

Appendix H

DISCLAIMER: The opinions set forth herein reflect the viewpoint of the Appraisal Institute and Appraisal Institute of Canada at the time of publication but do not necessarily reflect the viewpoint of each individual member. While a great deal of care has been taken to provide accurate and current information, neither the Appraisal Institute, the Appraisal Institute of Canada, the UBC Real Estate Division, nor its editors and staff assume responsibility for the accuracy of the data contained herein. Further, the general principles and conclusions presented in this text are subject to local, provincial, and federal laws and regulations, court cases, and any revisions of the same. This publication is sold for educational purposes with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional advice.

© Copyright 2010 by the Appraisal Institute of Canada and the Appraisal Institute. All rights reserved. No part of this book may be reproduced in any form without written permission from the Appraisal Institute of Canada. Published by the UBC Real Estate Division. Printed in Vancouver, Canada.

LAND AND SITE ANALYSIS

An appraiser may undertake appraisal assignments to develop an opinion of the value of land only or to value both land and improvements. In either case, the appraiser must provide a detailed description and analysis of the land. Land can be raw or improved; raw land can be undeveloped or put to an agricultural use. Land may be located in rural, suburban, or urban areas and may have the potential to be developed for residential, commercial, industrial, agricultural, or special-purpose use.

This chapter focuses on the description and analysis of the land component of real property. Since appraisers typically deal with land that has been improved to some degree, the term site is often more precise than land; therefore, the term site is used predominantly in this chapter. The information needed to complete a full site description and analysis is noted and explained and sources for obtaining this information are presented. Although this discussion relates primarily to the property being appraised, the same type of data is collected and examined in analyzing the comparable properties used in the appraisal.

A parcel of land can have various site improvements that enable the vacant parcel to support a specific purpose. A site can have both on-site and off-site improvements that make it suitable for its intended use or development. Off-site improvements may include utility lines, access to roads, and water, drainage, and sewer systems. On-site improvements may include landscaping, site grading, access drive-ways, drainage improvements, accessory buildings, and support facilities.

In valuing any type of property, the appraiser must describe and analyze the site. Site description consists of comprehensive factual data, information on land use restrictions, a legal description, other title and record data, and information on pertinent physical characteristics. Site analysis goes further. It is a careful study of factual data in relation to the market area characteristics that create, enhance, or detract from the utility and marketability of specific land or a given site as compared with other sites with which it competes.

site description

A comprehensive listing of site data, including a legal description, other title and record data, and information on the site's physical characteristics.

raw land

Land on which no improvements have been made; land in its natural state before grading, construction, subdivision, or the installation of utilities.

site

Land that is improved so that it is ready to be used for a specific purpose.

One primary objective of site analysis requires the appraiser to gather data that will indicate the highest and best use of the site as though vacant so that the appraiser can estimate the land value for a specific use. Whether a site or raw land is being valued, the appraiser must determine and evaluate its highest and best use. When the highest and best use of land is for agriculture, the appraiser usually analyzes and values the land by applying the direct comparison

approach. If the land is to be developed for urban use, the appraiser may use a more sophisticated technique such as subdivision development analysis. Chapter 12 discusses highest and best use in detail.

LEGAL DESCRIPTIONS OF LAND

Land boundaries differentiate separate ownerships, and the land within one set of boundaries may be referred to as a *parcel*, *lot*, *plot*, or *tract*. An appraiser may apply these terms to all types of improved and unimproved land and market participants often use them interchangeably. However, the appraiser should use the terms consistently in the appraisal report to avoid confusing the client.

A parcel of land generally refers to a piece of land that can be identified by a common description and is held in one ownership. Every parcel of real estate is unique. To identify individual parcels, appraisers rely on legal descriptions, surveys, or other descriptive information typically provided by the client or found in public records. A legal description identifies a property in such a way that it cannot be confused with any other property. An appraiser usually includes or references a legal description in an appraisal report, although it is not required.

In Canada, three methods are commonly used in legal descriptions of real property:

- Metes and bounds system
- Rectangular survey system
- Lot and block system

An appraiser should be familiar with these forms of legal description and know which form or forms are common in the area where the appraisal is being conducted.

legal description

A description of land that identifies the real estate according to a system established or approved by law; an exact description that enables the real estate to be located and identified.

Metes and Bounds

The oldest known method of surveying land is the metes and bounds system, in which land is measured and identified by describing its boundaries. A metes and bounds description of a parcel of real property describes the property's boundaries in terms of precise reference points. To follow a metes and bounds description, one starts at the point of beginning (POB), a primary survey reference point that is tied

to a benchmark or adjoining surveys, and moves along past several intermediate reference points before finally returning to the POB. The return to the POB is called closing and is necessary to ensure the survey's accuracy.

Surveyors in the field increasingly rely on modern "total stations" to collect data in digital form. The familiar surveyor's measuring instrument mounted on a tripod uses infrared technology and today is augmented by portable computer technology. The data is downloaded into the surveyor's office computer for plotting the property boundaries and computing the land area. Coordinate geometry software and global positioning system (GPS) technology allow for more accurate determinations of directions, distances, and areas. GPS technology is only limited by physical obstructions that prohibit receiving satellite transmissions, and its use in surveying will probably increase.

The metes and bounds system is an older method of describing real property, and is found most often in provinces with the oldest land registry systems, e.g., the Maritime provinces. It is used across the country as a corollary to the rectangular survey system, especially in describing unusual or odd-shaped parcels of land.

Rectangular Survey System

The rectangular survey system is also known as the Dominion Land Survey (DLS) and the section and township system. It is commonly used in western Canada, and to a lesser extent in Ontario.

The initial reference points for government surveys were established in 1871, shortly after Manitoba and the Northwest Territories became part of Canada. From each point specified, true east-west and north-south lines were drawn. The north-south reference points for government surveys were established firstly as being west of specified meridians. (The prime meridian of 98 degrees lies approximately 12 miles west of Winnipeg). East-west reference points commence at the 49th parallel of latitude. From each point specified, true east-west and north-south lines were drawn. The east-west lines are called base lines and the north-south lines are called principal meridians. Each

In Canada, the three principal methods used to describe real property are the metes and bounds, rectangular survey, and lot and block systems.

metes and bounds system

A system for the legal description of land that refers to the parcel's boundaries, which are formed by the point of beginning (POB) and all intermediate points (bounds) and the courses or angular direction of each point (metes).

rectangular survey system

A land survey system, called the Dominion Land Survey (DLS), used in western Canada and to a lesser extent, Ontario; it divides land into townships approximately six miles square, each normally containing 36 one-square-mile sections of 640 acres, except when adjusted for the curvature of the earth.

base line

In the government survey system of land description, a line running due east and west through the initial point of a principal meridian from which township lines are established.

principal meridian

In land surveying, major north-south lines established as general reference points. They converge towards the North Pole. Therefore, the north edge of every township is slightly shorter than the south.

lot and block system

A system for the legal description of land that refers to parcels' lot and block numbers, which appear on recorded plans of subdivided land. These plans are registered at provincial and territorial land registry and land titles offices.^t

principal meridian has a unique number and is crossed by its own base line. Using these base lines and principal meridians, land can be located accurately.

The land surveyed under the rectangular survey system is divided by north-south lines six miles apart called range lines, and by east-west lines six miles apart called township lines.

The system has its basis in the imperial system

of measurement: as no province has undertaken a comprehensive program of metric conversion, dimensions remain in imperial until resurveying occurs. The rectangles created where these lines intersect are called townships. The standard township is six miles square and contains 36 square miles. When applied to surveying, the term township has two meanings: a location on a line north or south of a base line and a square of land that measures six miles by six miles. In Ontario, townships were oriented to geographic features including Lake Ontario, the St. Lawrence River, and early military roads. Concession lines defined townships and subdivisions involved lot surveys. The Ontario system is referred to as the township lot and concession system. Township can also refer to a political subdivision similar to a county, regional district, or rural municipality.

The intersection of a base line and a principal meridian is the starting point from which the range lines and township lines are counted to locate a specific township in a legal description. Ranges are numbered east and west from the principal meridian; townships are numbered north and south from the base line.

Townships are divided into 36 sections, each of which is one mile square and contain 640 acres. For a more specific description of a parcel, a section may be divided into quarter sections and fractions of quarter sections. To accommodate the spherical shape of the earth, additional lines called guide meridians are drawn every 24 miles east and west of the principal meridian. Other lines, called standard parallels, are drawn every 24 miles north and south of the base line. These correction lines are used to adjust the rectangular townships to fit the curvature of the earth.

Lot and Block System

The *lot and block system* was developed as an outgrowth of the rectangular survey system and can be used to simplify the locational descriptions of small parcels, particularly for lots in densely populated metropolitan areas, suburban areas, and exurbs. This system is sometimes referred to as the *recorded plat survey system* or the *recorded map survey system*. The system was established when developers subdivided land in the rectangular survey system and assigned lot numbers to individual sites within blocks. The maps of these subdivisions were then filed with the local government to establish a public record of their locations. Each block was identified precisely using a ground survey or established monuments.

Applying the lot and block system to old, unsurveyed communities helped to identify each owner's site or parcel of land. Typically, a surveyor located the

boundaries of streets on the ground and drew maps outlining the blocks. Then lot lines were established by agreement among property owners. A precise, measured description was established for each lot and each was given a number or letter that could be referred to in routine transactions. For example, a lot in a rectangular survey area might be described as follows: Lot 5 of Block 18, registered plan 5396, southwest quarter of Section 10, Township 3 North, Range 3 East. This information was recorded in public records and was known as a recorded plat of the defined area or subdivision.

TITLE AND RECORD DATA

Before making an on-site inspection, an appraiser should obtain an appropriate description and other property data from the client or from published sources and public documents. Most jurisdictions have a government office (which increasingly is accessible via the internet) where transactions are documented and made public. Under the registry system, the accessibility of public records, which is legally known as constructive notice, ensures that interested individuals are able to research and, if necessary, contest deed transfers. Most registry offices keep index books for land deeds and mortgages, from which the book and page number of a recorded deed may be found. An appraiser might also find pertinent information in the property's abstract of title, which includes a summary of conveyances, transfers, and other facts used as evidence of title as well as any other public documents that may impair title. Under the Torrens system, this information is shown on the certificate of title. In addition, official municipal consolidated legal plans may exist and be available for examination at local or regional government offices.

Sometimes public records do not contain all relevant information about a particular property. Although official documents are the most dependable sources of information, they may be incomplete or not suited to the appraiser's purposes. Useful support data can be found in land registration systems, land data banks, and asses-

THE TORRENS SYSTEM

A system of land registration used in some Canadian provinces in which the land title authority issues title certificates covering the ownership of land, which often serve as title insurance. The system was first introduced in Australia in 1858, to combat the problems of uncertainty, complexity, and cost associated with prior title systems, which depended on proof of an unbroken chain of title back to a good "root" of title. Under the common-law form of prior title systems, land owners needed to provide their ownership of a piece of land back to the original grant of land by the Crown to its first owner. (This is the deeds registration system associated with the Registry system found in eastern Canada.) The documents relating to transactions involving the land were collectively known as the "title deeds" or the "chain of title". The original land grant could have occurred many years prior, and be influenced by many changes in the land's ownership, or of interests affecting it. A person's ownership over land could be challenged, possibly causing great expense to land owners and hindering its development. Even an exhaustive search into the chain of title would not give an owner complete security because of the possibility of undetected outstanding interests; claims by others might not be obvious.

sors' maps. The availability of internet access to government land titles or registry records simplifies reference to title and deed information.

WHERE TO FIND – TITLE DATA AND OWNERSHIP INFORMATION

Most provinces now make available title and registry information through the Internet. Some commercial data providers maintain reporting services available on a subscription basis, and title search companies will conduct customized research for a fee. Provincial agencies such as the assessor's office make land titles data such as sales reports available.

A property's legal owner and type of ownership can be ascertained from the public records maintained at the provincial or territorial land titles or land registry office. This information is often available online for a fee, and local title search or abstract companies may also provide useful information.

Ownership Information

If an appraiser values a partial interest in a property rather than the fee simple interest, the appraiser should indicate and carefully analyze the excluded elements of title. An appraiser who is asked to develop an opinion of the value of a fractional ownership interest must understand the exact type of legal ownership to define the property rights to be appraised.

After defining the property rights being appraised, the appraiser must identify any excluded rights that may affect value. In addition, Canadian Uniform Standards requires appraisers to analyze and report any prior sales occurring within a specified number of years. In most assignments, the appraiser will also investigate the presence and nature of surface and subsurface rights through a title report, an abstract of title, or other documentary evidence of the property rights to be appraised. Title data indicates easements, rights of way and other restrictions that might limit the use of the property, as well as special rights such as air rights, rights-to-purchase, reversionary rights, mineral rights, obligations for lateral support, and easements for common walls. Typically, the appraiser is not an expert in title information but must rely on legal opinions, title research reports, and title data provided by other professionals. Easements, rights of way, and private and public restrictions affect property value.

Easements may provide for overhead and underground electrical transmission lines, underground sewers or tunnels, flowage, aviation routes, roads, walkways, and open space. Some easements or rights of way acquired by utility companies or public agencies may not have been used for many years, and the appraiser's physical inspection of the property may not disclose any evidence of such use. In certain jurisdictions, easements that are not used for a finite period of time may be automatically terminated. Use of a property for access without the owner's written permission may give the user a prescriptive easement across the property. This type of easement usually must be used for several years without being contested or challenged by the property owner. Restrictions cited in the deed or title may limit the type of building or business that may be conducted on the property. A typical example is a restrictive covenant that prohibits the sale of liquor or gasoline in a certain place. Often

a title report will not specify the details of private restrictions. The appraiser must read a copy of the deed or other conveyance to identify the limitations imposed on the property; interpretation can require legal training or the advice of a lawyer. Appraisers often include a limiting condition in their appraisal reports regarding easements or private restrictions that have not been recorded in public records.

Zoning and Land Use Information

Local governments such as cities, towns, and regional districts usually regulate land use and development, but they are often subject to regional, provincial, and federal controls as well. In analyzing land use controls, an appraiser considers all current regulations and the likelihood of a change in the law. Usually a zone calls for a general use such as residential, commercial, or industrial and then specifies a type or density of use. Zoning and other land use regulations often control use and building standards, with the latter including the following:

- Height and size of buildings
- Lot coverage or floor space ratio (FSR) density¹
- Required landscaping or open space
- Number of units allowed
- Parking requirements
- Sign requirements
- Building setbacks
- Plan lines for future street widenings
- Other factors of importance to the highest and best use of the site

Most zoning ordinances identify and define the uses to which a property may be put without reservation or recourse to legal intervention. This is referred to as a *use by right*. They also describe the process for obtaining nonconforming use permits, variances, and zoning changes, if permitted. In areas subject to floods, earthquakes, and other natural hazards, special zoning and building regulations may impose restrictions on construction. In coastal and historic districts, zoning restrictions may govern building location and design.

The appraiser must also consider potential changes in government regulations. If, for example, a building moratorium or cessation of land use applications is in effect for a stated period, a property's prospective highest and best use may have to be delayed. The appraiser must consider the appropriateness of the current zoning and the reasonable probability of a zoning change. Highest and best use recommendations may rely on the probability of a zoning change. One of the criteria for the highest and best use conclusion is that the use must be legally permissible. If the highest and best use of a site is predicated on a zoning change, the appraiser must investigate the probability that such a change will occur. The appraiser may interview planning and zoning staff and study patterns of zoning change to assess the likelihood of a change. The appraiser can generally eliminate those uses that are clearly not compat-

¹ FSR (floor space ratio) is synonymous with the term FAR (floor area ratio) and is defined as the ratio or percentage of the site area that can be built upon, e.g., if a property has 100,000 square feet and a 0.5 or 50% FSR, then the buildable area is 50,000 square feet (100,000 x 0.5)

ible with existing uses in the area as well as uses that have previously been denied. After reviewing available public and private land use information, the appraiser may also prepare a forecast of land development for the area. If the zoning of the subject site is not compatible with the probable forecast uses, the probability of a change in the zoning is especially high or speculative. However, the appraiser should recognize that a zoning change is never 100% certain and should alert the client to that fact if it is relevant to the purpose of the appraisal.

WHERE TO FIND – ZONING AND LAND USE INFORMATION

Although zoning by-laws and maps are public records that are available at zoning offices or on the internet, an appraiser may need help from planning and zoning staff to understand the impact of zoning regulations. Often an appraiser must contact several agencies. Zoning and land use restrictions are not usually listed in the recorded title to a property, so confirmation from controlling agencies is necessary.

Assessment and Tax Information

Real property taxes in all jurisdictions are based on ad valorem assessments. Taxation levels are significant in considering a property's potential uses. From the present assessment, the current tax rate and a review of previous tax rates, the appraiser can form a conclusion about future trends in property taxation. Assessed values might not be good indicators of the market value of individual properties because mass appraisals based on statistical methodology tend to equalize the application of taxes to achieve parity among assessment levels in a given district. Nevertheless, in some areas and for some property types, assessed value may approximate market value if the enabling legislation requires market value assessments. The reliability of local assessments as indicators of market value varies from district to district.

WHERE TO FIND – ASSESSMENT AND TAX INFORMATION

The records of the assessor or tax collector can provide details concerning a property's assessed value and annual tax burden. Often, an appraiser obtains property information from the local assessment authority in the early stages of an appraisal to confirm legal description, address, and other property particulars.

PHYSICAL CHARACTERISTICS OF LAND

In site description and analysis, an appraiser describes and interprets how the physical characteristics of the site influence value and how the physical improvements relate to the site and to neighbouring properties. Important physical characteristics include the following:

- Site size and shape
- Corner influence
- Plottage

- Excess land and surplus land
- Topography
- Utilities
- Site improvements
- Accessibility
- Environment
- Size and Shape

A size and shape description states a site's dimensions such as street frontage, width, and depth and lists any advantages or disadvantages caused by these physical characteristics. The appraiser describes the site and analyzes how its size and shape affect property value. The appraiser should pay special attention to any characteristics that are unusual for the neighbourhood. The effects of the size and shape of a property vary with its probable use. For example, an odd-shaped parcel may be appropriate for a dwelling but unacceptable for certain types of commercial or industrial use. A triangular lot may not have the same utility as a rectangular lot due to its size and shape.

The physical characteristics of a site relate to size, shape, plottage potential, corner influence, the presence of excess or surplus land, topography, available utilities, on-site and off-site improvements, location, and environment.

The size of a parcel of land is measured and expressed in different units, depending on local custom and land use. In Canada, professional land surveyors' work is normally completed using the metric system; however, the real estate industry continues to work with the imperial system. Large tracts of land are usually measured in acres or hectares. Smaller parcels are usually measured in square feet or square metres. Imperial dimensions are expressed in feet and tenths of feet, not inches, for easy calculation.

Frontage is the measured footage of a site that abuts a street, lake or river, railroad, or other feature recognized by the market. The frontage may or may not be the same as the width of the property because a property may be irregularly shaped or have frontage on more than one side.

