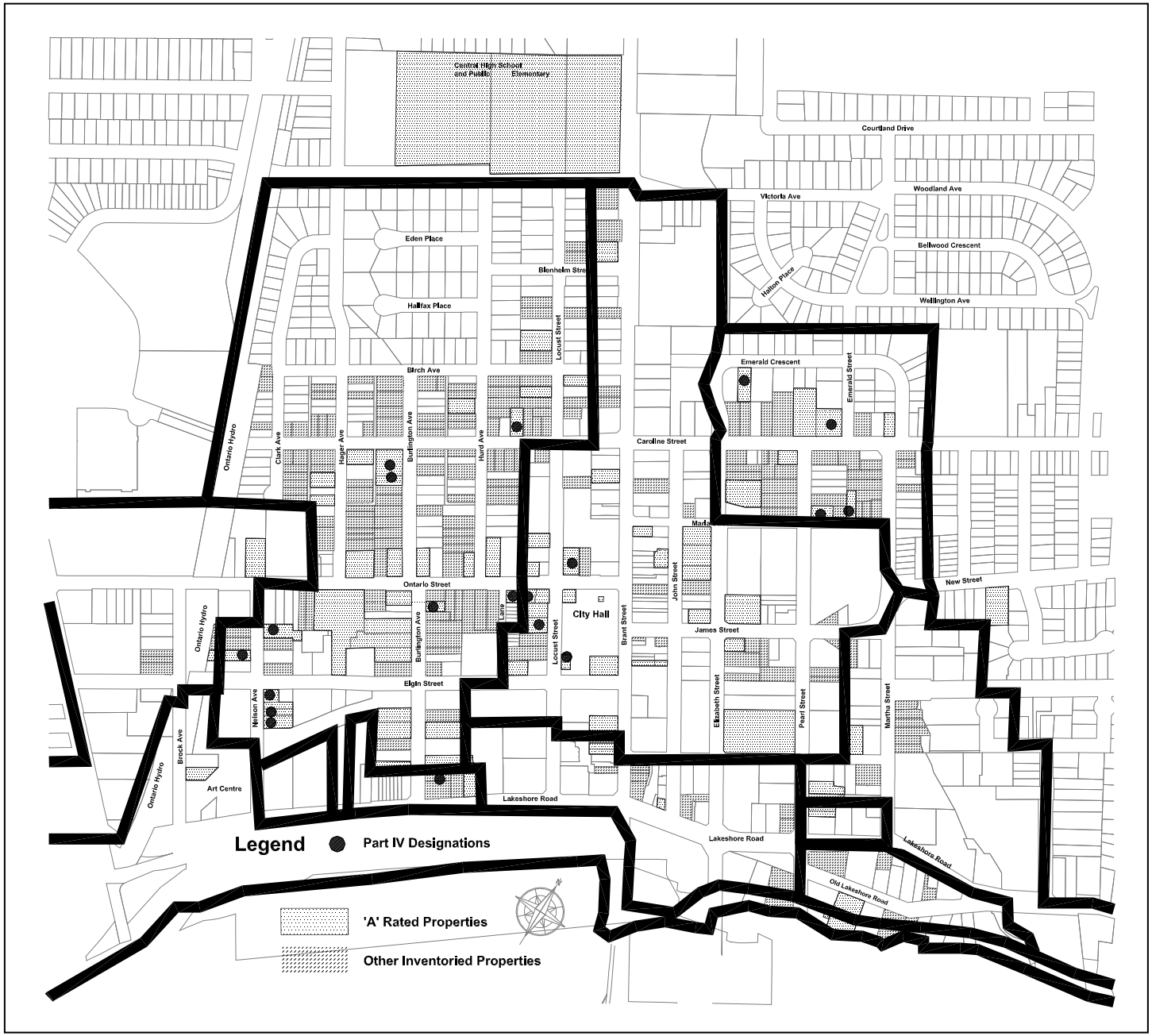

1410 Ontario Street

1.4 Existing Cultural Heritage Resources

The Downtown Mixed Use Centre is rich in heritage resources. The City of Burlington maintains an Inventory of Historic Properties which lists all heritage resources. Some of these have been individually designated under Part IV of the Ontario Heritage Act. Many more have been graded “A”, which means they are worthy of Part IV designation—they are very valuable resources.

The map on the opposite page shows the inventoried and graded properties, and the boundaries of the precincts. The highest concentrations of heritage resources are within the St. Luke’s and Emerald Neighbourhood Precincts, but there are many valuable resources in other precincts as well.

In its heritage aspects, downtown Burlington is a distinct place within the larger municipality, as has been recognized by many studies conducted by the City over the past 27 years.

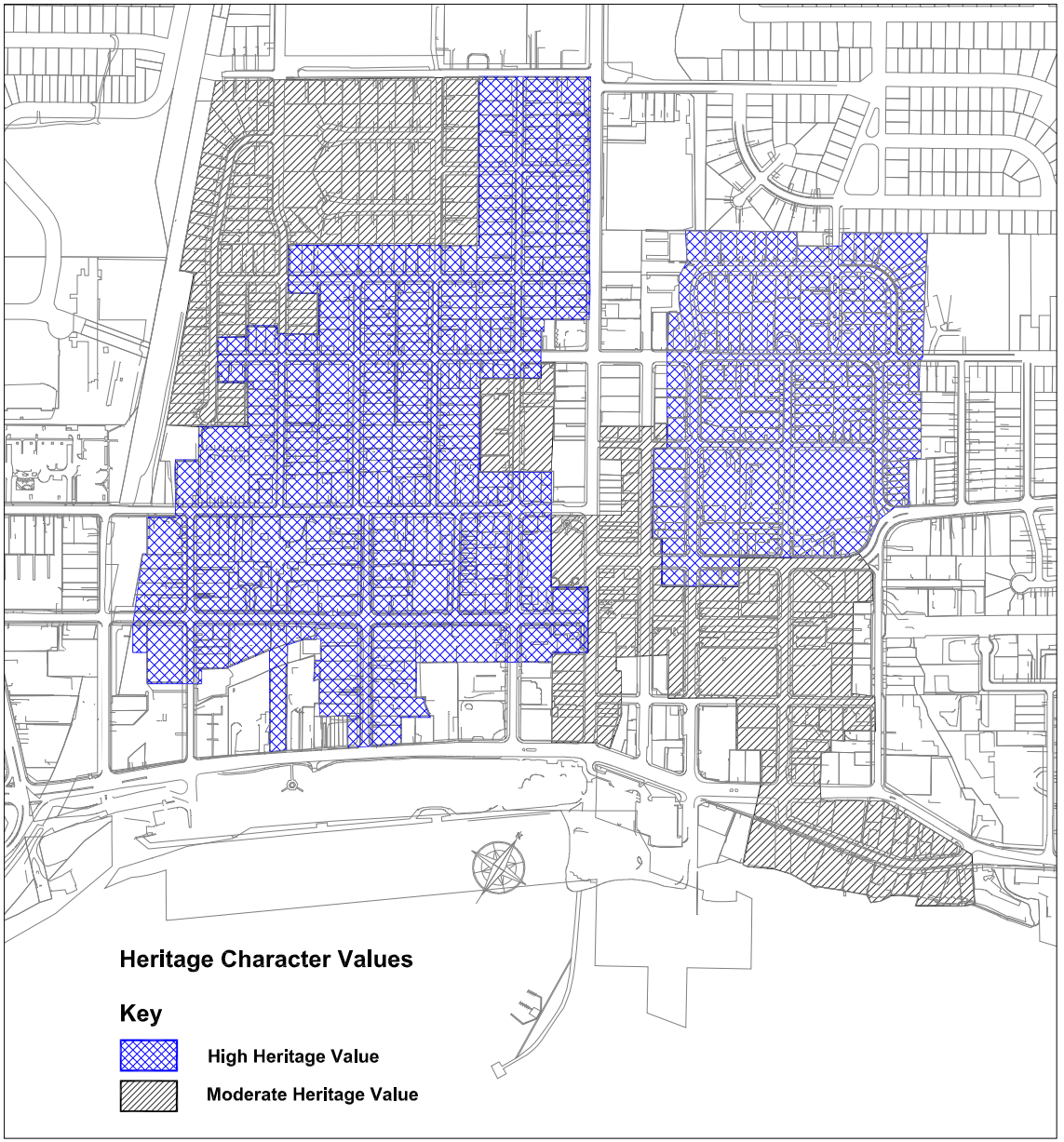

Central High School and Public Elementary
Courtland Drive
Victoria Ave
Woodland Ave
Bellwood Crescent
Halton Place
Wellington Ave
Eden Place
Blenheim Street
Halifax Place
Locust Street
Birch Ave
Emerald Crescent
Emerald Street
Ontario Hydro
Clark Ave
Hager Ave
Burlington Ave
Hurd Ave
Caroline Street
Ontario Street
John Street
New Street
City Hall
Brant Street
James Street
Elgin Street
Nelson Ave
Brock Ave
Art Centre
Elizabeth Street
Pearl Street
Martha Street
Lakeshore Road
Old Lakeshore Road
Legend
Part IV Designations
'A' Rated Properties
Other Inventoried Properties

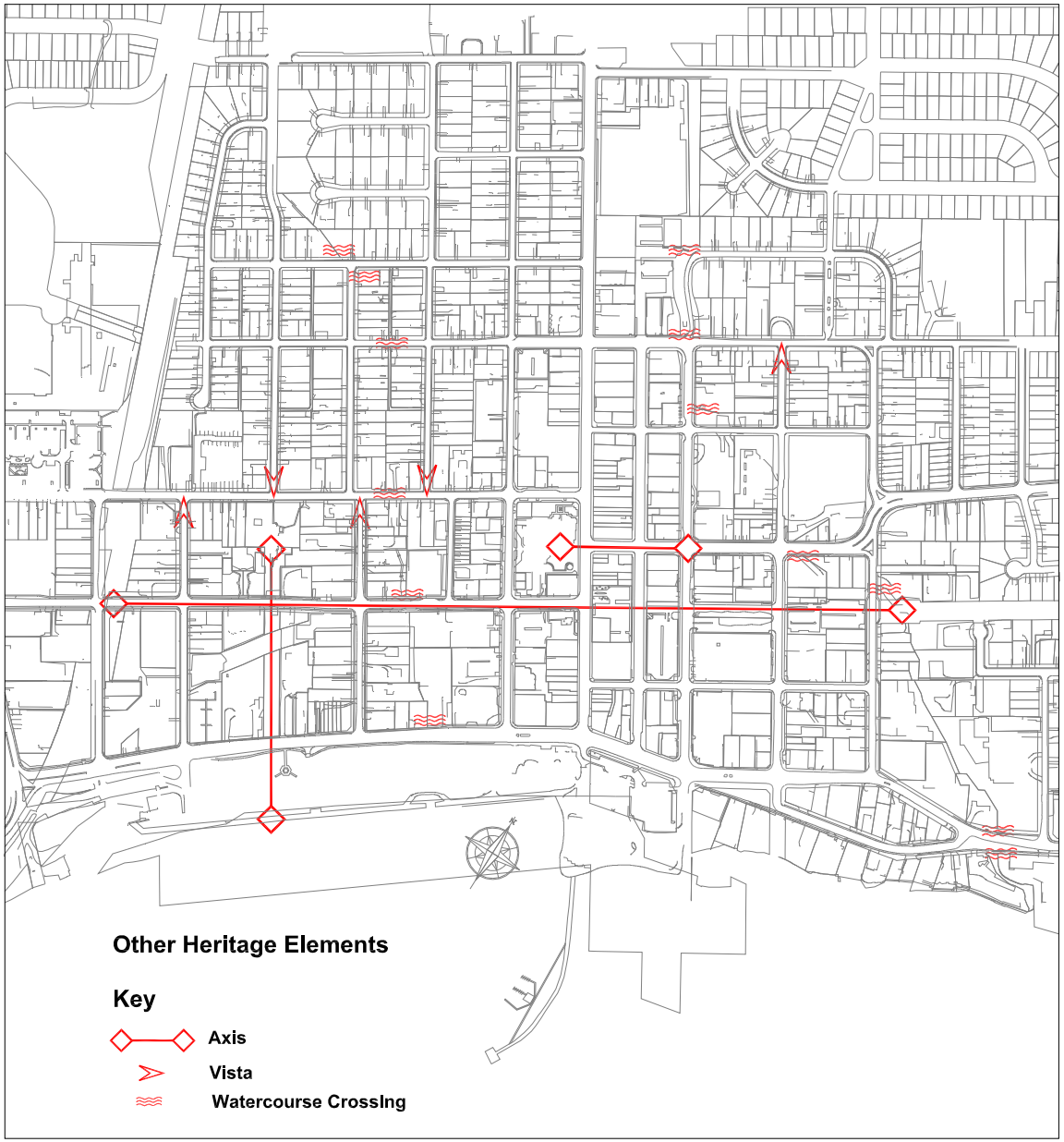
1.5 Heritage Character

In the context of planning, heritage character describes the overall heritage quality of the experience within a streetscape. Individual buildings are an important aspect defining heritage character, but this is a case where the whole is more than the sum of its parts.

Elements such as roadway design, public and private planting, and compatible scale and design of buildings can all contribute to unity of an area and enhance the setting for the individual heritage buildings.

The consultants conducted an examination of the Downtown area as part of an earlier study for an Old Burlington Village Heritage District, and the evaluation of heritage character is shown on the map to the right. The character values reflect, but are not identical to, the concentration of heritage properties shown on the previous map.





1.6 Other Heritage Features

Some heritage attributes might be called "soft heritage features". They are not attached directly to properties, but they have historical connections that overlay and enrich an area. These are things like views, axial connections, historical pathways, and the neglected creeks. Some of these are shown on the map to the left.

The Saint Luke's Allee, running from the church to the lake, is probably the best-know axis in Burlington. The old Radial Railway bed, on the line of Elgin Street, retains a ghostly presence east of Brant Street due to the pipeline that followed its alignment.

There are a number of terminal views, where a significant building has been placed directly opposite the end of a street, as at the north end of Pearl Street.

And there are Rambo Creek and Hager Creek, which have been rendered almost invisible.

Many of these elements have also been noted in the Brook McIlroy City of Burlington Downtown Urban Design Guidelines.

Preserving and commemorating these elements will enrich the heritage character of the Downtown.

PART B

Heritage Design Handbook

2. Architectural Styles

Architectural style means the identifying characteristics of construction as it has evolved under the force of changing technology and fashion. Before the industrial age, even minor details were custom-made for each building and it would be hard to find even two identical front door designs from the early 19th century.

Nonetheless, each period produced buildings that shared a design vocabulary, including elements of massing, composition, proportions, window and door details, and decorative elements. This section shows the principal styles that have appeared in Burlington, both heritage styles and more recent ones. This section is necessarily brief and does not replace the real research needed for authentic work, as described in Section 5.2.

In the Guidelines that follow, reference is made to architectural styles for all types of residential buildings in Downtown Burlington: existing heritage buildings, existing non-heritage buildings, and new development. The following pages show the characteristics of the local architectural styles.

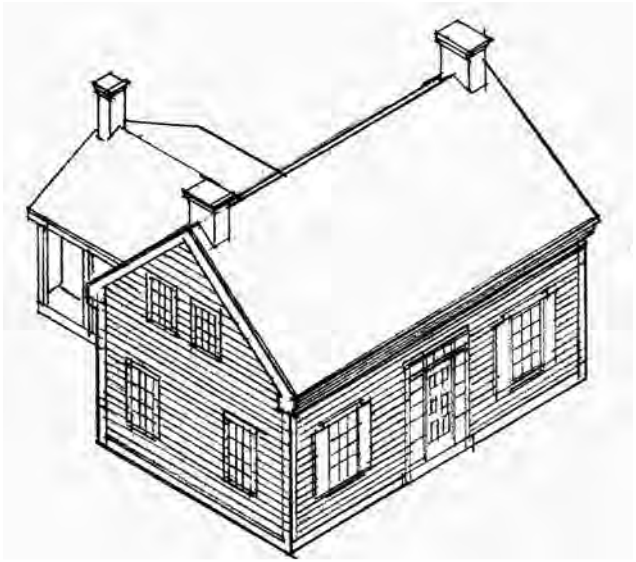
Additions and alterations to an existing heritage building should be consistent with the style of the original building. New developments should be designed in a style that is consistent with the vernacular heritage of the community. All construction should be of a particular style, rather than a hybrid one. Recent developments have tended to use hybrid designs, with inauthentic details and proportions; for larger homes, the French manor or *château* style (not indigenous to Ontario) has been heavily borrowed from. These kinds of designs are not appropriate for Downtown Burlington.

VERNACULAR "LOYALIST"
COTTAGE
1800-1850

2.1 Heritage Styles
Residential Buildings
Georgian Styles

Kitchen Tail often added later, sometimes with a side porch.

Fieldstone foundations



Brick chimneys, sometimes central

4" wood clapboard siding with wood corner boards; Brick or stone in some areas.

Wood fascia and eaves.

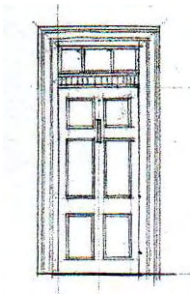
Symmetrical façade; central door with transom and/or sidelights.

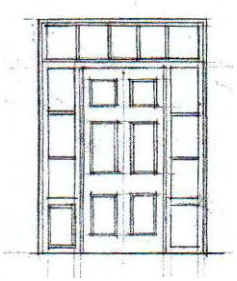
Wood windows, double hung, 6 over 6 or greater.

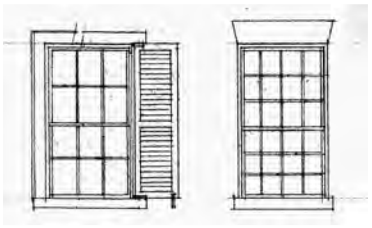
Optional wood shutters.

The first of rural Ontario's two ubiquitous styles, the other being the Ontario Gothic Vernacular. The 1-1/2 storey design avoided the heavier taxation applied to 2-storey houses.

Typical Design Elements: for more information see Section 3.









2085 Pine Street

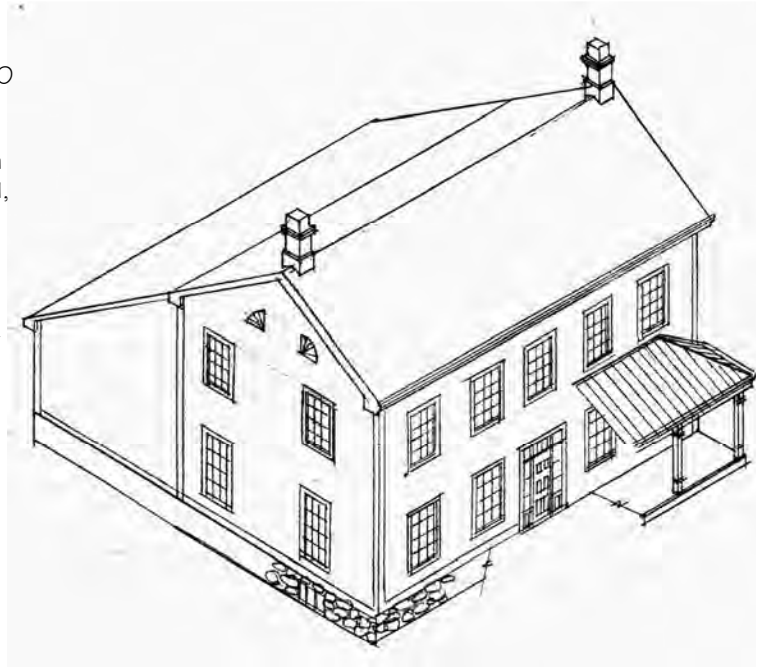
2.1 Heritage Styles
Residential Buildings
Georgian Styles

GEORGIAN
1800-1830

Rear addition may be a tail, or "saltbox" as shown here..

Optional half-lunette windows in attic gable ends

Fieldstone foundations



Brick chimneys, corbelled brick.

Low slope roof, approx. 6:12.

Simple wood fascia and eaves.

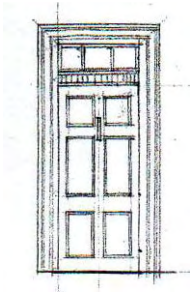
Wood clapboard, brick or stone construction. Stucco less often.

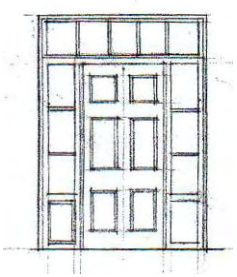
Central door with transom and/or sidelights.

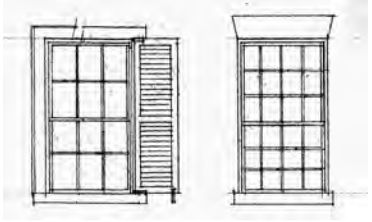
Symmetrical façade, usually 3 or 5 bays.

Optional porch.

Typical Design Elements: for more information see Section 3.









Joseph Brant House
A reproduction Georgian house.

2.1 Heritage Styles
Residential Buildings
Victorian Styles

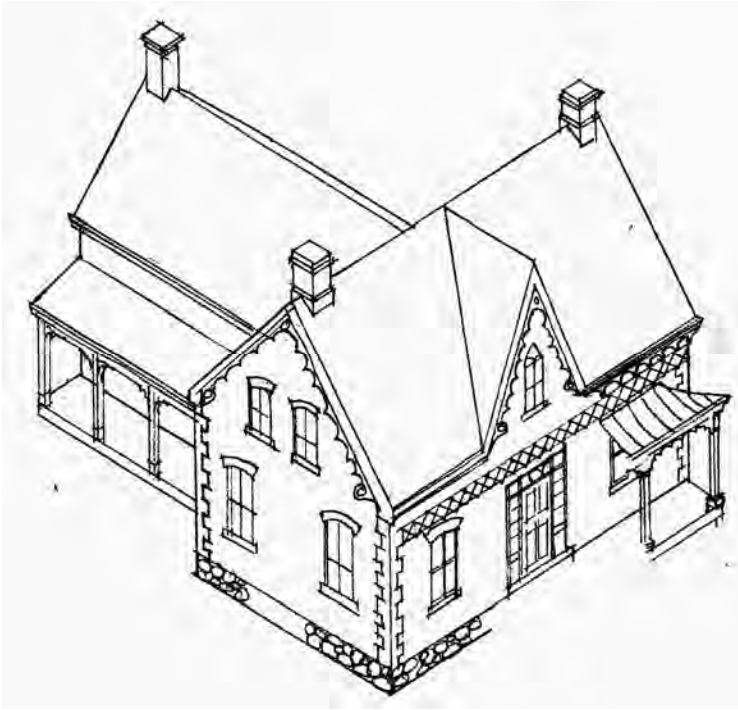
ONTARIO GOTHIC VERNACULAR
1850-1880

Kitchen Tail with room over.
Wood side porch with sheet metal roof.

Wood porch posts with decorative brackets.

Fieldstone foundations.

Red brick masonry with buff brick detailing—sometime the reverse (polychromy).



Brick chimeny, corbelled polychome.

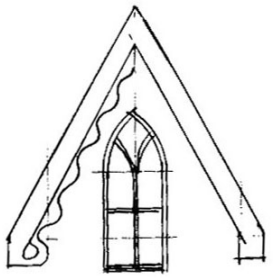
Steep roof with "gingerbread" trim at gables; .wood shingles or sheet metal roofing; Pointed 'gothic' window in central dormer gable.

Archetypal Ontario house, 1 ½ storeys, Polychrome masonry construction. Also built of stone, stucco, and board and batten wood siding.

Symmetrical façade; central door with transom and/or sidelights.

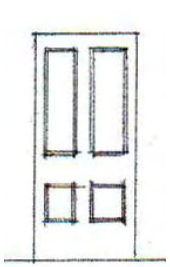
Segmental arch wood windows, double-hung, 2 over 2.

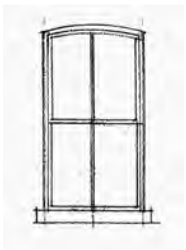
Optional front porch.

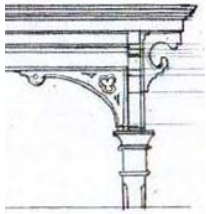


The central dormer is the most persistent feature in Ontario vernacular design. It is with us still. People will move into a bungalow and install a little peak in the verandah, above the front door. It makes the place feel more like home.

Typical Design Elements: for more information see Section 3.











