IN VISUALIZING





About Visualizing Density

Visualizing Density is a pilot project created by the Canadian Urban Institute to help planners, designers, elected officials, residents' groups, and private sector builders design more complete communities and adapt existing communities over time. It includes a website (www.visualizingdensity.ca) and a report; which contain identical information.

We selected 5 very different communities in the GGH and calculated their density in terms of people and jobs per hectare at the neighbourhood and block scale, so that people can understand what the neighbourhood built-form looks like in relation to density targets set out in the Provincial Growth Plan. The visuals and analysis in the 5 case studies also encourage users to look beyond buildings and consider the attributes that work with density to make complete communities. We chose 6 key drivers of complete communities to help us illustrate this. They are walkability, diversity, green and open spaces, amenities, transit and design. Our methodology is easily replicated and can be used by municipalities, university courses, or volunteers to undertake additional case studies that could be shared on this website. Existing case studies could also be regularly updated to assess what progress is being made towards becoming complete communities.

We want Visualizing Density to contribute to the ongoing conversation about managing growth and building great communities in the Greater Golden Horseshoe.

This report was created by the Canadian Urban Institute with support from the Ontario Growth Secretariat through the Places to Grow Implementation Fund.



Density is...

a ratio of residents and jobs to a land area is the way density is calculated in the Growth Plan. Density is a key metric the province uses to measure how municipalities and regions in the GGH are planning to achieve the goals of the Growth Plan.

Higher Density is Here to Stay

Sustained population growth over the next 15 years combined with provincial land use plans mean that 12 million people will need to live and work in the same land area in the Greater Golden Horseshoe (GGH) currently occupied by 9 million people. More people in the same space means we have to live at a greater density.

To accommodate this growth while making efficient use of existing infrastructure, preserving natural areas, protecting drinking water and farmland, the province uses policy tools like the Provincial Growth Plan to require municipalities to plan for more compact, higher density communities.

But, it's not just policy that drives the trend to compact, higher denser communities. The building industry and the housing market in the GGH is also changing in response to land costs, more diverse family types and population growth. More townhouses, condo towers and mid-rise apartments are being built, with a focus on people, amenities and active transportation rather than the circulation and storage of cars.

The result has been a visible change to a denser built environment in the GGH. Visualizing Density provides a way of seeing that change and assessing if greater density is working to provide residents with the attributes of a great community.

Getting to Higher Density

Density can evolve over time. Higher densities don't have to mean overcrowding and congestion. Intensification can happen in a subtle, incremental way through buildings that "fit" into the existing community. Good design and appropriate zoning can introduce density that is not intrusive. The case studies help to show examples of good design in existing communities.

A variety of building types. Well designed communities contain a mix of housing types that provide for the needs of residents at all stages of their lives. The way that these housing types are arrayed through a variety of street configurations, block sizes, lot sizes, site layouts and designs can produce different densities. Although density is a useful way to measure what is being achieved with new development, it isn't necessarily the best or only way to make the decisions that lead to the kind of development anticipated with the province's plans. The key to building complete communities may be to ensure that higher density can evolve over time.

Density can help create the artificial mass of people needed to support healthy living, and the attributes of a complete community. The more people live in a neighbourhood the more likely it is to have frequent service on higher order transit and quality retail. A variety of tools in the planning approval process allow community amenities like child care, library services, human services and parks to be paid for by higher density. More compact, higher density neighbourhoods are positively associated with walkability and more active lifestyles that reduce obesity, diabetes and cardiovascular illnesses.

Understanding Density -5 Key Points

1. Density is a key metric the province uses to measure how municipalities and regions in the GGH are planning to achieve the goals of the Growth Plan. The Growth Plan intends to manage growth and protect food supply and water by encouraging changes to the built environment in the GGH and promoting measures to hold the urban edge. To do this, the Growth Plan aims to:

- Revitalize downtowns to become vibrant centres; (the 25 urban growth centres)
- Create complete communities that offer more options for living, working, shopping, and playing;
- Provide greater choice in housing types to meet the needs of people at all stages of life; (more multi-unit buildings)
- Curb sprawl and protect farmland and green spaces; (hold the urban edge)
- Reduce traffic gridlock by improving access to a greater range of transportation choices (encourage transit, cycling and walkability)

2. Density targets are a key performance measure.

The ratio of residents (and jobs) to a land area is the way density is calculated in the Growth Plan. To measure how municipalities and regions are planning to accommodate a growing number of people in a finite amount of space, the province has created density targets of 50, 150, 200, and 400 residents and jobs per hectare to which municipalities and regions must comply in their Official Plans.