Size differences can affect value and are considered in site analysis. Reducing sale prices to consistent units of comparison facilitates the analysis of comparable sites and can identify trends in market behaviour. Generally, as size increases, unit prices decrease. Conversely, as size decreases, unit prices increase. The functional utility or desirability of a site often varies depending on the types of uses to be placed on the parcel. Different prospective uses have ideal size and depth characteristics that influence value and highest and best use. An appraiser should recognize this fact when appraising sites of unusual size or shape. An appraiser can observe value tendencies by studying market sales of lots of various sizes and their ability to support specific uses or intensities of development. In residential appraisal, a large triangular lot may not have any greater value because only one dwelling unit can be built on it according to zoning and subdivision regulations. The large undeveloped remainder would be surplus land, which is discussed below.

Metric	Imperial
Distance – Metre(m) 1m = +/-3.028084 feet	Distance – Feet (Ft) 1 ft = 0.3048008 metre
Distance – Kilometre (km) 1km = +/-0.621371 mile (3,280.84 feet)	Distance – Mile (mi) 1 mi = +/- 1.609.35 kilometres (1,609.35 metres)
Area – Hectare (ha) 1 ha = 2.471054 acres (107,639.1 square feet)	Area – Acre (ac) 1 ac = 0.404687 hectare (4,046.87 square metres)

Corner Influence

In the layout of building improvements and the subdivision of large plots, corner lots have more flexibility and higher visibility than interior properties. A store on a corner may have the advantage of direct access from both streets and prominent corner visibility and exposure. Corner exposure may provide advantageous ingress and egress for a drive-in business. For residential properties, corner locations may have negative implications; quiet, cul-de-sac sites in the interior of a subdivision may be more desirable and command higher prices. Residences on corner sites are exposed to more traffic noise and provide less security. Owners of corner sites may pay higher costs for front-footage sidewalks and assessments, and the side street setback may affect the permitted size of the building. Usually owners of residences on corner lots have to maintain a larger landscaped area that may, in fact, be public property.

Plottage

Sometimes highest and best use results from assembling two or more parcels of land under one ownership. If the combined parcels have a greater unit value than they did separately, plottage value is created. Plottage is an increment of value that results when two or more sites are combined to produce a larger site with greater utility.

corner influence

The effect on value produced by a property's location at or near the intersection of two streets; the increment of value or loss in value resulting from this location or proximity.

assemblage

The combining of two or more parcels, usually but not necessarily contiguous, into one ownership or use; the process that creates plottage value.

plottage

The increment of value created when two or more sites are combined to produce greater utility.

For example, there may be great demand for one-acre lots in an industrial park where most of the subdivided lots are of one-half acre. By itself, a half-acre lot has a value of \$1.00 per square foot. However, when combined with an adjacent half-acre lot, the value may increase to \$1.50 per square foot. The value difference may be offset by the premium a developer often has to pay to combine adjacent properties, or the reverse may occur if the lots are very large and assemblage yields a lower value per square foot in the marketplace due to negative economies of scale. Plottage value may also apply to an existing site of a special size or shape that has greater utility than more conventional, smaller lots. The appraiser analyzes neighbouring land uses and values to determine whether an appraised property has plottage value.

Plottage is significant in appraising agricultural land. Properties of less-than-optimum size have lower unit values because they cannot support the modern equipment needed to produce maximum profits. In an urban area, plottage of commercial office and retail sites and of residential apartment sites may increase the unit values of the lots assembled. For example, some cities wanting to encourage larger mixed-use developments will establish zoning policies that allow higher densities for larger sites. If a 66-foot wide lot can only achieve a 1.0 FSR, plottage will exist and developers will endeavour to assemble adjacent 66-foot lots.

Although the assemblage of land into a size that permits a higher and better use may increase the land's unit value (dollars per square foot or acre), the reverse may also occur. Land that must be divided or subdivided to achieve a higher and better use is commonly sold in bulk at a price less than the sum of the retail prices of its components. The lower unit price for the bulk sale reflects market allowances for risk, time, management, development, costs, sales costs, profit, and other considerations associated with dividing and marketing the land.

Excess Land and Surplus Land

A given land use has an optimum parcel size, configuration, and land-to-building ratio. Any extra or remaining land not needed to support the specific use may have a different value than the land area needed to support the improvement. The portion of the property that represents an optimal site for the existing improvements will reflect a typical land-to-building ratio. The appraiser can identify and quantify the land area needed to support the existing or ideal improvement. Any remaining land area is either *excess land* or *surplus land*.

Excess land is land that is not needed to serve or support the existing or proposed improvement. The highest and best use of the excess land may or may not be the same as the highest and best use of the improved parcel. Excess land has the potential to be sold separately and must be valued separately.

Surplus land is not currently needed to support the existing improvement and cannot be separated from the property and sold off. Surplus land does not have an independent highest and best use and may or may not contribute value to the improved parcel.

As an example, consider a residential property comprising a one-unit home and two standard-size lots in a fully developed subdivision. If the house was situated within the boundaries of a single lot and the normal land area for properties in the neighbourhood is a single lot, then the second, vacant lot would most likely be considered excess land, which could be separated from the lot of the existing

excess land

Land that is not needed to serve or support the existing improvement. The highest and best use of the excess land may or may not be the same as the highest and best use of the improved parcel. Excess land has the potential to be sold separately and must be valued separately.

surplus land

Land that is not currently needed to support the existing improvement but cannot be separated from the property and sold off. Surplus land does not have an independent highest and best use and may or may not contribute value to the improved parcel.

structure for future development to that parcel's highest and best use. If land values in the neighbourhood were \$1.00 per square foot, then the excess land in this situation would probably add the full \$1.00 per square foot to the value of the subject property, i.e., the house and the two lots. If the typical land area for properties in the neighbourhood were a double lot, regardless of building placement, then the same property would have neither excess land nor surplus land.

Now consider an industrial park where floor space ratios for warehouse properties range from 0.28 to 0.35 and land value is \$2.00 per square foot. The subject property is a 20,000 square foot warehouse on a 100,000 square foot site, which results in floor space ratio of 0.20, well below the market area norm. If the additional land not needed to support the highest and best use of the existing property were in the back portion of the site, lacking access to the street, that land would probably be considered surplus land because it could not be separated from the site and does not have an independent highest and best use. In this situation, the surplus land would probably still contribute positively to the value of the subject property (because the existing improvements could still be expanded onto the surplus land), but it would most likely be worth less than the \$2.00 per square foot price commanded by vacant land elsewhere in the industrial park.

Topography

Topographical studies provide information about land's contour, grading, natural drainage, soil conditions, view, and general physical usefulness. Sites may differ in value due to these physical characteristics. Steep slopes often impede building construction. Natural drainage can be advantageous, or, if a site is downstream from other properties or is a natural drainage basin for the area, it may have severely limited usefulness. Adequate drainage systems can offset the topographic and drainage problems that would otherwise inhibit the development of such a site. Upland land area (i.e., land above the mean high water line) and land with good drainage can typically support uses that are more intensive.

Topographical characteristics, surface soil and subsoil quality, grade, drainage, and the bearing capacity of the soil determine the suitability of a land parcel for an agricultural use or a proposed improvement.

In describing topography, an appraiser must employ the terminology used in the area. What is described as a steep hill in one part of the country may be considered a moderate slope in another. In some instances, descriptions of a property's topography may be taken from published sources such as topographic maps (see Figure 10.1).

Geodetic Survey Program

Topographic maps prepared under the direction of the Geodetic Survey Division of Natural Resources Canada are referred to as quadrangles or quads. They provide information that is useful in land descriptions (see Figure 10.2). Base lines, principal meridians, and township lines are shown along with topographic and man-made features. The topographic features commonly depicted on these maps include land elevations (represented by contour lines at specified intervals), rivers, lakes, inter-

Figure 10.1: Topographic Map



WHERE TO FIND – TOPOGRAPHIC MAPS

Topographic maps are available at most local and regional government offices and their websites. The Centre for Topographic Information produces topographic maps of Canada at scales of 1:50,000 and 1:250,000. They are known as the National Topographic System (NTS). A government proposal to discontinue publishing of all hardcopy or paper topographic maps in favor of digital-only mapping data was shelved in 2006 after intense public opposition. Natural Resources Canada maintains the centre, and makes topographic maps and data available in print from regional offices and on the web. For more information, see: www.nrcan.gc.ca. Topographic and other maps are available online at atlas.nrcan.gc.ca/site/english/maps/topo/index.html

mittent streams and other bodies of water, poorly drained areas, and forest. The man-made features identified include improved and unimproved roads, highways, bridges, power transmission lines, levees, railroads, airports, churches, schools, and other buildings. Quadrangle maps also show surface geology.

Soil Analysis

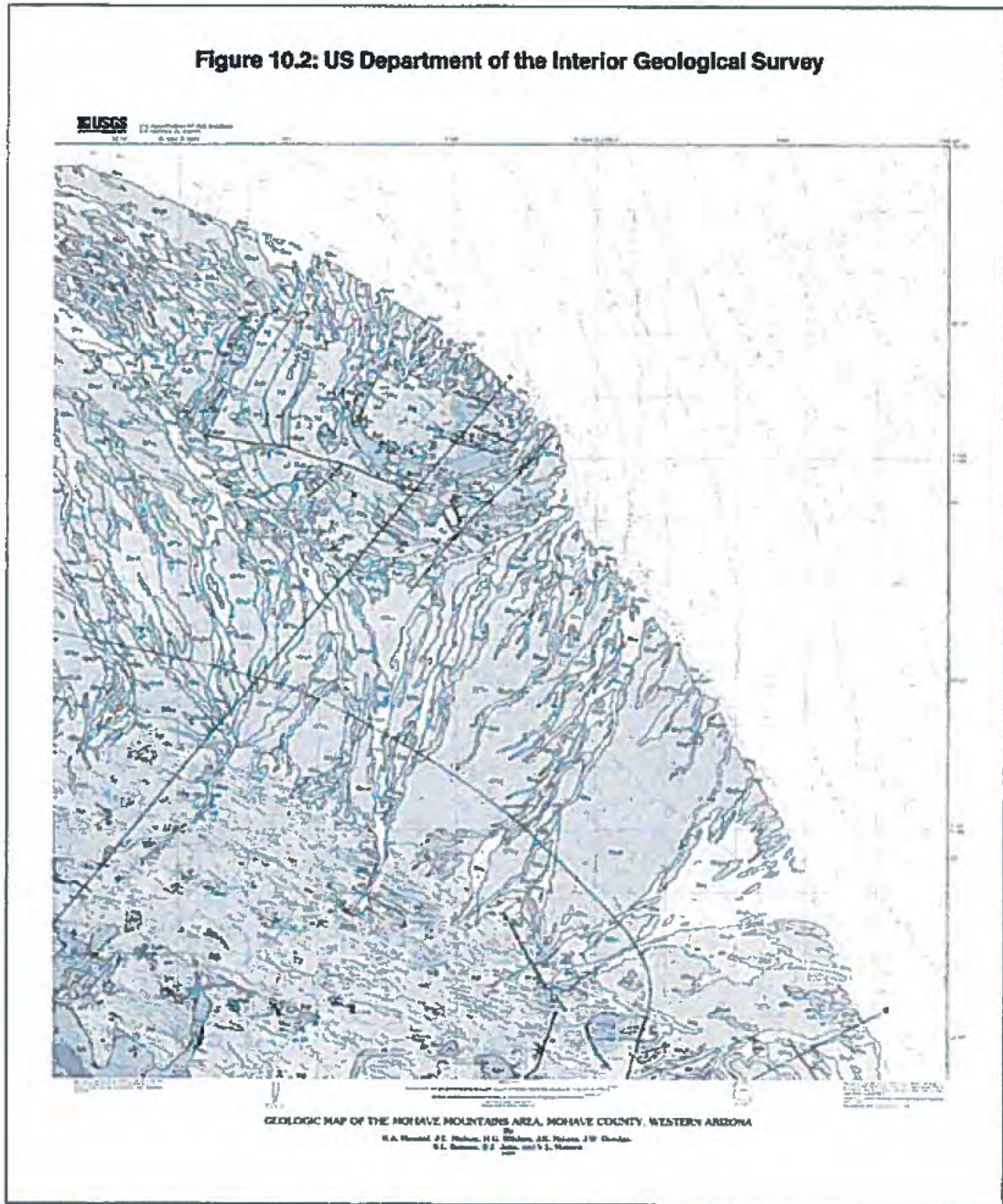
Surface soil and subsoil conditions are important for both improved properties and agricultural land. A soil's suitability for building or for accommodating a septic system is important for all types of improved property, and it is a major consideration when the construction of large, heavy buildings is being contemplated. The need for special pilings or floating foundations has a major impact on the adaptability of a site for a particular use. Soil conditions affect the cost of development and therefore the property value.

Agronomists and soil scientists measure the agricultural qualities of soil and capacity of soil for specific agricultural uses. Engineers trained in soil mechanics test for soil consistency and load-bearing capacity. Local builders, developers, and others frequently know subsoil conditions, but if there is any doubt about the soil's bearing capacity, the client should be informed of the need for soil studies. All doubts must be resolved before the land's highest and best use can be successfully analyzed, or a description of any special assumptions must be included in the appraisal report.

WHERE TO FIND – SOILS DATA

Soils surveys conducted by Agriculture and Agri-Food Canada in aggregate are called the National Soil Database (NSDB). The NSDB is the set of computer readable files which contain soil, landscape, and climatic data for all of Canada. It serves as the national archive for land resources information that was collected by federal and provincial field surveys, or created by land data analysis projects. For more information, see www.agr.gc.ca

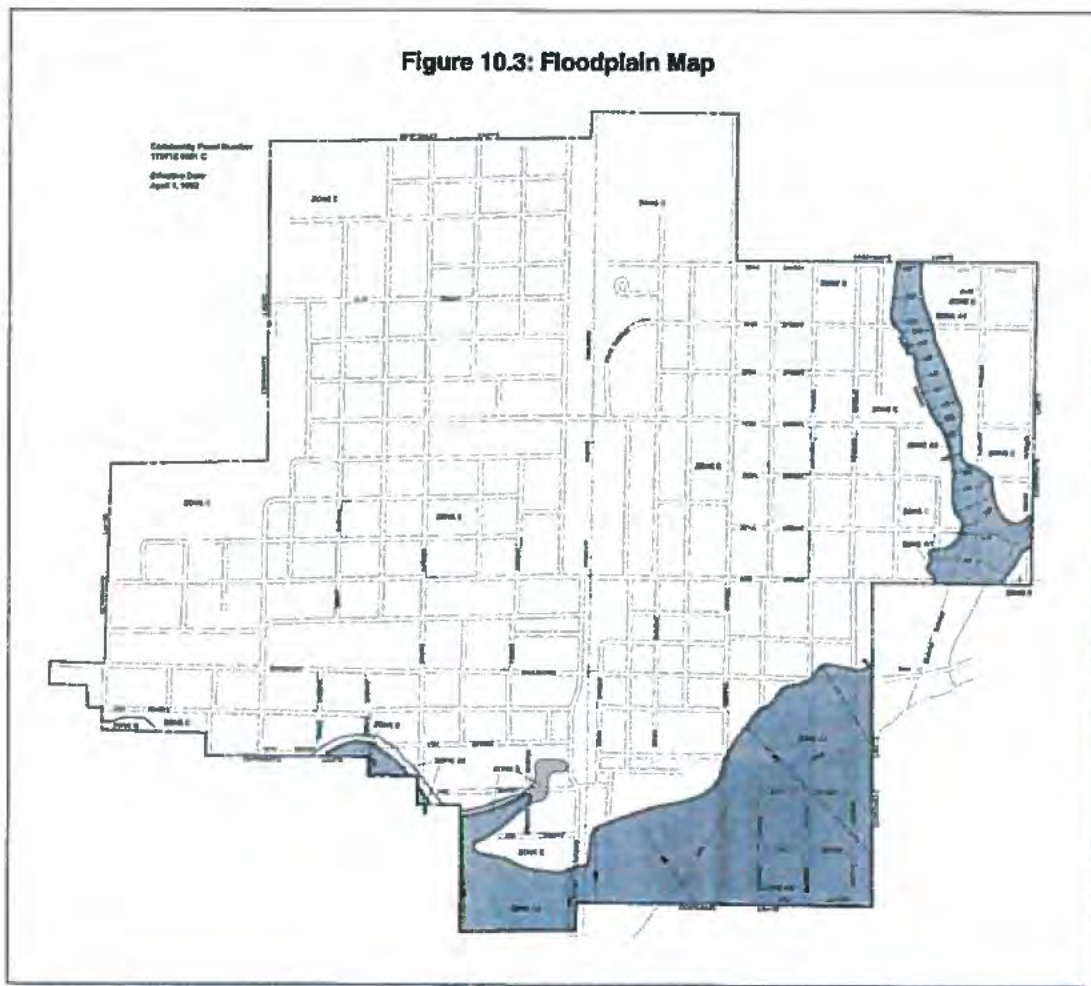
Figure 10.2: US Department of the Interior Geological Survey



Floodplain and Wetlands Analysis

Wetlands are lands that are seasonally or permanently covered by shallow water, including lands where the water table is at or close to the surface. The presence of abundant water causes the formation of hydric soils (lacking air) and favours the dominance of either hydrophytic plants (adapted to aquatic environments) or water-tolerant plants. Wetlands are characterized by plants adapted to saturated-soil conditions. The five major types of wetlands are marshes, swamps, bogs, fens, and shallow open waters.

Wetlands are the only ecosystem designated for conservation by international convention because they absorb the impact of hydrologic events, filter sediments and toxic substances, supply food and essential habitat for many species, provide products for food, energy, and building material, and are valuable recreational areas. Some wetlands help recharge groundwater, while others receive groundwater discharge. Wetlands are vulnerable to climatic variations and extreme events.



Wetlands occur across most of Canada; their location usually depends on local factors such as drainage, topography, and surface material.

The appraiser should check floodplain maps prepared by local governments and review any available surveys or topographical data provided by the client. Proximity to any flood zones may be determined by studying maps published by provincial and territorial agencies, pursuant to federal-provincial agreements that provide for the mapping of floodplains. Information is available through Environment Canada, and the relevant provincial and territorial agency.

The definition of what constitutes a wetland varies. Most laws describe wetlands in terms of three possible characteristics:

1. Soils
2. Hydrology, i.e., the study of movement, distribution, and quality of water
3. Vegetation

There is no specific wetlands legislation in Canada. Wetlands receive indirect protection through a variety of national, provincial, and territorial legislation, for example see the Federal Fisheries Act.

Swamps, bogs, fens, marshes and estuaries are subject to varying degrees of influence from local, provincial, and federal governments. To value wetlands, appraisers must understand the unique features of the land, the evolving laws protecting these areas, the niche market for such properties, and the proper application of the approaches to value.

WHERE TO FIND – FLOODPLAIN MAPS

National Resources Canada publishes maps of wetlands; local, territorial, and provincial agencies often adapt this data for local wetland mapping and GIS systems.

For more information, see: www.atlas.nrcan.gc.ca/site/english/maps/freshwater/distribution/wetlands

floodplain

The flat surfaces along the courses of rivers, streams, and other bodies of water that are subject to flooding.

wetlands

Areas that are frequently inundated or saturated by surface or groundwater and support vegetation typically adapted for life in saturated soil conditions; generally include swamps, marshes, bogs, and similar areas, but classification may differ in various jurisdictions.