491 Pearl Street

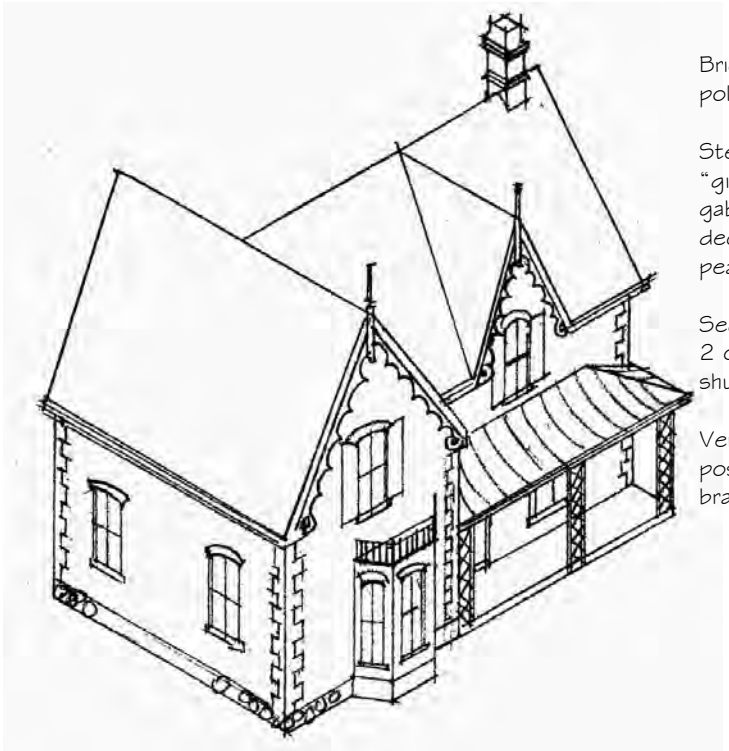
2.1 Heritage Styles
Residential Buildings
Victorian Styles

VICTORIAN VERNACULAR
1850-1880

Asymmetrical façade; main projecting gable often has a bay window.

Polychrome brick construction most common. Sometimes board and batten wood siding (carpenter gothic)

Fieldstone foundations.

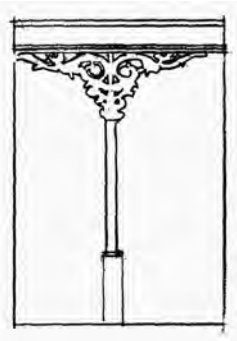


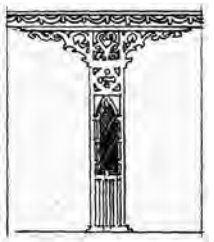
Brick chimney, corbelled polychome.

Steep roof with "gingerbread" trim at gables, often with a decorative finial at the peak.

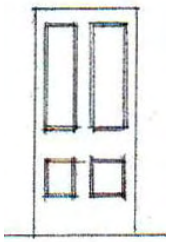
Segmental arch windows, 2 over 2; optional shutters.

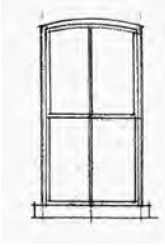
Verandah with turned wood posts and decorative brackets, or trelliage.

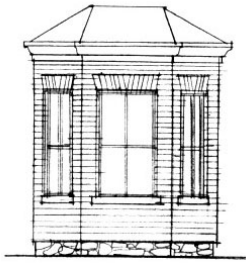




Typical Design Elements: for more information see Section 3.







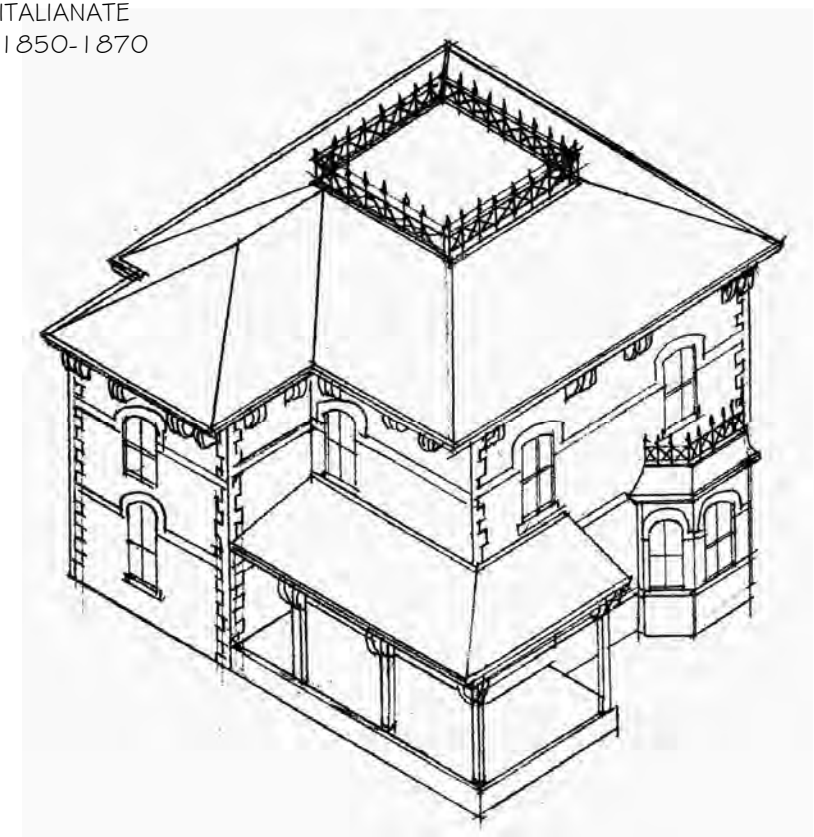




460 Burlington Ave

2.1 Heritage Styles
Residential Buildings
Mid-Victorian Styles

ITALIANATE
1850-1870



Flat-topped roof, often with "widow's walk" or lantern.

Wrought Iron cresting at roof edge. Low-sloped hipped roof, slate or sheet metal.

Large eaves overhang with decorative brackets.

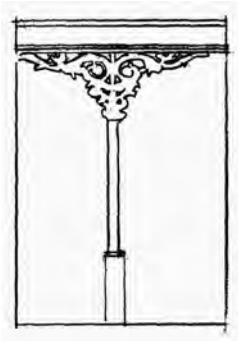
Polychrome brick with contrasting banding and quoins.

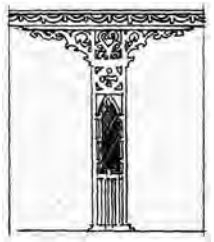
Segmental or full arched windows with strong vertical proportion; 2 over 2 double hung windows.

Bay windows or towers.

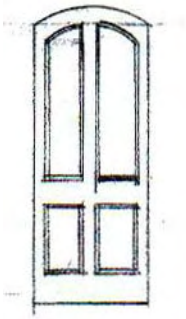
Wood verandah with decorative brackets.

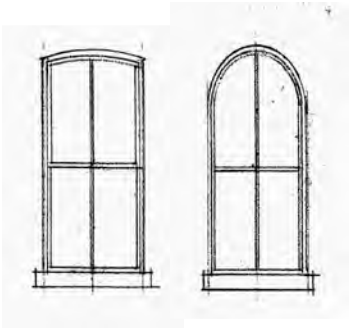
Non-symmetrical plan, often with side entrance.

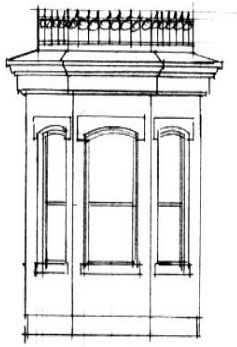




Typical Design Elements: for more information see Section 3.





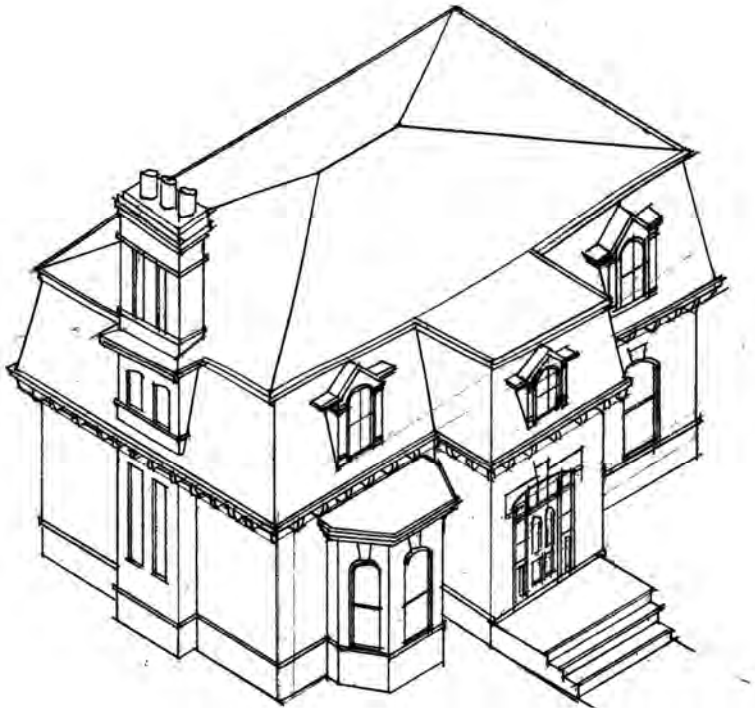




432 Burlington Ave

2.1 Heritage Styles
Residential Buildings
Mid-Victorian Styles

SECOND EMPIRE
1855-1880



Mansard roof in shingle or slate.

Elaborately detailed dormers.

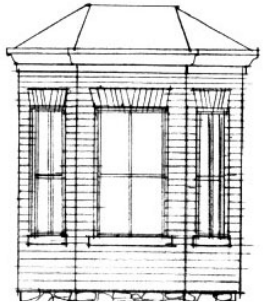
Decorative masonry work.

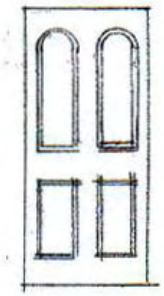
Large brackets at eaves.

Round-head double-hung wood windows. 1 over 1 or 2 over 2.

Bay windows.

Typical Design Elements: for more information see Section 3.







479 Nelson Avenue

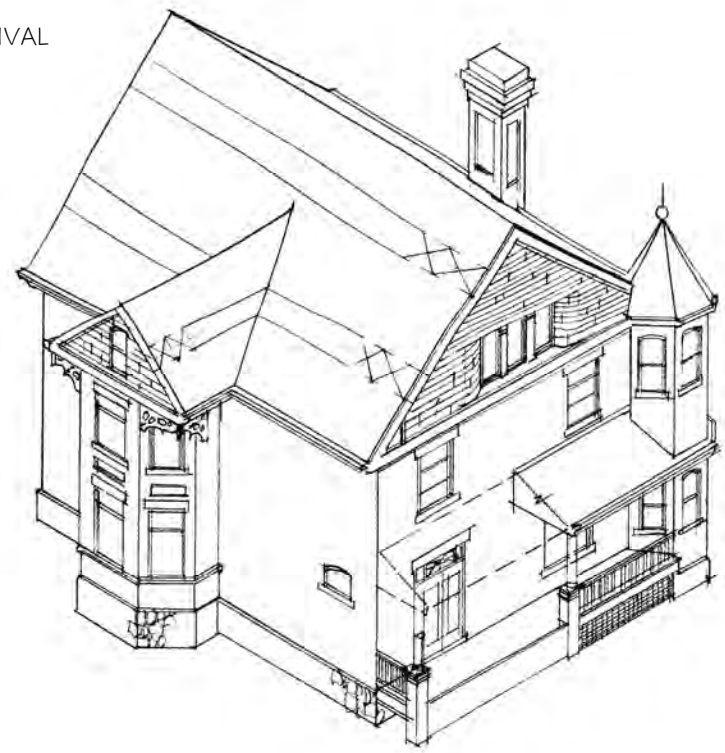
2.1 Heritage Styles
Residential Buildings
Late Victorian Styles

QUEEN ANNE REVIVAL
1885-1900

Steep gabled roof, often 12:12 slope.

Slate shingles often patterned.

Elaborate wood brackets, wood lattice work.



Brick construction. Brickwork elaborately detailed.

Gable ends of shingles or tiles, often patterned.

Wide use of patterns in shingles, brickwork, and woodwork.

Asymmetrical plan, with turrets and bay windows.

Large double-hung windows, often with short upper sash.

Leaded and/or stained glass in transoms and upper sash.

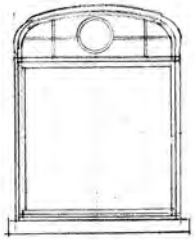
Front porch or verandah.

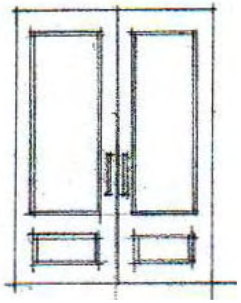


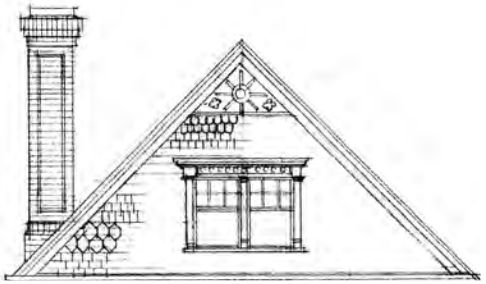
"Bellied" balusters often appeared on Queen Anne and Edwardian railings.



Typical Design Elements: for more information see Section 3.





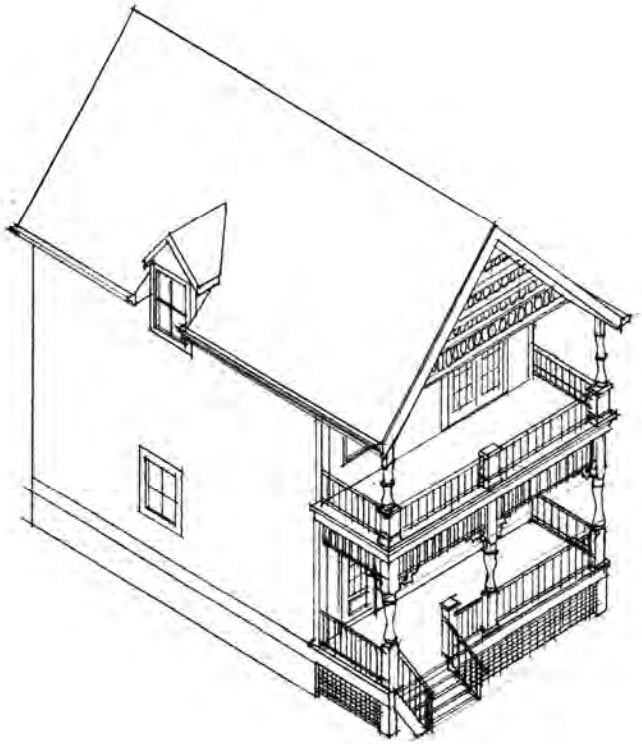




504 Burlington Avenue

2.1 Heritage Styles
Residential Buildings
Late Victorian Styles

SUMMER HOUSE
1880-1910



Hipped 'cottage' roof with asphalt shingles

Hipped-roof dormer with double windows

Non-symmetrical Plan and Façade.

Concrete Block Foundations

Brick construction.

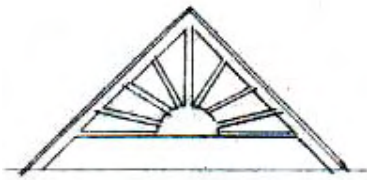
Wood double-hung windows, often 6 over 1 or 4 vertical over 1. "cottage style".

Wood verandah with classical columns on brick piers

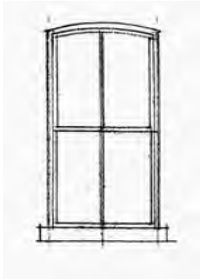
Main front room window with decorative transom often with leaded and/or stained glass.

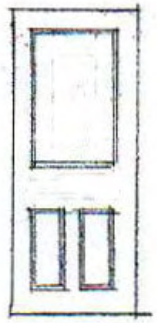
Simple decorative wood porch railings

Typical Design Elements: for more information see Section 3.







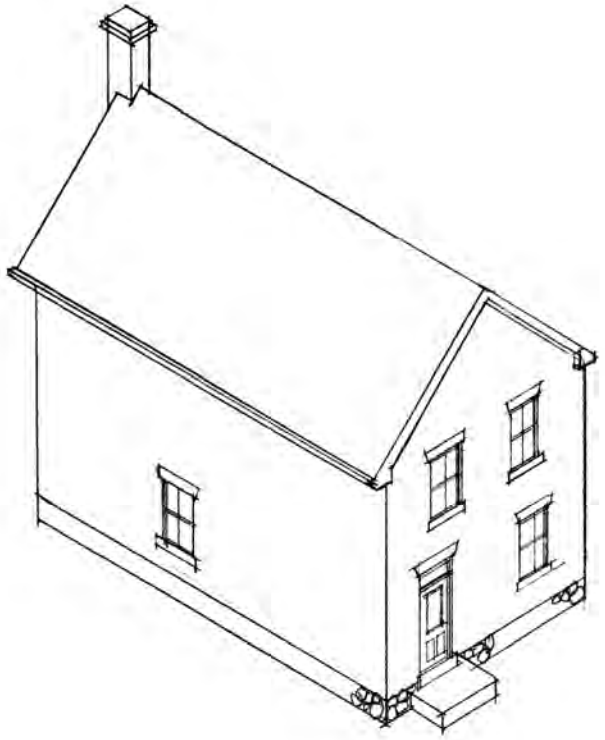




447 Nelson Ave

2.1 Heritage Styles
Residential Buildings

VERNACULAR HOMESTEAD
1900-1920



Front-facing gable with steep roof.

Two bays wide, with entance and stair to one side. Plan has greater depth than width.

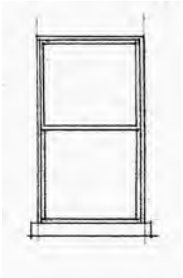
Detailing is simple.

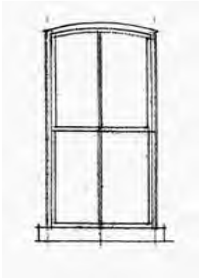
Full-width verandah is common

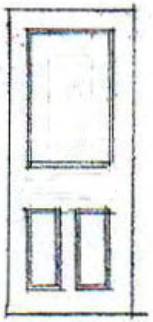
Windows usually square-headed, segmental arches sometimes appear. Double-hung windows, 1 over 1 or 2 over 2 with strong vertical proportions.

May be wood siding, brick or stucco

Typical Design Elements: for more information see Section 3.









511 Hager Ave

2.1 Heritage Styles
Residential Buildings
Edwardian Styles

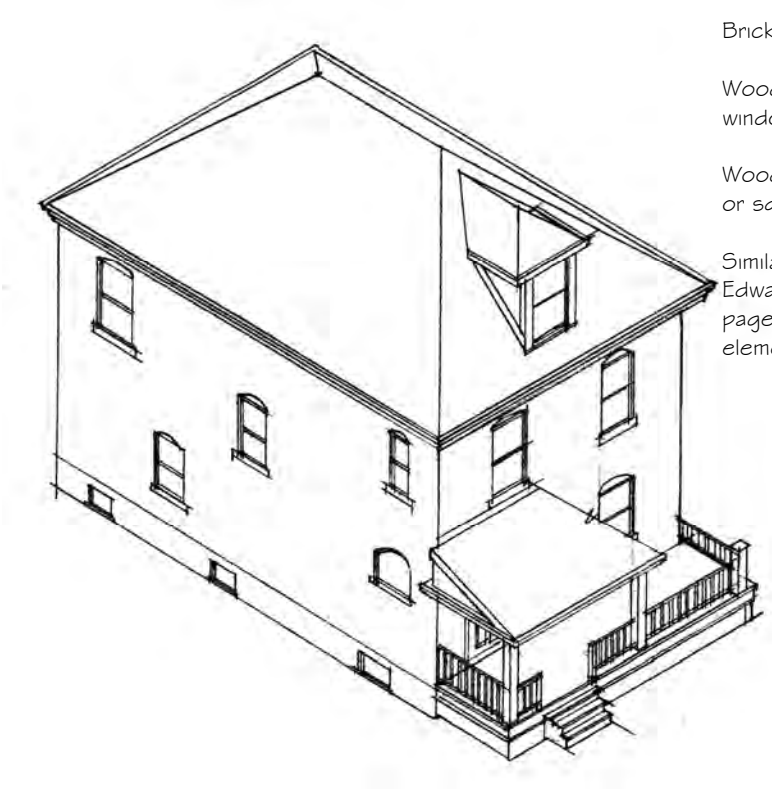
FOUR-SQUARE
1900-1920

Hipped 'cottage' roof with asphalt shingles

Hipped-roof dormer

Non-symmetrical Plan and Façade.

Concrete Block Foundations



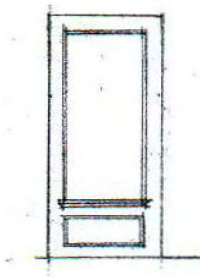
Brick construction.

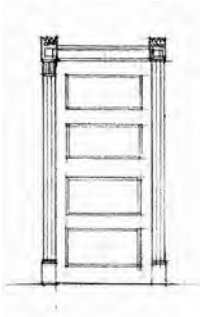
Wood double-hung windows, 1 over 1.

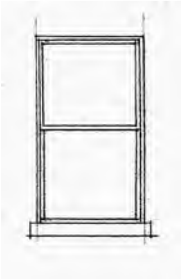
Wood verandah with round or square wood columns.

Similar in many ways to Edwardian Classicism (next page) but with decorative elements minimized.

Typical Design Elements: for more information see Section 3.











508 Hager Ave

2.1 Heritage Styles
Residential Buildings
Edwardian Styles

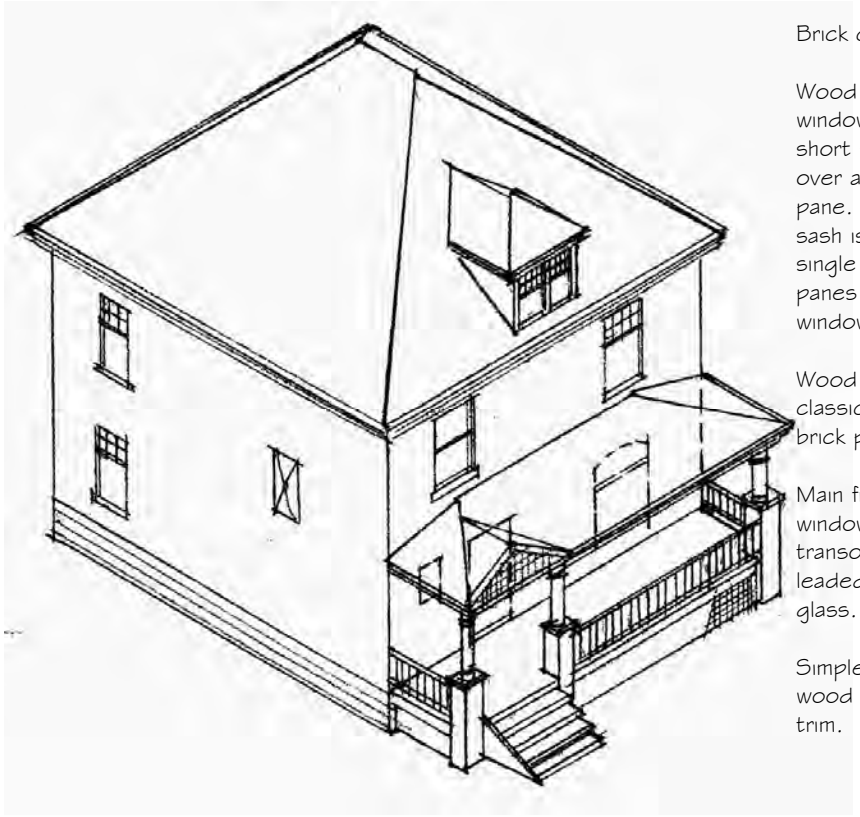
EDWARDIAN CLASSICISM
1900-1920

Low-slope hipped 'cottage' roof with asphalt shingles

Hipped-roof dormer with double windows.

Non-symmetrical plan and façade.

Concrete block foundations



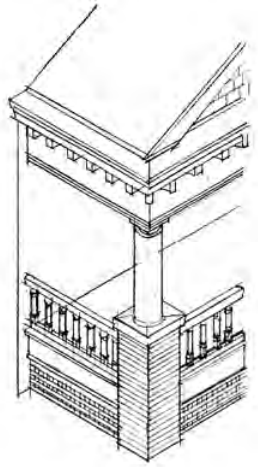
Brick construction.

Wood double-hung windows, often with a short multi-pane sash over a taller single pane. Sometimes upper sash is composed of a single row of vertical panes (cottage style windows).

Wood verandah with classical columns on brick piers

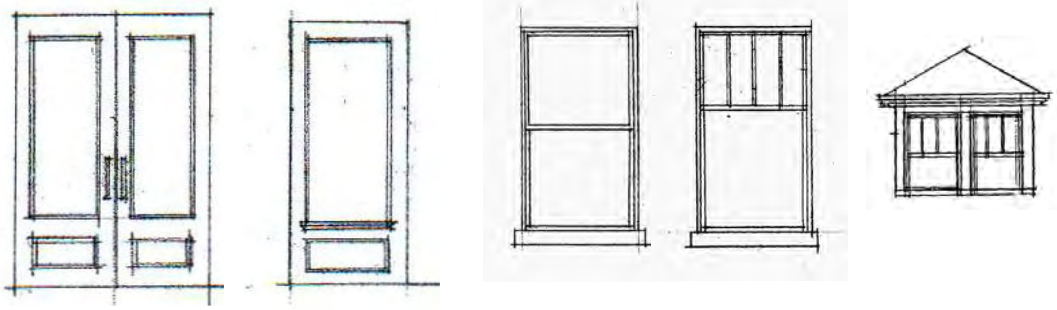
Main front room window with decorative transom often with leaded and/or stained glass.