3. Density is not a design recipe.

Achieving a certain net residential density will not guarantee a viable urban centre or sustain benefits such as viable public transport or walkability. Often people confuse density with building type. Higher density does not always equal higher buildings. A high-rise tower with large units set on a park-like site may be lower density than a variety of grade related multi-unit buildings and detached houses on smaller lots. Perceived density is not highly related to any one building type but is affected by landscaping, aesthetics, noise, and building type - in a word design. Similarly, zoning by-laws that allow for a mix and variety of building types (rather than segregate) will likely achieve both density targets and create the diversity and walkability that supports inclusive, complete communities.

4. Measuring density is different from planning for density.

There is a difference between measuring density (residents and jobs / land area) and planning for density (a co-efficient of residents and/or jobs /unit or area). The density we are calculating in our case studies comprises a ratio of the actual population on the ground at the time of the census or employment study to the land area. Many municipalities when planning for density calculate density using persons per unit (PPU) measure for residential and persons per sq. ft. for commercial. This underlines the fact that buildings can go through several evolutions of use and there is always a potential for changed population or employment counts due to vacancies or levels of economic activity.

5. Many factors affect density target numbers.

The density numbers that we show in the visualizations are meant to give people the look and feel of what various density numbers look like in different communities. In our case studies, we measure density at the neighbourhood and block scales. Density varies greatly depending on the scale or base land area used in the density calculation. The parcel or site density is almost always higher than the neighborhood density, because at a neighborhood scale more land not in development (e.g. parks, roads, etc.) is included in the base land area calculation. Land area excluded from density calculations are called "take outs". We acknowledge that ideas about take outs vary between the province and municipalities and that they are important from a compliance point of view.

Methodology

Overview

Our main research question is: What do the density targets in the Growth Plan look like in existing communities?

At the same time, we wanted to create a replicable methodology for measuring density at the neighbourhood or community scale in the context of the Growth Plan.

We reviewed a number of existing studies, such as the <u>Lincoln</u> <u>Land Institute Visualizing Density</u>, the Waterloo Report Visualizing Densities <u>Part One</u> and <u>Part Two</u>, and Urban Strategies' <u>Citizen's</u> <u>Guide to Density</u>.

Two observations emerged:

- Density is inevitable and we need to make it part of how we build great communities. The Greater Golden Horseshoe is projected to grow by more than 3 million people by 2031. To accommodate this growth while making efficient use of existing infrastructure, preserving natural areas, protecting drinking water and farmland, we need to plan for more compact, higher density communities.
- There are several 'drivers' or neighbourhood characteristics that can work with density to create complete communities where people want to live, work and recreate. The 6 Drivers of Complete Communities are: walkability, diversity, green and open spaces, amenities, transit and design.

5 Case Study Communities

With advice from an expert panel, we selected and analysed 5 communities from across the Greater Golden Horseshoe. We chose places that were known for being desirable places to live and for having elements of a complete community. We tried to select areas that represented a range of built form, and neighbourhood types from across the Greater Golden Horseshoe.

Measuring Density

For each of the 5 areas, we measured residential density (# of people per hectare), as well as a combined density (people + jobs per hectare). The Growth Plan uses the combined targets for greenfield areas and Urban Growth Centres. It also reflects the need to have a mix of uses in a community. The Ministry's <u>Technical</u> <u>Backgrounded on Intensification and Density Targets</u> provides details on measuring density in relation to the Growth Plan.

Population (e.g. number of residents) and employment data (e.g. number of jobs) are available through the Census at the Dissemination Area (DA) level (usually about the size of a neighbourhood). We used Census DAs to define the boundaries of each study area. Most of the time, the DAs did not line up exactly with the community as it is defined by the municipality or the public, in which case we used the DA that most closely matched the boundaries of the community.