Utilities

An appraiser investigates all the utilities and services available to a site. Off-site utilities may be publicly or privately operated, or there may be a need for on-site utility systems such as septic tanks and private water wells. The major utilities to be considered include the following:

- Sanitary sewers
- Domestic water, i.e., potable water, for human consumption
- Types of raw water for commercial, industrial, and agricultural uses
- Natural gas

- Electricity
- Storm drainage/sewer
- Telephone service
- Cable television

Although market area analysis describes, in general, the utility systems that are available in an area, a site analysis should provide a detailed description of the utilities that

The cost of installing utilities is considered in the highest and best use conclusion and may be reflected directly or indirectly in the analysis, depending on the selection of comparable sales used in the valuation.

are available to the appraised site. An appraiser should determine the location and capacity of the utilities and note any unusually high connection fees. The appraiser should also identify and analyze atypically high or low service costs. It is not sufficient simply to establish which utilities are available. Any limitations resulting from a lack of utilities are important in highest and best

use analysis, and the appraiser should investigate all available, alternative sources of utility service.

The appraiser should also consider the rates for utility service and the burden of any bonded indebtedness or other special utility costs. Of particular concern to residential, commercial, and industrial users are the following:

- Quality and quantity of water and its cost
- Costs and dependability of energy sources
- Adequacy of sewer facilities
- Any special utility costs or surcharges that might apply to certain businesses
- Impact of special or local improvement districts (SIDs or LIDs) on tax rate and repayment methods, e.g., special assessment

WHERE TO FIND – DATA ON UTILITIES

Accurate information on public utilities can be obtained from:

- Local public works departments
- Local public works departments
- Providers of on-site water and sewage disposal systems
- City/county planning departments

Site Improvements

In a site description, an appraiser describes off-site and on-site improvements. Then the appraiser analyzes how the site improvements affect value. On-site improvements include grading, landscaping, fences, curbs, gutters, paving, drainage and irrigation systems, walks, and other improvements to the land. Off-site improvements include access roads, utility hook-ups, remote water retention ponds, and sewer and drainage lines. An appraiser typically considers the value of off-site improvements in the site valuation process.

An appraiser must also describe and analyze the location of existing buildings on a site. Many appraisers make approximate plot plan drawings that show the

placement of major buildings in relation to lot lines, access points, and parking or driveway areas. Land-to-building ratios and overall site configuration are usually quite important to a site's appeal and ability to support specific uses. The space allotted for parking influences a site's value for business and commercial use; therefore, the appraiser must analyze the parking space-to-building ratio in a commercial and industrial property. Zoning codes and parking by-laws will specify the minimum number of spaces required.

The appraiser considers any on-site improvements that add to or detract from a property's optimal use or highest and best use. For example, a lot zoned for multi-unit residential use might be improved with an 18-unit apartment building that is too valuable to demolish. If the site as vacant could accommodate a 24-unit building but the location of the present structure blocks the ability to add additional units, the appraiser may conclude that the site is underimproved and not developed to its highest and best use.

Accessibility

Site analysis focuses on the time-distance relationships between the subject site and other sites that serve as common origins and destinations. An appraiser describes and analyzes all forms of access to and from the property and the neighbourhood. In most cases, adequate parking area and the location and condition of streets, alleys, connector roads, freeways, and highways are important to land use. Industrial properties are influenced by rail and freeway access and the proximity of docking facilities. The location of airports, freeways, public transportation, and railroad service all affect industrial, commercial, and residential areas.

Traffic volume may be either advantageous or disadvantageous to a site, depending on other conditions that affect its highest and best use. High-volume local traffic in commercial areas is usually an asset; heavy through traffic may hurt retail stores, except those that serve regional travelers. Heavy traffic within residential areas is usually detrimental for single-unit residential neighbourhoods, but high-traffic streets that provide access to a subdivision or development are advantageous.

WHERE TO FIND – TRAFFIC VOLUME DATA

The volume of traffic passing a property is determined by a traffic count, which can usually be obtained from municipal engineering departments or provincial departments of transportation. Traffic counts indicate average daily traffic, peak hours, and direction. Observing the speed and turning movements of actual vehicles helps an appraiser judge how traffic affects a property's highest and best use.

The noise, dust, light, and fumes that come from a heavily travelled artery or freeway are not desirable for most low-density, residential lots. On the other hand, the advertising value of locations on major arteries can benefit offices and shopping centres, unless congestion restricts the free flow of traffic. The visibility of a commercial property from the street (commercial exposure) is an advertising asset; this asset

is most valuable when the driving customer can easily exit the flow of traffic and enter the property.

Median strips, turning restrictions, one-way streets, and access restrictions can limit the potential uses of a parcel. In site analysis, the appraiser should test the probable uses of the site in relation to the flow of traffic. The appraiser must verify planned changes in access with the appropriate authority and consider these in the appraisal.

Environment

Appraisers also analyze land use in light of environmental conditions. Environmental considerations include factors such as the following:

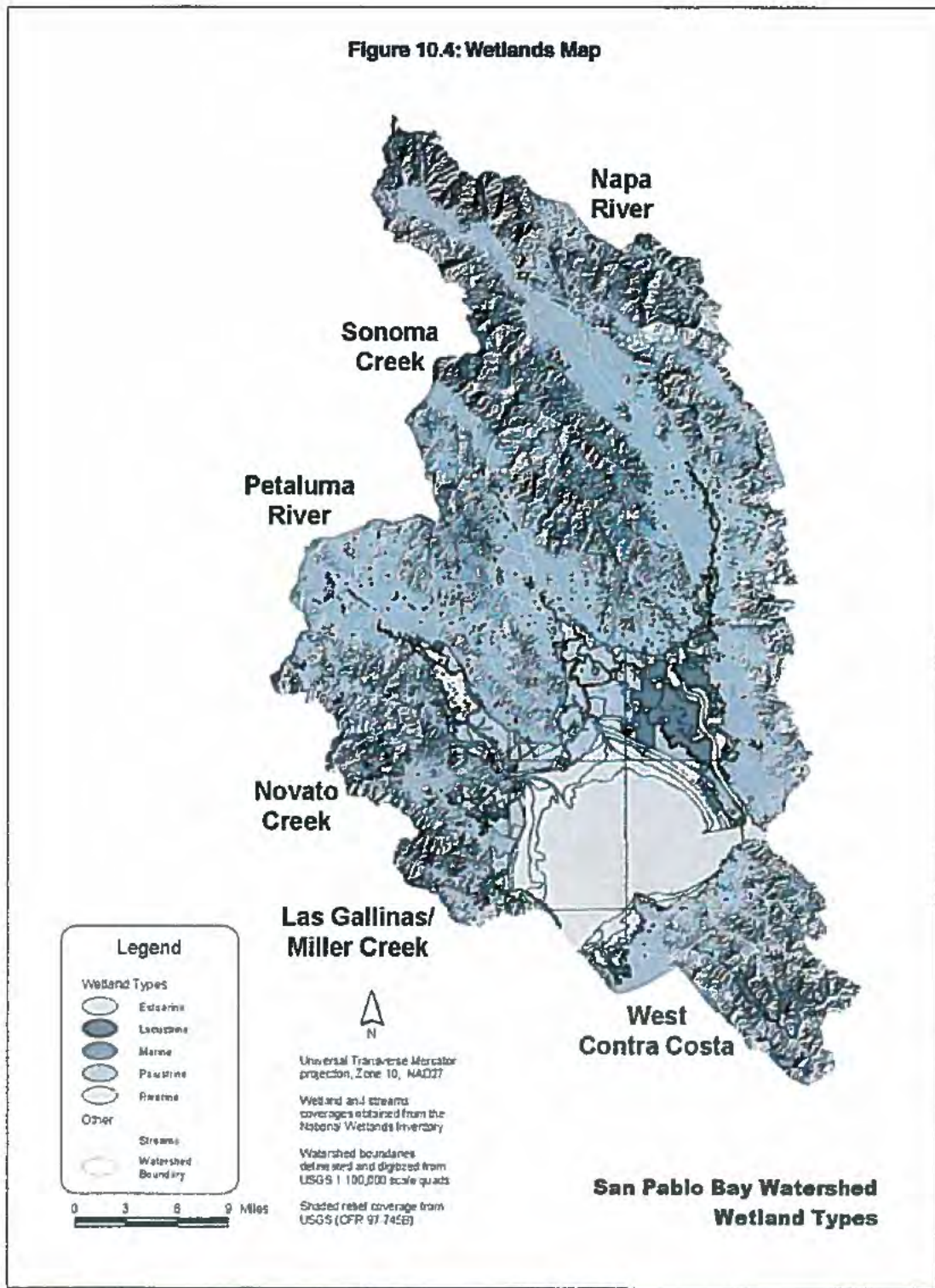
- Local climate
- Availability of adequate and satisfactory water supply
- Pattern of drainage
- Quality of air
- Presence of wildlife/endangered species habitats
- Location of earthquake faults and known slide or avalanche zones
- Proximity to streams, wetlands, rivers, lakes, or oceans

Air and water pollution are by-products of increased population and urbanization. Public concern over pollution has prompted political action and legislation to protect the environment. In areas subject to extreme air pollution, regulations may exclude certain industries and limit the volume of traffic; such restrictions affect land use in these jurisdictions. In some jurisdictions, pollution rights have also become a saleable commodity. In locations near natural water sources, industrial uses may be prohibited while recreational uses are promoted. An appraiser must analyze environmental and climatic advantages and constraints to determine the proper land use for a site. Future land uses must be compatible with the local environment.

A site in a specific location may be influenced by its exposure to sun, wind, or other environmental factors. A very windy location can be disastrous to a resort but beneficial to a fossil-fuel power plant. The sunny side of the street is not always the most desirable for retail shops. In hot climates, the shady side of the street often gets more pedestrian traffic and greater sales, thus producing higher rents and higher land values. Ski resorts usually have slopes facing north for snow retention, and buildings facing south are desirable.

Analysis of a site's environment focuses on the interrelationships between the appraised site and neighbouring properties. An appraiser must consider the effects of any hazards or nuisances caused by neighbouring properties. Of particular importance are safety concerns, e.g., the safety of employees and customers, of occupants and visitors, or of children going to and from school.

A site's value is also influenced by nearby amenities and developments on adjoining sites, such as parks, fine (or landmark) buildings, and compatible commercial buildings. The types of structures surrounding the property being appraised and the activities of those who use them can greatly influence site value.



Federal and provincial environmental agencies have issued many environmental regulations that affect the use of land and may affect the value of land and improved properties. A complex network of regulations defines the environmental responsibilities and potential liabilities of property owners and investors, and these responsibilities and liabilities can adversely affect the value of real property interests. On one hand, environmental regulations can limit the use of land through protection of natural areas such as wetlands, aquifer recharge zones, and habitat areas for endangered or threatened species. On the other hand, real property interests may be impacted due to man's use or misuse of the land. Man-made environmental issues may be indicated by the presence of hazardous materials such as asbestos, PCBs, or petroleum hydrocarbons from leaking underground storage tanks (LUSTs). The existence of one or more adverse environmental conditions can reduce the market value of real property interests in a site.

Appraisers are not expected to have the knowledge or experience needed to detect the presence of hazardous substances or to measure their quantities. Like buyers and sellers in the real estate market, the appraiser must often rely on the advice of others, such as engineers or technical personnel with training in the detection and analysis of hazardous substances. However, depending on their knowledge and experience in the appraisal field, appraisers could reasonably be expected to estimate the impact of environmental contamination on property value. The consideration of environmental contamination in the appraisal process has been specifically addressed in professional appraisal standards, with topics addressed including relevant property characteristics

Figure 10.5: Relevant Property Characteristics

Professional standards discuss the relevant property characteristics that an appraiser should consider in an assignment involving a contaminated property:

- Whether the contamination discharge was accidental or permitted
- The status of the property with respect to regulatory compliance requirements
- The remediation lifecycle stage (before, during, or after cleanup) of the property as of the appraisal date
- The contamination constituents, e.g., petroleum hydrocarbons, chlorinated solvents
- The contamination conveyance, e.g., air, groundwater, soil
- Whether the property is a source, non-source, adjacent, or proximate site
- The cost and timing of any site remediation plans
- Liabilities and potential liabilities for site cleanup
- Potential limitations on the use of the property due to the contamination and its remediation
- Potential or actual off-site impacts due to contaminant migration (for source sites)

These characteristics may be used to describe the site and its environmental history and condition. They can also form the base of information from which to value a contaminated site and estimate the impact of the contamination on its value using one or more specialized valuation methods that have emerged in recent years for this purpose.

Figure 10.6: Specialized Terms and Definitions

Professional standards set forth the following key terms and definitions for use by appraisers who may be involved in the valuation of environmentally impacted properties:

- **Diminution in Value (Property Value Diminution):** The difference between the unimpaired and impaired values of the property being appraised. This difference can be due to the increased risk or costs (or both) attributable to the property's environmental condition.
- **Environmental Contamination:** Adverse environmental conditions resulting from the release of hazardous substances into the air, surface water, groundwater, or soil. Generally, the concentrations of these substances would exceed regulatory limits established by the appropriate federal, provincial, or local agencies.
- **Environmental Risk:** The additional or incremental risk of investing in, financing, buying, or owning property attributable to its environmental condition. This risk is derived from perceived uncertainties concerning: 1) the nature and extent of the contamination; 2) estimates of future remediation costs and their timing; 3) potential for changes in regulatory requirements; 4) liabilities for cleanup (buyer, seller, third party); 5) potential for off-site impacts; and 6) other environmental risk factors, as may be relevant.
- **Environmental Stigma:** An adverse effect on property value produced by the market's perception of increased environmental risk due to contamination (see Environmental Risk above).
- **Impaired Value:** The market value of the property being appraised with full consideration of the effects of its environmental condition and the presence of environmental contamination on, adjacent to, or proximate to the property. Conceptually, this could be considered the "as-is" value of a contaminated property.
- **Remediation Cost:** The cost to cleanup (or remediate) a contaminated property to the appropriate regulatory standards. These costs can be for the cleanup of on-site contamination as well as mitigation of off-site impacts due to migrating contamination.
- **Remediation Lifecycle:** A cycle consisting of three stages of cleanup of a contaminated site: before remediation or cleanup, during remediation, and after remediation. A contaminated property's remediation lifecycle stage is an important determinant of the risk associated with environmental contamination. Environmental risk can be expected to vary with the remediation lifecycle stage of the property.
- **Source, Non-source, Adjacent, and Proximate Sites:** Source sites are the sites on which contamination is, or has been, generated. Non-source sites are sites onto which contamination, generated from a source site, has migrated. An adjacent site is not contaminated, but shares a common property line with a source site. Proximate sites are not contaminated and not adjacent to a source site, but are in close proximity to the source site.
- **Unimpaired Value:** The market value of a contaminated property developed under the hypothetical condition that the property is not contaminated.

Source: Canadian Uniform Standards, 2010, 12.22 to 12.26 and Advisory Opinion 9 of Uniform Standards of Professional Appraisal Practice (USPAP), originally adopted in 1992 and substantially revised in 2002, Appraisal Foundation, Washington

(see Figure 10.5), specialized terms and definitions, and issues involved in valuing potentially impacted properties as if unimpaired and as impaired.²

The appraisal profession has arrived at a common set of specialized terms and definitions that pertain to contaminated properties and their valuation. Figure 10.6 lists terms, definitions, and concepts relevant to an appraisal assignment involving a site that might be potentially impacted by environmental contamination.

² Canadian Uniform Standards of Professional Appraisal Practice, 2010, 12.22 to 12.26.

The relevant property characteristics in Figure 10.5 and the valuation concepts, definitions, and terms in Figure 10.6 lead to a valuation framework that focuses on the potential effect of contamination on the hypothetical unimpaired value of the property.

These effects can reduce the unimpaired value to what has been referred to as the property's impaired value. For the appraiser, the key consideration involves the assembly of relevant market evidence of the reduction in value. Appraisers must avoid substituting their judgment for that of the marketplace. In recent years, contaminated properties have become more marketable and have begun to change hands with increasing frequency. Such transactions will usually provide sufficient basis for valuing or analyzing a site that may be impacted by environmental contamination.

SPECIAL CHARACTERISTICS OF RURAL, AGRICULTURAL, OR RESOURCE LAND

Rural or agricultural resource lands have specific characteristics that appraisers should investigate to describe these properties adequately:

- **Soil.** Precise soil surveys that indicate the soils found on properties, appropriate crops, and expected production are often available (see Figure 10.7). These surveys are useful in comparing agricultural properties.
- **Water rights, drainage, and irrigation.** The legal right to water is as important to the value of a property as the physical source of the water. Unlike the United States, the owners of property in Canada that abuts a waterway have reasonable rights to the water and to physically access the water. The provinces control water rights and regulate water usage, usually through their environmental ministry. Various provincial agencies determine the permissibility of large-scale use such as irrigation. Water export is a matter of some sensitivity that the federal government regulates.³
- **Climate.** General climatic conditions and growing seasons can affect crop production and, therefore, land value.
- **Potential crops.** The crops grown on a property are related not only to climate, soil, and irrigation, but also to the availability of labour, transportation, and access to the markets that make, transport, and sell the products produced from crops.
- **Environmental controls.** Cropping patterns are influenced by regulations on herbicides, insecticides, fertilizers, air and water pollution, and wildlife protection. Lead-based paint, underground storage tanks, asbestos in farm buildings, and cattle vats are common environmental liabilities.
- **Mineral rights.** The presence of precious metals, oil and gas, sand and gravel, quarry red rock such as building stone, clay deposits, or gemstones on a plot of land can affect its value. As with water rights, the legal right to extract

³ For more information on water rights in Canada, see www.wsc.ec.gc.ca/hydrology/main_e.cfm?cname=hydro_e.cfm and www.watergovernance.ca

ENVIRONMENTALLY IMPACTED PROPERTIES

The effects of environmental contamination on the value of real property can be categorized as follows:

- **Cost effects:** deductions for costs to remediate a contaminated property to appropriate regulatory standards, recognizing that not all costs are recognized by the market as having an effect on value.
- **Use effects:** limitations on the highest and best use of properties that may be impacted by environmental contamination, recognizing that these effects would be meaningful only if they limited the use of the site or property that would be the highest and best use without the effect of the contamination, and would otherwise meet the four highest and best use criteria (physically possible, legally permissible, financially feasible, and maximally productive).
- **Risk effects:** the effects on value due to increased perceptions of environmental risk by relevant market participants.

These factors influence the value of a potentially impacted site according to the following formula:

$$\begin{aligned} \text{Impaired Value} &= \text{Unimpaired Value} \\ &\quad - \text{Cost Effects (Remediation and Related Costs)} \\ &\quad - \text{Use Effects (Effects on Site Usability)} \\ &\quad - \text{Risk Effects (Environmental Risk/Stigma)} \end{aligned}$$

In measuring the three potential effects on value (cost, use, and risk), cost effects are derived from remediation costs, which are usually estimated by environmental specialists. Assuming the market recognizes these costs, the appraiser can usually deduct them as a lump sum from the unimpaired value in the same way that a capital expenditure is deducted for deferred maintenance. When a discounted cash flow analysis is used, the anticipated costs can be deducted from the projected cash flows in the periods in which they are projected to occur.