Simple decorative wood porch railings and trim.



Typical porch detail

Typical Design Elements: for more information see Section 3.





2108-2116 Caroline Street.

A NOTE ON "BUNGALOWS"

The word "bungalow" has been applied to buildings of such a variety of sizes and shapes, that it causes architectural historians to shake their heads. John Milnes Baker, in his book *American House Styles*, says that bunglow is a type, not a style. In modern usage, the word has come to be used for almost any small house, regardless of its design. So there is some need to distinguish one kind of bungalow from another.

The term originates in a Hindi word meaning "house in the Bengal style", and the orginals were one storey houses with low roofs and deep verandahs which provided needed airy shade in the heat of India.

The word entered the English language when the British in India adopted and elaborated the model for their army and colonial buildings, and they kept using the word as they built larger and fancier versions. The defining features remained the low roofs and the verandahs.

In North America, the term was first applied to small houses in the Craftsman style originally developed in California around 1900. These were 1- and 1-½ storey houses, with low-sloped roofs, wide eaves with the rafter tails exposed, and a deep front porch or verandah. Craftsman bungalow plans tended to be fairly open, with living and dining rooms flowing together, and perhaps a breakfast nook integrated with the kitchen.

The Craftsman bungalow was adopted as a model for mass-produced housing by builders across the continent between 1915 and 1930. The Builders' bungalow retained the massing, but the Craftsman details were scaled back or eliminated.

By the late 1930s, "bungalow" had come to mean any small house that we don't have another word for. The Cottage bungalow usually reverted to the hipped roof of the Bengali original, and in urban settings was sited with the narrow side facing the street. The Ranch bungalow (another California development) turned its long side to the street, on the larger lots of post-World War II suburbia.

The varieties of the North American bungalow are described in later sections below.



The original version of the bungalow, this one in Ceylon.



A very grand early 20th Century Bungalow in India.



A British colonial bungalow in India, 1896.

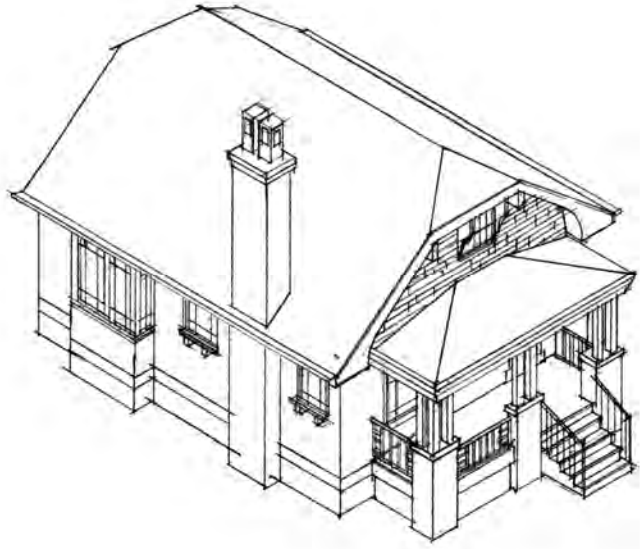
2.1 Heritage Styles
Residential Buildings
20th Century Styles

CRAFTSMAN BUNGALOW
1900-1930

Gable or "Jenkins-head" (partially hipped) roof.

Bay windows tend to be square.

Concrete Block Foundations



1 or 1-1/2 storey house.

Brick ground floor construction is common, with gable ends of cedar shingles

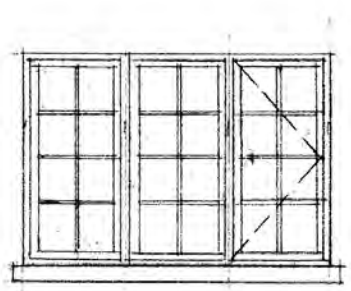
Asymmetrical plan, with entrance to one side.

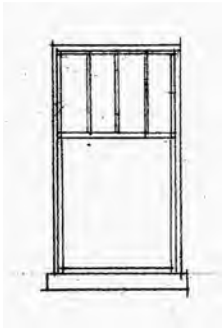
Wood double-hung windows. Elaborate glazing patterns, sometimes leaded.

Verandah is a dominant design feature.

Rafter tails often exposed, and cut into decorative shapes.

Typical Design Elements: for more information see Section 3.



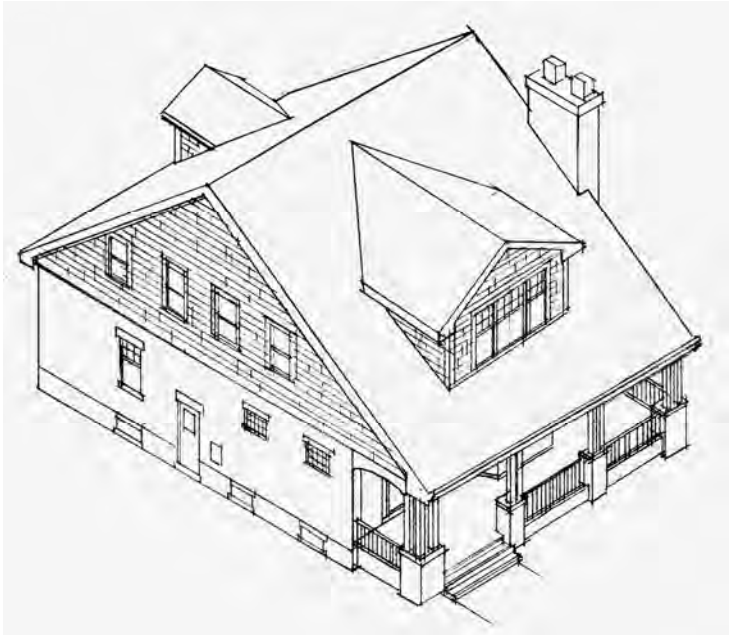




422 Burlington Ave.

2.1 Heritage Styles
Residential Buildings
20th Century Styles

CALIFORNIA BUNGALOW
1900-1930



Side gable roof, with long front slope covering full width verandah.

Wide front-gable dormer.

Concrete block foundation.

Non-symmetrical Plan and Façade.

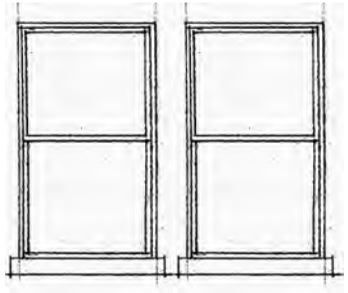
Concrete Block Foundations

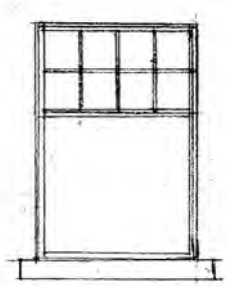
Usually brick ground floor, with cedar shingle gable ends and dormers.

Verandah usually supported by wood columns on masonry piers.

Wood double-hung windows, often 6 over 1 or 4 vertical over 1, "cottage style".

Typical Design Elements: for more information see Section 3.







514 Pearl Street

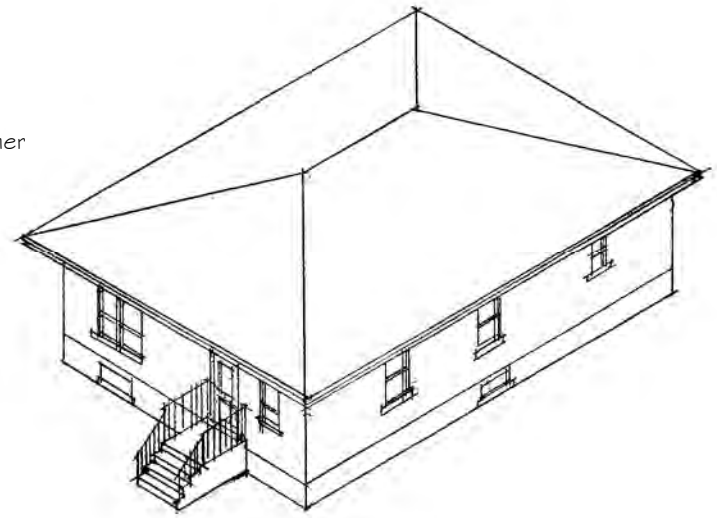
VERNACULAR BUNGALOW
1900-1930

Hipped 'cottage' roof with asphalt shingles

Hipped-roof dormer with double windows

Non-symmetrical Plan and Façade.

Concrete Block Foundations



Brick construction.

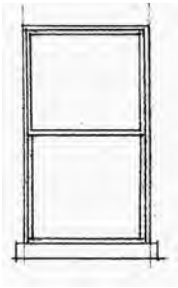
Wood double-hung windows, often 6 over 1 or 4 vertical over 1. "cottage style".

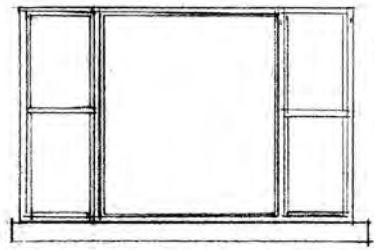
Wood verandah with classical columns on brick piers

Main front room window with decorative transom often with leaded and/or stained glass.

Simple decorative wood porch railings

Typical Design Elements: for more information see Section 3.



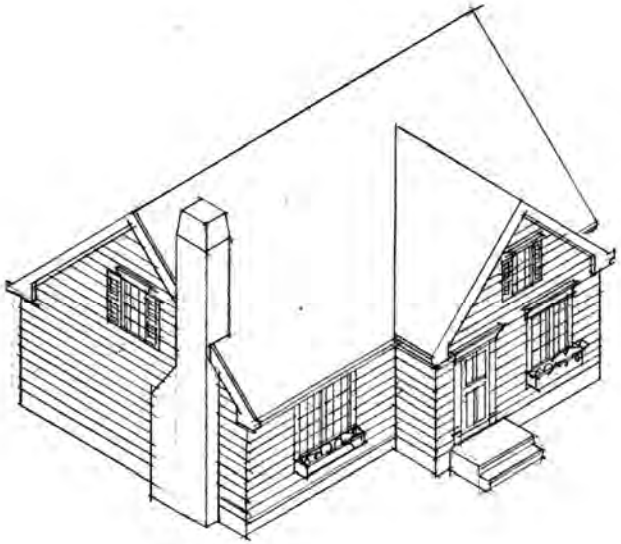




413 Martha Street

2.1 Heritage Styles
Residential Buildings
20th Century Styles

AMERICAN COLONIAL REVIVAL
1900-1930



1 to 2 storey houses, often with asymmetrical plan.

Steep gable roof.

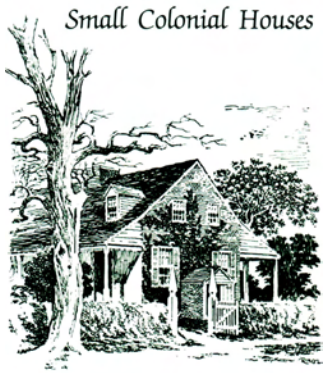
Brick, clapboard or shingle siding.

Variety of roof plans, with front-gable bays or dormers.

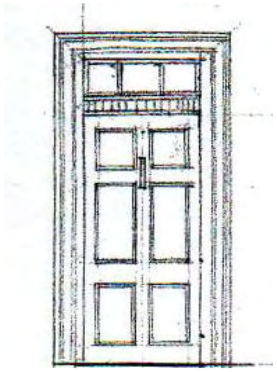
Wood double-hung Georgian windows, often 6 over 6 or 8 over 8. Windows often paired.

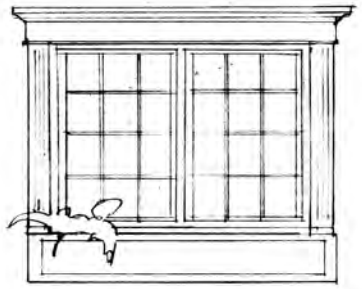
Detailing fairly faithful to Georgian precedents.

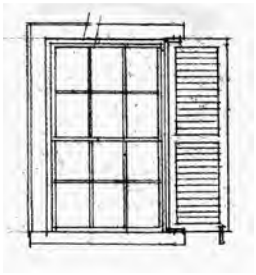
Concrete Block Foundations



Typical Design Elements: for more information see Section 3.



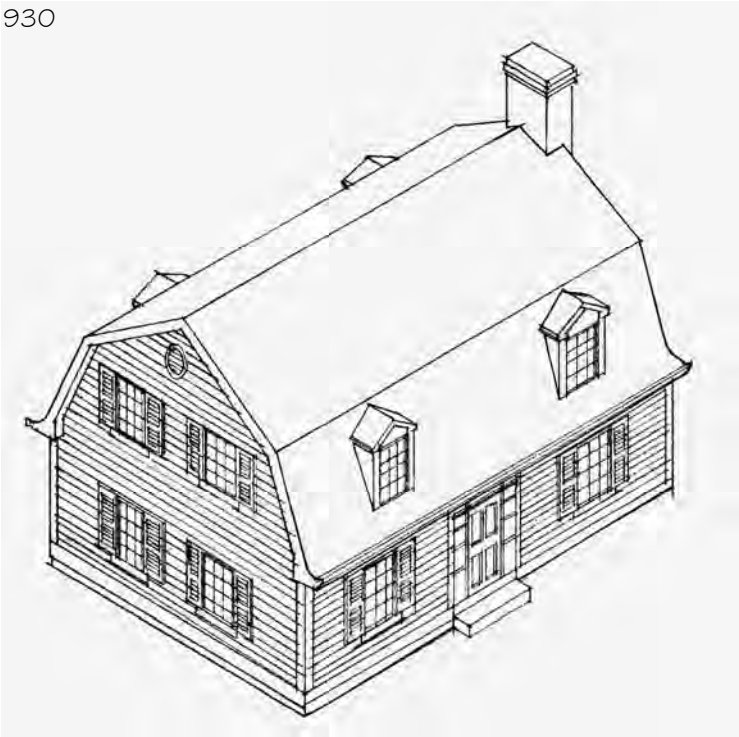






2046 Baldwin

DUTCH COLONIAL REVIVAL
1900-1930



Usually 1-1/2 storeys, brick or wood clapboard siding.

Centre-hall symmetrical plan is common.

Gambrel or "barn" roof provides increased second floor area. Often wood shingles.

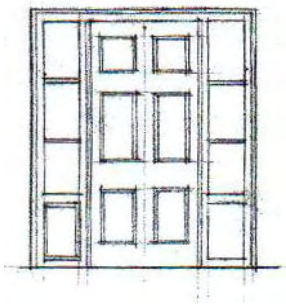
Dormers, sometimes also with gambrel shape.

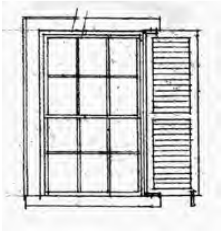
Wood double-hung windows, 6 over 6, wood shutters.

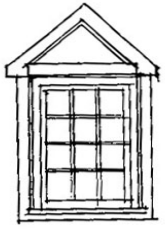


2080 Caroline Street

Typical Design Elements: for more information see Section 3.









560 Brant Street

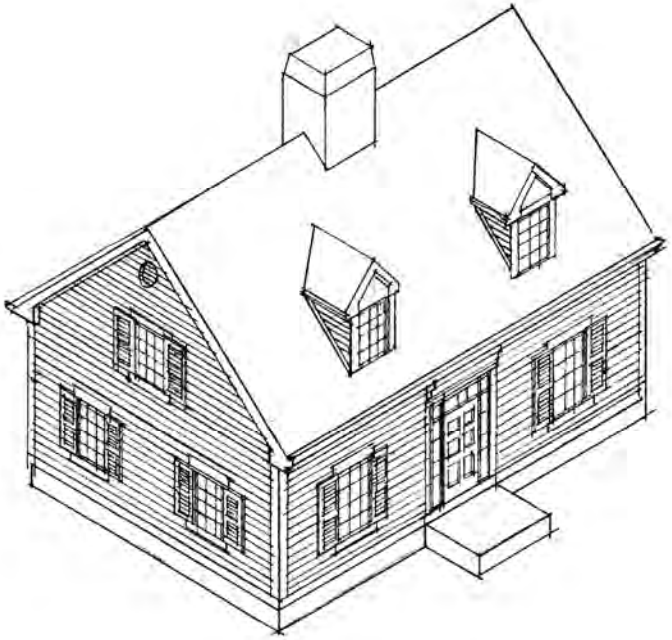
2.1 Heritage Styles
Residential Buildings
20th Century Styles

CAPE COD COTTAGE
1900-1930

Steep side-gable roof 12:12 or more. Wood or asphalt shingles.

Large central chimney.

Optional dormers.



1-1/2 Storey house.

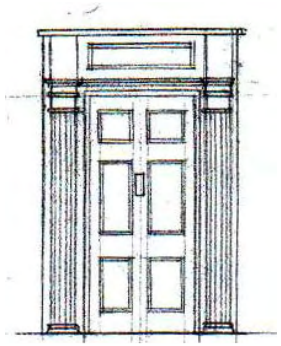
4" wood clapboard siding with corner boards and wood base and fascia.

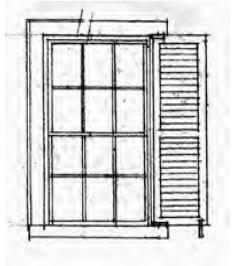
Brick or stone in some areas.

Usually centre hall with symmetrical façade. Entry with sidelights.

Wood double-hung windows, 6 over6. Louvered wood shutters.

Typical Design Elements: for more information see Section 3.



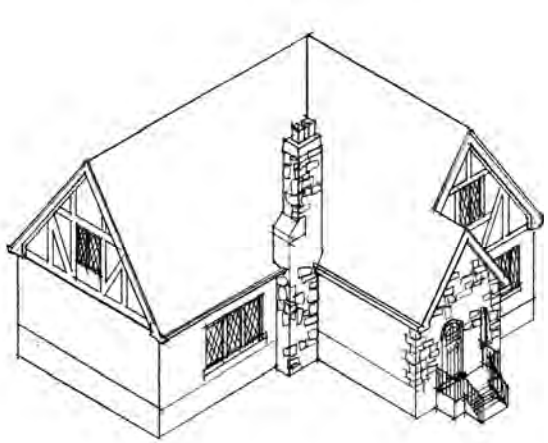






558 Hurd Ave

PERIOD REVIVAL
1900-1930



Decade of Change: House Design & Construction in the '30s

Around 1930 changes in the way houses were designed and built began to occur. Technologically, the manufacture and shipping of standardized products and assemblies began to supplant the local production of shop-built items. This process of standardization has accelerated ever since.

As an example, doors and windows are now factory produced, within a standard range of sizes and details. The designer chooses one, and applies it to a façade. Under the old method, the window design was drawn, based on a proportional scheme that applied to the whole building. The proportions may have come from an architect, or one of the popular 'pattern books', or from a builder's inherited rule-of-thumb. Each part, sashes and muntins and panels and trims, were made to suit the scheme. To a great degree, the grace of older buildings comes from the comprehensive quality of their proportional systems.

A change also occurred in the creation and marketing of 'styles'. The prior century had been extremely inventive in its eclectic approach to architectural history. Details from every era found their way into the various styles, each of which was nonetheless original. Just as proportion and composition lost ground, the idea of signified 'period styles' arose, the most popular being half-timbered Tudor. The buildings don't imitate history so much as they declare allegiance to it. This attitude is also still with us. The typical 'monster home' puts its 'history' out front, in the form of a disproportionately large porch or pediment or turret.


2094 Emerald Crescent


Locust

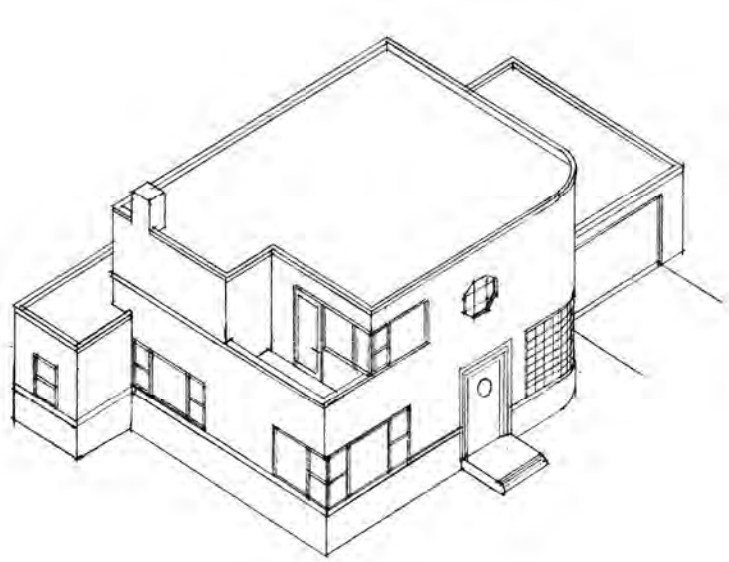

Emerald Street


535 Locust Street

Three Tudors and a Chateau. Some are quite elaborate. Others are simply decorated Cape Cod cottages.

2.1 Heritage Styles
Residential Buildings
20th Century Styles

ART MODERNE
1900-1930



Flat roof.

Asymmetrical plan, often with curved elements.

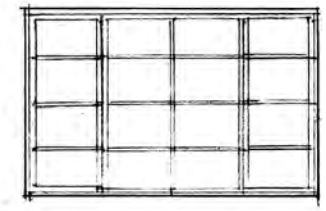
Stucco or painted brick cladding.

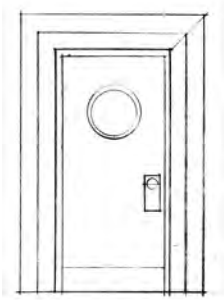
Picture windows ganged with double-hung windows. Window openings often wrap around corners. Glass block and steel "factory" windows sometimes used.

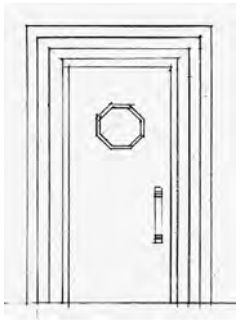
Octagonal or circular feature windows

Attached garage part of house form.

Typical Design Elements: for more information see Section 3.



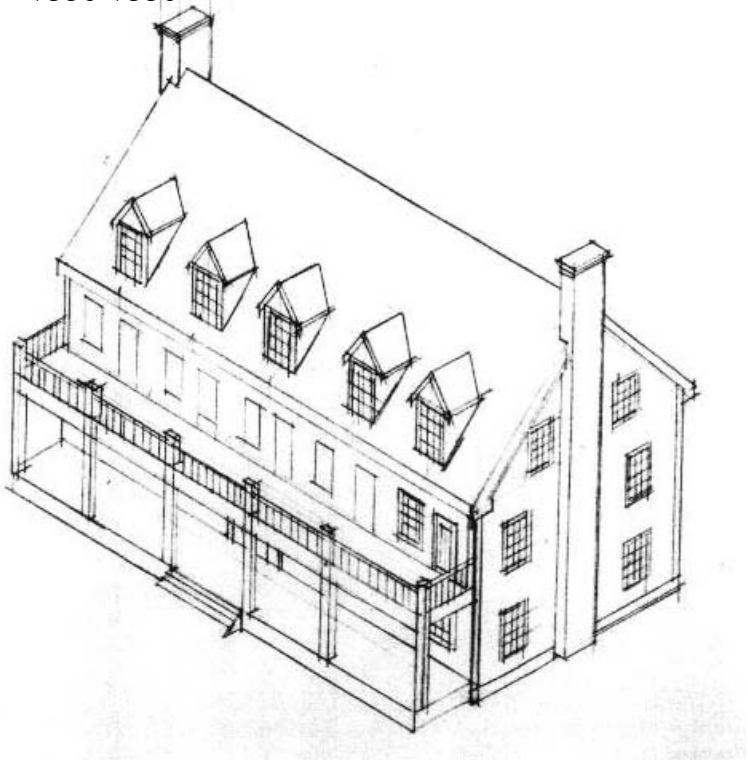






2036 Emerald Crescent

HOTELS AND INNS
1850-1880



Older hotels and inns tended to be as shown in the sketch on the left—long, side-gabled buildings, something like an expanded Georgian house.

Full width verandahs are very common.

Later hotels were built more along the lines of town shops, with flat roofs. Full width verandahs remained a common feature into the 20th century.