Publicly available employment data from the Census is based on a person's place of residence, not the location of where they work.

However, we were able purchase 2011 employment data from Statistics Canada for a nominal cost. Called "Place of Work for Small Areas", this data provided an estimate of the 2011 employed labour force 15 years and over with a usual place of work by Dissemination Area.

2016 Census population data is currently available however, jobs data for 2016 has not yet been released and therefore we used 2011 data throughout to be consistent. In some communities, new developments have been built since 2011. Based on our methodology, any development completed and occupied between 2011 and 2016, would not be included in the calculation. These instances have been noted in the individual case studies where possible.

To calculate the combined densities, we added the number of people and the number of jobs, and divided that by the number of hectares in each area.

For each area, we also measured the population density of smaller areas (block level), using Census Data for Dissemination Blocks (smaller than Dissemination Areas), and dividing that by the number of hectares. Employment data is not available at the Dissemination Bloc level, which is why the combined density was not calculated for these areas.

Drivers and Measure of Complete Communities

The 6 Drivers of Complete Communities were developed based on research from a variety of sources and general experience of CUI. The Measures were identified by looking at what data was easily available and what could be analyzed through mapping and photos. We used drone photography images, Google Earth and Google Street View to identify each of these drivers in the 5 communities.

- Amenities, parks and commercial space Open Data portals for each of the 5 communities were explored for data providing the location of schools, daycare and community centres and municipal parks. In the absence of relevant data, Google Earth location search was used to identify amenities within 400m radius of the community boundary, and municipal parks and commercial space within the community boundary.
- **Transit Stops** General Transit Feed Specification (GTFS) data were available on municipalities' Open Data Portals for all 5 communities. The GTFS data contains the location of transit stops that can be mapped in a GIS. All transit stops within a 400m radius were mapped.

Take-outs

The Growth Plan describes certain non-developable areas that should be excluded from density calculations - sometimes called net-outs or take outs. These include: "features that are both identified in any applicable official plan or provincial plan, and where the applicable provincial plan or policy statement prohibits development within the features, including: wetlands, coastal wetlands, woodlands, valley lands, areas of natural and scientific interest, habitat of endangered species and threatened species, wildlife habitat, and fish habitat". The updated Growth Plan (2016) provides more specific clear guidelines that can be consistently applied but expanded in their scope to be true to the principle and purpose of "net outs". We used the 2006 definition for net-outs and used open data from the Land Information Ontario Open Data catalogue to identify those areas, and removed them from the density calculations.

Measure & Drivers of Complete Communities

Increased density alone does not make a great neighbourhood. We identified 6 'Drivers of a Complete Communities', which work with density, to create vibrant, inclusive, desirable places for people to live and work. For each Driver, we selected several Measures, for understanding its presence in a community. The Drivers and Measures were used as a basis for analyzing the 5 case studies.



Density is measure of how many people live and work in a particular area. Building more compact, higher density communities is key to accommodating growth while making efficient use of existing infrastructure, preserving natural areas, and protecting farm land and drinking water. The province uses density targets as a measure of how municipalities and regions in the GGH are planning to achieve the goals of the Growth Plan.

MEASURES:

- Population by area (hectares)
- # of jobs by area
- People + jobs by area



Walkability

Good design of streets, such as the use of grid network and pedestrian pathways (as opposed to cul-de-sacs) can optimize pedestrian movement. Connectivity between places and having destinations (parks, shopping, schools) to walk to are also key. Many people refer to 400m being a "reasonable" distance for people to walk.

MEASURES:

- Walking distance to destinations
- Street connectivity and granularity
- Sidewalks



Diversity

A variety of building types can help to ensure a neighbourhood can accommodate diverse residents and support life long living. Policy and zoning that supports infill means a neighbourhood can utilize development potential and easily evolve over time.

MEASURES:

- Diverse range of building types
- Supportive policy and zoning
- Development potential



Green & Open Spaces

Access to green & open space, whether it's parks, playgrounds, or trails, is strongly connected to neighbourhood livability, health and quality of life. The average green space provision rate in Canadian cities is 9.2 hectares/1,000 people.