Uncertainty regarding cost estimates, projection, and timing would be reflected in the environmental risk premium added to the unimpaired property or equity yield rate (risk effect). Use effects can be analyzed by evaluating the highest and best use of the subject contaminated property in an impaired and unimpaired condition. Risk effects, on the other hand, are derived from the perceived environmental risk and uncertainty related to the property's environmental condition. Measuring this element usually requires more sophisticated, less direct techniques.

Contamination may also have no effect on value. The influence of environmental impairment on real property value must always be found in the marketplace. Appraisers should be cautioned that, while formulaic approaches exhibit a structural logic and may be easy to explain, the market does not always respond in the same manner.

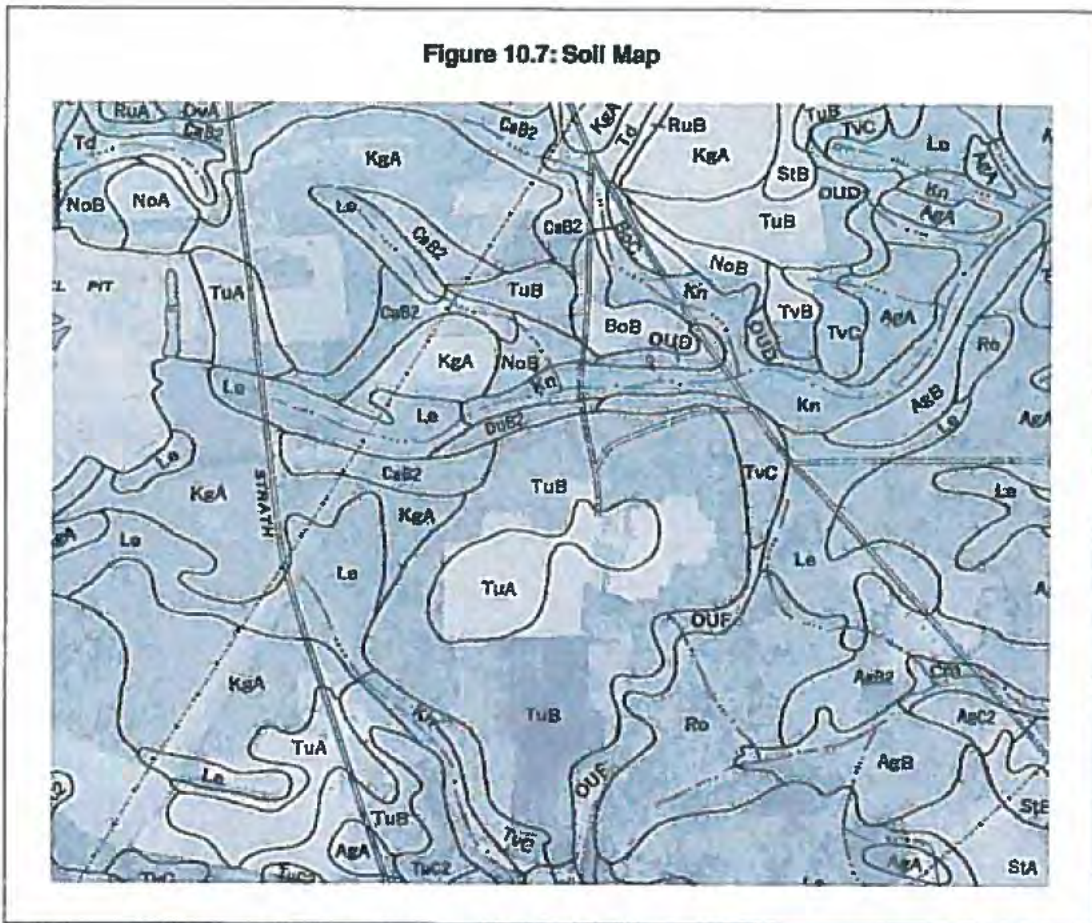
For further information, see Thomas O. Jackson, "Appraisal Standards and Contaminated Property Valuation", *The Appraisal Journal* (April 2003); Thomas O. Jackson, "Methods and Techniques for Contaminated Property Valuation", *The Appraisal Journal* (October 2003); William N. Kinnard Jr. and Elaine M. Worzala, "How North American Appraisers Value Contaminated Property and Associated Stigma", *The Appraisal Journal* (July 1999); Richard J. Roddewig, editor, *Valuing Contaminated Property: An Appraisal Institute Anthology* (Chicago: Appraisal Institute, 2002), Larry O. Dybvig, *Contaminated Real Estate: Implications for Real Estate Appraisers*; Appraisal Institute of Canada, 1992.

all minerals contained in or below the surface of a property is as important as ownership of the land itself. Mineral rights may be granted with surface rights or without surface entry because the mineral estate is the dominant tenant in most provinces. Various lease and ownership relationships may be in effect and should be investigated. Since subsurface minerals can never be fully and absolutely quantified until they are extracted, and their extent and

quality are subject to many variations, appraisers should recognize the risks and uncertainties associated with mineral properties. It is also important to remember that the activity of mineral extraction is a business activity and that real property interests must be separated from those of a business.

- **Unapparent environmental hazards.** Although the environmental liabilities associated with industrial plants are well known, many of the same liabilities may be present in other properties. Investors and analysts cannot assume that green rural properties that appear clean are actually free of environmental liabilities. In the 1940s and 1950s, farmers commonly used cattle vats, i.e., trenches filled with fuel oil through which cattle were led to rid them of mites and small insects. The fuel oil was often treated with DDT and other pesticides. When this practice fell into disuse, the trenches were simply filled in. In addition, farms often have aging underground storage tanks that held gasoline used to fuel farm vehicles. Farmland may also be contaminated by the accumulation of fertilizers and pesticides. Old railroad

Figure 10.7: Soil Map



beds can constitute an environmental hazard because railroad ties were commonly soaked in creosote-filled trenches dug on site when tracks were laid. Timberlands are not free of contaminants either. Old turpentine stills are often found in areas where forests were once harvested.

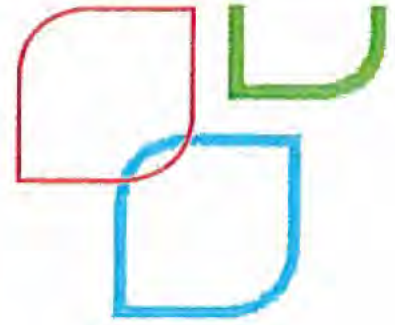
- **Other considerations.** The appraiser must consider and analyze the location of wildlife habitats, the distances from populated areas, and the potential for recreational land uses in valuing agricultural land. An appraiser should also study special tax provisions, such as reduced taxes on agricultural or resource properties.⁴ In October of 2006, the Government of Canada tabled the Canada's Clean Air Act. This act would create a new Clean Air Part in the Canadian Environmental Protection Act to strengthen the government's ability to reduce air emissions, regulate indoor and outdoor air pollutants and greenhouse gases, and require the establishment of national air quality objectives. However, these proposed changes would not allow for the creation and sale of pollution rights. In contrast, the US Clean Air Act of 1990 regulated the tonnage of acid-rain emissions that smokestack industries may release in proportion to plant size. Industries that do not use their full legal allowance can transfer or sell their pollution rights to other industries. Since 1993 pollution rights have been sold on both the Chicago Board of Trade and in the off-exchange pollution rights market.

⁴ For a thorough discussion of the methods used to describe and analyze the significant characteristics of land used for agricultural production, see American Society of Farm Managers and Rural Appraisers and Appraisal Institute, *The Appraisal of Rural Property*, 2nd ed. (Denver and Chicago, 2000).

Appendix I



MUNICIPAL
PROPERTY
ASSESSMENT
CORPORATION



METHODOLOGY GUIDE

VALUING LANDS IN TRANSITION IN ONTARIO

Valuation Date: January 1, 2016

AUGUST 2016



MUNICIPAL PROPERTY ASSESSMENT CORPORATION

August 22, 2016

The Municipal Property Assessment Corporation (MPAC) is responsible for accurately assessing and classifying property in Ontario for the purposes of municipal and education taxes.

In Ontario's assessment system, MPAC assesses your property value every four years. This year, MPAC is updating the value of every property in the province to reflect the legislated valuation date of January 1, 2016.

MPAC is committed to provide Ontario property owners, municipalities and all its stakeholders with the best possible service through transparency, predictability and accuracy in values. As part of this commitment, MPAC has defined three levels of disclosure of information in support of its delivery of this year's assessment update. This Methodology Guide is the first level of information disclosure.

This guide provides an overview of the valuation methodology undertaken by MPAC when assessing lands in transition for this year's update ensuring the methodology for valuing these properties is well documented and in alignment with industry standards.

Property owners can access additional information about their own properties through aboutmyproperty.ca. Login information for aboutmyproperty.ca is provided on each Property Assessment Notice mailed this year. Additional information about MPAC can be accessed at mpac.ca.

A handwritten signature in black ink, appearing to read "Antoni Wisniowski", written in a cursive style.

Antoni Wisniowski

President and Chief Administrative Officer

A handwritten signature in black ink, appearing to read "Rose McLean", written in a cursive style.

Rose McLean, M.I.M.A.

Chief Operating Officer

Table of Contents

1.0 INTRODUCTION	5
1.1 PROPERTIES COVERED BY THIS METHODOLOGY GUIDE.....	5
1.2 LEGISLATION	6
1.3 CLASSIFICATION	7
1.4 THE USE OF THIS METHODOLOGY GUIDE	7
1.5 CONSULTATION AND DISCLOSURE	8
2.0 THE VALUATION PROCESS.....	9
2.1 OUTLINE	9
2.2 APPROACH	10
2.3 DATA COLLECTION	10
2.4 DATA ANALYSIS	14
2.5 VALUATION.....	14
2.6 VALIDATING THE RESULTS	14
3.0 THE VALUATION	15
3.1 HIGHEST AND BEST USE DEFINITION	15
3.2 HIGHEST AND BEST USE AS VACANT.....	15
3.3 HIGHEST AND BEST USE AS IMPROVED	16
3.4 HIGHEST AND BEST USE – ALTERNATIVE USE SUMMARY	16
3.5 TESTING CRITERIA IN LANDS IN TRANSITION	17
3.6 LANDS IN TRANSITION – VACANT	18
3.7 LEGAL PERMISSIBILITY OF LAND AS THOUGH VACANT	18
3.8 PHYSICAL POSSIBILITY OF LAND AS THOUGH VACANT.....	19
3.9 FINANCIAL FEASIBILITY OF LAND AS THOUGH VACANT.....	20
3.10 MAXIMUM PRODUCTIVITY OF LAND AS THOUGH VACANT	21
3.11 HIGHEST AND BEST USE AS VACANT CONCLUSION	22
4.0 LANDS IN TRANSITION – IMPROVED PROPERTY	23
4.1 CONTINUATION OF THE EXISTING USE AS IMPROVED	24

4.2 MODIFICATION OF THE EXISTING USE AS IMPROVED	24
4.3 DEMOLITION AS IMPROVED AND REDEVELOPMENT.....	24
4.4 EXCESS LAND/ADDITIONAL DEVELOPMENT RIGHTS	24
4.5 LANDS IN TRANSITION AS IMPROVED CONCLUSION	25
4.6 CONCLUSION.....	25

1.0 Introduction

The Municipal Property Assessment Corporation (MPAC) – mpac.ca – is responsible for accurately assessing and classifying property in Ontario for the purposes of municipal and education taxation.

In Ontario, property assessments are updated on the basis of a four-year assessment cycle. In 2016, MPAC will update the assessments of Ontario's nearly five million properties to reflect the legislated valuation date of January 1, 2016. Assessments updated for the 2016 base year are in effect for the 2017–2020 property tax years.

The last Assessment Update was based on a January 1, 2012, valuation date. Increases between the 2012 assessed value and 2016 assessed value are phased in over a four-year period. Any decreases in assessment are applied immediately.

It is important to ensure that the valuation methodology applied is capable of providing a realistic estimate of current value at the relevant valuation date, which, in turn, enables all stakeholders to understand the valuation process and have confidence in the fairness and consistency of its outcome.

This Methodology Guide has been prepared for the benefit of MPAC assessors, property owners and their representatives, municipalities and their representatives, Assessment Review Board members, provincial officials, and the general public.

This guide outlines the valuation process to be followed by an assessor, including steps that require appraisal judgment. It is incumbent upon the assessor to make informed decisions throughout the valuation process when arriving at estimates of current value.

1.1 Properties Covered by This Methodology Guide

This Methodology Guide applies to lands in transition in Ontario, including properties located in designated employment areas. Lands in transition vary from existing vacant land sites to improved properties. The following MPAC property codes are used to categorize the various types of lands in transition in Ontario:

- 100 Vacant residential land (not on water)
- 105 Vacant commercial land
- 106 Vacant industrial land

- 112 Multi-residential vacant land
- 113 Condominium development land – residential (vacant lot)
- 114 Condominium development land – non-residential (vacant lot)
- 115 Lands in transition (value based on alternate use)
- 125 Residential development land
- 127 Townhouse block – freehold units

It should be noted that these are general guidelines that vary depending on the specific circumstances of a particular property.

Property codes are a tool for organizing files at MPAC. Many properties have characteristics of more than one property code. Only one code may be chosen for administrative purposes.

In valuing a property, regard must be had for the actual specifications of the property.

An assessor may also make reference to additional Methodology Guides for properties that do not fall precisely within the description of one of the property codes listed above. For example, when assessing land that is in excess of another use such as shopping centres, industrial properties, office buildings or multi-residential properties, the assessor will refer to additional guides.

1.2 Legislation

The main legislation governing the assessment of properties in Ontario for property tax purposes is contained in the Assessment Act.¹

The Act contains important definitions and states what property is taxable and how it should be valued. Section 19(1) of the Act requires that land be assessed at current value, which is defined to mean, in relation to land, “the amount of money the fee simple, if unencumbered, would realize if sold at arm’s length by a willing seller to a willing buyer.”

Legislation also governs the classification of lands in transition.

The Minister of Finance filed Ontario Regulation 430/15 on December 18, 2015, which added additional rules affecting the valuation and classification of properties on which a third-party

¹ Assessment Act, R.S.O 1990, c A.31: <https://www.ontario.ca/laws/statute/90a31>.

sign (billboard) is located. To comply with the regulation, the income attributable to a third-party sign will not be included in the valuation of any property for assessment purposes.

1.3 Classification

MPAC's role is to accurately assess and classify all properties in Ontario. The classification of a property will determine which tax rate will be applied by the municipality or other taxing authority. All properties are classified according to their use and Ontario Regulation 282/98 of the Assessment Act sets out how various property uses are classified.

The classification of lands in transition will depend on whether they are vacant, improved with a structure and/or being used. For value assessments, vacant land is land that has no buildings or structures and is not being used. Vacant land is also land on which a building or structure is being built but has not yet been used or is substantially unusable. For more information on vacant land, see Part I of Ontario Regulation 282/98.²

1.4 The Use of This Methodology Guide

This Methodology Guide is intended to:

- Ensure MPAC's assessed values for these properties are fair, accurate, predictable and transparent.
- Provide direction to assessors and clear explanations to municipalities, taxpayers and Assessment Review Board members.
- Ensure that MPAC's methodology for valuing these properties is well documented and aligns with industry standards.
- Explain the thought process/decision-making process that an assessor should undertake to apply the valuation methodology.
- Ensure a consistent approach to valuing these property types.
- Support MPAC assessors in conducting their due diligence in:
 - applying Ontario's legislation and regulations
 - adhering to industry standards for market valuation in a mass appraisal environment

² Ontario Regulation 282/98, GENERAL: <https://www.ontario.ca/laws/regulation/980282>.

It should be noted that this Methodology Guide is not intended to be a substitute for an assessor's judgment in arriving at a market value-based assessment (i.e., current value) for a particular property. However, given that the Methodology Guide explains industry standards for property assessment, conforms to valuation industry norms, and adheres to provincial legislation and regulation, MPAC assessors are expected to follow the procedures in the Methodology Guide and be able to clearly and satisfactorily justify any deviations from it.

1.5 Consultation and Disclosure

MPAC is committed to providing municipalities, taxpayers and all its stakeholders with the best possible service through transparency, predictability and accuracy. In support of this commitment, MPAC has defined three levels of disclosure as part of its delivery of the 2016 province-wide Assessment Update.

- **Level 1** – Methodology Guides explaining how MPAC approached the valuation of particular types of property
- **Level 2** – Market Valuation Reports explaining how the methodology outlined in Level 1 has been applied at the sector level for the purposes of each assessment
- **Level 3** – Property Specific Valuation Information available to property taxpayers, their representatives and municipalities

2.0 The Valuation Process

The valuation process always begins with a determination of the highest and best use of the subject property.

This guide is designed to assist assessors in the identification of potential lands in transition and in completion of the highest and best use analysis. This analysis must have reference to the value of the property based on its current use and its highest and best use. It is important to note that determination of value based on highest and best use is governed by four tests: physically possible, legally permissible, financially feasible and maximally productive. Further discussion of these tests is provided later in this guide.

Assessors determine the value of a property using one of three different approaches to value:

- the direct (sales) comparison approach
- the income approach
- the cost approach

2.1 Outline

In the **direct (sales) comparison approach**, value is indicated by recent sales of comparable properties in the market. In considering any sales evidence, it is critical to ensure that the property sold has a similar or identical highest and best use as the property to be valued.

In the **income approach** (or, more accurately, the income capitalization approach), value is indicated by a property's revenue-earning power, based on the capitalization of income. This method requires a detailed analysis of both income and expenditure, both for the property being valued and other similar properties that may have been sold, in order to ascertain the anticipated revenue and expenses, along with the relevant capitalization rate.

In the **cost approach**, value is estimated as the current cost of reproducing or replacing improvements of the land (including buildings, structures and other taxable components), less any loss in value resulting from depreciation. The market value of the land is then added.

MPAC primarily uses the direct (sales) comparison approach to determine value of lands in transition.

This approach involves the analysis of sales to determine that the motivation of the purchaser is redevelopment. Therefore, a verification process is essential to ascertain that this is the case.

The cost approach may assist in determining an apportioned land value in improved property sales through a residual analysis, which deducts the value of the existing improvements from the overall sale price. It may also provide evidence concerning the costs associated with obtaining development approvals and servicing costs.

The income approach may assist in determining the feasibility of any income-oriented development. This will treat development and servicing costs as an expense in the process while treating potential income as the pro forma benefit.

2.2 Approach

There are three main phases in the process used by MPAC:

- data collection
- analysis of the data collected
- valuation

2.3 Data Collection

The data required for lands in transition valuations come from a number of sources:

- MPAC tracks trends in the development industry
- MPAC tracks trends in land use planning

The valuation of lands in transition involves a consideration of the highest and best use of the property. This involves the four tests of highest and best use, which determines the property's physical possibility, legal permissibility or probability, financial feasibility and maximum productivity. While the current use of a property is typically its highest and best use, in areas undergoing intensification, the current use may not be its highest and best use.