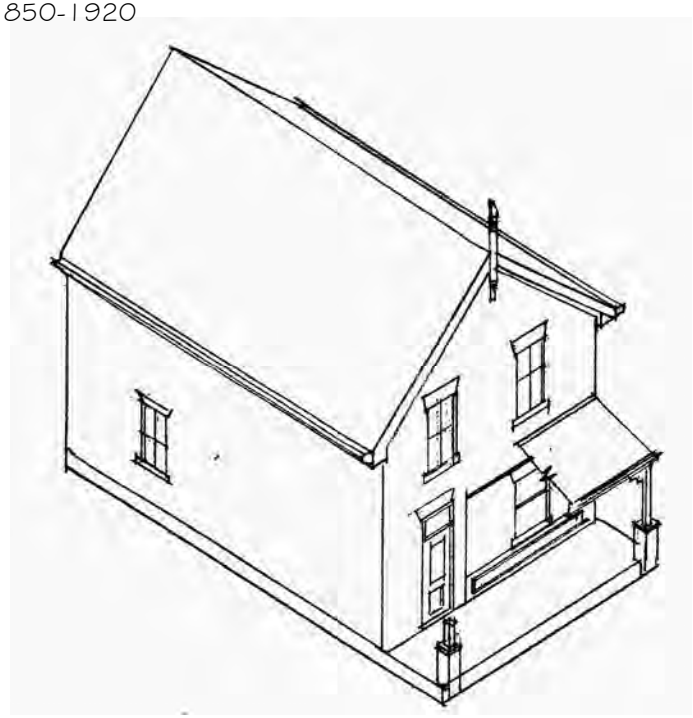
The Queen's Head



380 Brant Street

2.2 Heritage Styles
Commercial Buildings

VERNACULAR VILLAGE SHOP
1850-1920



Front-facing gable with steep roof—sometimes disguised by a "boomtown" false front.

Basic form is similar to the Homestead style house.

Display window might be as small as an ordinary window, or considerably widened.

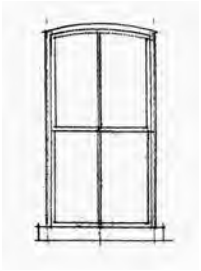
Full shopfronts often installed in later renovations.

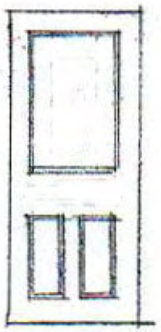
Early shops often had full-width verandah.

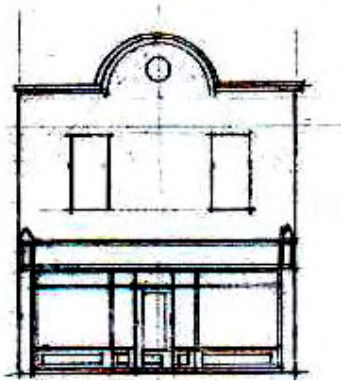
Windows usually square-headed, segmental arches sometimes appear. Double-hung windows, 1 over 1 or 2 over 2 with strong vertical proportions.

May be wood siding, brick or stucco

Typical Design Elements: For more information see Section 7.4.



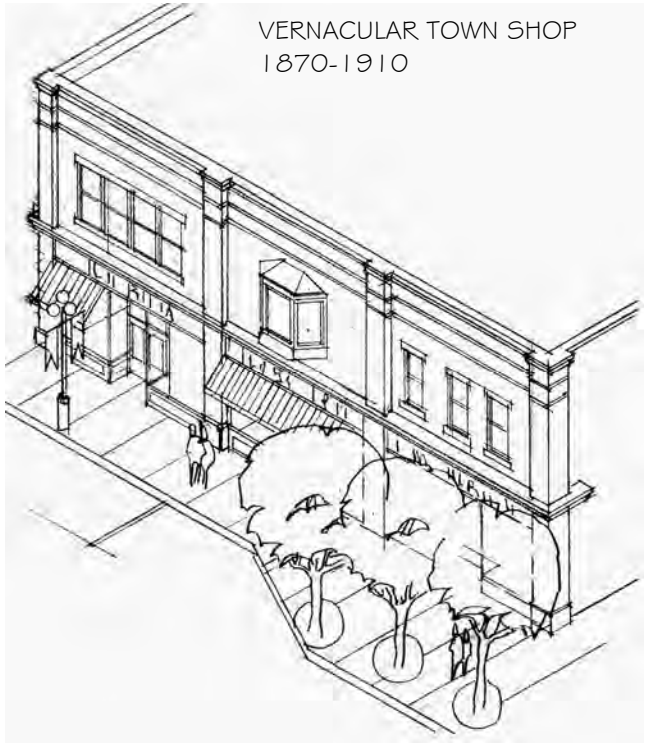






401 Brant Street

2.2 Heritage Styles
Commercial Buildings



Buildings consistently placed right on the street line.

2 or 3 storeys most common.

Usually a flat roof, or very low slope to the rear. Sometimes a very shallow gable roof.

Strong cornice line at top of façade, and strong cornice above signband over display windows.

Upstairs storeys commonly living quarters for shopkeeper of warehouse space for store.

Upper windows with strong vertical proportion.

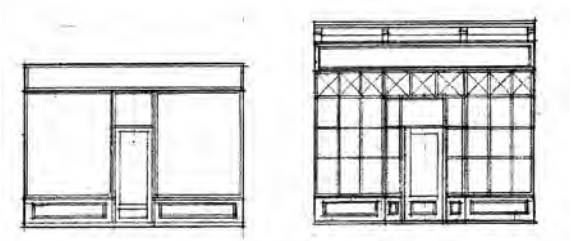
Masonry construction.



Lower Brant Street, 1918.

Typical Design Elements: for more information see Section 7.4.

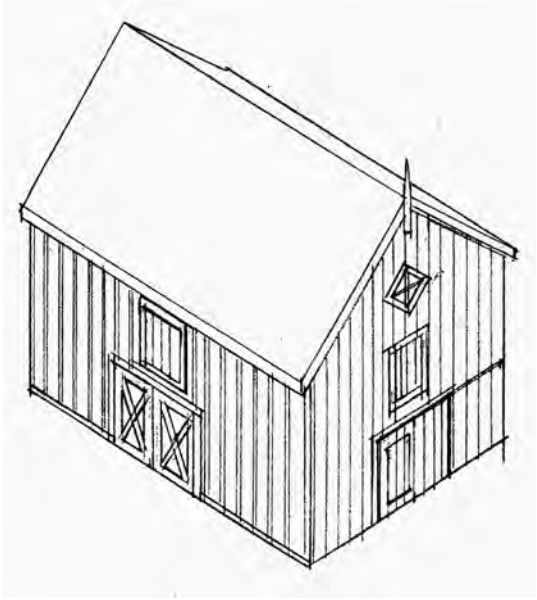






Lower Brant Street, 2005

GABLE- ROOFED TOWN-BARN OR STABLE
1850-1920



High slope roof, wood shingles or sheet metal.

Heavy timber frame with vertical wood siding, spaced for ventilation. Sometimes board and batten.

Upper loading door for hayloft, often with projecting beam crane for lifting in hay bales.

Sliding or hinged main doors, often with a small "man-door" within.

2.3 Heritage Styles
Agricultural and Service Buildings



450-452 John Street, 2005



450-452 John Street, before renovations. Their origins as service buildings was more obvious then than it is now.

2.4 Non-Heritage Styles
Residential Buildings

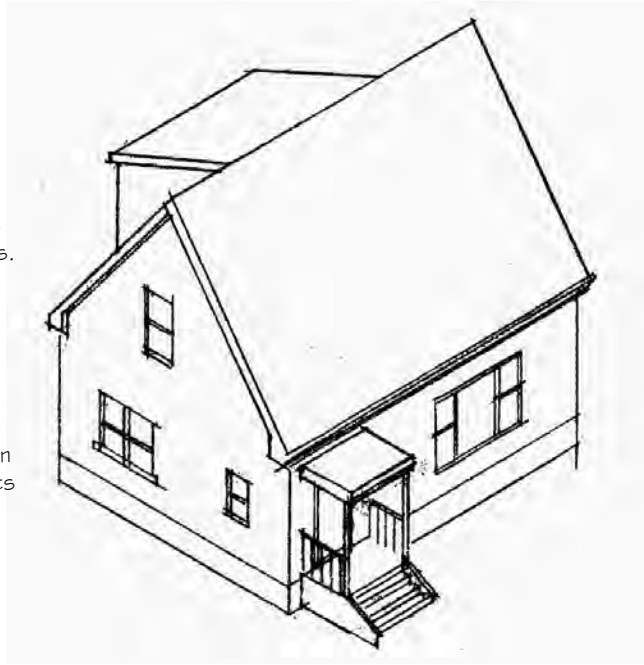
VICTORY HOUSE
1940-1955

Classic mid-20th-Century starter home, strongly derived from New England, hence Loyalist cottages.

Steep gable roof, 12:12, with asphalt or asbestos shingles.

May have gable dormers for upper floor, shed dormers often added later.

Foundations often on piles, with basements excavated later.



Variety of materials used: brick, stucco, clapboard, or asbestos siding.

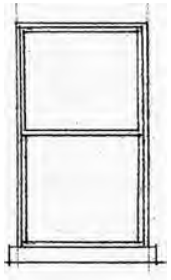
Often large fixed 'picture' window flanked by narrow double-hung windows 1 over 1.

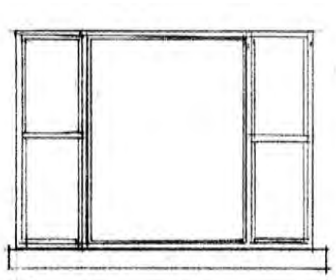
Compact plan 600 to 900 square feet. Non-symmetrical plan with entrance door to the side is usual in small plans.

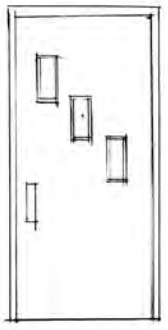
Larger plans may have centre door and centre hall.

Often a small entrance porch.

Typical Design Elements:





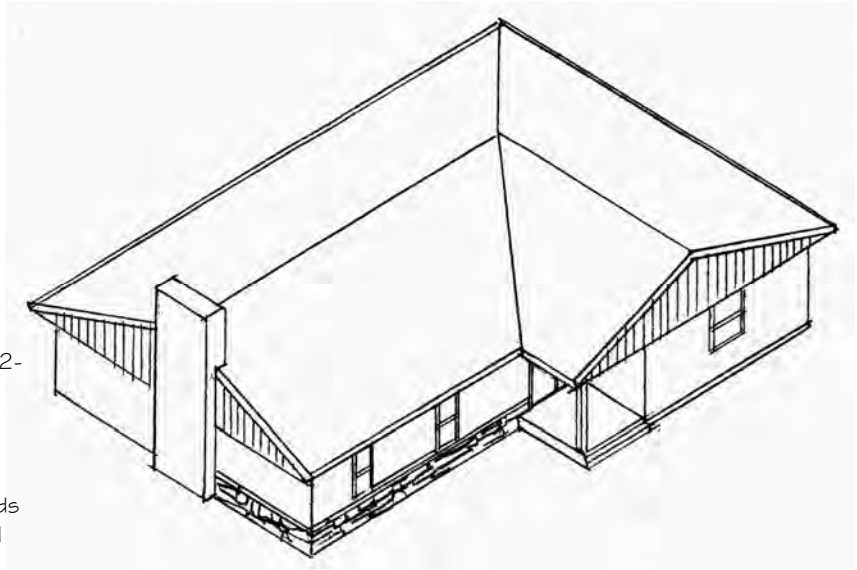




528 Hager Ave

2.4 Non-Heritage Styles
Residential Buildings

RANCH HOUSE
1950-1975



Low slope roof, 4:12, hipped or gabled.

Asphalt Shingles.

Wide eaves, with 2-4 foot overhang

Large Chimney

Often accent bands of stone or 'angel stone.

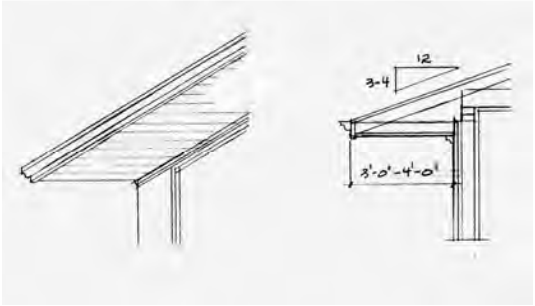
One-storey, informal plan.

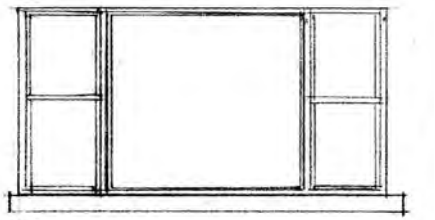
Garage or carport usually attached.

Usually brick veneer on frame construction.

Large fixed picture windows in principal rooms, flanked by operable windows; double hung or casement.

Typical Design Elements:

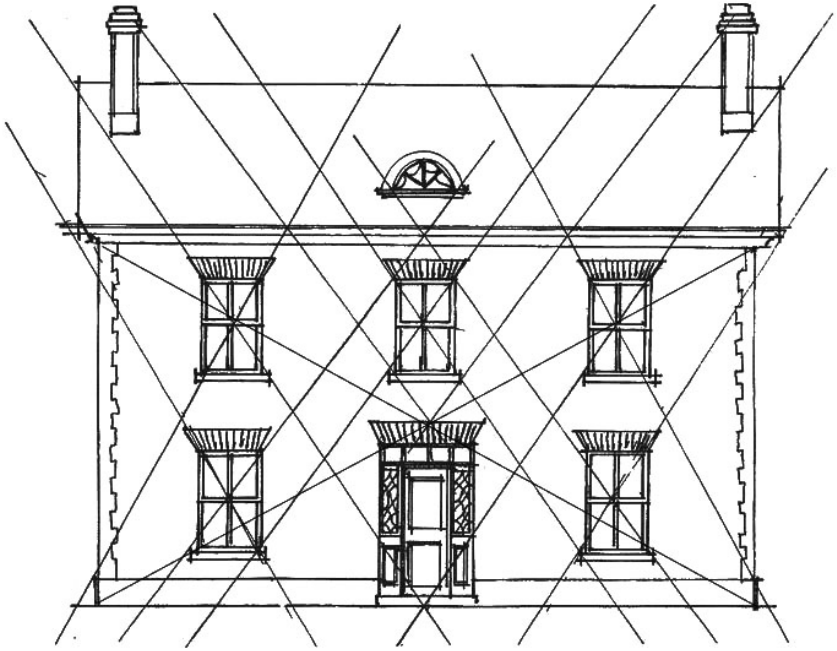






2093 Emerald Crescent

3. Heritage Design and Details



Geometry governed most heritage design. In this example, the diagonals of the window openings relate to significant elements in the elevation and to each other. The diagonals of the main wall relate to the windows and front-door keystone, as well.

If a building is pleasing to the eye, it is probably rich in such relationships.

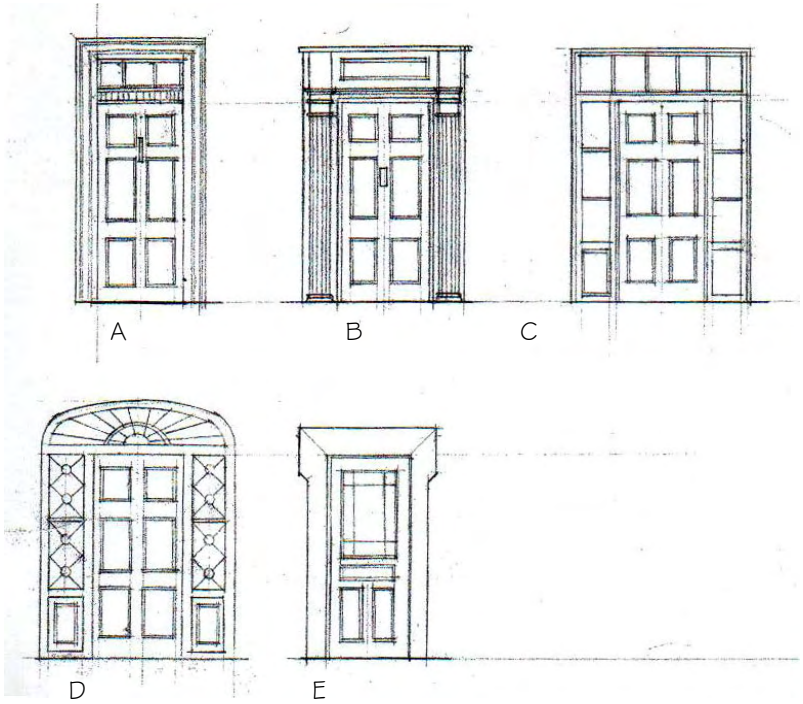
3.1 Introduction

The purpose of this Section is to provide further information and guidance about the design and construction of heritage buildings.

3.2 Composition

The elevations of heritage buildings, whether designed by an architect or by a builder using a “pattern book”, were usually laid out using geometrical principles and geometrically derived proportions. Knowledge of how heritage buildings were originally composed can be helpful in designing a new building that will fit well in the heritage context. See Section 8 for sources of further information.

3.3 Entrances and Doors



A. Solid panel door with transom and wood casing
B. Solid panel door with classical pilasters and architrave.
C. Solid panel door with transom and sidelights.
D. Solid panel door with decorative sidelights and fanlight transom.
E. Glazed panel door with divided light and eared casing.

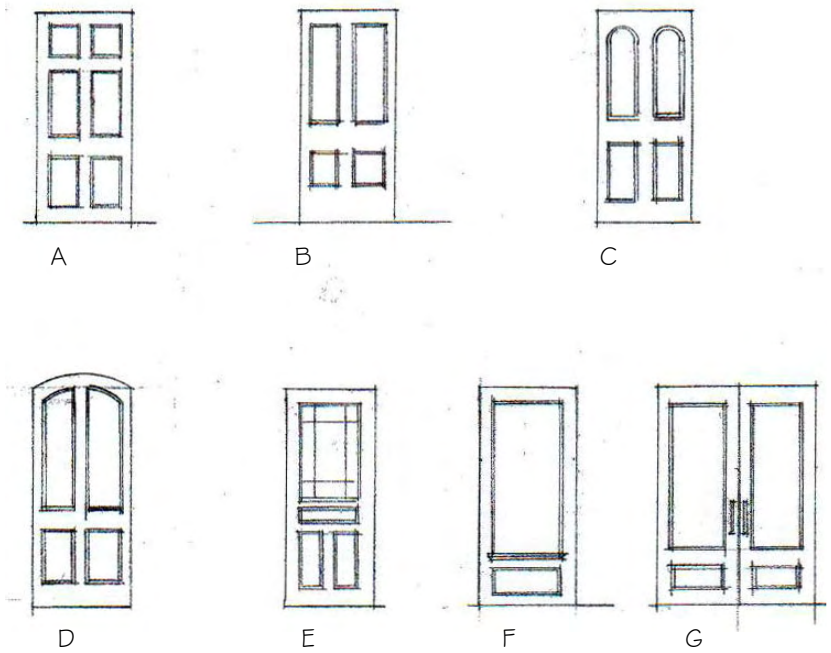
Entrances in heritage buildings are usually provided with some elaboration. In the simplest Georgian cottages this might only consist of fluted casings and a simple cornice, but a plain transom above the door was common.

Later styles made use of sidelights as well, which always had solid panels below the glazing.

The proportional scheme of the building governed the design, so that even ornate entrances did not overwhelm the building.

Entrance doors were not glazed until the Victorian era.

3.3 Entrances and Doors Cont'd



A. Cross and Bible Door
B. Four Panel Door
C. Arched Panel Four Panel Door
D. Arched-head Four Panel Door.
E. Glazed Wood Panel Door.
F. Fully-Glazed Wood Door.
G. Paired Fully-Glazed Wood Doors.

Log-cabin pioneers built simple plank doors, such as you would find on a barn, but as soon as skilled workers became available, doors were built in frame-and-panel construction.

Georgian doors tended to have 6 panels. The example shown at the top left is called a 'Cross and Bible' door, because the rails between the top four panels form a cross, and the two panels below are said to be an open book.

Later styles used 4-panel doors, with very tall top panels. These provide a vertical emphasis, in keeping with the Gothic Revival, Victorian Vernacular, and Italianate styles.

When large pieces of glass became available, around 1850, doors began to be glazed. In the simplest case, the two upper panels of a 4-panel door would receive glass, but the ability to glaze the full width of a door led to a variety of panel designs.

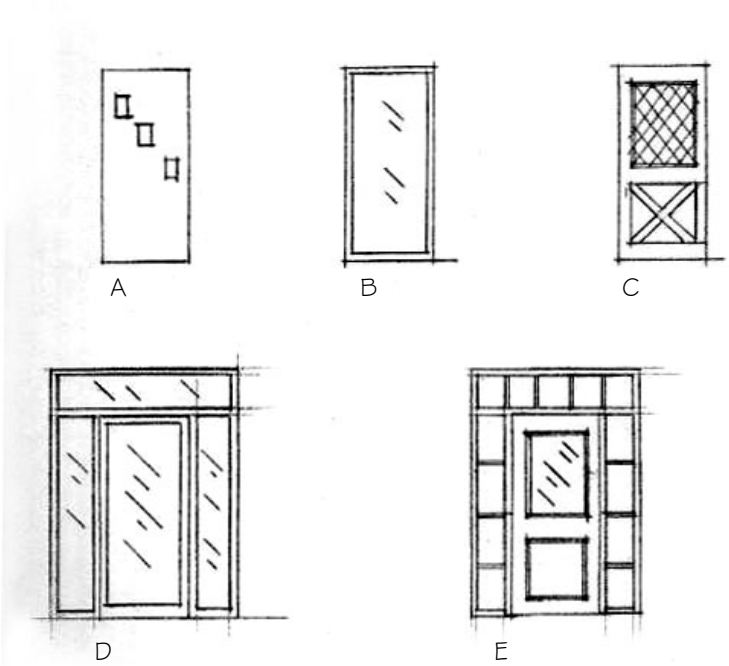
3.3 Entrances and Doors Cont'd



Inappropriate Designs

Modern door designs are not appropriate in heritage buildings, even when tricked up as "heritage" items.

Entrance systems like the one shown in the photograph are readily available and commonly installed. Although the basic proportions of this example resemble a Neo-Classical entry, the glazing is over-elaborated with coloured and frosted glass, and the glazing lead is represented by gold-coloured plastic or metal. Neither the glazing or the leading are authentic.



Door A is a post-World War II design.

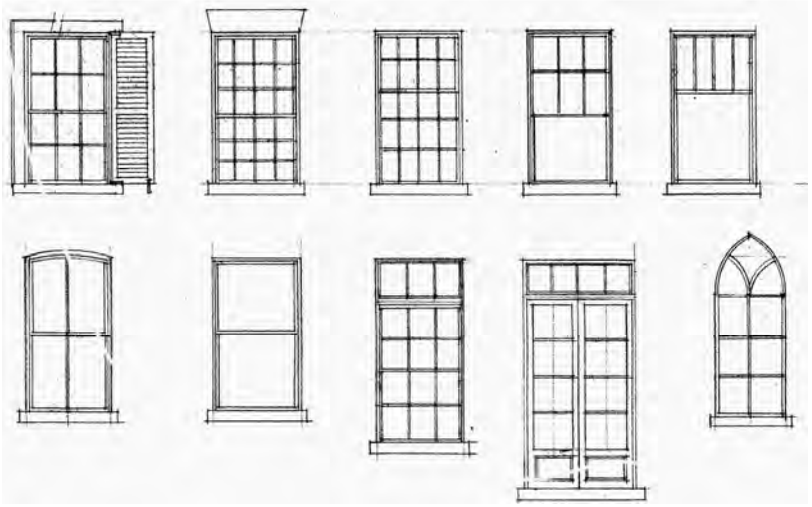
Door B is a modern metal framed door.

Door C pretends to be "rustic" but is not authentic to any style.

Door D is a modernized version of a classical entry.

Door E has a glazed door, which is not appropriate to the classical design of the entrance, and has glazing, rather than raised panels in the bottom frames of the sidelights.

3.4 Windows and shutters



Most heritage styles used double-hung windows, one of the great architectural inventions. Compared with the earlier casement windows, they didn't occupy space with their swing, and didn't bang around in a wind storm. Raising the lower sash and lowering the upper creates natural ventilation in hot weather—the hotter air near the ceiling venting out at the upper opening.

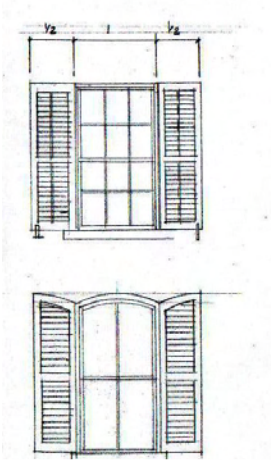
Double-hung windows are described by the number of panes, or lights, in each sash. If there are 6 panes above and 6 below, it's called a 6 over 6, or 6/6 window.

Before around 1850 the size of available panes was small, and the number of lights was large. Typical Georgian windows were 12/12. As glass technology improved, larger glass led to 2/2 and then 1/1 windows.

Later styles, such as Edwardian and Arts and Crafts, made use of both large and small lights, and 6/1 and 8/1 windows became common.

As a general rule, windows had more height than width, and the individual lights shared that vertical proportion. Glass that is wider than it is high is found only in very wide single light sash.