MEASURES:

• Park space (hectares)

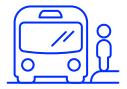


Amenities

Retail and services, recreational and community centres, schools and child care are all types of amenities. They are one of most important things that people look for when choosing a place to live.

MEASURES:

- Retail and services
- Community facilities
- # of jobs



Transit

Access to transit is critical for creating sustainable and healthy communities. It reduces reliance on the car, lowers greenhouse gases, increases walking. Some sources suggest that 50 people and jobs per hectare is a 'transit-supportive' density, while other suggest it is much higher.

MEASURES:

- Transit stops
- Technology



Design

The look and feel of a community, the scale and character of the buildings and the design of the public realm, make a big impact on how a liveable a place is. How the built form is organized - and whether it primarily supports the circulation and storage of cars or people, also makes an impact on liveability.

MEASURES:

- Scale, height, and character of buildings
- Attractive and vibrant public realm
- Area of parking lots

Case Studies

We looked at density and the drivers of complete communities (i.e. what makes density work) through the lens of 5 existing neighbourhoods across the Greater Golden Horseshoe.

P.12 Carlaw & Dundas, Toronto

- Located in the east end of Toronto; Leslieville neighbourhood
- Old industrial area; some light industry remains today
- Mix of employment and residential uses
- Recent increase in mid-rise condo development
- Combined density of 115 jobs + people/ha

P.22 Uptown Core, Oakville

- Located in central Oakville, at major intersection of Trafalgar and Dundas
- Designated as a Growth Area by City of Oakville
- On-going development activity; mostly residential
- Combined density of 41 jobs + people/ha

P.32 Downtown Burlington

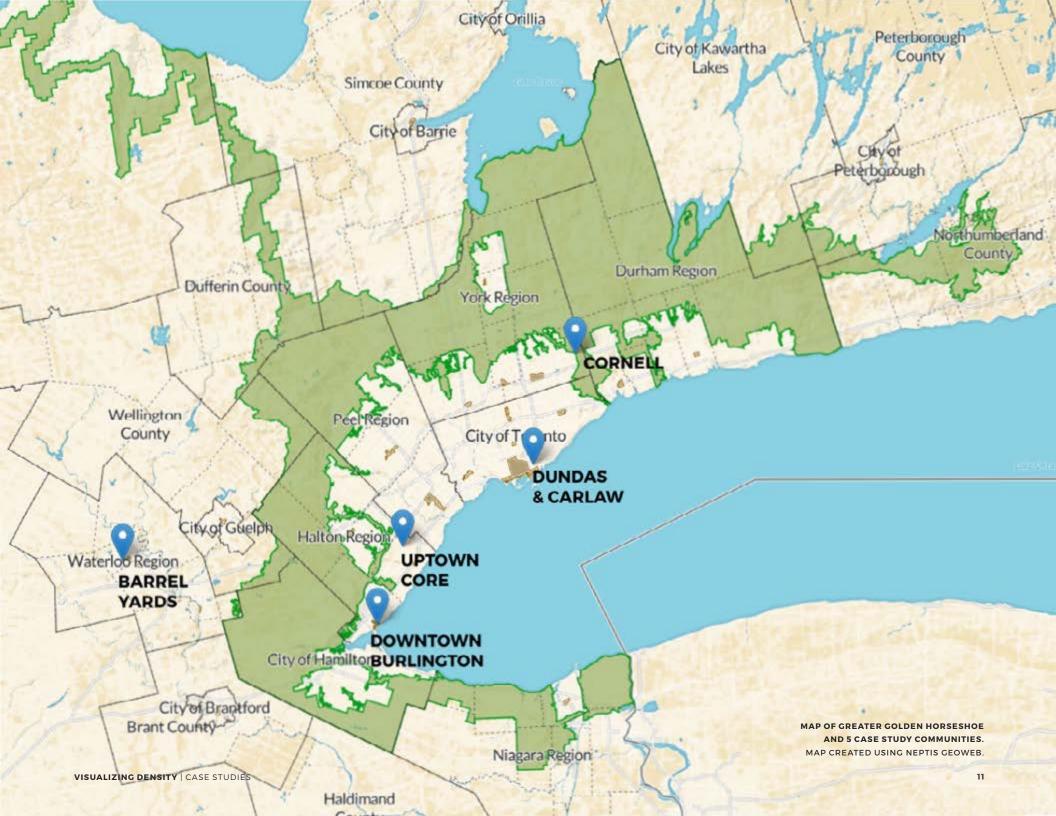
- Located along Lake Ontario
- Designated as a mixed-use area in the City's Official Plan
- Brant Street is a typical mid-size city main street, surrounded by residential
- Combined density of 77 jobs + people/ha