Properties should be assessed based on the current permitted uses on the site. For example, land use restrictions and current zoning designations may limit the development potential of industrial land in an employment area. The assessment of such lands should not be based on speculative uses that are not currently permitted. The data required for each step of the analysis is outlined below:

1. Physically Possible

- site dimensions

- site location
- soils
- geotechnical issues
- topography proximity to sensitive uses (environmental or social)
- access

2. Legally Permissible

- zoning
- official plan
- provincial policy statements, development applications
- re-zoning or official plan amendment applications in the vicinity
- Committee of Adjustment decisions
- Ontario Municipal Board decisions
- environmental condition
- proximity to environmentally protected areas

3. Financially Feasible

- cost
- benefit
- risk
- sale transactions

4. Produces the Highest Property Value

- yield
- project value

- sale transactions

Identification of Lands in Transition

In 2005, the Ministry of Municipal Affairs and Housing introduced its Places to Grow Initiative, which included growth plans for urban growth centres, transit hubs and intensification corridors. In an effort to identify lands in transition, MPAC focuses on the areas identified in the Places to Grow Initiative. (For more information on Places to Grow, visit placestogrow.ca.)

A number of indicators can help MPAC identify a property as a candidate for redevelopment. These include the following:

- location
- lot size
- large site with low overall density
- proximity to other new developments
- neighbourhood undergoing transition from one type of use to another
- sales on the subject property or neighbouring parcels
- market supply and demand for various uses
- development applications on subject property
- development applications on nearby properties
- development trends
- committee of Adjustment Decisions on minor variance applications
- Ontario Municipal Board decisions on land use planning matters
- Official Plan or Zoning Bylaw amendments relating to specific neighbourhoods or individual sites
- age of structures
- buildings not well maintained

- chronic high vacancy in subject property and/or neighbourhood
- demolition clauses in existing leases
- excessive external obsolescence

In addition to the considerations above, assessors must keep in mind designations included in any official plans that limit the property's development potential. Properties that are within designated neighbourhoods, open space or park lands and employment districts will be limited to the specific uses allowed in the official plan.

Confidentiality

As outlined above, it is important to be aware that, in order to enable MPAC to produce an accurate valuation of the property concerned, information needs to be obtained from a variety of sources.

This will include information from MPAC's records, from the owner or operator of the property, from the municipality in which the property is located, from the assessor's visit to the property, and from other sources.

All stakeholders in the property tax system have an interest in ensuring that the current value provided by MPAC is correct; in order to achieve this, it is necessary for all parties to cooperate in the provision of information.

It is appreciated that some of the information outlined above may be of a commercially sensitive nature. MPAC recognizes the need to ensure that any information provided is properly safeguarded and only used for the purpose for which it is supplied. Assessors appreciate the nature of this undertaking and ensure data is treated accordingly.

If, after an appeal has been filed, MPAC receives a request for the release of actual income and expense information, or other sensitive commercial proprietary information, the usual practice is to require the person seeking the information to bring a motion before the Assessment Review Board (ARB), with notice to the third parties, requesting that the ARB order production of the requested information. The release of such information is at the discretion of the ARB and commonly accompanied by a requirement for confidentiality.

The Assessment Act outlines in Section 53(2) that disclosed information may be released in limited circumstances "(a) to the assessment corporation or any authorized employee of the corporation; or (b) by any person being examined as a witness in an assessment appeal or in a proceeding in court involving an assessment matter."

2.4 Data Analysis

Having carried out the data collection outlined previously, the assessor needs to analyze it and reach a conclusion regarding the appropriate valuation method to use and how it should be applied.

2.5 Valuation

Having undertaken the necessary steps outlined above, the assessor should now be in a position to apply the appropriate valuation model.

2.6 Validating the Results

Once the assessor has completed the valuation, it is necessary to carry out a series of checks to ensure that all relevant parts of the property have been included in the valuation, there has been no double-counting of any adjustments made for depreciation such as functional and external obsolescence, the resulting valuation has been compared with any market evidence that may be available in relation to similar properties and the final valuation is in line with the valuation of other similar properties in Ontario.

3.0 The Valuation

3.1 Highest and Best Use Definition

The Canadian Uniform Standards of Professional Appraisal Practice lays out the process of determining the highest and best use for lands in transition. The first step in the valuation process for lands in transition is for the assessor to consider a land's highest and best use according to four criteria: legal permissibility, physical possibility, financial feasibility and maximum profitability. Determining the highest and best use provides the valuation context for the assessor to compare against market information.

The highest and best use of a property as vacant is considered separately from the highest and best use as improved. The highest and best use of a site as if it were vacant is used to determine the value of the land in situations where the property's current use does not represent the highest and best use of the site.

The highest and best use for the land considers all reasonable alternatives that will yield the highest land value after payment for labour, capital and co-ordination. It assumes the land is vacant or can be made so by the demolition of any improvements.

3.2 Highest and Best Use as Vacant

The first step in determining the potential highest and best use of a property is to consider the value of the land as if it were vacant. To do this, the assessor must understand:

- the current zoning and as-of-right permissions
- the probability of an official plan or zoning by-law amendment
- the value and financial feasibility of the existing use and potential alternative uses
- whether heritage designations may inhibit the demolition or alteration of specific structures or improvement features
- how much consideration should be given for the demolition cost of existing structures
- whether environment contamination may impact development potential

The highest and best use may be existing use, projected development, as subdivision or assemblage or holding as an investment.

3.3 Highest and Best Use as Improved

The highest and best use of a property may be a continuation of its existing use, or it may involve:

- renovation or rehabilitation
- expansion
- adaptation/conversion to another use
- partial/total demolition
- a combination of alternatives

Criteria that may indicate that a property's highest and best use is not its existing use may be:

- The use is legal but non-conforming.
- The property has additional development capacity.
- The property is very specialized and affected by either or both functional and external obsolescence.
- The property could also suffer from detrimental factors, such as environmental contamination.

3.4 Highest and Best Use – Alternative Use Summary

MPAC's assessor will summarize the alternative uses being considered and indicate the results of the four tests applied on two bases:

- as improved
- as vacant

As well, the assessor will indicate what valuation approaches were used to establish the fourfold test results:

- direct (sales) comparison approach
- cost approach
- income approach

3.5 Testing Criteria In Lands in Transition

In a lands in transition analysis, MPAC's assessor first considers the reasonably probable uses of a site that can be legally undertaken or the probability of a change of zoning that would permit alternative development. Four steps are applied to develop support for the assessor's opinion.

As already indicated, the four-part test of highest and best use involves the following:

- physically possible
- legally permissible
- financially feasible
- maximally productive

For example, land use restrictions and current zoning designations may limit the development potential of industrial land in an employment area. The assessment of such lands should not be based on speculative uses that are not currently permitted. Properties should be assessed based on the current permitted uses on the site.

As per the Appraisal Institute text, *The Appraisal of Real Estate*:³

- "The tests of physical possibility and legal permissibility can be applied in either order, but they both must be applied before the tests of financial feasibility and maximum productivity.
- A use may be financially feasible, but this is irrelevant if it is legally prohibited or physically impossible.
- Consideration of whether a use is reasonably probable should continue throughout the analysis of highest and best use as the appraiser learns more about the potential use of the property. Reasonable probability is both a tentative starting point and a conclusion for the use or uses that are ultimately deemed probable."

³ Appraisal Institute (US) and the Appraisal Institute of Canada, *The Appraisal of Real Estate, Third Canadian Edition* (2010): 12.2–12.3.

3.6 Lands in Transition – Vacant

The analysis of lands in transition as though vacant is concluded after the four criteria have been applied and various alternative uses have been eliminated. The remaining use that fulfills all four criteria is the highest and best use.

3.7 Legal Permissibility of Land as Though Vacant

Official plans, zoning, building codes, historic controls and environmental regulations may preclude potential uses. MPAC consults with municipalities to ensure a clear understanding of the municipal planning framework.

Building codes may also prevent land from being developed into what would otherwise be its highest and best use by imposing burdensome restrictions that increase the cost of construction. Furthermore, zoning by-laws or other limitations inherent in other applicable codes or regulations will be required to be investigated by the assessor.

The assessor will also consider whether there is a reasonable probability that the zoning or other restrictions could be changed in order for the highest and best use of the property to be realized. Consideration may include lands located in areas where intensification and growth are encouraged in Official Plans and other municipal guidelines as well as support through external market forces.

Zoning

The primary elements that must be reviewed in zoning bylaws or regulations are:

- permitted uses
- allowable coverage
- allowable density
- allowable number of units or rooms
- heights
- setbacks
- minimum lot sizes
- minimum frontages

Re-zoning

The assessor must examine provincial policy statements, official plan policies and designations that apply to the property being assessed. Development is intended to accord with the policies and vision outlined in the official plan (or secondary plan) applicable to the area. In investigating the reasonable probability of a zoning change, trends and the history of zoning requests in the market area must be considered.

Uses that are not compatible with the existing land uses in the area and uses for which zoning changes have been requested but denied in the past can usually be eliminated from consideration as potential highest and best uses.

On the other hand, a zoning change may be reasonable if other properties in the market area have received a similar zoning change recently or if a municipality's official plan designates the property for a use other than its current use.

The probability of re-zoning may be established using the following criteria:

- Site features should be suitable for land use allowed by the proposed re-zoning.
- Proposed re-zoning should be compatible with adjacent land use.
- Proposed re-zoning should conform to the official plan.
- There should be evidence of change in conditions since zoned.
- There is history of similar zoning approval in area.
- The probability of zoning changes also being supported by market demand.

3.8 Physical Possibility of Land as Though Vacant

The test of physical possibility addresses the physical characteristics associated with the site that might affect its highest and best use. The size, shape, terrain, and accessibility of land and the risk of natural disasters such as floods or earthquakes affect the uses to which land can be put. The utility of a parcel may also depend on its frontage and depth. Irregularly shaped parcels can cost more to develop and, after development, may have less utility than regularly shaped parcels of the same size.

Ease of access enhances the utility of a site. For certain property uses, visibility is an important feature. For other property uses, the privacy provided by the lack of a view is a benefit. It is also important for the assessor to consider the capacity and availability of public utilities. For

example, if a sewer main located in front of a property cannot be tapped because of a lack of capacity at the sewage disposal plant, the property's use might be limited. When topography or subsoil conditions make development difficult or costly, the land's utility may be adversely affected. If the cost of grading or constructing a foundation on the subject site is higher than is typical for sites in the area competing for the same use, the subject site may be economically infeasible for the highest and best use that would otherwise be indicated.

The primary factors affecting physical possibility are:

- size
- frontage
- lot Dimensions
- shape
- corner/interior lot
- topography
- soils
- geotechnical issues (seismic)
- drainage
- availability of utilities
- access

These physical factors interact with legal permissibility to create potential alternative developments.

In determining which uses are legally permissible and physically possible, the assessor may eliminate some uses from consideration based on market demand and development trends.

3.9 Financial Feasibility of Land as Though Vacant

Only those uses that meet the first two criteria are analyzed further. As long as a potential use has value commensurate with its cost and conforms to the first two tests, the use is financially feasible.

The financial feasibility test requires an examination of market factors relative to various use alternatives examined in the marketability study and market analysis.

Marketability Study

A marketability study is a process that investigates how a particular piece of property will be absorbed, sold or leased under current or anticipated market conditions. It includes a market study, or analysis, of the potential alternative developments being considered.

Market Analysis

Market analysis is a process of examining the demand for and supply of a property type within a given geographic market area.

The market analysis should examine:

- supply (available sites)
- demand (population growth, development applications, sale transactions)

3.10 Maximum Productivity of Land as Though Vacant

The test of maximum productivity is applied to the uses that have passed the first three tests. Of the financially feasible uses, the highest and best use is the use that produces the highest residual land value consistent with the market's acceptance of risk.

MPAC principally uses land sales to test which potential use is maximally productive. Alternatively, a development or land residual pro forma may be utilized where sales are limited or where a unique development potential exists that is not reflected in the land sales within a specific neighbourhood.

The assessor can find the residual land value by estimating the value of the proposed use (land and improvements) and subtracting the cost of the labour, capital and entrepreneurial coordination expended to create the improvements.

3.11 Highest and Best Use as Vacant Conclusion

The conclusion of highest and best use analysis should be clearly stated in terms of the following:

- use(s)
- timing for use(s) (i.e., absorption, rents, occupancy, etc.)
- market participants (users and most probable buyers/tenants)

The conclusion of the highest and best use of a parcel of land should be as specific as the assessor's research allows and the assignment requires. Available data might only support general conclusions as to use. General categories such as "office uses," "retail uses" or "industrial uses" may be adequate in some situations, but in others, the particular use may be more specific, such as "retail box store."

Sometimes there is ample vacant land sales evidence available on highly similar sites, so it is unnecessary to refine the highest and best use conclusion. In any case, the assessor needs to provide market evidence that leads to an understanding of the use or uses, the timing for those uses and the probable users and buyers.

The intensity of a use is an important consideration in highest and best use analysis. The present use of a site may not be its highest and best use. The land may be suitable for a much higher, or more intense, use.

4.0 Lands in Transition – Improved Property

The analysis of the highest and best use as improved pertains to the use that should be made of an improved property in light of the existing improvements and the ideal improvement described at the conclusion of the analysis of lands in transition as though vacant. With any improved property, there are three possibilities that must be considered:

- Continue the existing use.
- Demolish the existing improvements and redevelop the site.
- Modify the existing use.

A key test of the lands in transition analysis is a comparison of the value of a site as vacant and as improved. If the value as vacant is higher than that as improved, this may indicate the following:

- The highest value may not be derived from the current use.
- There may be additional development potential.

Lands in transition analysis of a property “as improved” considers not just the existing use and configuration but can also include consideration of “renovation or rehabilitation, expansion, adaptation or conversion to another use, partial or total demolition, or some combination of these alternatives...if capital expenditures are required, rates of return for each potential use must be calculated, considering the total investment in the property and all capital expenditures. These rates of return can then be compared with rates of return for other similar types of investments to determine whether the potential uses are financially feasible.”⁴

The Ideal Improvement

As part of the analysis of highest and best use as improved, the assessor examines the current building improvements relative to the type and characteristics of the ideal replacement improvement, which would meet the following criteria:

- takes advantage of the property’s highest potential market demand
- conforms to the character and standards of the market area
- includes the most suitably priced components

⁴ *The Appraisal of Real Estate*, 12.11–12.12.

4.1 Continuation of the Existing Use as Improved

The existing use of a property as improved is usually legally permissible and physically possible. If the existing use will remain financially feasible and is more profitable than modification or redevelopment, the existing use will remain the highest and best use of the property as improved.

The assessor may need to address deferred maintenance in the analysis of the financial feasibility of the existing use. The property may require repairs for the existing improvements to achieve the best competitive position in the marketplace. The costs of curing physical deterioration or functional obsolescence, redesigning a building, or converting the existing improvements into an alternative use (including a provision for profit) must be analyzed in light of the value created in the market. The effect of the changes on value is more important than simply how much the changes will cost. If the changes will not be economically feasible, the expenditures would not be made.

4.2 Modification of the Existing Use as Improved

Modification of existing improvements must meet all four tests of highest and best use. The study of property productivity in the market analysis process is likely to show what changes to the existing use are physically possible and legally permissible. Determining the financially feasible modification that is more profitable than either the existing use or any other modifications is a matter of weighing the costs of modification and the benefit to the property (e.g., an adequate increase in rent as a result of the modification).

4.3 Demolition as Improved and Redevelopment

Demolition can be considered the most extreme form of modification of the existing use of a property as improved. When an alternative use of a site is legally permissible, physically possible, financially feasible, and more profitable (less the cost of demolition and redevelopment of the site) than the continuing use of the existing improvements, then the alternative use will be the highest and best use of the property as improved.

4.4 Excess Land/Additional Development Rights

A given land use has an optimum parcel size, configuration and land-to-building ratio. Any extra or remaining land not needed to support the specific use may have a different value than the land area needed to support the improvement. The portion of the property that represents an optimal site for the existing improvements will reflect a typical land-to-building ratio.

The assessor will identify and quantify the land area needed to support the existing or ideal improvement. Any remaining land area is either excess land or surplus land.

Excess land is land that is not needed to serve or support the existing or proposed improvement. The value of the excess land may or may not be the same as the value of the improved parcel. Excess land may have the potential to be severed and sold separately and therefore would be valued separately.

Surplus land is not currently needed to support the existing improvement, but it cannot be severed or separated from the property and sold off. Surplus land does not have an independent market value and may or may not contribute value to the improved parcel.

4.5 Lands in Transition as Improved Conclusion

A fundamental indicator of a situation where a property may not be at its highest and best use would occur if the value as though vacant were higher than as improved. This may also occur because the improvements are not built to the full extent allowed by the development envelope defined by the physical characteristics of the site and the legal and planning regulations defined in the zoning by-laws. The existence of unused development capacity may not be the only factor affecting the value, because the improvements could be outdated or inappropriate in the economic sense.

4.6 Conclusion

This guide sets out how MPAC assessors approach the valuation of lands in transition for property assessment purposes, including the identification of lands in transition and the steps involved in the analysis of highest and best use.

For further information about MPAC's role, please visit mpac.ca.