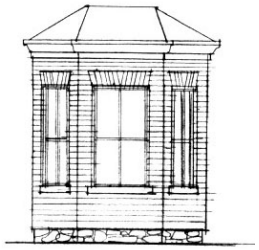
Casement windows appeared in only a few styles. Some Regency windows could be called casements, though they are more like French doors, with sills barely above the floor. The Craftsman style was the first Ontario style to use what we would call casements today.



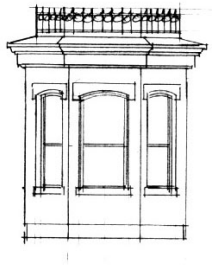
Shutters were provided to secure windows from storms and damage, and they were designed and installed to close the window opening. They are hinged at the window jamb, and each shutter covers exactly half of the opening. Usually they were louvred.



Classical Revival



Victorian



Victorian, Italianate,
Second Empire

Sometimes a pair of narrow windows would replace the single central window in the Italianate Style.

3.5 Bay Windows

Bay Windows provide visual interest on the exterior and create a well-lighted nook on the interior. They appear on a number of historic styles, but not all. There is a tendency to overuse them in new buildings, when they are not appropriate to the overall architectural style. Care should also be taken to use window shapes and glazing patterns suitable to the overall architectural style.

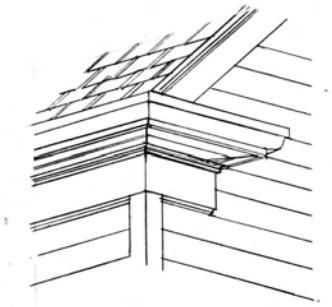
Most bay windows in most styles are angled, usually at 45 degrees, but some styles used square bays.

In Downtown Burlington, most bay windows are on the ground floor only, but some go the full height of the house. Most bay windows extend to the ground.



The square bay windows at 472 Burlington Ave are particularly light in proportion, and have elaborate decoration in the frieze above the window heads.

3.6 Gable Ends



Classical Styles



Victorian Gothic



Queen Anne Revival
Gable Peak

The classically-based styles, such as Georgian and Classical Revival used fairly plain bargeboards. A plain board, with perhaps a small ogee moulding on the upper edge, was the most common design. The eaves would include a wooden gutter in the shape of a wide ogee-moulding. This shape was later replicated by sheet-metal eaves-troughs. Below this was usually a fascia board, sometimes with additional moulding at the top, or perhaps dentils. The fascia and mouldings typically turned the corner at the gable end as shown in the upper sketch, in what is called an eaves return.

The Victorian Gothic styles used elaborate bargeboards in a wide variety of forms—what has come to be called “gingerbread”. Sometimes these were sinuous shapes cut out on a scroll saw. In other cases pierced patterns were cut into a simpler board. A common feature was a finial at the peak, as shown in the middle sketch. There are often characteristic local styles in Victorian trim, and it is worthwhile to look at existing trim on neighbouring buildings to ensure authentic design.

It is good practice to repair or replace historic gingerbread in the original pattern. Historic drawings or photographs, or nearby local examples can be used as sources for an authentic design.

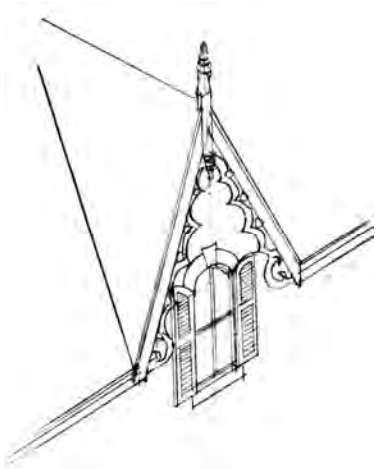
The Queen Anne Revival style tended to use built-up detail, with square panels and round medallions applied to a plain bargeboard. The peak of a gable was often given an ornate decoration of built-up work, as shown in the lower sketch.

3.7 Dormers

Dormers provide useful light in attic spaces, and as described in Section 2.1, the use of an attic avoided the higher taxes on a two-storey house in the early 19th Century.

Victorian Gothic Dormers rise from the main wall of the house, and are not set back from the roof. When the bargeboard meets the main eaves they are usually considered gables rather than dormers.

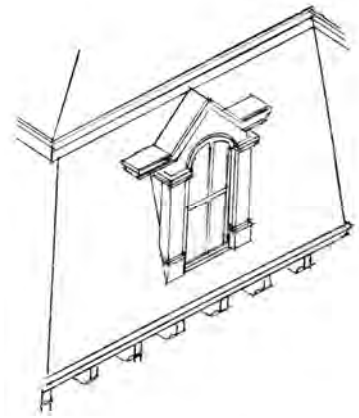
In Downtown Burlington, roof dormers appear on many 19th and 20th century styles. Care should be taken to use dormer types, window shapes and glazing appropriate to the architectural style.



Victorian Gothic



Edwardian



Second Empire

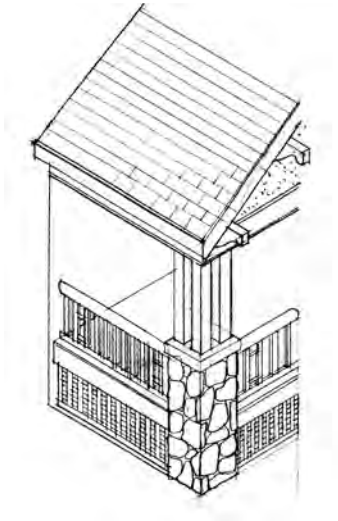


Craftsman/California Bungalows



California bungalows tend to have low, wide dormers. This example at 514 Pearl has a shallow shed roof. Shallow gables and hipped dormers are also common in this style.

3.8 Porch Designs



Arts and Crafts

Rustic timber columns, often clustered, often on rubble base.

Sense of exposed carpentry, with exposed joist tails, often cut to form a bracket.

Balusters often installed with thin face outward, often bunched in groups of 2 or 3.



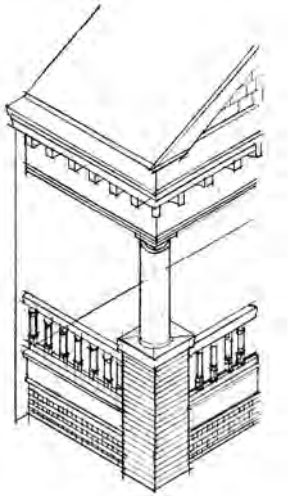
Victorian Gothic

Wood columns, often turned.

Ornate “gingerbread” brackets.

Often with metal roof, often “bell-cast” shape.

Balusters on railing usually square.



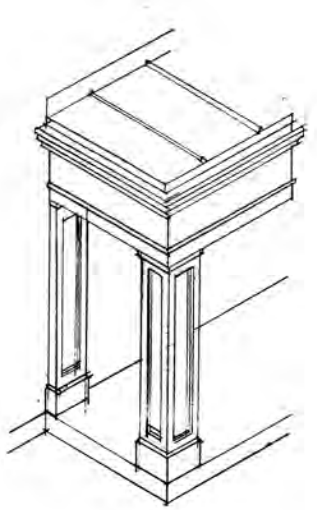
Edwardian Styles

Classical columns on stone-capped brick piers.

Front-facing pediment or hipped shingle roof.

Classical detailing like column capitals and dentils.

Balusters on railing turned or bellied.



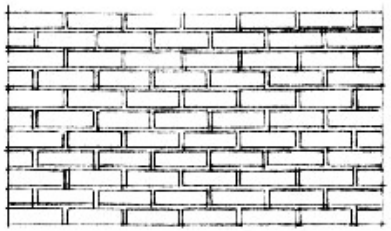
Georgian

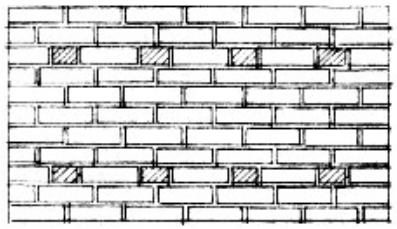
Wood columns, round or square classical design.

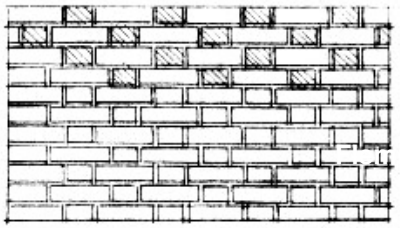
Columns may be plain or fluted.

Flat metal roof or front-facing pediment.

3.9 Brickwork



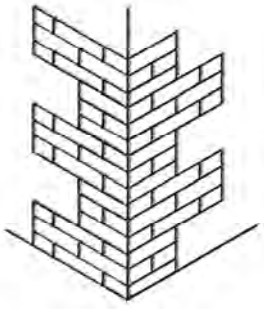




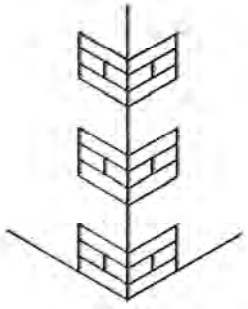
Historic brick walls were solid masonry, and in order to carry the weight of floors and roofs they were two or more bricks thick. It was structurally necessary to tie the inner and outer wythes together, and the simplest and surest way to do this was to put headers across the thickness of the wall at some regular interval. The pattern in which the bricks are laid is called the "bond".

Modern brickwork is usually a veneer in front of a frame or concrete block structural wall. The veneer is typically tied to the structure with metal ties, and there is no structural need for headers. Because it's quick and easy, the running bond, shown at upper left, is commonly used for modern brick veneer walls.

Historic bonds, which use headers, provide a subtle but lively texture to a wall. The cost of laying one of the historic bonds by using half-bricks to replicate the headers is extremely small, and it is a simple way to maintain heritage character in new construction.



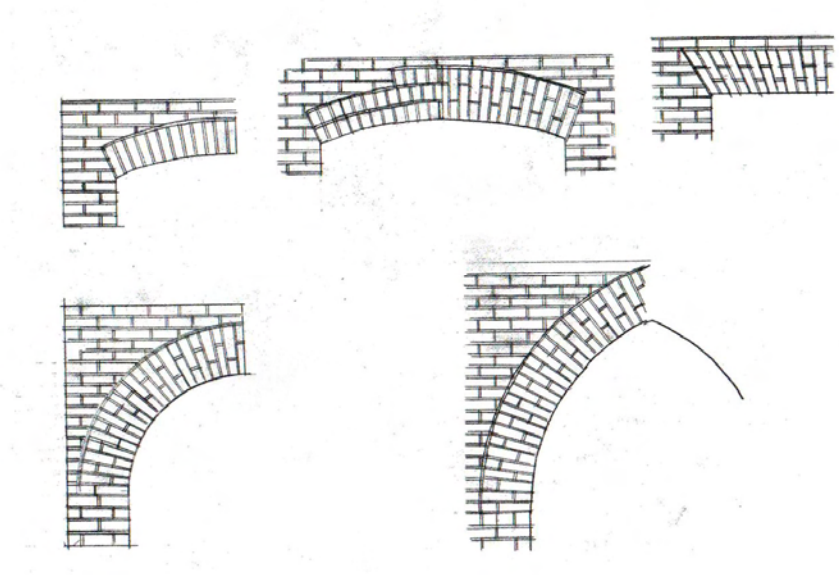
Correct Quoining



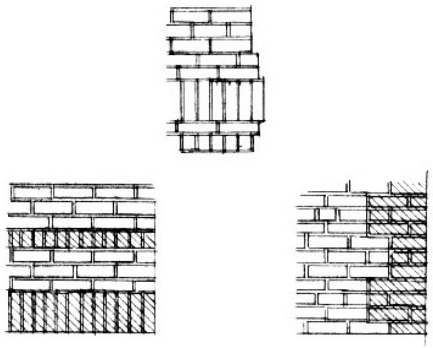
Incorrect Quoining

Brick quoins imitate larger stone quoins, which interlock to strengthen the corner of a building. A quoin block has a short side and a long side, and brick quoins should be laid in the same form, as shown in the sketch on the left. The sketch on the right shows what not to do.

3.9 Brickwork Cont'd



Before the use of iron and steel in construction, lintels over structural openings in brick walls were either solid stone or brick arches. Modern construction commonly uses steel lintels, hidden by the brickwork. To create an authentic appearance, the bricks should be laid to replicate historic structural arches. It is common practice to use a simple soldier course above an opening, without the outward slant that provides arch action in an authentic arch.



Most brickwork on houses in Downtown Burlington is fairly simple. Only a few 19th-century buildings, such as St. Phillipe Church, and 472 Burlington, make use of contrasting coloured bricks for quoins and window heads. Use of shaped bricks for string courses or water tables is not very common.

19th-century commercial buildings often made use of more adventurous masonry details in the upper stories. New commercial and mixed use buildings should consider the use of colour, pattern, projecting and recessed courses, and special brick shapes. It's not unusual to find designers limiting themselves to quoins and soldier courses, but it makes a more authentic building to make use of the full variety of historic brickwork.

3.10 Wood Siding

Wood is thought to be a siding for very early buildings, or for modest houses. As the photographs on the right show, wood was used on grander and later buildings as well.

There is a variety of historic wood siding in Downtown Burlington. Clapboard would have been the most common, installed with about 4 inches to the weather. Shiplap siding, as on the Blathwayt House, was also used.

Wood sidings continued to appear on later style houses that were principally of brick construction. Gable ends and bay windows were often clad in clapboard, shiplap, or wood shingles. This is seen in the Queen Anne, Edwardian Arts and Crafts, and California Bungalow styles.

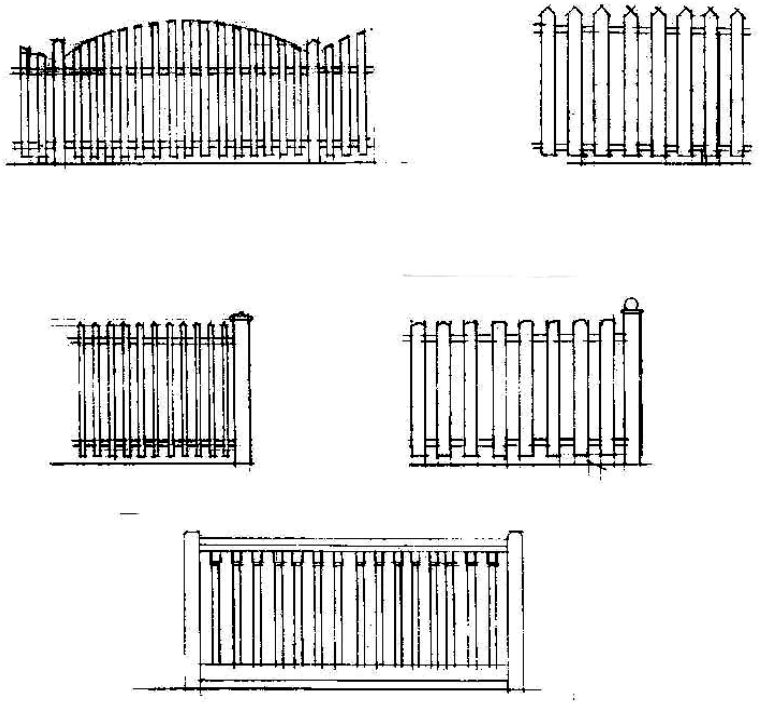
Wood shingles were also used for the main siding in Arts and Crafts, California Bungalow, Dutch Colonial and American Colonial Revival styles. There are examples of all of these in Downtown Burlington.





Two wonderfully eccentric wood houses on Ontario Street: A.B. Coleman's 'Gingerbread House' at No. 1375, and the Blathwayt House at 1436.

3.11 Fencing



Historical photographs of Downtown Burlington show little in the way of front-yard fencing, a situation that remains true today.

Early town fences were typically wood picket fences in various designs. By the late 19th century, iron fencing became available, but it was expensive and was only used on grander properties.

In general, front yard fences should be avoided. Where fences are used, they should be low, and historically consistent with the building.

PART C

Design Guidelines

Section 4. Building Burlington

4.1 Overview

Burlington has had an interesting history. Its economic base has evolved through many phases, beginning with grain and timber, and then as a port and ship-building centre in support of these exportable commodities. Grain was supplanted by fruits and vegetables and their supporting canneries. The creation of the railroads, and particularly the Radial, allowed central Burlington to become a desirable residence for Hamilton's middle class. In the past half-century, Burlington has developed as an office and light industry centre, and modern transportation has allowed Burlingtonians to find employment farther afield. In each of these historic phases, characteristic buildings were constructed in Downtown Burlington, and examples from every era still survive. The variety of architectural styles, within such a compact area, is remarkable.

In addition to its built heritage, Burlington possesses desirable aspects in its natural heritage: the lakefront setting under the escarpment, the little creeks, and the fine mature urban forest. These are all enhanced by the evident passion for gardening on the part of the residents.

Taken all together, the natural and cultural heritage of the Downtown Mixed Use Centre create a special area, with a distinct character, within the larger municipality of Burlington. These guidelines are designed to serve as a reference for anyone contemplating alterations or new development in Central Burlington. They are intended to clarify and illustrate, in a useful way, how to preserve the recognizable heritage characteristics found in Downtown Burlington.

The Guidelines examine the past in order to plan for the future. They recognize that change must and will come to Downtown Burlington. The objective of the Guidelines is not to prevent change, but to ensure that change is complementary to the heritage character that already exists, and enhances, rather than harms it.

The real guidelines are provided by the existing heritage buildings and the character of their settings. The best test of new work is whether or not it shows "good manners" towards its heritage neighbours and neighbourhood.

Guidelines:

- The intent of the Guidelines is to preserve the existing heritage character of Downtown Burlington, which is widely appreciated by the citizens.
- **It is recommended that design professionals with experience in heritage design and restoration be retained for work on heritage buildings in Central Burlington.**

4.2 Heritage-based Guidelines

4.2.1 Governing Concepts

These Design Guidelines are based on the concepts of preserving the existing heritage buildings, maintaining their character when they are renovated or added to, and ensuring that new development respects the qualities of place established by the existing heritage environment, in accordance with the provisions of Official Plan Amendment 55.

The Guidelines are to be used in conjunction with the Heritage Design Handbook in Part B, which provides detailed and illustrated information on the architectural styles found in Downtown Burlington, and heritage design details.

Over the years, many buildings have lost original detail such as trims, doors, and windows. The Handbook will be helpful to owners who want to restore original character, or who want to maintain what remains. It will assist in designing additions that respect the original style of the building. And it will provide a basis for **authentic** local historic references in the design of new buildings.

The Design Handbook is also a tool for looking at the existing heritage buildings, which offer the best guidelines of all: they are full-scale and in three dimensions. The best test of new work in Downtown Burlington is whether or not it shows “good manners” towards its heritage neighbours and its neighbourhood.

The design Guidelines are divided into the following sections:

Guidelines for Existing Heritage Buildings
- Maintenance
- Renovation
- Additions

Guidelines for Existing Non-Heritage Buildings

Guidelines for New Development
- Overall objectives and guidelines
- St. Luke’s and Emerald Precincts
- Downtown Core and Wellington Square Precinct
- Old Lakeshore Road Precinct

Section 5. Existing Heritage Buildings

5.1 Overview

Burlington is fortunate in having numerous historic buildings, most of which are structurally sound, with original architectural details largely intact in many cases. In other cases, details are in need of maintenance or repair, or have been obscured or removed in previous renovations. This section aims to assist in the preservation of historic architecture, and the restoration of lost or concealed heritage character, through design that follows the original or is at least sympathetic to it, when new work is undertaken.

Guidelines:

- The existing heritage structures are the most significant elements of the heritage character of Burlington.
- As noted in Section 1, above, OPA 55 mandates the identification and conservation of significant heritage resources throughout the Downtown Mixed Use Centre.
- Proper maintenance of heritage structures prevents deterioration, and is the most cost-effective means of preserving heritage character.
- When heritage features are damaged or deteriorated, repair and restoration are preferable to replacement.
- New construction should not damage or conceal heritage features.
- New construction should include restoration of heritage features that have been lost or concealed by previous renovations.

Historical photographs can provide documentary evidence of original construction. This photograph, dated about 1920, shows the east side of Brant Street just north of Lakeshore.



5.2 Historical and Technical Research

The original state of existing heritage buildings should be researched before work is undertaken. On-site investigation often reveals original details concealed under later work. The Burlington Historical Society has placed an enormous collection of historical photographs in the Public Library. Almost two thousand of the images are available on the website.

Maintenance, repair, replacement and restoration work should be undertaken using proper heritage methods. Modern materials and methods of construction can have detrimental effects on old construction if proper methods are not used. This is particularly true of old brick. Section 8 lists some books containing relevant technical information.

The United States National Parks Service publishes *Preservation Briefs*, with detailed 'how-to' information on many aspects of heritage preservation and restoration. All 43 of these publications can be downloaded from: www.cr.nps.gov/hps/tps/briefs/presbhom.htm

The Ontario Ministry of Culture also has 13 *Architectural Conservation Notes* at: www.culture.gov.on.ca/english/culdiv/heritage/connotes

5.2.1 Recording Original Construction

It is important to build up the record of historic construction in the downtown. No reconstruction or removal of historic architectural detail should be undertaken without recording the original with drawings and/or photographs. Copies of these records should be given to the Heritage Burlington at the City of Burlington. Building such an archive of information is an important community effort.



5.3 Building Maintenance

The principal enemies of existing heritage buildings are fire and water. Proper maintenance is the best way to prevent damage and deterioration from these causes. **The loss of heritage detail and even entire buildings, due to simple neglect, is an avoidable tragedy.**

Standard fire-prevention practices should be followed: check electrical systems, and don't overload circuits; ensure that heating systems are in good condition; store combustibles properly.

Roofing, flashing, and rainwater drainage should be maintained in good condition. Inspect these items annually. Ensure that slopes drain water away from foundations. Prevent water vapour damage by maintaining adequate ventilation of roof spaces, and installing insulation with a proper vapour retarder. It is far better to keep moisture out of the building, than to deal with the damage later.

Structural damage that admits moisture, such as settlement cracks, should be promptly repaired.

Painted woodwork should be maintained.

5.3.1 Masonry Cleaning

Masonry cleaning should be done in a non-destructive manner. Ontario bricks are soft and subject to deterioration by harsh cleaning methods. Good results can usually be obtained with detergents and water and a stiff natural-bristle brush. Some professional water-borne chemical agents are acceptable. Sand-blasting and high-pressure water blasting are destructive to the skin of the brick, and lead to future deterioration.

Historical photographs show that most original masonry in Burlington was unpainted. Unless paint can be historically documented it should not be applied, and existing paint should be removed. Paint may be applied only where deterioration of the masonry leaves no other choice. Paint must be vapour-permeable (breathing-type) to prevent deterioration. See illustration at right.

Preservation Briefs has full information on proper materials and methods. See Section 5.2 for website.

Guidelines:

- Clean masonry using detergents and a stiff natural bristle brush. If this doesn't produce satisfactory cleaning, use only professional water-borne chemical agents for further cleaning.
- Do not use sand-blasting or high pressure-water for masonry cleaning or paint removal.
- Do not paint historic masonry unless deterioration of masonry leaves no other choice.
- If masonry must be painted, use an appropriate breathing-type paint.



Non-breathing paint on brick. The vapour pressure of moisture in the brick blisters the paint, when it is able. If the paint adheres strongly, the pressure causes the brick surface to spall off, along with the paint, as seen in the centre of the picture. This lets in even more moisture, and the problem grows.

5.3.2 Masonry Repointing

Historic lime mortars weather back from the wall face over time, particularly when they are subject to moisture. This is normal, and repointing is only necessary when the mortar is deeply eroded. Repointing should only be undertaken in areas where the mortar has deteriorated. Don't remove sound mortar unnecessarily, but do poke and prod to make sure the mortar you are keeping is sound. If the pointing mortar is correctly formulated, and the joint is tooled to match the original, the repointing will not present a "patchy" appearance.

Historic lime mortar is softer and more water-permeable than modern portland cement mortars, and it preserves the brick by absorbing movements and providing a path for water to leave the wall. Modern Portland cement mortars are designed for modern hard-fired bricks, and are highly destructive to softer historic bricks. The colour of historic mortars comes primarily from the colour of the sand in the mix, so care is required to establish a matching appearance.



Progressive deterioration: The mortar was eroded due to rainwater splashing on the porch and steps. Failure to repair allowed more and more water into the masonry. The bricks below the failed mortar are now spalling and washing away. Neglect has turned a minor maintenance job into a major repair project.

Guidelines:

- Repair structural damage before repointing. Structural cracks may be letting in the moisture that is eroding the mortar.
- Do not use power tools to remove old mortar. They can damage the weather-resistant skin of the brick and cause future deterioration of the wall.
- Use lime mortar for repairs and repointing of historic brick. Match the original in formulation, with a cement content no greater than one-twelfth of the dry volume of the mix; the cement must be white portland cement and not grey.
- Do not treat historic brick with silicones or consolidants. They trap water vapour behind the surface of the brick which may damage the face by freezing or the leaching of salts.

5.3.3 Painting Woodwork





Properly maintained and protected woodwork is a very durable building material. Deterioration of wood is almost always due to moisture problems: either a failure of the paint film or a problem, such as a flashing or roofing failure, that allows moisture to infiltrate from above and behind the finish surface. Blistering or peeling paint is usually a sign of moisture penetration. The source of the moisture should be identified and corrected before repainting. Refer to Section 5.4, below, if repairs are necessary before repainting.