P.42 Cornell, Markham

- Master-planned community on a greenfield
- Designed in the mid-90s using new urbanism principles
- Primarily residential development; commercial areas mostly unrealized
- Combined density of 17 jobs + people/ha

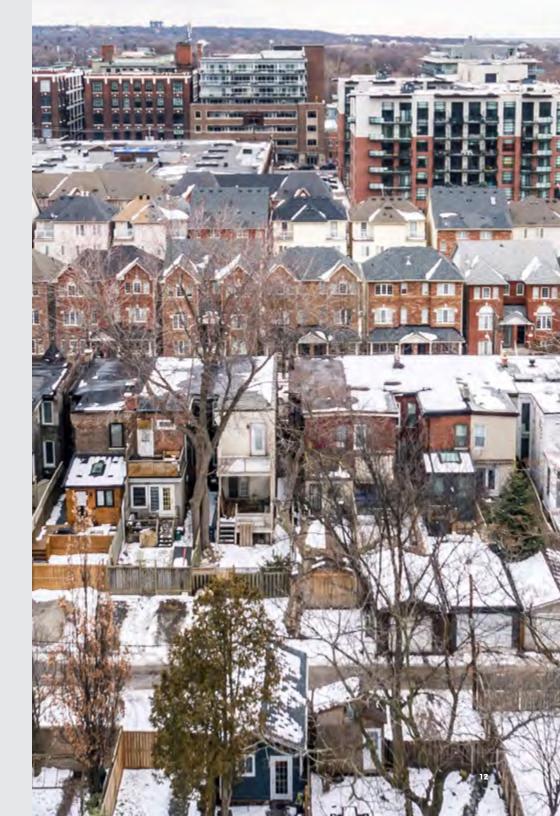
P.52 Barrel Yards, Waterloo

- Located adjacent to the downtown and Waterloo University
- Diverse housing types; combination of new and old
- Planning study for area will guide residential and commercial growth over the next 20 years and beyond
- Combined density of 32 jobs + people/ha



01. Dundas & Carlaw, Toronto

Located in the Leslieville neighbouhood in the east end of Toronto, Dundas and Carlaw has seen significant growth over the past several years - 446 units were built between 2006 and 2011. Carlaw Ave. is designated as a mixed-use street, while the surrounding areas are zoned for a combination of residential and employment. The area's density, along with the variety amenities, good connectivity, and access to transit make it a vibrant, complete community. The area also has room to grow and intensify, which is supported by the City's planning policy.





GERRARD ST.