Appendix J

19. ZONING MAPS

PART 19A

UNDERLYING ZONING MAPS

The land use zone classifications established in Chapter 3 and their boundaries within the City are shown on the series of maps in this Chapter. [1992/9250]

5. USE AND DEVELOPMENT REGULATIONS

PART 5A

PURPOSE OF CHAPTER

- (1) The purpose of this Chapter is to indicate which land uses:
 - (a) may locate in a land use zone as a matter of right;
 - (b) may locate in a land use zone at the discretion of Council; and
 - (c) are prohibited in each land use zone.
- (2) The Chapter will also identify the development standards under which the permitted and discretionary uses may be developed.
- (3) The intent is to bring all regulations relating to the uses that are allowed on properties and the level of intensity at which the uses may be developed, in one Chapter for quick and easy reference. [1992/9250]

PART 5B

USE REGULATIONS

5B.1 LAND USE TABLES

All uses of land or development of land in every land use zone must be made in accordance with the table of land uses in this Part. [1992/9250]

5B.2 INTERPRETION OF LAND USE TABLES

Tables 5.1, 5.2, 5.3 and 5.4 list land uses that are permitted by right, permitted at Council's discretion and prohibited in the:

- (a) residential;
- (b) commercial;
- (c) industrial;
- (d) special; and
- (e) overlay zones. [1992/9250]

2.1 PERMITTED USES

Land uses permitted by right are marked by "P" at the intersection of the column and row, and require compliance with:

- (a) the general development regulations of Chapter 4;
- (b) the applicable development standards specified in this Chapter;
- (c) the general requirements of the specific land use zone in which they are located, as specified in either Chapter 6, 7, 8 or 9; and
- (d) any additional requirements imposed by:
 - (i) applicable overlay zone as described in Chapter 10;
 - (ii) Zoning Maps; or

- (iii) additional requirements applicable to the use as specified in Chapters 11 to 18. [1992/9250]

2.2 DISCRETIONARY USES

- (1) Land uses that are permitted at the discretion of Council are marked "D" at the intersection of the column and row, and may be developed subject to:
 - (a) all requirements applicable to land uses permitted by right mentioned in Section 2.1; and
 - (b) any additional requirements imposed by Council as part of the discretionary use review process.
- (2) Each application for a discretionary use is considered as a unique case and shall not be regarded as a precedent for similar requests. [1992/9250]

2.3 PROHIBITED USES

- (1) Blank space is used in the tables to designate land uses that are prohibited in the land use zones.
- (2) Where a land use for which a blank space is shown existed in the land use zone prior to the coming into force of this Bylaw, that use may be continued as a legal non-conforming use, pursuant to Chapter 13 of this Bylaw. [1992/9250]

5B.3 LAND USE CLASSIFICATION

3.1 PURPOSE

The Classification of permitted and discretionary uses in land use zones in this Bylaw has been tied to the land use definitions provided in Chapter 2 of this Bylaw or the classifications of economic activities used in the *United States Standard Industrial Classification (SIC) Manual, 1987*. The classification of permitted and discretionary uses is intended to:

- (a) ensure that incompatible land uses are properly separated; and
- (b) facilitate the location of new land uses not specifically mentioned in this Bylaw. [1992/9250; 1999/10110]

3.2 AMENDMENTS TO CLASSIFICATION

Amendments may be made to the classification and definition of permitted and discretionary land uses in this Bylaw to reflect changes to the SIC Manual. [1992/9250]

3.3 COPY OF SIC MANUAL

A copy of the SIC Manual shall be made available for public use in the office of the Development Officer. [1992/9250]

3.4 OBLIGATION OF APPLICANT

An applicant for a land use approval, whether or not specifically mentioned or defined in this Bylaw, shall provide such information as is deemed necessary by the Development Officer in order to classify the land use. [1999/10110]

3.5 DEVELOPMENT OFFICER'S DETERMINATION IS FINAL

The determination of the Development Officer as to the proper classification of any land use shall be final subject only to appeal to the Development Appeals Board, as provided in Chapter 18 of this Bylaw. Land use definitions provided in Chapter 2 of this Bylaw shall prevail over SIC codes. The SIC codes shall be used to assist the Development Officer in interpreting land use where a specific land use definition is not provided in Chapter 2. [1992/9250; 1999/10110; 1999/10113]

3.6 TITLES AND CODES TO BE ASSIGNED

- (1) Permitted and discretionary uses shall be assigned SIC code numbers. Where appropriate, code titles may also be used. The code title used may be either major group title, group title, or industry title.
- (2) Code numbers used may be either major group number (two digit), group number (three digit), or industry (activity) number (four digit).
- (3) Where a two digit code number is listed as a permitted or discretionary use in a zone, any code number beginning with the same first two or three digits shall be a permitted or discretionary use in the zone.
- (4) Code "999" is used to represent an activity which is:
 - (a) not classified in the SIC manual;
 - (b) unique to the City; or
 - (c) defined in this Bylaw to reflect conditions in the City. [1992/9250]

5B.4 DETERMINING LAND USE FROM TABLES

In order to determine the use allowed for a specific site, the following approach may be followed:

- (a) identify the land use zone in which the parcel is located from the Zoning Maps;
- (b) if the parcel is zoned:
 - (i) residential, refer to Table 5.1;
 - (ii) commercial, refer to Table 5.2;
 - (iii) industrial, refer to Table 5.3;
 - (iv) special, refer to Table 5.4;
 - (v) overlay, refer to the Table for the appropriate underlying zone mentioned in clauses (i) to (iv). [1992/9250; 1993/9488; 1996/9776]

TABLE 5.1: TABLE OF LAND USES - RESIDENTIAL ZONES [2011-61]												
LAND USE TYPE	SIG CODE	LAND USE ZONE ¹										
		R1	R1A	R2	R3	R4	R4A	R5	R6	R7	R8	TAR
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited Use												
RESIDENTIAL												
Apartment	999								D			D
Apartment, Low Rise	999						D		P			D
Apartment, High Rise [1999/10110]	999								D			D
Apartment, Seniors Assisted Living - Low Rise [2005-34; 2011-8]	999						D	D	P			D
Apartment, Seniors Assisted Living - High Rise [2005-34]	999								D			D
Dwelling Unit	999											D ⁹
Dwelling Unit, Converted	999					D	D					P
Dwelling Unit, Detached	999	P	P	P	P	P	P	D	D		P ⁴	P
Dwelling Unit, Duplex	999			P	P	P	P	P	D		D	P
Dwelling Unit, Fourplex	999						D	P	P			P
Dwelling Unit, Mobile Home	999									P		
Dwelling Unit, Planned Group ¹⁸	999	D	D	D	D	D	D	D	D		D	D
Dwelling Unit, Semi-Detached	999			P	P	P	P	P	D		D	P
Dwelling Unit, Townhouse	999					D	D	P	P			P
Dwelling Unit, Triplex	999						D	P	P			P
Mobile Home Park	999									D		
Residential Homestay ¹² [2013-74]	999	D	D	D	D	D	D	D	D	D	D	P
Secondary Suite [2001-91]	999	P	P	P	P	P	P	P	P		P	P
		R1	R1A	R2	R3	R4	R4A	R5	R6	R7	R8	TAR

TABLE 5.1: TABLE OF LAND USES - RESIDENTIAL ZONES [2011-61]

LAND USE TYPE	SIC CODE	LAND USE ZONE ¹										
		R1	R1A	R2	R3	R4	R4A	R5	R6	R7	R8	TAR
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited Use												
SERVICES [2003-1; 2003-2]												
Art Gallery	841											
Bed and Breakfast Homestay ¹⁰ [2005-88]	702	D	D	D	D	D	D	D	D	D	D	P
Day Care Centre, Adult ¹¹ [1995/9736]	999	D	D	D	D	D	D	D	D	D	D	P
Day Care Centre, Child ¹¹ [1995/9736]	835	D	D	D	D	D	D	D	D	D	D	P
Home-Based Business ¹⁴ [2006-14]	999	P	P	P	P	P	P	P	P	P	P	P
Individual and Family Social Service Home ² [2003-1]	999					D	D		D			P
Labour Union Hall	999											
Library	823											P
Nursery School ¹¹ [2003-1]	999	D	D	D	D	D	D	D	D	D	D	P
Religious Institution ¹³ [2013-64]	866	D	D	D	D	D	D	D	D	D	D	D
School, Private	821, 824 and 829											D
Supportive Living Home ²	805, 836	P	P	P	P	P	P	P	P	P	P	P
FINANCE AND REAL ESTATE												
Financial Institution	60											
Office	999											
CULTURE AND RECREATION												
Community Garden [2006-63]	999	P	P	P	P	P	P	P	P	P	P	P
Public Use ⁷ [2003-1]	999	P	P	P	P	P	P	P	P	P	P	P
		R1	R1A	R2	R3	R4	R4A	R5	R6	R7	R8	TAR

TABLE 5.1: TABLE OF LAND USES - RESIDENTIAL ZONES [2011-61]

LAND USE TYPE	SIC CODE	LAND USE ZONE ¹										
		RI	R1A	R2	R3	R4	R4A	R5	R6	R7	R8	TAR
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited Use												
RETAIL TRADE												
Confectionery Store	544											D
House-Form Commercial	999											D
Licensed Dining Room	5812											
Licensed Restaurant	5812											
Mixed-Use Building	999											
Personal Service	999											
Repair Service	999											
Restaurant	5812											
Retail Use	54, 591, 5992-4											
		RI	R1A	R2	R3	R4	R4A	R5	R6	R7	R8	TAR
Notes:												
1	Land use zone abbreviations are explained in Part 3B, Chapter 3.											
2	Refer to the regulations in Subpart 6D.2, Chapter 6.											
4	Deleted.											
5	Deleted.											
6	Deleted.											
7	Refer to the regulations in Subpart 4C.2. [2003-1]											
8	Includes zero lot line dwelling units.											
9	Dwelling units in the same building as a permitted or discretionary use in the zone.											
10	Refer to the regulations in Subpart 6D.1.											
11	Refer to the regulations in Subpart 4C.1.											
12	Refer to the regulations in Subpart 6D.5.											
13	Deleted [2006-14].											
14	Refer to the regulations in Subpart 6D.3.											
15	Refer to the regulations in Subpart 9D.1 and development standards for the I-Institutional Zone in Table 5.9. [1997/9904]											
16	Deleted [2005-34]											
17	Deleted [2005-34]											
18	Refer to the regulations in Subpart 6B.11. [1997/9904]											

TABLE 52: TABLE OF LAND USES - COMMERCIAL ZONES [2003-6]

LAND USE TYPE	SIC CODE	LAND USE ZONE*										
		NC	LG1	LG2	LG3	MS	MX	HC	MAG3	MAG	DSC	D
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use												
RESIDENTIAL												
Apartment Dwelling Unit [2002-6]	999								D	D	P	P
Apartment, Low Rise [2002-6]	999					P	P		D	D	P	P
Apartment, High Rise [1999/10110; 2002-6]	+ 999					D			D	D	P	P
Apartment, Seniors Assisted Living – Low Rise [2005-34]	999					P	P		D	D	P	P
Apartment, Seniors Assisted Living – High Rise [2005-34]	999					D			D	D	P	P
Dwelling Unit [1999/10113; 2002-6]	999	P ¹	D ¹	D ¹	P ¹	D ¹	D ¹		D ¹	D ¹	P	P ¹
Dwelling Unit, Converted	999						P					
Dwelling Unit, Detached [1999/10113, 2012-67]	999	D	D		D		P			D		P ⁴¹
Dwelling Unit, Duplex [2012-67]	999						P					P ⁴¹
Dwelling Unit, Fourplex [2002-6, 2012-67]	999					P	D				P	P ⁴¹
Dwelling Unit, Planned Group ³⁶ [2002-6]	999					P	D				P	
Dwelling Unit, Semi-Detached [2012-67]	999						P					P ⁴¹
Dwelling Unit, Townhouse [2002-6, 2012-67]	999					P	P				P	P ⁴¹
Dwelling Unit, Triplex [2002-6, 2012-67]	999					P	D				P	P ⁴¹
Home –Based Business ²⁴ [1995/9736; 1997/9904; 2002-6; 2006-14]	999	P	P	P	P	P	P		P	P	P	P
Residential Homestay ²⁴ [2013-74]	999	D	D		D		P			D		P
Secondary Suite [2001-91]	999	P	P		P		P			P		
AGRICULTURE												
Animal Hospital	074		P	P		P		P	P	P	P	
Animal Shelter	0752							P				
		NC	LG1	LG2	LG3	MS	MX	HC	MAG3	MAG	DSC	D

TABLE 5.2: TABLE OF LAND USES - COMMERCIAL ZONES [2003-6]													
LAND USE TYPE	SIC CODE	LAND USE ZONE*											
		NC	LC1	LG2	LG3	MS	MX	HC	MAC3	MAG	DSC	D	
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use													
FINANCE AND REAL ESTATE													
Financial Institution	60	P	P	P	P	P	P	P	P	P	P	P	P
Office, General [2012-45]	999	P ¹ D ³⁴	P ¹ D ³	P ¹ D ¹	P ¹²	P ¹⁴ D ¹⁷	P ²⁰ D ⁴⁰	D	P ¹⁴ D ¹⁷	P ²⁰ D ⁴⁰	P ²⁰ D ⁴⁰	P	
MANUFACTURING [2003-1]													
Prefabricated Homes ¹⁹	245							P					
Printing, Commercial [Bylaw 2008-40]	275									P	P	P	
PUBLIC ADMINISTRATION													
Fire Station	9224					P				P			
Police Station	9221					P				P			
SERVICES [2003-1] [2003-6]													
Amusement Arcade	7993					D				D	P	P	
Amusement Arcade, Licensed	7993									D	D	D	
Amusement Park, Commercial	7996							D		D			
Automobile Rental and Leasing	751							P	D	P	P	P	
Bed and Breakfast Homestay ²⁷ [2005-88]	702						P						
Bingo Parlour	7999					D			D	D	P	D	
Bowling Centre	793					D			D	D	P	P	
Car Wash ³² [1995/9730; 1995/9753]	7542					D		P	D	D	P		
Club [2003-6]	999		P	P	P	P	P		P	P	P	P	
Club, Licensed [2003-6]	999		D ⁷	D ⁷	D ⁵	P ⁷ D ¹⁶	D		P ⁷ D ¹⁶	P	P	P	
College, Community	8222												P
Community Centre [2003-2]	999	D	P	P	P	P	P		P	P	P	P	
Day Care Centre, Adult ²⁹ [1995/9736, 2014-44]	999	P	P	P	P	P	P		P	P	P	P	
Day Care Centre, Child ²⁹ [1995/9736, 2014-44]	835	P	P	P	P	P	P		P	P	P	P	
		NC	LG1	LG2	LG3	MS	MX	HC	MAC3	MAG	DSC	D	

TABLE 52: TABLE OF LAND USES - COMMERCIAL ZONES [2003-6]

LAND USE TYPE	SIC CODE	LAND USE ZONE ¹										
		NC	LC1	LC2	LC3	MS	MX	IIC	MAC3	MAC	DSC	D
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use												
SERVICES (continued)												
Funeral Home	726									D	D	
Hotel	701							P	D	P		P
Hotel, Single Room Occupancy	702											P
Humanitarian Service Facility [2003-2]	999	D	P	P	P	P	P		P	P	P	P
Individual and Family Social Service Home ¹³ [1998/10054] [2003-1]	999				D	D	P		P	P		P
Labour Union Hall	999						D		D	D		P
Library	823		P	P	P	P	P		P	P	P	P
Medical Clinic [2013-64]	802 [2015-1]	P ²	P ²	P ² D ⁶	P ¹² D ¹²	P ¹⁴ D ¹⁷	D	D	P ¹⁴ D ¹⁷	P	P	P
Medical/Dental Laboratory	807							D	P	P		P
Motel	701							P	D	P		P
Nursery School ²⁹ [2003-1]	999	D	P	P	D	P	P		P	P	P	P
Parking, Off-site Cavedated [2012-67]	999		D	D						D	P	P ⁴²
Parking Lot, Paved [2012-67]	7521									D		
Personal Service [1996/9776]	999	P ¹	P ¹	P ¹	P ¹	P ¹	D		P	P	P	P
Pool Hall	7999					D			D	D	P	P
Pool Hall, Licensed	7999					D			D	D	P	P
Public Self Storage Facility [1996/9821; 1998/10006]	999							D	D			D
Recreational Service Facility [2003-6]	999		P	P	P	P	P		P	P	P	P
Recreational Service Facility, Licensed [2003-6]	999		D ¹⁷	D ¹⁷	D ¹⁸	P ¹⁷ D ¹⁹	D		P ¹⁷ D ¹⁹	P	P	P
Religious Institution ²⁹ [2013-64]	866	D	P	P	P	P	D	D	P	P		P
Repair Service	999	P ¹	P ¹	P ¹	P ¹²	P ¹	D		P	P	P	P
Repair Shop ¹⁵ [1996/9776]	753, 999							D	D	D		
School, Private	821, 824, 829						D					P
School, Vocational	824										P	P
Supportive Living Home ¹³ [2015-1]	805, 836					D	P			P ⁴⁴		
		NC	LC1	LC2	LC3	MS	MX	HG	MAC3	MAC	DSC	D

TABLE 5.2: TABLE OF LAND USES - COMMERCIAL ZONES [2003-6]												
LAND USE TYPE	SIG-CODE	LAND USE ZONE*										
		NC	LC1	LC2	LC3	MS	MX	IIC	MAC3	MAC	DSC	D
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use												
SERVICES (continued)												
Tattoo Parlour [2001/10264]	999								P	P	P	P
Theatre [1997/9904; 2002-33]	7832					D			D	D	P	P
Theatre, Drive-In	7833							D				
TRANSPORTATION AND PUBLIC UTILITIES												
Ambulance Service [2008/37]	4119	D	D	D	D	P	D	D	D	P	D	D
Bus Terminal Operation [1996/9776]	417							D	D	D	D	P
Post Office	431					P				P		P
RETAIL TRADE [2003-6]												
Auction Room	5999											P
Automobile Sales and Service	551, 552							P	D	P	P	P
Bakery Shop [1995/9736; 1999/10110]	5461	D	P	P	P	P			P	P	P	P
Convenience Store [2015-1]	999	P ⁴⁵	P ¹²	P	D	P ¹²	D ⁴⁵	D	P	P	P	P
Fast Food Outlet [1999/10110]	5812		D	D	D	D		P	P	P	P	P
Gas Bar [2014-81]	554		D	P		D		P	P D ⁴⁵	P	P	P
Grocery Store [1995/9736]	541		D	D	D	D			D	P	P	P
Home Improvement Centre	999					D		D	D	D	P	
House-Form Commercial	999						D					
Licensed Beverage Room	5812							P	P ⁷ D ¹⁶	P		P
Licensed Cocktail Room [1995/9736]	5813		D	D	D	D		P	P ⁷ D ¹⁶	P	P	P
Licensed Dining Room [1995/9736]	5812		D ⁷	D ⁷	D ⁵	P ⁷ D ¹⁶	D	P	P ⁷ D ¹⁶	P	P	P
Licensed Restaurant [1995/9736]	5812		D ⁷	D ⁷	D ⁵	P ⁷ D ¹⁶	D	P	P ⁷ D ¹⁶	P	P	P
Liquor Store	999		D	D		D		D	D	P	P	P
Mixed-Use Building [2013-64, 2014-44]	999	D	D	D	D	D	P		D	D	P	P
		NC	LG1	LC2	LC3	MS	MX	HC	MAC3	MAG	DSC	D

TABLE 5.2: TABLE OF LAND USES - COMMERCIAL ZONES [2003-6]

LAND USE TYPE	SIC CODE	LAND USE ZONE ⁶										
		NG	LGI	LC2	LC3	MS	MX	IIC	MAC3	MAC	DSC	D
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use												
RETAIL TRADE (continued)												
Mobile Home Sale ¹⁹	527							P	D	P		
Night Club	5813							D	D	D	P	P
Recreation Vehicles ¹⁹	556							P	D	P		
Restaurant [1995/9736]	5812	D ₅	D ₇	P ₇	D ₅	P ₇ D ₁₆	D	P	P ₇ D ₁₆	P	P	P
Restaurant, Drive-In ¹¹	5812							P		P		
Retail Use	54, 591, 5992-4	P ²	P ² D ⁹	P ²	P ¹²	P ¹⁵	D	P ¹⁴ D ¹⁷	P ¹⁴ D ¹⁷	P ³⁰ D ²¹	P	P
Service Station ²⁰	554		D ¹⁰	P ¹⁰		D		P	P ¹⁰	P	P	P
Shopping Centre [2015-1]	999	P ⁴⁶ D ⁴⁷	P ⁴⁶ D ⁴⁷	P ⁴⁶ D ⁴⁷	P ⁴⁶ D ⁴⁷	P ⁴⁶ D ⁴⁷	D	P ⁴⁶ D ⁴⁷	P ⁴⁶ D ⁴⁷	P ⁴⁶ D ⁴⁷	D	P
Snack Shop, Mobile	5963									D		
WHOLESALE TRADE												
Farm Machinery and Equipment, Sale Rental	5083							D	D			
CULTURE AND RECREATION												
Art Gallery or Museum [2013-8; 2013-64]	841		P ²	P ²	P ¹²	P	P		P	P	P	P
Community Garden [2006-63]	999	P	P	P	P	P	P	P	P	P	P	P
Public Use ¹¹ [2003-1]	999	P	P	P	P	P	P	P	P	P	P	P
Rink, Enclosed	999					D		D				
		NC	LGI	LC2	LC3	MS	MX	IIG	MAC3	MAC	DSG	D
Notes:												
* Land use zone abbreviations are explained in Chapter 3.												
1 200m ² or less in gross floor area. For office uses in the LC1, LC2, and NC zones, this limitation is on a single lot basis.												
2 300m ² or less in gross floor area. For retail uses in the LC1, LC2, and NC zones, this limitation is on a single lot basis.												
3 Dwelling units in the same building as a permitted or discretionary use in the zone.												
4 Deleted.												
5 Maximum seating capacity of 50 persons.												
6 Floor area greater than 300m ² .												
7 Maximum seating capacity of 100.												
8 Floor area greater than 200m ² is at Council's discretion. For office uses in the LC1, LC2 zones, this limitation is on a single lot basis.												
9 Floor area greater than 300m ² is at Council's discretion. For retail uses in the LC1 zone, this limitation is on a single lot basis.												
10 Maximum of 3 service bays.												
11 Repealed. [2015-1]												
12 150m ² or less in gross floor area. Gross floor area greater than 150m ² but less than 300m ² is at Council's discretion. [2015-1]												
13 Refer to the regulations in Subpart 6D.2.												
14 500m ² or less in gross floor area. For office uses in the MAC, MAC3 and MS zones, this limitation is on a single lot basis.												
15 850m ² or less in gross floor area on a single lot. Gross floor area greater than 850m ² is at Council's discretion.												