Normally, it isn't necessary to remove sound, well-bonded paint before repainting. Paint removal, when required, is best done using gentle traditional methods. Chemical strippers can impregnate wood and harm the bonding ablility of new paint, and excessive heat can cause scorching damage.

Guidelines:

- Inspect existing paint. Blisters or peeling paint usually mean water is getting into the wood, and the source of water should be corrected.
- Don't "strip" woodwork, unless paint build-up is excessive and obscures architectural detail. Just remove loose paint and feather edges.
- Don't use chemical strippers or torches to remove paint. These damage the wood and cause future problems.
- Use suitable heritage paint colours. Original paint colours can usually be found by sanding or scraping through overpainted layers. Otherwise, most paint manufacturers have good heritage palattes.
- Both *Preservation Briefs* and *Architectural Conservation Notes* have information on painting. See Section 5.2. for websites.

5.4 Repair and Restoration

Repair and restoration should be based on proper heritage research, and be undertaken using proper heritage materials and methods. Section 8 lists helpful sources of information.

5.4.1 Brickwork

Brick repair should be undertaken using proper heritage materials and methods. If available, salvaged bricks matching the original should be used for replacement material. If new bricks are necessary, they should match the original in size, colour, and finish. The traditional Ontario brick size is still manufactured, but in small quantities, so material may have to be ordered well in advance of the work.

Historic bricks require the use of historic lime mortar. See the notes and guidelines in Section 5.3.2, under masonry repointing.

Guidelines:

- Repair structural damage before restoration.
- Use matching bricks for repairs, either salvaged old material or the best modern match in size and colour.

5.4.2 Stonework

Spalled stone can be restored using professional epoxy-based fillers matching the underlying stone. More serious deterioration will require replacement by new material, matching the existing. Use of precast concrete to replace stone is discouraged.

5.4.3 Roofing

Heritage buildings might have originally had wood shingles, slates, or sheet metal roofing. Very few of the original roofs remain, and the asphalt shingle is the dominant roofing material in Burlington today. In re-roofing heritage buildings, care should be taken to choose a material that relates to the original roofing. If asphalt shingles are selected, colours should be black or a dark grey, like slate or weathered cedar. The use of textured premium grades improves the simulation, and synthetic slates and panelized synthetic cedar shingles can present a very realistic appearance. Note that roofing tiles are not part of the local vernacular, and tile or simulated tile (of concrete or pressed steel) are not appropriate.



468 Locust Street. With occasional maintenance, the wood "gingerbread" trim and windows have lasted about 130 years. So far.

5.4.4 Wood Frame Construction

The earliest buildings were of log construction but were quickly supplanted by wood frame construction. Over history, original siding materials would have included wood clapboard, board and batten, and more rarely, stucco. Agricultural buildings used vertical boards. The heritage quality of many old buildings has suffered by the application of aluminum or other modern sidings. Renovations to wood frame heritage construction should include restoration of original siding materials when they have been covered by these inappropriate materials.

5.4.5 Decorative Woodwork

Deteriorated woodwork should be repaired, if possible, rather than replaced. Repairs should use the same wood species and design as the original. If replacement is necessary, it should conform to the original design, and wood should normally be used, rather than modern materials. Well-maintained and properly detailed woodwork is quite durable: much of the existing heritage decoration in Burlington has lasted more than a century. In certain situations, with extreme exposure to weathering, modern materials such as moulded plastics are acceptable.

5.4.6 Windows—Repair and Restoration



Original window frames and sashes should be repaired if possible, rather than replaced. Repairs should be limited to damaged portions of the window assembly. This is not only good heritage practice: it is usually less costly. Repair material should be of the same species and profile as the originals.

Historic wood windows perform very well in terms of life-cycle costing: many historic windows have lasted for more than a century, with only minor routine maintenance, such as puttying, painting, and the occasional adjustment of fit and hardware. It is unlikely that any modern replacements would venture to guarantee similar longevity. Historic windows can be energy efficient, as well. See the note below. . The addition of interior or exterior storm windows gives further energy savings, and eliminates or reduces the biggest problem of single glazing, which is cold-weather condensation.

A NOTE ON ENERGY EFFICIENCY OF WINDOWS IN HISTORIC BUILDINGS

Energy efficiency needs to consider the building as a whole. Simply comparing R-values of the glazing is highly misleading.

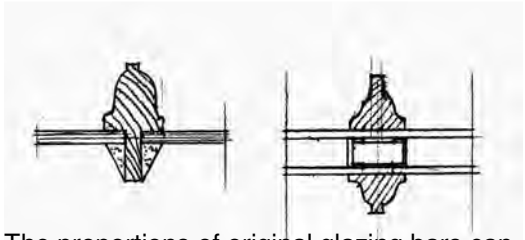
Heritage buildings were built when heating was difficult and cooling was unavailable. They had to make use of natural means to create comfort. Windows are small compared to modern designs. Attics and porches kept out summer heat.

The biggest energy losses occur through air leakage. The greatest energy savings come from weatherstripping openings and caulking exterior joints. Energy losses through the roof are the next in magnitude. Increasing the roof insulation is more productive than changes to walls and windows. Improving the rating of the window glass doesn't achieve significant overall savings: even the highest rated triple glass has an R-value similar to a completely un-insulated stud wall.

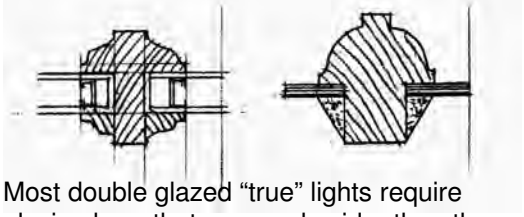
A recent speech by Donovan D. Rypkema, the foremost expert in the economics of preservation, noted that:

> Properly repaired historic windows have an R factor nearly indistinguishable from new, so-called "weatherized" windows.
>
> Regardless of the manufacturers' "lifetime warranties," 30 percent of the windows being replaced each year are less than 10 years old.
>
> One Indiana study showed that the payback period through energy savings by replacing historic wood windows is 400 years.[1]

A full discussion of energy considerations in historic buildings is available in Preservation Briefs No. 3. See Section 5.2 for the website.



The proportions of original glazing bars can be matched for double-glazed windows with bonded muntins with internal spacer bars.



Most double glazed “true” lights require glazing bars that are much wider than the originals.

If original windows cannot be repaired or restored, replacement windows are an option. If possible, replace only damaged portions; for example, replace the sash but retain the frame. Window design should match the original in type, glazing pattern, and detail. In many buildings, windows have been replaced, and it may require require some research to determine the original design. The descriptions in Sections 2 and 3 may be useful, or original windows in similar neighbouring buildings might offer a clue.

In recent years window manufacturers have responded to the market for authentic heritage windows. Catalogues now include round- and segmental-arch heads and a variety of glazing patterns, providing good representations of most historic styles.

Some care needs to be taken in detailing. Two common problems are heavy glazing bars, and horizontal orientation of the panes in multi-light sash.

True muntins for double-glazed windows are too heavy to preserve the proportions of original windows. Bonded muntins inside and out, with spacer bars in the air space, provide better proportions for an authentic appearance in most residential-scale windows.

Care is also is needed in the proportions of the “panes”, which should have a greater height than width. Depending on the manufacturer, and the size and type of window, the manufactured muntin grilles may not have correct proportions.

“Snap-in” interior muntins or tape simulations are inauthentic, and detract from the quality of a building.

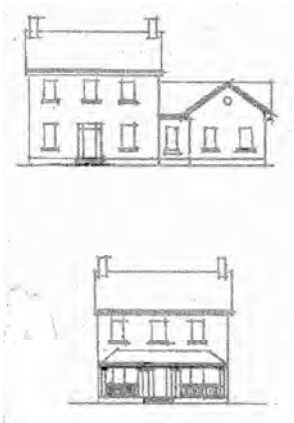
5.5 Renovations to Heritage Buildings

When a renovation on a heritage building is undertaken, it should be part of the renovation to remove later work that conceals the original design, or is unsympathetic to it. Note that in some cases, the evolution of a building means that later work may have become a character-defining element, and worthy of preservation in its own right.

Guidelines:

Incorporate restoration of original work in exterior renovation projects.

- Use authentic original materials and methods. For example, when replacing aluminum siding, use wood siding or board and batten.
- Replace missing or broken elements, such as gingerbread, spindles, or door and window trims.
- Remove items, such as metal fascia and soffits that conceal original architectural detail.



These additions follow the Georgian precedent of the original building.



These additions use styles that don't match the original.

5.5.1 New Additions to Heritage Buildings

Architectural Style

New attached additions to heritage buildings should be designed to complement the design of the original building.

Guidelines:

- Design additions to maintain the original architectural style of the building. See Section 2.
- Use authentic detail. See Section 3.
- Research the architectural style of the original building. See Section 8 for useful research sources.
- Follow the relevant guidelines for new construction in Section 7.

5.5.2 New Additions to Heritage Buildings
Scale and Pattern

New additions to heritage buildings should respect the scale of the original building, and the historical pattern of the Precinct.

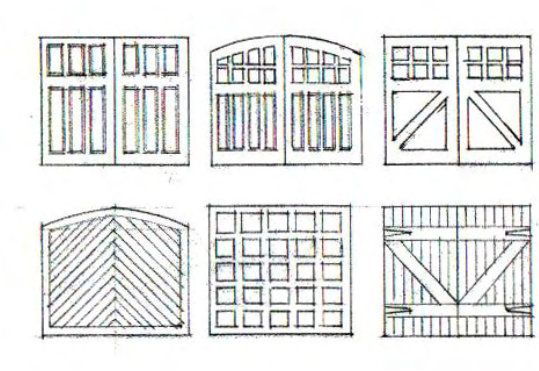
Guidelines:

- In siting garages, follow the guidelines in Section 7.3.1.
- Don't design additions to a greater height or scale than the original building.
- Don't design additions to predominate over the original building.
- Usually, additions should be located at the rear of the original building or, if located to the side, be set back from the street frontage of the original building.
- Avoid destruction of existing mature trees.

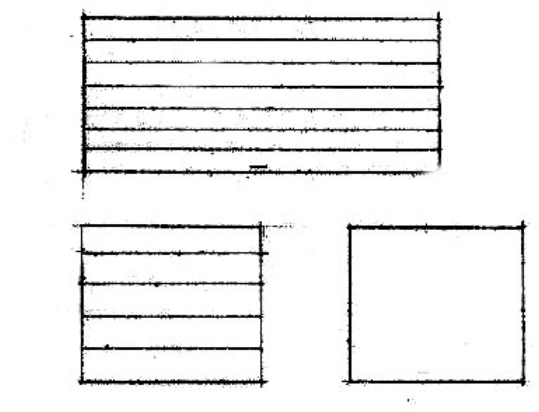


In keeping with good heritage practice, these additions are of lesser scale than the original house and are set back from the main front wall.

5.5.3 Outbuildings for Heritage Buildings.



Garages should be designed with single bays, and doors should reflect historic designs. There are now a wide range of heritage-compatible doors available from many manufacturers.



Double-bay garage doors and flat slab-type garage doors are not appropriate.

Traditionally, garages or stables were built as separate rear outbuildings with gable or hipped roofs.

Guidelines:

- Work on existing heritage outbuildings should retain or restore original design features.
- In siting garages, follow the guidelines in Section 7.3.1.
- Design garages to traditional outbuilding forms, with gable roofs, and frame or brick construction.
- Use single-bay garage doors, compatible with traditional designs. Suitably designed overhead doors are now widely available.

Section 6. Existing Non-Heritage Buildings

Many buildings in downtown Burlington are not considered heritage structures. Many of these, by virtue of their scale, siting, and surrounding landscaping, nevertheless contribute to the overall character of the area. Buildings deserve some respect on their own terms, and it is not the intent of the Guidelines to ask newer buildings to pretend to be anything other than what they are.

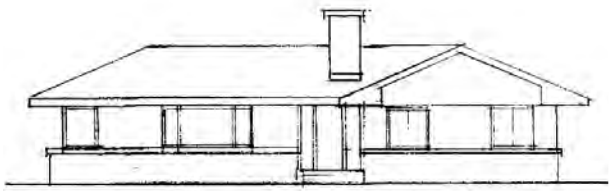
6.1 Design Approaches

Additions and alterations to non-heritage buildings have an impact on their heritage neighbours and the overall streetscape. There are two design approaches that are appropriate to additions and alterations to such work.

6.1.1 Contemporary Alteration Approach

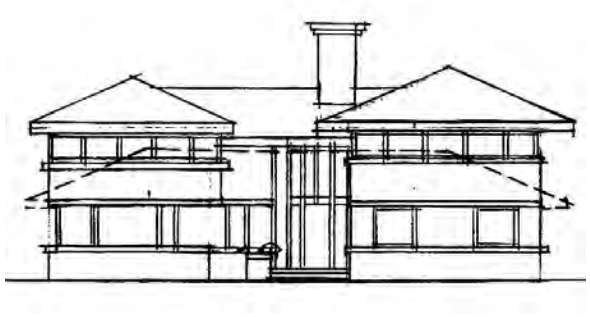
Ordinarily, a modern building should be altered in a way that respects and complements its original design. Interest in preservation of the modern architectural heritage is growing, and good modern design deserves the same respect as good design of the 19th century.

A typical 1970s ranch bungalow.



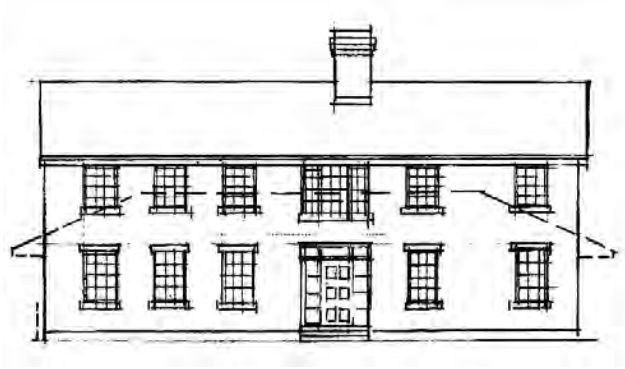
Guidelines:

- Additions and alterations using the Contemporary Alteration approach should respect, and be consistent with, the original design of the building.
- Many modern buildings are old enough to have already undergone renovations, which may not be in character with either the original design, or historic precedent. In such cases, the design of further new work should restore the architectural consistency of the whole.
- In some cases, modern buildings predominantly feature materials that are out of keeping with the local vernacular heritage, such as tile or artificial stone veneer, and tile or simulated tile roofing. Replacement of these materials with more sympathetic ones, when renovations are being undertaken, is encouraged.



The Contemporary Alteration approach used in putting on a second storey addition.

6.1.2 Historical Conversion Approach



The Historical Conversion approach used in putting a second storey addition on the same house. above.

In some cases, a modern building may be altered in a way that gives it the appearance of an older building. A historical conversion should have the integrity of an historical architectural style. This approach means considerably more than sticking on a few pieces of historical decoration; it may require considerable new construction to achieve an appropriate appearance. Nevertheless, when a building is surrounded with heritage properties, it can make a significant contribution to the local heritage character to use this approach.

Guidelines:

- Additions and alterations using the Historical Conversion approach should rely on a local heritage style described and depicted in Section 2.
- Use of a style should be consistent in materials, scale, detail, and ornament. Refer to Section 3.
- Refer to new construction guidelines in Section 7 for further guidance.
- Although most additions should be modest in comparison to the original building, the Historical Conversion approach may call for substantial additions in front of and on top of the existing building.
- Additions should avoid destruction of existing mature trees.

Section 7. New Development

7.1 Overview

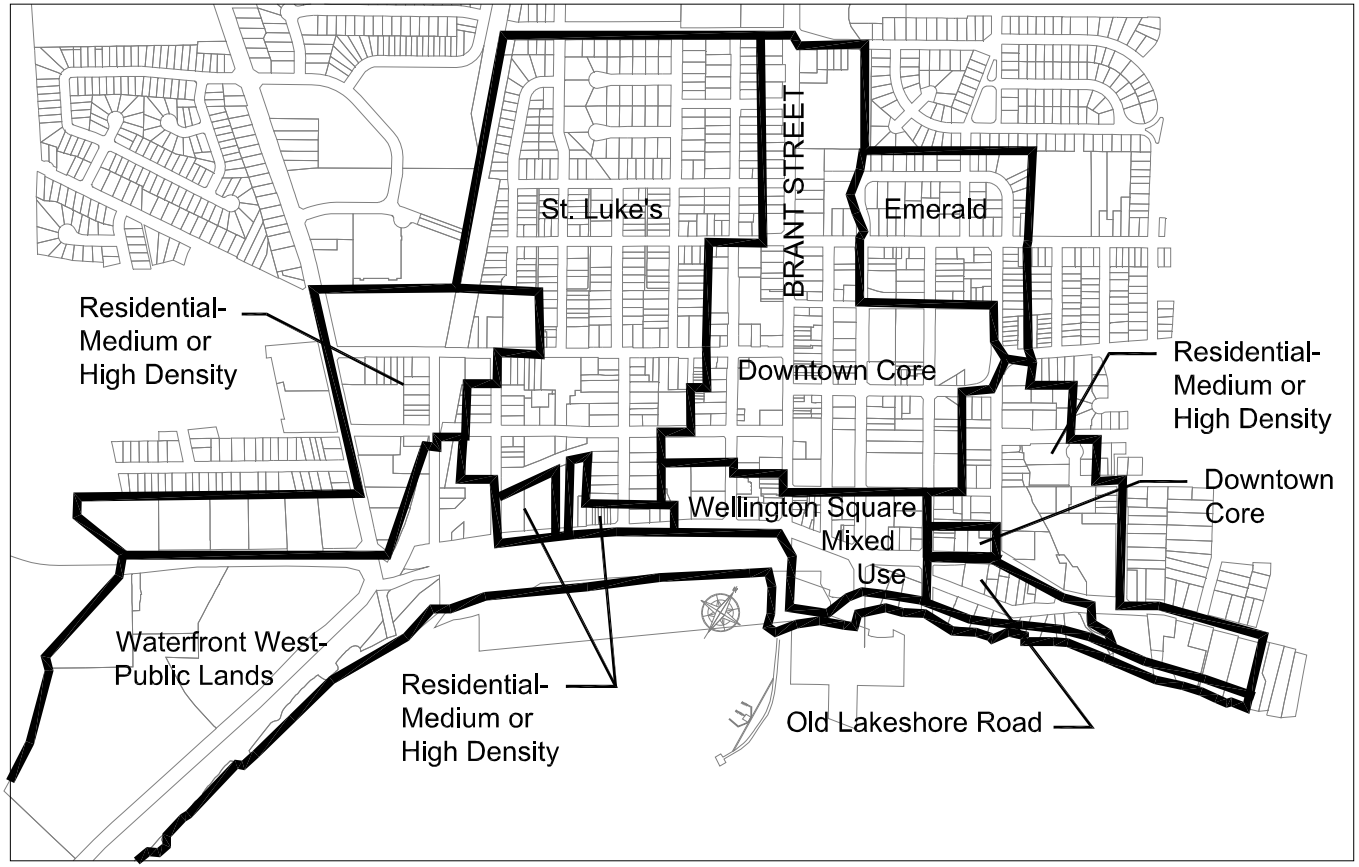
The overall heritage character of the downtown is composed of buildings, streetscapes, landscapes, and vistas. This overall character has more significance than any individual building, even if it is one of the finest. Within the design of any individual building, architectural elements contribute to the character of the public realm of the street. Massing, materials, scale, proportions, rhythm, composition, texture, and siting all contribute to the perception of whether or not a building fits its context. Different settings within the downtown have different characters of siting, landscaping and streetscaping.

New development should conform to qualities established by neighbouring heritage buildings, and the overall character of the setting. Designs should reflect a suitable local heritage precedent style. Research should be conducted so that the style chosen is executed properly, with suitable proportions, decoration, and detail.

Guidelines:

- As noted in Section 1, above, OPA 55 mandates that "The Downtown's cultural heritage resources shall be preserved and integrated into new development, where possible, and any development close to cultural heritage resources shall be sensitive to the historic context of the street, and not just of the immediately adjacent buildings, to maintain the character of established areas."
- New buildings should reflect a suitable local heritage style. Use of a style should be consistent in materials, scale, detail, and ornament.
- Use Section 2 for preliminary guidance on styles.
- Use Section 3 for further preliminary guidance on details of design and construction
- It is highly recommended that owners engage professionals skilled in heritage design for new buildings in the downtown.

7.2 Contexts



As outlined in Section 1.1, the Downtown Mixed Use Centre has been divided into several identified precincts. This Section provides guidelines for new development in three contexts, which differ in character and in the mandates provided by Official Plan Amendment 55:

- St. Luke's and Emerald Precincts
- Downtown Core Precinct
- Old Lakeshore Road Precinct

7.3 St. Luke's and Emerald Precincts
Overview

The St. Luke's and Emerald Precincts incorporate most of the historic residential areas in downtown Burlington. Most of the properties remain in residential use, but in St. Luke's, DC (Downtown Centre) zoning applies to much of the lands from Ontario Street southward. This zoning allows a variety of office, retail, and service uses, and the area is rich in important heritage resources. They should be conserved. It should be ensured that adaptive re-uses are compatible with the heritage attributes of existing heritage buildings.

Burlington tended to develop lot-by-lot, rather than through large subdivisions, which has resulted in a variety of styles, sizes, and ages of houses next door to each other. It's unusual to find more than a small group of similar houses on a given stretch of street.

In most blocks, the front yards are considerably shallower than the current zoning would allow. They tend to be consistent within a block frontage, although one side of the street may have deeper yards than the other. In most areas front yard trees are a prominent part of overall character.

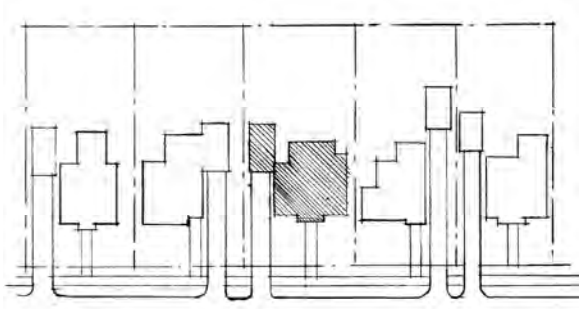


543, 547, and 549 Burlington Avenue are of different styles and dates. This individual pattern of development is typical of most of Burlington's history. The front-yard setbacks of adjacent buildings are nevertheless similar, and mature trees are an important part of the streetscape. All of these aspects are part of the overall character in most of the St. Luke's and Emerald Precincts.

7.3.1 Site Planning

Generally, within a given stretch of street frontage, there are consistent patterns of lot width, and front, side and rear-yard setbacks. These are an important part of the character of the street.

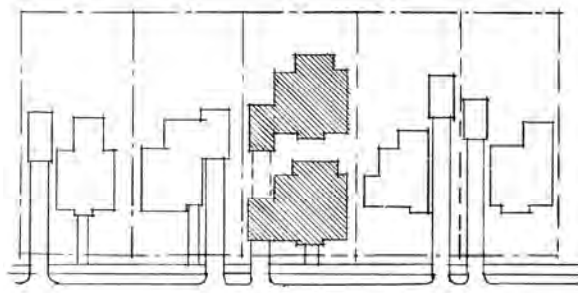
Traditionally, garages are separate outbuildings set well back from the street. Other than a few examples on Emerald Crescent, there are no garages in or near the main front wall of heritage houses.



Respect the existing site plan character of similar front-yard setbacks.
Place a new building to respect or mediate between setbacks of neighbouring buildings.
Set garage near back wall of house.

Guidelines:

- Site new houses to provide setbacks and frontages that are consistent with adjacent and neighbouring properties.
- Site new houses to preserve existing mature trees.
- Work on existing heritage outbuildings should retain or restore original design features.
- Site garages as outbuildings, or as attached near the main rear wall of a house.
- Design garages to traditional outbuilding forms, with gable roofs, and frame or brick construction.
- Where garage doors are visible, use single-bay doors, compatible with traditional designs.



An extreme difference in setback from adjacent buildings is not appropriate.
Projecting garages, and garages near front wall of house are not appropriate.

7.3.2 Architectural Style



It's possible to build new houses that are highly compatible with heritage buildings.
1383-1397 Lakeshore Road, above, and a single-family dwelling in Unionville, below.



New buildings in the residential precincts should reflect the historic built form of their historic neighbours.

Guidelines:

- Design buildings to reflect one of the local heritage Architectural Styles as described in Section 2.
- Respect the history of the development of the District by using a style suitable to the immediate neighbours. The St. Luke's and Emerald Precincts have a wide variety of styles. Some blocks are dominated by one or two styles, for example Hurd Avenue is mostly Edwardian, and Emerald Crescent has a great many Period Revival houses. But even on these streets, different styles intervene and provide the variety that is a hallmark of Burlington's heritage character.
- Hybrid designs that mix elements from different historical styles are not appropriate. Historical styles that are not indigenous to the area, such as French Manor, are not appropriate.
- Use authentic detail, consistent with the Architectural Style. Refer to Section 3.
- Research the chosen Architectural Style. See Section 8 for useful research sources.
- Use materials appropriate to the chosen Architectural Style.