QUEEN ST. E

PROF

Density

2,894 PEOPLE

1,655 Jobs

39

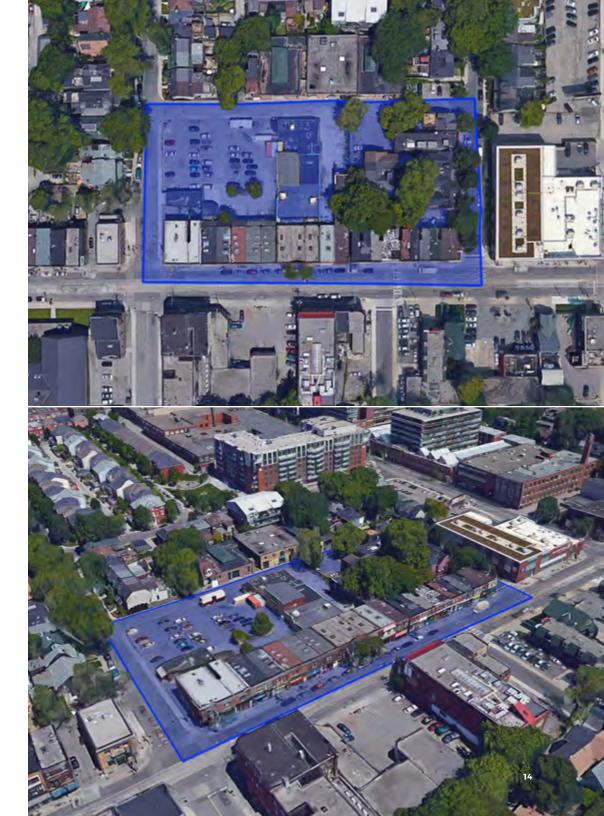
74 people/ha

115 Jobs + people/ha

Block Density

1.13 48 **54** PEOPLE HA **PEOPLE/HA**

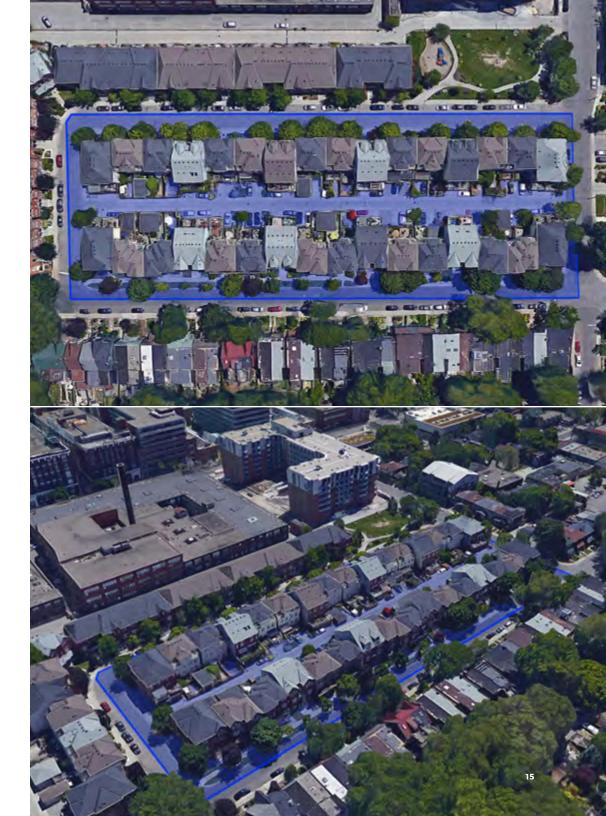




Block Density



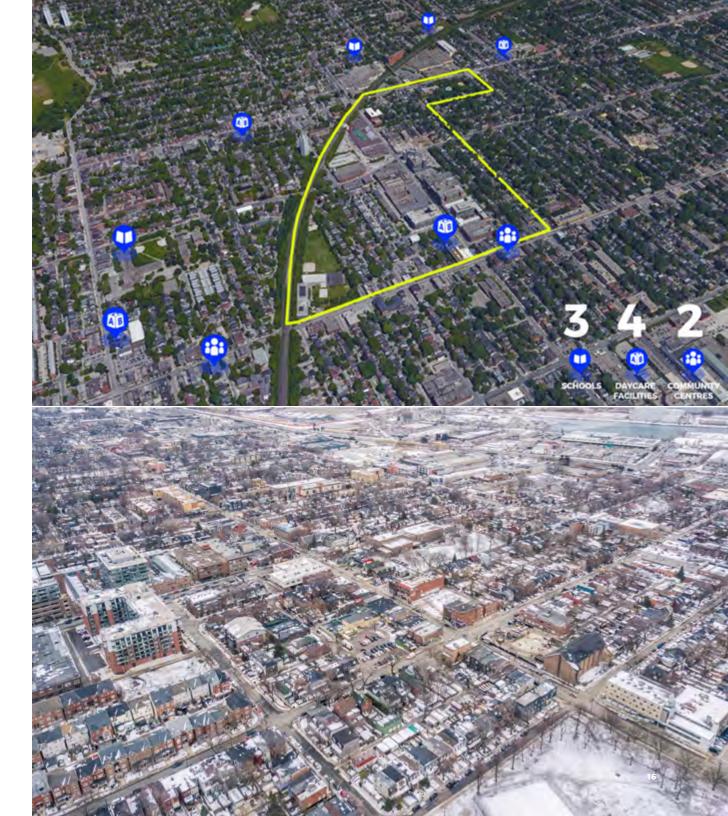






Walkability

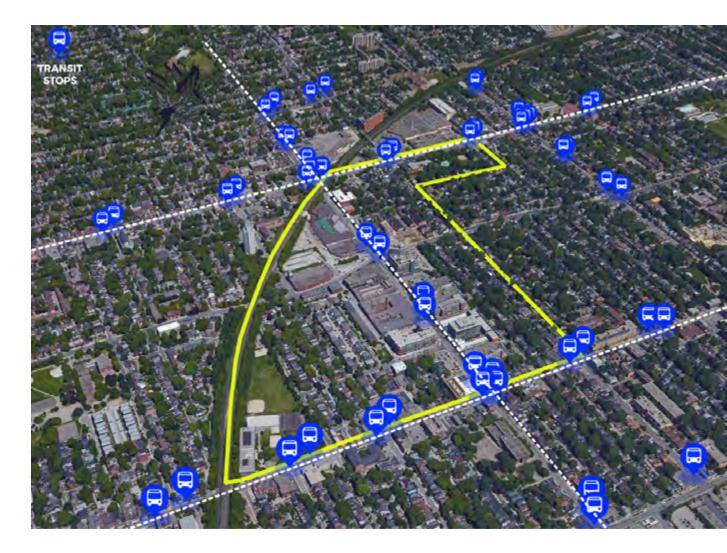
- Highly walkable neighbourhood
- Several schools, daycares and community centres are within walking distance
- Grid street network makes it easy to get around on foot or bicycle
- Sidewalks are prominent and houses are oriented towards the street, with cars and garages in the back





Transit

- Many transit stops within walking distance
- Three main transit routes (along Queen, Gerrard and Carlaw), means most residences are within walking distance to transit