TABLE 5.2: TABLE OF LAND USES - COMMERCIAL ZONES [2003-6]

LAND USE TYPE	SIC CODE	LAND USE ZONE*										
		NC	LG1	LG2	LC3	MS	MX	HC	MAC3	MAC	DSC	D

KEY: F=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use

TABLE 5.2: TABLE OF LAND USES - COMMERCIAL ZONES [2003-6]

LAND USE TYPE	SIC CODE	LAND USE ZONE*										
		NC	LG1	LG2	LC3	MS	MX	HC	MAC3	MAC	DSC	D

Notes: (continued)

- 16 Capacity greater than 100 persons.
- 17 More than 500m² in gross floor area. For uses in the MAC, MAC3 and MS zones, this limitation is on a single lot basis. [1995/9736]
- 18 Repealed. [2003-6]
- 19 Includes display, sale, rental, service, and parts.
- 20 1000m² or less in gross floor area. For retail uses in the MAC zone, this limitation is on a single lot basis.
- 21 More than 1000m² in gross floor area. For retail uses in the MAC zone, this limitation is on a single lot basis. [1995/9736]
- 22 Repealed [2003-1]
- 23 1500m² or less in gross floor area.
- 24 Refer to the regulations in Subpart 6D.3
- 25 Refer to the regulations in Subpart 6D.5.
- 26 Deleted. [2006-14]
- 27 Refer to the regulations in Subpart 6D.1.
- 28 Refer to the regulations in Subpart 9D.1 and development standards for the I-Institutional zone in Table 5.9. [1997/9904]
- 29 Refer to the regulations in Subpart 4C.1.
- 30 Refer to the regulations in Subpart 7D.3. [1997/9904]
- 31 Refer to the regulations in Subpart 4C.2.
- 32 Refer to the regulations in Subpart 7D.1. [1997/9904]
- 33 Refer to the regulations in Subpart 7D.2. [1997/9904]
- 34 Gross floor area greater than 200m² but less than 300m² is at Council's discretion.
- 35 The storage of items to be repaired shall be indoors, or within an enclosed compound in accordance with the regulations under Subpart 4C.4. [1996/9776].
- 36 Refer to the regulations in Subpart 6B.11. [1997/9904]
- 37 Maximum seating capacity of 100 persons in the licensed portion of the facility. [2003-6]
- 38 Maximum seating capacity of 50 persons in the licensed portion of the facility. [2003-6]
- 39 Seating capacity of greater than 100 persons in the licensed portion of the facility. [2003-6]
- 40 Permitted use where the gross floor area is 1000m², or less, on a single lot basis, and discretionary use where there is a gross floor area of greater than 1000m². [2012-45]
- 41 Permitted use only on properties that front Angus Street and Osler Street in the D – Downtown zone.
- 42 Permitted in accordance with the requirements of subsection 7C.10.5(8) of this Bylaw.
- 43 Only where the site directly interfaces a residential property. [2014-81]
- 44 Permitted only if located in an existing building constructed and previously used a detached dwelling. [2015-1]
- 45 150m² or less in gross floor area. [2015-1]
- 46 If less than the maximum permitted floor area for Retail Use in the zone. [2015-1]
- 47 If greater than the maximum permitted floor area for Retail Use in the zone. [2015-1]

TABLE 59: TABLE OF LAND USES – INDUSTRIAL ZONES [2003-6]

LAND USE TYPE	SIC CODE	LAND USE ZONE ¹					
		IA, IA1	IB, IB1	IC, IC1	IP	IT	WH
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use							
RESIDENTIAL							
Dwelling Unit, In Reconstructed Building [1996/9776]	999	D ³⁶					D
Dwelling Unit, Detached	999	D					
Home-Based Business [1997/9904, 2006-14] ³⁷	999	P	P			P	P
Secondary Suite [2001-91]	999	P					
AGRICULTURE							
Animal Hospital	074	P			D	P	P
Animal Shelter	0752	P	P	P		P	
Agricultural Production [1996/9904]	01	P	P	P			
Feedlot, Livestock	021			P ³³			
Horticultural Specialities	018		P			P	
Poultry Hatchery	0254	P	P	P		P	
Vegetable, Production	016		P			P	
CONSTRUCTION							
Sheet Metal Work	1761		P	P			
Storage, Outdoor of Contractor or Builder's Equipment ³⁵	999	P	P	P		P	
FINANCIAL AND REAL ESTATE							
Financial Institution	60	D			P	P	
Office, General [2008-35, 2012-45]	999	D ³⁰					D
Office, Industry [2012-45]		P ³¹			P ³¹	P ³¹	
MANUFACTURING [2003-1]							
Assembling, Parts	999	P	P	P		P	
Bakery	205	P	P	P			
Biscuit Plant	205	P	P	P			
Bottling and Canning	999	P	P				
Bottling and Canning, Soft Drinks and Carbonated Water	2086	P	P	P		P	
Brewery/Distillery	208	P	P	P			
		IA, IA1	IB, IB1	IC, IC1	IP	IT	WH

TABLE 5.3: TABLE OF LAND USES - INDUSTRIAL ZONES [2003-6]

LAND USE TYPE	SIC CODE	LAND USE ZONE ¹					
		IA, IA1	IB, IB1	IC, IC1	IP	IT	WH
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use							
MANUFACTURING (continued)							
Dyeing, Fur	3999	P ¹¹	P ¹¹	P ¹²		P ¹³	
Dyeing, Textiles and Wool	225, 226	P	P	P			
Machine Shop, Jobbing and Repair	3599	P	P	P		P	
Manufacture, Agriculture Chemical	287			D			
Manufacture, Chemical	28			D			
Manufacture, General ¹⁴	20-27, 29-39	P ¹⁴	P	P		P	
Manufacture, Ice	2097		D	D ¹⁷			
Manufacture, Industrial Inorganic Chemical	281			D			
Manufacture and Processing, Dairy Products	202	P	P	P			
Meat Packing Plant	2011, 2015 [2000/10214]			D			
Mixing, General	999		D	D		D	
Mixing, Ink	999	P ⁶	P ⁶	P ⁶		P	
Prefabricated Home ²	245	P				P	
Printing, Commercial	27	P	P		D ²¹	P	P
Processing, Food ¹⁸	20		P	P			
Processing, Rock and Gravel ¹⁵	999			P			
Publishing or Publishing and Printing, Newspaper	271	P				P	P
Sandblasting, Metal	3471		D	P		D	
Silvering, Mirror	999	D	D	D		D	
SERVICES [2003-6]							
Amusement Arcade	7993						D
Amusement Arcade, Licensed	7993						D
Automobile Rental and Leasing ²⁶	751	P	P			P	
Bingo Parlour	7999	D			D		P
Blacksmith Shop	7699		P	P			
Bowling Centre	793	D	D		D		D
Car Wash ²⁷	7542	P	P	P		P	
Cleaning, Carpet and Rug	721	P	P	P		P	
		IA, IA1	IB, IB1	IC, IC1	IP	IT	WH

TABLE 5.3: TABLE OF LAND USES - INDUSTRIAL ZONES [2003-6]							
LAND USE TYPE	SIC CODE	LAND USE ZONE ¹					
		IA, IA1	IB, IB1	IC, IC1	IP	IT	WH
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use							
SERVIGES (continued)							
Club [2003-6]	999	P	P		P	P	P
Club, Licensed [2003-6]	999	P	P		P	P	P
College, Community	8222						P
Community Centre [2003-2]	999	P	P		P	P	P
Crematory	7261	P	P	P			
Day Care Centre, Child ² [1995/9736]	835	D	D	D	D ²⁰		D
Day Care Centre, Adult ² [1995/9736]	999	D	D	D	D ²⁰		D
Dry Cleaning Plant	7216	D	D			D	D
Funeral Home	726	D					
Hotel	701				D		
Humanitarian Service Facility [2003-2]	999	P	P		P	P	P
Laboratory, Industrial	8731	D	D	D		D	D
Laboratory, Medical/Dental	807	P			D		P
Laundry Plant	721	P	P			P	P
Medical Clinic [2015-1]	801,802				D		
Motel	701				D		
Nursery School ² [2003-1]	999	D	D	D	D ²⁰		D
Parking, Off-site Cavedated	999	D	D			D	
Parking Lot, Paved [2002-2]	7521	D					
Personal Service [1995/9736]	72	P				P	P
Pool Hall	7999	D					P
Pool Hall, Licensed	7999	D					P
Public Self Storage Facility [1996/9821]	999	P	P	P	P	P	P
Recreational Service Facility [2003-6]	999	P	P		P	P	P
Recreational Service Facility, Licensed [2003-6]	999	P	P		P	P	P
Repair Service	999	P	P	P		P	P
Repair Shop [1994/9572]	75, 999	P	P	P	P ¹⁹	P	P
School, Vocational	824	D	D		D	P	P
Sharpening & Repair, Knives, Saws, Tools	7699	P	P	P		P	
Tattoo Parlour [2001/10264]	999	P	P			P	P
Taxidermy Shop	7699	P	P	P		P	
Tire Retread Shop [1995/9736]	7534	P	P	P		P	
Truck Wash [2013-64]		P	P	P		P	
		IA, IA1	IB, IB1	IC, IC1	IP	IT	WH

TABLE 5.3: TABLE OF LAND USES - INDUSTRIAL ZONES [2003-6]							
LAND USE TYPE	SIG CODE	LAND USE ZONE ¹					
		IA, IA1	IB, IB1	IC, IC1	IP	IT	WH
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use							
TRANSPORTATION AND PUBLIC UTILITIES							
Ambulance Service	4119	P					
Crating Services	4783		P	P		P	P
Railroad Transportation	40			D			
Storage, Natural Gas	4922			D			
Terminal, Truck and Freight	4231		P	P			
Warehousing ³	4225	P	P	P	P ¹⁹	P	P
Warehousing/Processing, Hazardous Materials/Wastes ²⁹	999	D ¹⁹	D ¹⁹	D ¹⁹	D ¹⁹	D ¹⁹	D ¹⁹
Warehousing, Refrigerated	4222	P	P	P		P	P
RETAIL TRADE							
Adult Arcade ³⁵ [1995/9736]	999	D	D	D			
Adult Entertainment Establishment ³⁵ [2014-8]	999	D	D	D			
Adult Motion Picture Theatre ³⁵ [1995/9736]	999	D	D	D			
Adult Retail Outlet/Bookstore ³⁵ [1995/9736]	999	D	D	D			
Auction Room	5999	D				D	D
Automobile Sales and Service ²⁶ [2001/10264]	551, 552	P	P			P	
Convenience Store [2015-1]	999	P			D	P	
Gas Bar	554	P	P	P		P	
Home Improvement Centre	999	D			D		
Licensed Beverage Room	5812				D		
Licensed Cocktail Room	5813	D			D	D	D
Licensed Dining Room	5812	D			D	D	D
Licensed Restaurant	5812	D			D	D	D
Liquor Store	999					D	
Lumber Yard ²⁵	5211	P	P			P	
Massage Parlour ³⁵ [1993/9559; 1995/9736]	999	D	D	D			
Mobile Home Sales ^{3,26}	527	P				P	
		IA, IA1	IB, IB1	IC, IC1	IP	IT	WH

TABLE 5.3: TABLE OF LAND USES - INDUSTRIAL ZONES [2003-6]

LAND USE TYPE	SIC CODE	LAND USE ZONE ¹					
		IA, IA1	IB, IB1	IC, IC1	IP	IT	WI
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use							
RETAIL TRADE (continued)							
Night Club	5813	D			D		D
Recreation Vehicles ²⁶	556	P				P	
Restaurant [2014-45]	5812	D	D		D	D	D
Restaurant, Drive-in ²⁷	5812	D					
Retail, General	999	P ³	P ³	P ³	P ³	P ³	P ²³ D ²⁴
Retail, Small Equipment and Supplies	999	P ⁴	P ⁴	P ¹⁴		P ⁴	
Service Station ¹¹	554, 5984 [1997/9904]	P	P	P		P	
WHOLESALE TRADE							
Farm and Large Machinery, Sale and Rental ²⁶	50	P	P	P			
Salvaging and Recycling (Junk Yard) ¹²	5015, 5093		D	D			
Storage and Terminal, Petroleum	517			D			
Wholesale ³ [1995/9736]	999	P	P	P	P	P	P
CULTURE AND RECREATION							
Art Gallery or Museum [2013-8]	841						P
Community Garden [2006-63]	999	P	P	P	P	P	P
MISCELLANEOUS							
Public Use ¹¹	999	P	P	P	P	P	P
Rink, Enclosed	999	D					
		IA, IA1	IB, IB1	IC, IC1	IP	IT	WI

Notes:

- 1 Land use zone abbreviations are explained in Chapter 3.
- 2 Includes display, sale, rental, service, and parts.
- 3 Of any article or commodity for which the warehousing, storage, sale at retail or wholesale, fabrication, processing or manufacture is allowed in the zone.
- 4 Small equipment, supplies and materials for agriculture, mining, industry, business, transportation, building and other construction, except explosives.
- 5 On the same site as the industrial use, and for a watchman or caretaker and family whose duties are essential to the security of the industrial use.
- 6 Includes packaging.
- 7 Only inorganic pigments, nitrogen and oxygen are allowed.
- 8 Of any article, vehicle or commodity which is sold, stored, manufactured, packaged or assembled as a permitted use on the premise.
- 9 Of completely fabricated, processed or manufactured materials.
- 10 See "Automobile Repair".
- 11 Except tanning.
- 12 Includes tanning.
- 13 Except dairy and poultry.
- 14 Includes processing and storage of any goods, except nuclear processing or generating establishments.
- 15 Does not include mining.

TABLE 5.3: TABLE OF LAND USES - INDUSTRIAL ZONES [2003-6]

LAND USE TYPE	SIC CODE	LAND USE ZONE ¹					
		IA, IA1	IB, IB1	IC, IC1	IP	IT	WH
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use							
Notes: (continued)							
16		Small equipment, supplies and materials for agriculture, mining, industry, business, transportation, building and other construction including explosives.					
17		Storage also permitted.					
18		Except SIC Industry Number 2011 and all those uses under Industry Number 2015 that involve the handling and slaughtering of live animals.					
19		Indoor only.					
20		In the same building as a permitted or discretionary use.					
21		Less than 500m ² in gross floor area.					
22		Except SIC industry groups 261-262 and 301, as well as major groups 29 and 33-39.					
23		1000m ² or less in gross floor area. [1995/9736]					
24		More than 1000m ² in gross floor area. [1995/9736]					
25		Refer to the regulations in Subpart 4C.4.					
26		Refer to the regulations in Subpart 4C.3					
27		Refer to the regulations in Subpart 7D.1. [1997/9904]					
28		Refer to the regulations in Subpart 4C.1.					
29		Refer to the regulations in Subpart 8D.2.					
30		Refer to the regulations in Subpart 7D.2. [1997/9904]					
31		Refer to the regulations in Subpart 7D.3. [1997/9904]					
32		Refer to the regulations in Subpart 8D.1.					
33		Refer to the regulations in Subpart 4C.2.					
34		Except all uses noted in footnote 22 and SIC codes 2011, 2015, 207, 2091, 2092, 241, 242 and 28.					
35		Refer to the regulations in Subpart 8D.3. [1995/9736]					
36		This use may be accommodated only in the IA1 Zone. [1996/9776]					
37		Refer to the regulations in Subpart 6D.3. [1997/9904]					
38		Deleted. [2006-14]					
39		Permitted use where there is a gross floor area (GFA) of up to 500m ² on a single lot basis, and discretionary use where there is a GFA of greater than 500m ² . [2008-14]					
40		Discretionary use where located in the Warehouse District, in accordance with the policies of the Official Community Plan. [2012-45]					
41		Permitted use where the gross floor area is 1000m ² , or less, on a single lot basis. [2012-45]					

TABLE 5.4: TABLE OF LAND USES - SPECIAL ZONES [2003-6]											
LAND USE TYPE	SIC CODE	LAND USE ZONE ¹									
		AIR	FW	I	PS	PUD	RR	UH	WC		
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use											
RESIDENTIAL											
Apartment, Seniors Assisted Living – Low Rise [2005-34]	999			D							
Apartment, Seniors Assisted Living – High Rise [2005-34]	999			D							
Detached Dwelling	999			D ²		P		D ²			
Detached Dwelling, Zero Lot Line	999					P					
Secondary Suite [2001-91]	999			P		P		P			
AGRICULTURAL											
Agricultural Production [1997/9904]	01		P					P			
Horticultural Specialties [1996/9776]	018		D					D			
Vegetable Production [1996/9776]	016		D					D			
PUBLIC ADMINISTRATION											
Fire Station	9224			P							
Police Station	9221			P							
SERVICES [2003-1; 2003-2; 2003-32]											
Amusement Park, Commercial	7996							D			
Aquarium, Indoor	8422			D							
Auditorium or Amphitheatre	999			D							
Bed and Breakfast Homestay [1995/9736] ¹²	702					D					
Campground	7033							D			
Care Home, Special ⁶	805			D							
Cemetery	7261			D	D						
College, Community	8222			P							
Community Centre	999			P	P						
Convent	8661			D							
Day Care Centre, Adult [1995/9736] ⁷	999			P	D	D					
Day Care Centre, Child [1995/9736] ⁹	835			P	D	D					
				AIR	FW	I	PS	PUD	RR	UH	WC