7.3.3 Scale and Massing



Design new houses to be consistent with the scale of neighbouring ones.





Don't design new houses that are inconsistent with the existing neighbourhood scale.

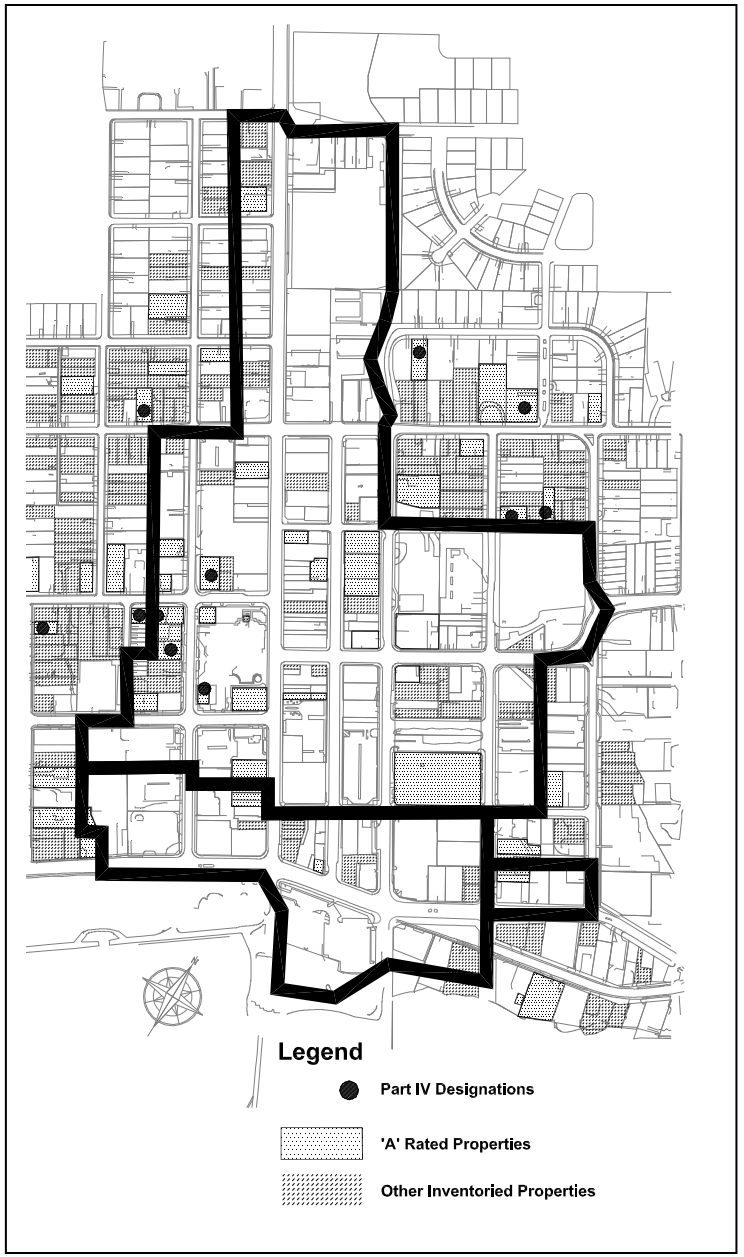
New residential construction should respect local heritage precedents in scale and massing. In terms of preserving the character of the neighbourhoods, this is probably the most important aspect. In almost every case, new construction will be replacement houses on existing built lots.

Guidelines:

- New buildings should be designed to preserve the scale and pattern of the historic downtown.
- New houses should be no higher than the highest building on the same block, and no lower than the lowest building on the same block.

7.4 Downtown Core and Wellington Square Precincts

The extent of the Downtown Core and Wellington Square Precincts is shown on the map at the right, along with the heritage properties in and adjacent to these precincts. Although heritage resources are not numerous overall, there are significant groupings of buildings of heritage value. It is also significant that there are very rich heritage areas directly adjacent to these precincts along many edges. OPA 55's General Policies for the Downtown states: "…any development close to cultural heritage resources shall be sensitive to the historic context of the street, and not just of the immediately adjacent buildings…"



7.4.2 The Character of Historic Commercial Streetscapes

Historic commercial areas can be characterized as village-type or town- type streetscapes. Villages tended to have an informal layout, with a variety of front and side-yard setbacks. Shops were typically front-gable buildings, with display windows on the ground floor, and often a porch. Sometimes there was a 'boom town' false front obscuring the gable.

When a village evolved into a town, the layout became formal, with a continuous line of shopfronts on the street lotline. Display windows tended to be larger and taller, and the flat-roofed commercial building became the prevalent building type, often built as block of several properties contained in a single architectural form. In Burlington this evolution occurred between about 1870 and 1880. The top photograph shows the lower end of the east side of Brant Street as a fully developed townscape. Most of these buildings are still standing.

Front-gable buildings were revised to incorporate the larger storefronts found in the commercial blocks, as can be seen in the Allen Hardware Store, shown in the middle photograph.

In horsedrawn days, stables were never far away—John Street appears to have originally been largely a street of stables. The bottom photograph shows the Hannon Flour and Feed Store at John and Pine Streets, with what appears to be stable to the right and the rear. This building is also still standing.

All of these building types are illustrated in the Design Handbook in Part B.

Building heights in historic commercial areas were usually 2 or 3 storeys. 4 storeys was the absolute and rare maximum, and was mostly found in hotels. Burlington's historic buildings follow this pattern.

The basic form of town commercial areas persisted until the middle of the 20th century, when the automobile inaugurated the suburban shopping plaza as a competing model.



353-361 Brant Street



Brant Street at Pine Street, c. 1910



404 John Street

7.4.3 The Character of Historic Commercial Architecture

Historic town-type commercial buildings, from about 1870 on, share a number of common characteristics.

Following a series of town-razing fires in the mid-19th century, buildings were built of masonry. In some towns, stone was locally available, but in Burlington, as in most places, construction was brick.

Shops were typically built in bays about 7.5 metres wide. Interestingly, this module is still used in large shopping malls. Larger stores would occupy two bays, with a line of columns supporting the mid-wall above. This fairly standard building module creates strong pedestrian-scale rhythm in historic shopping districts.

Building facades are divided horizontally in the Classical three-part scheme of base, body, and cap. The base consists of the storefront and signband. The body consists of the upper masonry wall of the building, with its punched windows. The cap consists of a cornice, which is sometimes capped with a sloping roof with dormers, as in the Queen's Head Hotel.

The building's base is similarly divided into three parts. The bottom portion is the paneling below the glazing. The middle, or body, is the shop display windows. The cap is the signband, with its own cornice and details. Entrances are recessed, and large retractable awnings are commonly installed.

These Classical schemes provide legibility and scale to the building façade, and are another important factor in creating a pedestrian-friendly visual environment.



The three-part divisions of the buildings and the rhythm of the bays produce a comfortable pedestrian scale. The generally consistent shopfront height, and the common use of awnings helps to unify the character of the public realm. This example is from Collingwood's largely intact, and commercially successful, downtown shopping area.

7.4.4 Heritage-Friendly Design of New Developments

Not All Stepbacks Are Created Equal

The function of the stepbacks shown in the Downtown Urban Design Guidelines is to create an architecturally legible street wall that encloses the public realm, provides some continuity in buildings of different maximum heights, and contributes to the pedestrian-scale environment.

Step-backs, and their detail design, should be respectful of the horizontal modules created by adjacent and neighbouring buildings, particularly if those buildings are heritage resources.

Guidelines:

- The base of a stepped back building should be architecturally legible; it should read as a building from the pedestrian level.
- Stepbacks should be sufficiently deep that the upper levels don't overwhelm the base when viewed from the pedestrian level.
- The height of the base should usually be 2 or 3 stories high, in keeping with historic patterns.
- Cornice and sill heights should relate to adjacent buildings whenever possible.



The Harbourview development, at 415 Locust Street, has a stong stepback, with a distinct and architecturally legible two-storey podium. Both horizontal and vertical divisions create a pedestrian-friendly scale.



Across the street, the parking garage at 414 Locust Street has two competing bases—one at 1 storey and another, barely set back, at 2 storeys. The lack of clarity in the base actually emphasizes the bulk above.

7.4.4 Heritage-Friendly Design of New Developments Cont'd

Rhythm and Frontages

The traditional width of shopfronts, with intervening pilasters, is an important element in establishing a pedestrian-friendly scale. A little visual event occurs every dozen steps. It makes walking comfortable. Shopping mall developers recognize this, and typically establish bay widths of 25 feet (7.62 metres).

In a town of Burlington's size, commercial blocks would not have been larger than 3 or 4 stores in width. Respect for the scale of groups, as well as the scale of individual shop fronts will help establish a Burlington character that is distinct from larger communities like Toronto and Hamilton.

Guidelines:

- Low rise buildings and the bases of mid- and high-rise buildings should express a traditional bay-width of 6 to 8 metres, using piers or pilasters to form substantial and legible divisions of the facade.
- Larger developments should consider breaking down their widths into elements of 4 bays or less. For example a nine bay building could have a centre portion that is set off with heavier piers, or a change in the design of upper-floor window pattern.



The building on the right, at 390 Brant Street, makes use of traditional rhythm in the spacing of the brick piers. The rhythm is emphasized by the awnings, which also respect the height of the shopfronts in the historic buildings to the south.

7.4.4 Heritage-Friendly Design of New Developments Cont'd

Base, Body, and Cap

The traditional division of building elevations and masses into base, body, and cap helps articulate a human scale, and gives the building a distinct and legible form. The base relates directly to the pedestrian scale. The body should reflect the human scale in its detailing. And the cap establishes the skyline of the street wall that encloses the public realm.

Guidelines for the Base:

- The base of street façades should be well defined, with a strong horizontal cap element to reinforce its pedestrian scale.
- The base should incorporate large glazed areas for transparency, to animate the public realm with displays and interior activity. See guidelines for storefronts and signage on the next page.
- The base should have high-quality detail and material.
- The height of the base should be complementary to the bases of neighbouring buildings, where possible. The height of the base should be between 4.5 and 5.5 metres (14'-9" and 18')

Note:

The Downtown Urban Design Guidelines suggest a minimum ground floor ceiling height of 4.5 metres (14'-9"). This may be too high for smaller shops, and allowing for structure and ductwork might result in a second floor elevation that is excessive. The visual height of the base is more significant than the ceiling height behind it in establishing a traditional streetscape with consistent and pedestrian scale.



Historic commercial design, this example from Collingwood: The shopfront forms the base, the wall forms the body, and a wide fascia and cornice forms the cap.



This recent Port Credit development on Lakeshore Road follows the traditional three-part design scheme, and would not be out of place next to the Collingwood buildings, or on Brant Street.

7.4.4 Heritage-Friendly Design of New Developments Cont'd

Base, Body, and Cap

Guidelines for the Body:

- The body of the street façade should be of smooth brick, with punched windows, i.e., distinct and separate openings in the wall, rather than modern curtain wall.
- Windows openings and design should respect traditional proportions.
- Detailing such as string courses, decorative inserts, special shaped bricks, arch lintels, and stone lintels and sills help break down the scale of the body and animate the façade. They are encouraged.
- Pilasters that continue the division of bays at the base are encouraged.

Guidelines for the Cap:

- The cap should be a substantial and legible element, distinct from the body of the building. Parapets are useful in providing a suitable scale for the cap.
- The cap should include elements, such as cornices, that produce a shadow line near the top of the street façade.
- Detailing such as decorative inserts, niches, machiolation, and string courses are encouraged.
- Finials that continue the division of bays at the base and body are encouraged.



The cornice forms a definitive element at the top of the façade. It may be very deep, as above, or a relatively shallow construction, with pattern as its prominent characteristic. Both examples are from from Collingwood.



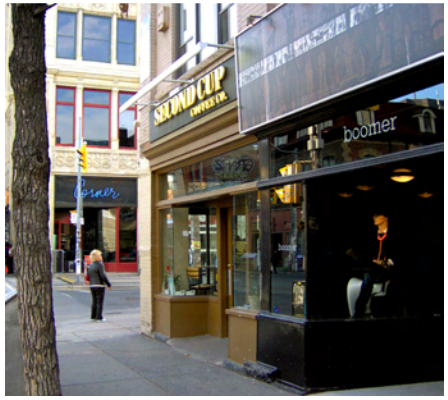
7.4.4 Heritage-Friendly Design of New Developments Cont'd

Shopfronts and Signage

Like the building, historic shopfronts have a base, body, and cap. The overall effect is to create a frame for the display window area. Traditionally, the base consisted of wood panels about 0.5 to 0.8 metres high, and the cap consisted of a substantially projecting cornice above a sign band that was 0.5 metres high, or less. Often, substantial decorative terminal blocks punctuated the signband and cornice at the building bays. Sometimes signs were painted on the inside of the glass. Shop windows were framed with wood, often decorated with fluting or turnings. Entrances were recessed, often with a shallow angle in the side glazing. In the days before air-conditioning and tinted glass, awnings were a prominent feature in retail streetscapes. With some adaptation, the basic scheme of traditional storefronts can accommodate a variety of modern retail design.

Guidelines:

- The use of highly traditional shopfront designs is encouraged as an option.
- High-quality modern shopfront materials and designs, such as frameless glass, are acceptable alternatives.
- Shopfront designs should provide the framing elements of bays, base, glazed body, and signband with cornice.
- Signbands should be no more than 0.7 metres high, with signage of individual letters, front lit, or individually backlit.
- Sign band cornices should be substantial in order to establish a legible cap for the building base.
- To animate the street, shop windows should retain their transparency, and not be obscured by excessive postering or window signage. Night-time window shopping is an important animating activity.
- Entrances should be recessed.
- Use of retractable awnings is strongly encouraged. Traditional awnings are the simplest and cheapest way to unify a commercial streetscape. Fixed awnings and awning signs are not appropriate.



Two shopfronts that were once identical. The one on the right has kept the original turned wood corner posts, but has covered the upper elements with an unsympathetic sign box. The cafe on the left has installed frameless glass, but uses traditional individual letters, and the top lighting bar acting as a cap to the composition—a better solution.



A modern storefront that preserves the cornice and awning. The horizontal glazing bars reflect the transoms that were part of historic shopfront design.

7.5 Old Lakeshore Road Precinct

The Official Plan describes the Lakeshore Road Precinct as a "Special Study Area" in Part III, Section 5.5.7, quoted below:

> **5.5.7** Old Lakeshore Road Precinct Special Study Area
>
> **Further Study** b) To undertake further study to determine the appropriate building forms, intensities and heights within this precinct, taking into consideration such matters as precinct character, heritage conservation, lake views, shoreline conditions, shoreline protection, development setbacks from the lake, public access to the lake and redevelopment opportunities.

This is a wise policy. The Old Lakeshore Road Precinct has valuable heritage resources and heritage attributes. Its character is unique in Downtown Burlington, and it offers an opportunity to create a special and contrasting environment in comparison with its current and future surroundings. The Special Study is now being undertaken, and this Section is offered as heritage-based input for the Special Study.

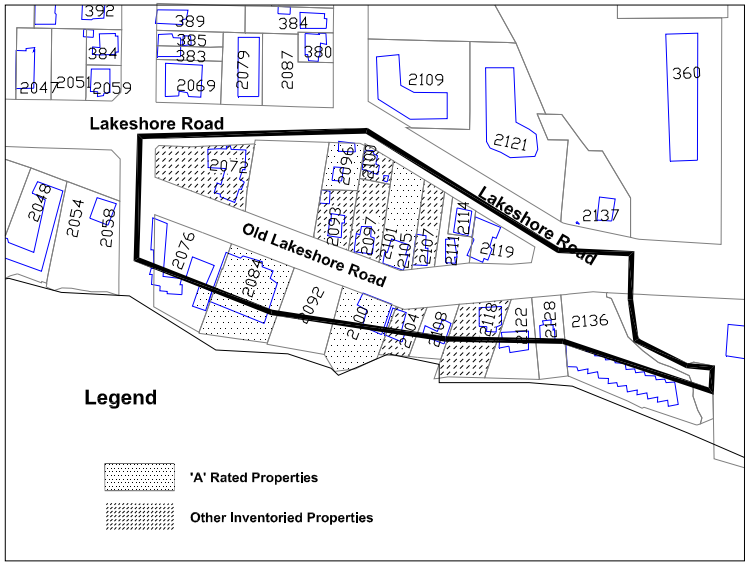
7.5.1 Historical Attributes

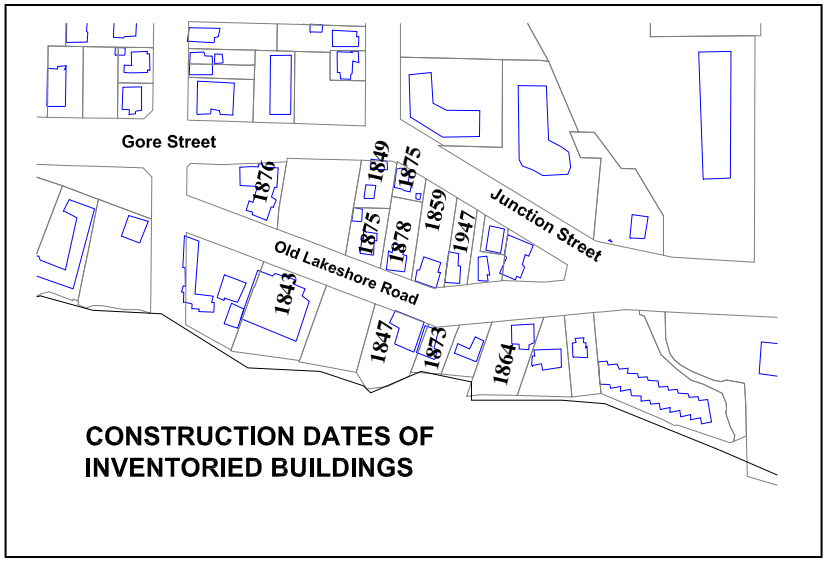
In 1873, when Wellington Square was incorporated into the Village of Burlington, most of the settlement lay to the east of Brant Street. As a result, most of the older surviving buildings in the downtown are in that area. This is certainly true of the Old Lakeshore Road Precinct, which contains a number of buildings of very early dates and styles. A number of the properties also have historical associations with founding figures of the Port of Wellington Square, such as Andrew Gage, Thomas Baxter, Lt.-Col. William Kerns, and Richard Cole.



As shown in this map from the 1877 Halton County Atlas, most of the older parts of Burlington lie to the east of Brant Street.

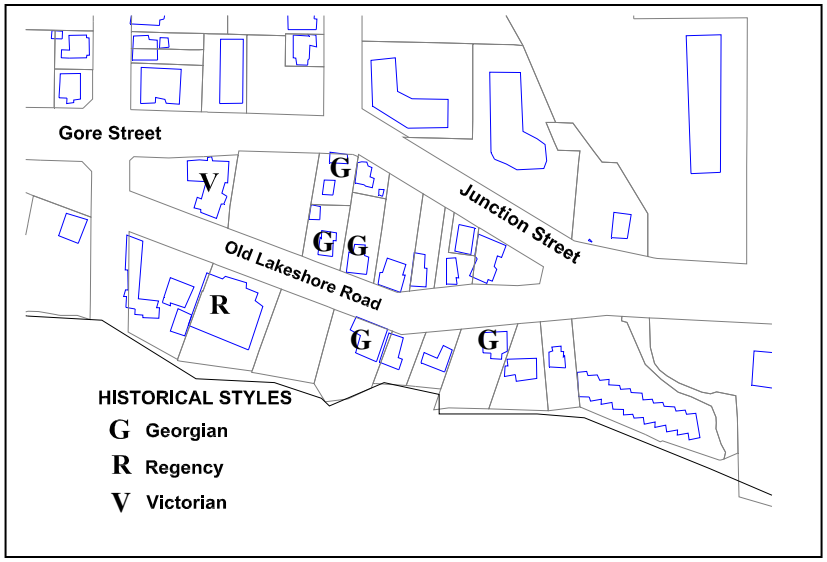
7.5.2 Heritage Characteristics:





The boundary of the Old Lakeshore Road Precinct is shown by the heavy line on the map above. The area to the south is part of the Waterfront West/Public Lands Precinct, although it is integral with the Old Lakeshore Road properties and visual environment. Of 21 properties in the precinct, 10 are listed on the Heritage Resource Inventory. Four of those are rated A.

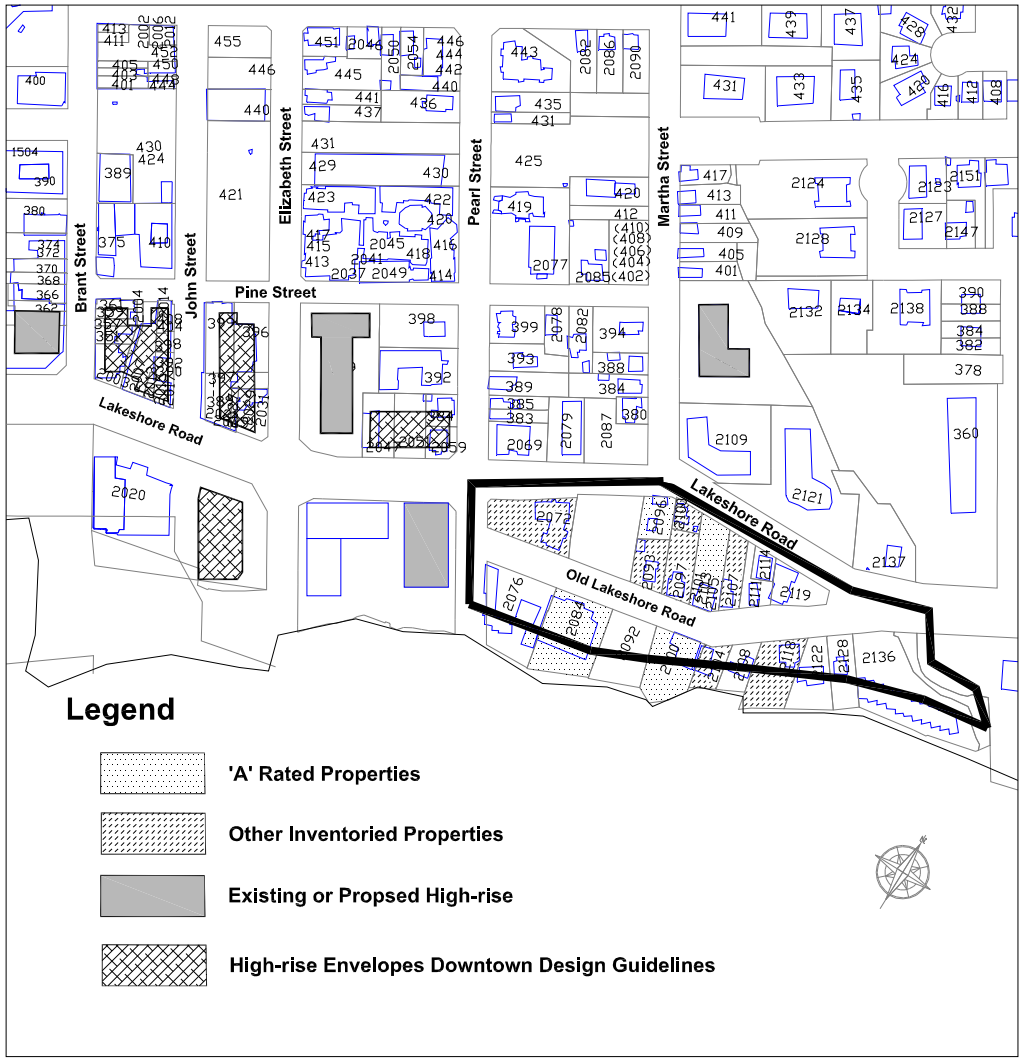
The heritage properties in the precinct are distinguished by their age and architectural styles, as shown in the maps to the right. The precinct holds downtown Burlington's most compact collection of early buildings—six pre-dating the incorporation of the Village, and it includes most of the Georgian buildings and the only Regency building in the Downtown Core. None of the listed buildings are beyond restoration to an "A" grade.



7.5.3 Physical Setting and Physical Character

The Old Lakeshore Road Precinct has several aspects that are distinct in the context of the downtown commercial areas.

- In the context of the general street grid, the dog-legs of Lakeshore Road and Old Lakeshore Road provide a distinct character.
- The traffic load is light, creating a uniquely calm aspect, particularly in contrast to Lakeshore Road.
- The visual axes approaching from both east and west give a prominence to diamond-shaped "island" between the two roads.
- There are more mature trees than in other business areas.
- The buildings are modest in size, with heights generally between 1 and 2 storeys. This preserves vistas towards the lake.
- The lower buildings are in particular contrast to the surroundings to the north and west. Existing and proposed high-rise buildings, as well as well as high-rise envelopes suggested in the Downtown Urban Design Guidelines are shown in the map to the right.
- It is the only place where low-intensity commercial uses extend to the waterfront. This aspect is supported by the vacant lot space at 2092 Old Lakeshore Road, and the proximity of the promenade and pier at the foot of Brant Street.