TABLE 5.4: TABLE OF LAND USES - SPECIAL ZONES [2003-6]									
LAND USE TYPE	SIC CODE	LAND USE ZONE'							
		AIR	FW	I	PS	PUD	RR	UH	WC
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use									
SERVIGES (continued)									
Exhibition Operation	7999				D				
Golf Course or Golf Driving Range	7992, 7997, 7999		D		P			D	
Home-Based Business ¹⁰ [2006-14]	999					P			
Hospital	806			P					
Humanitarian Service Facility [2003-2]	999			D	D				
Individual and Family Social Service Home [2003-1]	999			D					
Job Training and Vocational Rehabilitation	833			P					
Library	823			P	D ⁵				
Medical Clinic	801,802 [2015-1]				D ⁵				
Nursery School ³ [2003-1]	999			P	D	D			
Religious Institution[2013-64] ⁸	866			D	D			D	
Rink, Curling	999				D				
Rink, Ice Skating	7999		D ¹		P ¹ D ¹				
School, Private	821, 824, 829			P					
School, Public	821, 824, 829			P					
School, Vocational	824			P					
Stadium (Professional Sports Clubs and Promoters) ¹³	7941				P ¹⁴				
Supportive Living Home ⁶	805					P			
Theatre, Drive-in	7833							D	
University, College and Professional School	8221			P					
Zoological Garden	8422			D					
		AIR	FW	I	PS	PUD	RR	UH	WC

TABLE 5.4: TABLE OF LAND USES - SPECIAL ZONES [2003-6]									
LAND USE TYPE	SIC CODE	LAND USE ZONE ¹							
		AIR	FW	I	PS	PUD	RR	UH	WC
KEY: P=Permitted Use; D=Discretionary Use; Blank Space=Prohibited use									
TRANSPORTATION AND PUBLIC UTILITIES									
Ambulance Service	4119			D					
Licensed Restaurant	5812				D ⁵				
Personal Service	999				D ⁵				
Post Office	431			P					
Railroad Transportation	40						P		
Restaurant	5812				D ⁵				
Truck and Freight Terminals [2009-24]	4231						P		
Warehousing	42						D		
CULTURE AND REGREATION									
Art Gallery or Museum	841			P	D ⁵				
Community Garden [2006 – 63]	999	P	P	P	P	P	P	P	P
MISCELLANEOUS									
Park and Open Space [1999/10120; 2003-32]	999		D	P	P				
Public Use ¹¹ [2003-1]	999		P	P	P	P	P	P	
		AIR	FW	I	PS	PUD	RR	UH	WC
Notes:									
1	Land use zone abbreviations are explained in Chapter 3								
2	Accessory to a permitted or discretionary use.								
3	Outdoor.								
4	Indoor.								
5	Only in conjunction with municipally owned or operated recreational facility.								
6	Refer to the regulations in Subpart 6D.2.								
7	Deleted. [2006-14]								
8	Refer to the regulations in Subpart 9D.1 and development standards for the I-Institutional zone in Table 5.9. [1997/9904]								
9	Refer to the regulations in Subpart 4C.1.								
10	Refer to the regulations in Subpart 6D.3.								
11	Refer to the regulations in Subpart 4C.2.								
12	Refer to the regulations in Subpart 6D.1. [1995/9736]								
13	Refer to the regulations in Subpart 9D.2								
14	Repealed. [2015-1]								

PART 5C

DEVELOPMENT STANDARDS

5C.1 TABLE OF ZONE STANDARDS

1.1 APPLICATION

All uses of land or development of land in every land use zone shall conform to the development standards applicable to that zone or use provided in this Part.
[1992/9250]

1.2 DWELLING UNITS

- (1) Unless otherwise specified on the Zoning Maps, every dwelling unit in a residential zone must conform to the standards in Table 5.6 applicable to the land use zone in which it is located, respecting the:
 - (a) gross area of the lot;
 - (b) site frontage;
 - (c) coverage;
 - (d) floor area ratio;
 - (e) principal building setback from the front, rear and side property lines; and
 - (f) building height. [1999/10113]
- (2) Unless otherwise specified, all standards in Table 5.6 are the minimum required standards. [1992/9250]

TABLE 5.6: DWELLING UNIT DEVELOPMENT STANDARDS [2011-61]

DEVELOPMENT STANDARD AND DWELLING TYPE	LAND USE ZONE												
	R1	R1A	R2	R3	R4	R4A	R5	R6	R8	R7	TAR		
MINIMUM LOT AREA (m²)													
Detached	325	250	325	250	250	250	250	325	325	n/a	250		
Detached zero lot	315	315	315	315	315	315	315	315	315		315	315	
Corner lot													250
Others												250	
Semi-detached [1999/10113; 2001/10264; 2013-64, 2014-44]	n/a	n/a	250 ⁴	250	250	250	250	250	250			250	
Semi-detached (front to back) [2014-44]			210 ^{4,7}	210 ⁷	210 ⁷	210 ⁷	210 ⁷	210 ⁷	210 ⁷		210 ⁷		210 ⁷
Duplex			325	250	250	250	250	250	325		325		250
Fourplex							n/a	500	500		500		500
Triplex								500	500		500		500
Townhouse unit ⁴ [1999/10113]					n/a	n/a	120	120	120		120	n/a	120
Apartment ⁴								500	500	500		250	
Converted house ¹							n/a	250	n/a			250	
Mobile home								n/a	n/a			400	n/a
MINIMUM LOT FRONTAGE (m)													
Detached	10.5	7.5	10.5	7.5	7.5	7.5	7.5	10.5	10.5	n/a	7.5		
Detached zero lot	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5		10.5	10.5	
Corner lot													9
Others												9	
Semi-detached [1999/10113; 2001/10264; 2013-64, 2014-44]	n/a	n/a	7.5 ⁴	7.5	7.5	7.5	7.5	7.5	7.5			7.5	
Semi-detached (front to back) [2014-44]			6.7 ^{4,7}	6.7 ⁷	6.7 ⁷	6.7 ⁷	6.7 ⁷	6.7 ⁷	6.7 ⁷		6.7 ⁷		6.7 ⁷
Duplex			10.5	7.5	7.5	7.5	7.5	7.5	10.5		10.5		7.5
Fourplex							N/a	15	15		15		15
Triplex								15	15		15		15
Townhouse unit ⁴ [1999/10113]					n/a	n/a	4	4	4		4	n/a	4
Apartment ⁴								15	15	15		7.5	
Converted house ¹							n/a	7.5	n/a			7.5	
Mobile home								n/a	n/a			12	n/a
			R1	R1A	R2	R3	R4	R4A	R5	R6	R8	R7	TAR

TABLE 5.6: DWELLING UNIT DEVELOPMENT STANDARDS [2011-61]												
DEVELOPMENT STANDARD AND DWELLING TYPE	LAND USE ZONE											
	R1	R1A	R2	R3	R4	R4A	R5	R6	R8	R7	TAR	
MINIMUM FRONT YARD SETBACK (m)												
Detached ^a	6	6	6	6	6	6	6	6	5.5	6	5	
Detached zero lot	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Semi-detached ^b [2001/10264]										n/a	5	
Duplex ^b												
Fourplex ^b												6
Triplex ^b												
Townhouse unit ^b												
Apartment ^c												
Converted house ^d										6	n/a	5**
Mobile home										n/a	5	N/a
MINIMUM REAR YARD SETBACK (m) [1997/9904]												
Detached										n/a	5	
Detached zero lot Corner lot Others												
Semi-detached [2001/10264]												5
Duplex												
Fourplex												
Triplex												
Townhouse unit										5	nil	
Apartment ^c										5	n/a	5
Converted house ^d										n/a	4	n/a
Mobile home										n/a		
	R1	R1A	R2	R3	R4	R4A	R5	R6	R8	R7	TAR	

TABLE 5.6: DWELLING UNIT DEVELOPMENT STANDARDS [2011-61]												
DEVELOPMENT STANDARD AND DWELLING TYPE	LAND USE ZONE											
	R1	R1A	R2	R3	R4	R4A	R5	R6	R8	R7	TAR	
MINIMUM SIDE YARD SETBACK (m)												
Detached	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
Detached zero lot Corner Others	1.8 ¹	1.8 ²	1.8 ²	1.8 ²	1.8 ²	1.8 ²	1.8 ²	1.8 ²	1.8 ²	1.8 ²	n/a	
Semi-detached [2001/10264]	n/a	n/a	1.2 ⁵	1.2 ⁵	1.2 ⁵	1.2 ⁵	1.2 ⁵	1.2 ⁵	1.2 ⁵	1.2 ⁵	1.2 ⁵	
Duplex			1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
Fourplex	n/a				N/a	1.2	1.2	1.2	n/a	n/a	1.2	
Triplex					1.2	1.2	1.2	1.2				
Townhouse unit					1.2 ³	1.2 ³	1.2 ³	1.2 ³			1.2 ³	
Apartment ⁴	1/4 of the height of the proposed wall adjacent to the side lot line to a maximum of 6 metres.										Nil	
Converted house ¹					N/a							1.2
Mobile home					n/a							* n/a
MAXIMUM COVERAGE (%)												
Detached												
Detached zero lot Corner Others												
Semi-detached [2001/10264]												
Duplex												50%
Fourplex												
Triplex												
Townhouse unit												
Apartment ⁴					50%							65%
Converted house ¹					n/a							50%
Mobile home					n/a							50% n/a
	R1	R1A	R2	R3	R4	R4A	R5	R6	R8	R7	TAR	

TABLE 5.6: DWELLING UNIT DEVELOPMENT STANDARDS [2011-61]

DEVELOPMENT STANDARD AND DWELLING TYPE	LAND USE ZONE										
	R1	R1A	R2	R3	R4	R4A	R5	R6	R8	R7	TAR
MAXIMUM FLOOR AREA RATIO											
Detached	0.75										
Detached zero lot corner lot others											
Semi-detached [2001/10264]											
Duplex	0.85										
Fourplex											
Triplex											
Townhouse unit	3.00										
Apartment ⁺⁶											
Converted house ¹											
Mobile home	0.50										0.75
MAXIMUM BUILDING HEIGHT (m)											
	11	11	11	11	11	13	11	20 ⁶	11	nil	**
	R1	R1A	R2	R3	R4	R4A	R5	R6	R8	R7	TAR
Notes:											
1	Includes rooming house in all zones, and house form commercial/residential building, library and private school in the TAR zone. [2003-2]										
2	Total of both sides.										
3	End units only.										
4	Development standards shown are per unit, not per building. [1999/10113]										
5	Where the 2 units are on separate lots, the total side yard requirement (total of both sides) for each lot is 1.2 metres. Where the 2 units are on the same lot, each side yard must be a minimum of 1.2 metres. [2001/10264]										
6	Apartment buildings with a height of more than 13 metres are discretionary uses in the R6 zone. See Table 5.1. [2004-1]										
7	Reduced lot area and lot frontages shall only apply to semi-detached dwelling units on lots with rear lane/alley access.										
8	Reduced setbacks may be permitted in accordance with Subpart 6B.6 of Chapter 6.										
N/A	Not Applicable										
*	Refer to Subpart 6C.9 of Chapter 6.										
**	Refer to Subpart 6C.11 of Chapter 6.										
+	In the TAR zone, includes low-rise and seniors assisted living apartments. [2005-34]										

1.3 COMMERCIAL ZONES

- (1) Unless otherwise specified on the Zoning Maps, every use of land or development in a commercial zone must conform to the standards in Table 5.7 applicable to that land use zone and the proposed use, respecting the:
 - (a) gross area of the lot;
 - (b) site frontage;
 - (c) coverage;
 - (d) floor area ratio;
 - (e) principal building setback from the front, rear and side property lines; and
 - (f) building height.
- (2) Unless otherwise specified, all standards in Table 5.7 are the minimum required standards. [1992/9250]

TABLE 5.7: COMMERCIAL ZONE DEVELOPMENT STANDARDS

DEVELOPMENT STANDARD	LAND USE ZONE											
	D	DSC	HC	LC1	LC2	LC3	MAC	MAC3	MS	MX	NC	
MINIMUM LOT AREA (m ²)		750	750	250	250	100	250	250	250	250	250 500 ¹	250
MINIMUM FRONTAGE (m)		25	22.5	6	6	5	6	6	6	6	6 15 ⁴	6
MINIMUM FRONT YARD SETBACK (m)		7.5 ⁵	7.5	6	6	nil ¹	nil	7.5	nil	5	5	5
MINIMUM REAR YARD SETBACK (m) [1999/10113]		9 ³	9	nil	nil	nil	1/4 of the height of the adjacent wall to a maximum of 6 metres	1/4 of the height of the adjacent wall to a maximum of 6 metres	3 ¹	1/4 of the height of the adjacent wall to a maximum of 6 metres	1/4 of the height of the adjacent wall to a maximum of 6 metres	1/4 of the height of the adjacent wall to a maximum of 6 metres
MINIMUM SINGLE SIDE YARD SETBACK (m)	See Subpart 7C.10, Chapter 7	nil ¹	2.5	nil	nil	nil	nil	nil	nil ¹	nil	Nil	Nil
MINIMUM TOTAL SIDE YARD SETBACK (m)		nil ¹	7	nil	nil	nil	nil	nil	nil ¹	nil	Nil	Nil
MAXIMUM SITE COVERAGE (%)		65	50	65	65	100	90	65	65	65	65	65
MAXIMUM BUILDING HEIGHT (m) [2012-45]		13 ⁵	15	13	13	13	15 ⁶	15	15	15	15	11 ²
MAXIMUM FLOOR AREA RATIO	See Zoning Maps ⁴	2.0	1.75	1.75	2.0	3.0	3.0	1.0	3.0	1.75	1.75	1.75
		D	DSC	HC	LC1	LC2	LC3	MAC	MAC3	MS	MX	NC

Notes:

- 1 See details in Subpart 7C.5, Chapter 7.
- 2 Repealed. [2003-1]
- 3 Additional setback standards are provided in Section 4.5, Subpart 7C.4, Chapter 7.
- 4 Mixed-use buildings only. [1995/9736]
- 5 Refer to 7C.9.5(11) for development standards for residential and mixed use buildings. [2002-6]
- 6 Where this zone applies to lands identified for mid-rise office buildings, in accordance with the office policies of the Official Community Plan, a maximum building height of up to 30m may be considered as a discretionary use. [2012-45]

1.4 INDUSTRIAL ZONES

- (1) Unless otherwise specified on the Zoning Maps, every use of land or development in an industrial zone must conform to the standards in Table 5.8 applicable to that land use zone and the proposed use, respecting the:
 - (a) gross area of the lot;
 - (b) site frontage;
 - (c) coverage;
 - (d) floor area ratio;
 - (e) principal building setback from the front, rear and side property lines; and
 - (f) building height.
- (2) Unless otherwise specified, all standards in Table 5.8 are the minimum required standards. [1992/9250]

TABLE 5.8: INDUSTRIAL ZONE DEVELOPMENT STANDARDS

DEVELOPMENT STANDARD	LAND USE ZONE					
	IT ¹²	IC1, IC	IP	IA1, IA	IB1, IB	WI
MINIMUM LOT AREA (m ²)	500	750 ¹ 4000	2000	200 ¹ 500	500 ² 2000	500
MINIMUM FRONT YARD SETBACK (m)	7.5	7.5 ³ 15	9	0 ¹ 7.5	0 ^{2,11} 7.5	0
MINIMUM FRONTAGE (m)	15	25 ³ 60	30	6 ¹ 15	15 ² 30	15
MINIMUM REAR YARD SETBACK (m) [1999/10113]	50% of the height of the adjacent wall			50% of the height of the adjacent wall ⁴	50% of the height of the adjacent wall	25% of the height of the adjacent wall to a maximum of 6 metres
MINIMUM SINGLE SIDE YARD SETBACK (m)	Nil					
MINIMUM TOTAL SIDE YARD SETBACK (m)	20% of the average lot width to a maximum of 3 metres	20% of the average lot width to a maximum of 7.5 metres ⁵	20% of the average lot width to a maximum of 7.5 metres	20% of the average lot width to a maximum of 7.5 metres ⁶	20% of the average lot width to a maximum of 7.5 metres ⁷	Nil
MAXIMUM SITE COVERAGE (%)	75	65 ⁹	50	50 ¹⁰	75	90
MAXIMUM BUILDING HEIGHT (m)	15					
MAXIMUM FLOOR AREA RATIO	2.0	2.0	1.5	1.5 ¹	2.0	4.0
	IT ¹²	IC1, IC	IP	IA1, IA	IB1, IB	WI
Notes:						
1	Sites in (IA1) zones only.					
2	Sites in (IB1) zones only. See also Subpart 8C.2, Chapter 8.					
3	Sites in (IC1) zones only.					
4	Except in (IA1) zones, where the minimum rear yard shall be 25% of the height of the adjacent wall. [1999/10113]					
5	The maximum for sites in (IC1) zones shall be 3 metres.					
6	Nil for (IA1) zones. [1994/9572]					
7	The maximum for sites in (IB1) zones shall be 3 metres.					
8	Except sites in (IA1) zones, where the maximum FAR is 3.0.					
9	Except sites in (IC1) zones, where the maximum coverage is 75%.					
10	Except sites in (IA1) zones, where the maximum coverage is 65%.					
11	Exceptions for the Ross Industrial Subdivision and the Alliance Industrial Subdivision are provided in Section 2.5, Subpart 8C.2, Chapter 8.					
12	Refer to Subpart 10C.7, Chapter 10, for development standards for portions of this zone lying within the Innismore Industrial Transitional Overlay Zone.					

1.5 SPECIAL ZONES

- (1) Unless otherwise specified on the Zoning Maps, every use of land or development in a special zone must conform to the standards in Table 5.9 applicable to that land use zone and the proposed use, respecting the:
 - (a) gross area of the lot;
 - (b) site frontage;
 - (c) coverage;
 - (d) floor area ratio;
 - (e) principal building setback from the front, rear and side property lines; and
 - (f) building height.
- (2) Unless otherwise specified, all standards in Table 5.9 are the minimum required standards. [1992/9250]

TABLE 5.9: SPECIAL ZONE DEVELOPMENT STANDARDS [1999/10113]

DEVELOPMENT STANDARD	LAND USE ZONE								
	AIR	DC	FW	I	PS	PUD ³	RR	UII	WC
MINIMUM LOT AREA (m ²)	Consult with Transport Canada	See Chapter 9 Subpart 9C.3	500	500	500	250 ¹ 315 ²	2000	3500	Consult with the Wascana Centre Authority
MINIMUM FRONTAGE (m)			15	15	15	9 ¹ 10.5 ²	30	40	
MINIMUM FRONT YARD SETBACK (m)			7.5	7.5	7.5	5.5	7.5	7.5	
MINIMUM REAR YARD SETBACK (m)			25% of depth of lot	6	25% of depth of lot	5	50% of the height of the adjacent wall	25% of depth of lot	
MINIMUM SIDE YARD SETBACK (m)			3	3	3	nil	3	3	
MINIMUM TOTAL SIDE YARD SETBACK (m)			6	6	6	See Chapter 9, Subpart 9C.7, Section 7.7	25% of the average width of the lot to a maximum of 7.5	6	
MAXIMUM SITE COVERAGE (%)			75	75	75	50	75	17	
MAXIMUM BUILDING HEIGHT (m)			15	15	15	11	15	15	
MAXIMUM HEIGHT OF ACCESSORY BUILDING (m)			nil	nil	nil	4	nil	nil	
MAXIMUM FLOOR AREA RATIO			.75	1.5	.75	.75	2.0	.25	
	AIR	DC	FW	I	PS	PUD	RR	UII	WC

Notes:

- 1 Interior lot.
- 2 Corner lot.
- 3 Detached dwelling units only.