2072 Lakeshore Rd, 1876


2084 Old Lakeshore Rd, 1843


2101 Old Lakeshore Rd, 1859


2096 Lakeshore Rd, 1849


2092 Old Lakeshore Rd, vacant lot


2104 Old Lakeshore, 1873


2100 Lakeshore Rd, 1875


2093 Old Lakeshore Rd, 1875


2118 Old Lakeshore Rd, 1864

7.5.4 Heritage Recommendations

Cultural Heritage Resources:

Recognizing the wealth of heritage resources and attributes described above, the cultural heritage resources in the Old Lakeshore Road Precinct should be conserved.

Guidelines:

- Any building or demolition permit applications for properties on the Burlington Inventory of Heritage Resources should trigger a careful re-evaluation of the heritage attributes of the property. The City may seek assistance from heritage professionals in this evaluation.
- The City, at its discretion, may undertake a heritage assessment for such applications, in keeping with the Provincial Policy Statement.
- The historical role of the Precinct's heritage resources in the early history of Wellington Square should be commemorated in the public realm of the Old Lakeshore Road street allowance. Consideration should be give to acquiring the vacant land at 2092 Old Lakeshore Road, for use as parkland to reinforce this commemorative aspect.
- Design of new construction should have the highest degree of respect for the existing cultural heritage resources.
- Strong consideration should be given to undertaking a Heritage Conservation District Study for the Old Lakeshore Road Precinct. The concentration of very early buildings here makes it a historically significant area.

Natural Heritage Resources:

Recognizing the natural heritage value of the lakefront location and the wealth of mature trees, the natural heritage resources of the Old Lakeshore District Precinct should be conserved.

Guidelines:

- Existing mature trees should be preserved, except in the case where their removal is required for public safety. This guideline does not prevent removal of trees from parkland that may be acquired at 2092 Old Lakeshore Road in order to create and enhance a visual link to the lakefront in commemoration of the Port of Wellington Square. The parkland should integrate with the Waterfront Trail.
- Replacement trees should be planted when existing mature trees are removed.

Section 8. Sources

8.1 Documents Available for Guidance

The City of Burlington Planning Department has some material available for reference, that can provide useful information to people contemplating heritage-related work. Books listed below under the headings of Historic Architecture and Heritage Conservation are all useful. Useful websites are listed below in Section 8.3.

8.2 Bibliography

AREA HISTORY:

Berchem, F.R. *The Yonge Street Story*. Toronto: McGraw-Hill Ryerson, 1977 Contains information on Lt. Gov. Simcoe's plans and strategies for development of Upper Canada.

Machan, Claire Emery. *From Pathway to Skyway Revisited*. Burlington: The Burlington Historical Society, 1997

Reynolds, John Lawrence. *Burlington, Ontario: Who we are, where we've been, and where we are going*. Burlington: Burlington Committee for the Ontario Bicentennial, 1984.

HISTORIC ARCHITECTURE:

Ashenburg, Katherine. *Going to Town: Architectural Walking Tours in Southern Ontario*. Toronto: Macfarlane Walter & Ross 1996

Baker, John Milnes. *American House Styles: A Concise Guide*. New York: W.W. Norton & Company, 2002

Hale, Jonathan. *The Old Way of Seeing: How Architecture Lost its Magic (and How to Get it Back).* New York: Houghton Mifflin Company, 1994

Humphreys, Barbara A. and Meredith Sykes. *The Buildings of Canada: a guide to pre-20th-century styles in houses, churches and other structures*. Montreal: Parks Canada / Reader's Digest, 1974.

Lever, Jill & John Harris. *Illustrated Dictionary of Architecture, 800-1914*. London: Faber & Faber, 1993

McRae, Marion and Adamson, Anthony. *The Ancestral Roof: Domestic Architecture of Upper Canada.* Toronto: Clarke Irwin & Company, 1963

Plumridge, Andrew and Wim Meulenkamp. *Brickwork, Architecture and Design*. New York: Harry N. Abrams, Inc. 1993

Rempel, John I. *Building with Wood: and other aspects of nineteenth-century building in Central Canada*. Toronto: University of Toronto Press, 1980

Walker, Lester. *American Shelter: An Illustrated Encyclopedia of the American Home.* Woodstock, N.Y.: The Overlook Press, 1981

HERITAGE CONSERVATION:

Fram, Mark. *Well Preserved, The Ontario Heritage Foundation's Manual of Principles and Practice for Architectural Conservation.* Erin, Ontario: The Boston Mills Press, 1988

Fram, Mark and John Weiler, editors. *Continuity with Change, Planning for the Conservation of Man-made Heritage.* Toronto: Dundurn Press, 1984

Ontario Ministry of Culture, Tourism and Recreation. *Architectural Conservation Notes.*

Weaver, Martin E. *Conserving Buildings: A Guide to Techniques and Materials*. New York: John Wiley & Sons, Inc., 1993

PLANS AND STUDIES:

Alexander Temporale and Associates, Burlington *Downtown Urban Design & Building Façade Improvement Study*. Burlington: City of Burlington,1989

Archaeological Services Inc., *City of Burlington Strategic Heritage Conservation Districts Study*, 2000

Carter, Phillip H. *Old Burlington Village Heritage Conservation District Study.* Burlington, City of Burlington, 2004

Carter, Phillip H. *Heritage Conservation District Studies and Plans* for: Thornhill-Vaughan, 1984; Thornhill-Markham, 1986; Downtown Collingwood, 2002; Kleinburg-Nashville, 2003; Thornhill-Markham, 2006; Village of Maple, 2006; Northeast Old Aurora, 2006.

Hill, Nicholas, with Green Scheels Pidgeon Planning Consultants Ltd. *Blair Village, A Heritage Conservation District Plan in the City of Cambridge.* Cambridge: The Corporation of the City of Cambridge, 1999

Stokes, Peter John. *Walton Street Heritage Conservation District Plan.* Port Hope: Town of Port Hope, 1995

Town of Markham. *Unionville Heritage Conservation District Plan.* Markham: Town of Markham, 1997

OFFICIAL DOCUMENTS:

Brook McIroy Planning + Urban Design. *City of Burlington Downtown Urban Design Guidelines*, 2006

City of Burlington. *Official Plan Amendment (OPA) 55.* Burlington: City of Burlington, 2006

City of Burlington. *Zoning By-law 2020*, 2002

City of Burlington. *Sign By-law 51-1993*, Consolidated Copy, 2000

City of Burlington. *Strategic Plan 2000-2003*, Future Focus V.

DuToit Associates Limited, *Streetscape Study for Downtown Burlington*, 1981

OFFICIAL DOCUMENTS CONT'D:

Ontario. *Ontario Heritage Act, RSO, 1980, chapter o.18, as amended.* Toronto: Queen's Printer for Ontario, 2005

Ontario. *Heritage Conservation Districts: A Guide to District Designation Under the Ontario Heritage Act.* Toronto: Queen's Printer for Ontario, 2006

8.3 Internet Sources:

HISTORY

City of Burlington History. John Lawrence Reynolds's *Burlington, Ontario: Who we are, where we've been, and where we are going,* (cited above) and his 1993 update, *Sounds by the Shore: A History of Burlington*, are available on the City's website at *http://cms.burlington.ca/page498.aspx*

Industry Canada. Canada's Digital Collections. *Industrial Hamilton: A Trail to the Future.* (contains information on area railways.) *http:///collections.ic.gc.ca*

The Ontario Railway History Page. *www.globalserv.net/~robkath/railnor*

Historical Photographs. Almost 2000 historical photographs of Burlington are available at: http://images.burlington.halinet.on.ca/ You can access them all by putting "Burlington" in the search box.

ARCHITECTURE

Ontario Architecture. *www.ontarioarchitecture.com.* This site has very fine illustrated glossaries of building terms and building styles.

HERITAGE CONSERVATION

Standards and Guidelines for the Conservation of Historic Places in Canada establishes a national framework and vocabulary for conservation activities in Canada. It is available as a large PDF file at: *http://www.pc.gc.ca/docs/pc/guide/nldclpc-sgchpc/pdf_e.asp*

Preservation Briefs. For detailed "hands-on" information about all aspects of preserving historic buildings, these booklets from the National Park Service in the United States can't be surpassed. Anyone preparing to undertake a task on a heritage building will find useful information in one or more of the 43 booklets. The knowledge gained will probably save both time and trouble. Each booklet is downloadable as a pdf file at *www.cr.nps.gov/hps/tps/briefs/presbhom.htm*

Architectural Conservation Notes are available from the Ontario Ministry of Culture at: *www.culture.gov.on.ca/English/culdiv/heritage/connotes*

APPENDICES

Appendix A
National Standards and Guidelines

Parks Canada has issued *Standards and Guidelines for the Conservation of Historic Places in Canada.* These have been generally adopted for evaluating heritage projects. An **abridged** outline of the Standards is provided below, for convenience:

Please refer to the original document, available as a PDF file at:

http://www.pc.gc.ca/docs/pc/guide/nldclpc-sgchpc/pdf_e.asp

Conservation refers to retaining the heritage value of historic places and extending their physical life. This is accomplished through three kinds of activity: Preservation, Rehabilitation, and Restoration.

Preservation involves protecting, maintaining and stabilizing the existing form, material and integrity of a historic place, or of an individual component, while protecting its heritage value. Preservation should be considered as the primary treatment when the materials, features and spaces are essentially intact, and extensive repair or replacement are not required; and when a continuing or new use does not require extensive alterations or additions. The 9 General Standards apply to Preservation activities.

Rehabiltiation involves the sensitive adaptation of a historic place or of an individual component for a continuing or compatible contemporary use, while protecting its heritage value. This is achieved through repairs, alterations, and or additions. Rehabilitation should be considered as the primary treatment when repair or replacement of deteriorated features is necessary; or alterations or additions are planned for a new or continued use. There are 3 Standards Relating to Rehabilitation that apply, in addition to the 9 General Standards.

Restoration involves revealing, recovering, and representing the state of a historic place or of an individual component, as it appeared at a particular period in its history as accurately as possible, while protecting its heritage value. Restoration may be considered as the primary treatment when the significance of the historic place during a particular point in its history *significantly* outweighs the potential loss of existing materials, features and spaces from other periods; there is substantial physical and documentary or oral evidence to accurately carry out the work. There are 2 Standards Relating to Restoration that apply, in addition to the 9 General Standards.

The General Standards are:

1. Conserve the heritage value of a historic place. Do not remove, replace, or substantially alter its intact or repairable character defining elements. Do not move a part of a historic place if its current location is a character defining element.
2. Conserve changes to a historic place which, over time, have become character-defining elements in their own right.
3. Conserve heritage value by adopting an approach calling for minimal intervention.
4. Recognize each historic place as a physical record of its time, place, and use. Do not create a false sense of historical development by adding elements from other historic places or other properties or by combining features of the same property that never co-existed.

5. Find a use for a historic place that requires minimal or no change to its character-defining elements.
6. Protect and, if necessary, stabilize a historic place until any subsequent intervention is undertaken.
7. Evaluate the existing conditions of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.
8. Maintain character-defining elements on an ongoing basis. Repair character defining elements by reinforcing their materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of character-defining elements, where there are surviving prototypes.
9. Make any intervention needed to preserve character-defining elements physically and visually compatible with the historic place, and identifiable upon close inspection. Document any intervention for future reference.

Additional Standards Relating to Rehabilitation are:

10. Repair rather than replace character defining elements. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the historic place.
11. Conserve the heritage value and character-defining elements when creating any new additions to a historic place or any related new construction. Make new work physically and visually compatible with, subordinate to and distinguishable from the historic place.
12. Create any new additions or related new construction so that the essential form and integrity of a historic place will not be impaired if the new work is removed in the future.

Additional Standards relating to Restoration are:

13. Repair rather than replace character defining elements from the restoration period. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.
14. Replace missing features from the restoration period with new features whose forms, materials and detailing are based on sufficient physical, documentary and/or oral evidence.

Appendix B
Glossary of Architectural Terms

Italicised words are defined in other entries.

ABA rhythm: a pattern of alternating *bays.* Other rhythms might be ABBA, or AABBAA, for example.
Arcade: a running series of *arches*, supported on *piers* or *columns*.
Arch: a curved structure over an opening, supported by mutual lateral pressure.
Architrave: The lowest division of an *entablature*.
Ashlar: Squared stone masonry laid in regular courses with fine joints.
Attic: The top floor, usually within the roof, often reduced in height and unfinished.

Balustrade: A *parapet* or guard consisting of *balusters* supporting a rail or *coping*. The stair rail on the open side of a household stair is a common example of a balustrade.
Barge board: The board along the edge of a *gable* roof, often decorated or pierced in Victorian houses.
Battlement: A notched *parapet*, like on a castle. Also called *castellation*. The notches are called embrassures or crenelles, and the raised parts are called merlons.
Bay: Divisions of a building marked by windows, *pilasters*, etc. An Ontario cottage with a centre door and windows on either side would be called a 3-bay house with an *ABA rhythm*.
Bay window: A group of windows projecting beyond a main wall. Commonly with angled sides in the Victorian style, and rectangular in Edwardian.
Bipartite: In two parts.
Blind: An imitation opening on a solid wall is called blind. Thus a blind *arch*, a blind window, a blind *arcade*.
Board-and-batten: Wood siding consisting of wide vertical boards, the joints of which are covered by narrow vertical strips, or battens.
Bond: A pattern of bricklaying in a wall. In solid brick construction headers are required to tie the *wythes* of the wall together. The rhythm of the headers determines the bond.
Bow window: Curved version of the *bay window*.
Bracket: A member or set of members, projecting from a wall, to support work above, such as an eave.
Buttress: A heavy vertical masonry element built against a wall to stabilise it.

Capital: See *Orders*.
Casement: A window hinged on one side, like a door.
Castellation: Another word for *Battlement.*
Chamfer: A sloping or bevelled edge.
Chevron: A decorative pattern of V shapes, like a sergeant's stripes.
Clapboard: Horizontal siding made of overlapping bevelled boards.
Classical: Of or deriving from the architecture of ancient Greece and Rome. Classical revival buildings typically feature *columns* and *pediments*, and are usually symmetrical in elevation.

Coffering: A pattern of square recessed panels in a ceiling or *soffit*.
Colonette: A little column, often decorative.
Colonnade: A row of *columns* supporting an *entablature*.
Column: A vertical structural member. See *orders*.
Common Bond: The standard *bond* for solid brick walls, consisting of one *header* course for every five or six courses of *running bond*.
Consul or Console: A bracket with a compound-curved profile.
Coping: A protective capping on a wall, parapet or gable, sloped to carry off rain water.
Corbel: A support projecting from a wall. Masonry that steps out course-by-course from the wall below is called corbelling.
Corinthian: See *Orders.*
Cornice: The uppermost division of an *entablature*. Also a moulded projection that crowns an element such as a wall, door or window.
Cottage: A small rustic house, or a style that imitates one. "Ontario Cottage" is a catch-phrase for a variety of one and one and a half storey house styles, some of which are actually quite large.
Course: A horizontal row of construction laid one above the other. Bricks and shingles are said to be laid in courses.
Cresting: A vertical ornament running along the top of a wall or ridge. If a rooster were a building, his comb would be cresting.
Cupola: A feature on top of a roof, in the form of a small roofed cylinder or prism. May be louvred to provide attic ventilation, or glazed to provide a skylight.
Dentil: A series of small rectangular blocks arranged in row, usually under a *cornice*. From the latin word for tooth.
Dog-tooth: A repeating decorative shape in the form of a four-lobed pyramid. Also, a brick laid so that a corner faces out from the surface of a wall.
Doric: See *Orders.*
Double-Hung: Type of window with vertically sliding sash one above the other, traditionally hung on ropes or chains from a counterbalance system concealed in the jambs. If only the lower sash is moveable it's called a single-hung window.
Eclectic: From a Greek word meaning selective. A rather vague name for late 19th and early 20th Century vernacular architecture which freely selected a bit of this and a bit of that from many previous styles. Elements of Classical, Victorian, and Italianate styles might be mixed together, for example. The term is often used disparagingly, but remarkably, the combinations are often skillful, and most eclectic buildings are quite handsome.
Entablature: In the classical *orders,* the horizontal element above a column. The meaning has been extended to include similar elements used over an opening or against a wall.

Fan-Light: A semi-circular transom window over a door or window, usually with radiating glazing bars, like the ribs of a fan.
Fascia: A long flat band, such as an eaves-board, a sign band over a shop window, or the undecorated strips in an architrave.
Fenestration: Windows: the pattern of windows in an elevation.
Finial: A decorative top piece, often in the form of a ball or spire. If it points down instead of up it can be called a pendant.
Frieze: The middle of the three divisions of an *entablature*. See *Orders*.

Gable: The roughly triangular wall at the end of a ridge roof. If the roof projects to or beyond the gable, it will take the shape of the roof structure. If the roof ends behind the wall, the gable may be freely shaped with steps, curves, or decorations.
Gambrel roof: A steeply sloped roof below a low sloped roof, creating a more usable attic. Also called barn-roof.
Georgian: An architectural style of 18th century origin, and often revived. Multi-Light *Double-hung* windows, symmetrical fronts, and modest use of *classical* ornament are hallmarks of the style. Both hipped and gable roofs were used. Evolved after the Great Fire in London, Georgian originally meant brick, but in revival the style has made use of wood and stucco siding as well.

Header: A brick laid so that its middling dimension is in the length of a wall, and its shortest dimension is vertical.
Hipped Roof: A roof sloping to all sides.
Hood mould: a thin projecting moulding over an opening, originally intended to throw off rainwater.

Impost: A block from which an arch springs.
Ionic: See Orders.
Italianate: A late 19th Century style, based on Italian country houses, featuring towers, cupolas, low hipped roofs with elaborate brackets at the soffits, and a verticality emphasised by tall narrow windows with 1 over 1 or 2 over 2 *lights*.

Keystone: An elaborated element in the centre of an *arch*. Emphasis may be provided by a contrast in colour or material, by vertical extension, and/or by projection out from the wall. The idea is that the central block is "key' to the arch, which isn't true: each block is equally necessary.

Lantern: a glazed *cupola.*
Leaded: Glazing where small panes are divided and held together by lead strips.
Light: A single pane of glass within a *sash*. *Double-hung* windows are often described by the number of lights in the upper and lower sashes, as in 1 over 1, 2 over 2, or 12 over 12.
Lintel: A horizontal element spanning over an opening in a wall.
Loyalist: Wide spread early Ontario house style, imported by the Loyalists in the late 18th Century. Generally speaking, a version of the *Georgian* style, though usually having a gable roof. The hallmark is a panelled front door topped by a rectangular multi-pane transom, with a classical surround and cornice. When executed in wood clapboard, it is nicknamed "Yankee House", and is indistinguishable from New England houses, but it has been built in brick and stone.
Lozenge: A diamond shaped pattern element.
Lunette: A semicircular window or panel.

Machiolation: Looks like an upside-down *battlement* projecting from a wall. Originally, in castles, there were openings at the top of the notches, through which missiles or boiling oil could be dropped on attackers below.
Mannerist: An outgrowth of the Renaissance style, it treated *classical* elements with a free hand, exaggerating scale and bending the rules. The broken pediment is a prime example of Mannerist playfulness. Revived around 1900 as Edwardian Mannerism.
Mansard Roof: A steeply sloped roof below a low-sloped roof, creating a more usable attic. Variations used in various 19th century styles include concave, convex and ogee shapes on the lower slope. Unfortunately revived as about 1960 as a tacked-on sloping band, usually of cedar shakes, in the hope of giving "natural texture" to rather ordinary flat-roofed boxes.
Modillion: Blocks or brackets under a cornice, like *dentils* but bigger a spaced widely apart.

Niche: A recess in a wall or pier, suitable for placing a statue.

Oculus: A small round or oval window. From the Latin word for "eye".
Ogee: A double curve, concave below and convex above; a common shape for mouldings, an uncommon one for windows and *arches*.
Order: One of the *classical* systems of designing *colonnades*, elaborated in great detail as to proportions and geometry by classical revivalists from 1420 onwards.
Oriel, Oriel window: A bay window projecting from an upper storey.

Palladian window: A large central window topped with a *lunette* or *fan-light*, closely flanked by smaller flat-headed windows, the whole assembly surrounded by classically-inspired details.
Parapet: Originally a low wall protecting an edge with a drop, like at the side of a bridge or balcony. Also used to describe the extension of a wall above a roof, even when no one ordinarily walks there.
Pediment: In Classical architecture, the low-sloped triangular *gable* end above an *entablature*, enclosed on all sides by mouldings. The term, and its basic form has been borrowed by many styles for use above porticos, doors and windows. A segmental pediment substitutes a curved top for the original angled one, and the surrounding mouldings may be gapped in the centre, whatever the shape. A broken bed pediment has a gap in the bottom moulding, and a broken topped pediment has a gap at the top.
Pendant: A point ornament hanging down.
Pier: A large solid support for a beam, *lintel* or *arch*.
Pilaster: A vertical thickening of a wall, something like a *pier* or *column* built integrally with the wall. Sometimes used for structural purposes, sometimes purely decorative, it may be embellished with a base and capital on the model of the classical *orders*.
Pinnacle: A tall thin decoration at the top of a *pier* or *pilaster*.
Plinth: The lowest projecting part of the base of a *column*. Extended to mean any projecting base on elements such as baseboards, door frames, etc.
Pointed arch: An arch composed of two curves centred on the *springline*, whose radius is equal to the width of the opening.
Portico: A Classical *colonnade* with a *pediment*, providing a covered exterior space at the entrance to a building.
Preservation: See Appendix A for technical definition.
Polychrome: Having many colours. Victorian red and buff brickwork is an example of polychromy.

Quoin: Alternating blocks at the corner of intersecting walls. May be expressed with contrasting material or colour. May be flush with the walls or project from it. From the French word for a "corner".

Regency: Early 19th Century Style, following Georgian in origin, named after the Regency of George IV. Like the Prince, the style is more flamboyant than its predecessors. The scale and detail tends toward the imposing, and stone or plastered brick to imitate stone was used to emphasise solidity.

Rehabilitation: See Appendix A for technical definition.

Renovation: Literally, renewal. A general term for construction that changes an existing building.

Restoration: See Appendix A for technical definition.

Round arch: A semicircular arch.

Rowlock: A brick laid so that its shortest dimension is in the length of a wall, and its middling dimension is vertical.

Running Bond: See *Bond*. Pattern of brickwork where all bricks are stretchers, and vertical joints lie at the midpoint of the brick below. It's now standard practice to use running bond exclusively, since brick veneer construction doesn't require headers to tie a wall together. The resulting loss of texture is an example of technology's inadvertent trend towards blandness.

Rusticated: Squared stone masonry laid in regular courses, but with the courses or the individual stones emphasized by deep joints and/or high relief in the surface treatment.

Sash: Framework holding the glass in a window.

Second Empire: A style named after Louis Napoleon's reign. Shares the vertical openings of the *Italianate* style, but usually topped with a dormered, and often curved, mansard roof, and often accompanied by a narrow tower. The Addams family lives in a Second Empire house.

Segmental arch: An arch composed of a single curve, centred below the *springline* on the centreline of the opening. Normally quite shallow.

Shed Roof: A roof with only one slope.

Shiplap siding: (also called drop siding) Horizontal boards with notched edges that form an overlapping joint.

Sidelight: A window beside a door forming part of the entrance.

Signband: The horizontal fascia above a storefront window, where signage is placed.

Sill: A horizontal member at the bottom of a window, door, or wall.

Soffit: The underside of an architectual element, such as a *lintel*, *cornice*, balcony or *arch*.

Soldier: A brick laid so that its short dimension is in the length of a wall, and its long dimension is vertical.

Spandrel: The space between *arches* in an *arcade*, above the springline and below the top of the arches. Also a solid panel in a bay separating one opening from another above it.

Springline: the horizontal line from which an arch rises.

Squinch: A small arch or set of *corbelled* arches built at the interior angle of a structure to carry a superstructure of a different shape, such as a dome, spire or cupola.

Stacked bond: See *Bond*. Pattern of brickwork where all vertical joints are one above the other. Usually executed with *stretchers,* less commonly with *headers*.
Stretcher: A brick laid so that its long dimension is in the length of a wall, and its short dimension is vertical.
String course: A thin band of masonry projecting or recessed from the plane of the wall giving the effect of a moulding.
Tabernacle: A canopied *niche*.
Three-centred arch: An arch composed of three curves: a central *segmental* one of large radius, joined to two smaller flanking curves centred on the *springline*.
Transom: A horizontal member dividing an opening. Also used as short form for *transom window.*
Transom window: A window above a *transom,* most commonly over a door.
Tripartite: Having three parts.
Tympanum: The panel between the mouldings of a *pediment.*
Verandah: An large open gallery or porch, running along one of more sides of a building.
Voussoir: One of the blocks forming an arch.
Water table: Projecting masonry course near the bottom of a wall, intended to throw rain water away from the foundations.
Wythe: A vertical plane of masonry. A wall two bricks thick has an inner wythe and an outer wythe, tied together with *headers.*