- Good connectivity to transit nodes (e.g. Bloor St. subway)





Diversity

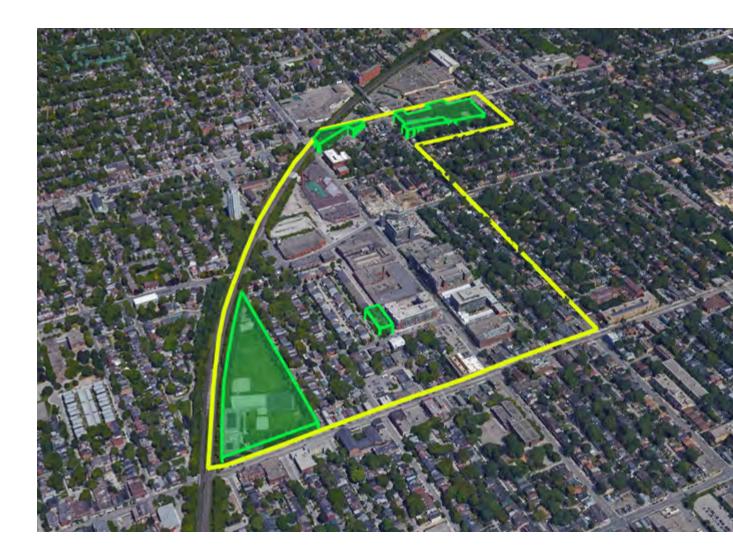
- Mix of single-detached, mid-rise (4-12 stories), semi-detached, multiplex units
- Parking lots, industrial buildings provide opportunity for development
- The Official Plan and site specific policies support re-development
- 12 redevelopment sites approved over last 15 years



Green & Open Spaces

8ha of park space

- This is equivalent to 3 ha/1000 people (the average in Canadian cities is 9.2 hectares/1000 people)
- Within short walking distance of residential areas







Amenities

Lots of places to eat, shop, & enjoy leisure time.

- Shops
- Cafes and restaurants
- Drug store
- Cultural spaces
- Yoga studios
- Dry cleaning
- Dentist
- Artist studios
- Community facilities
 (schools, day cares, etc.)
- Grocery store

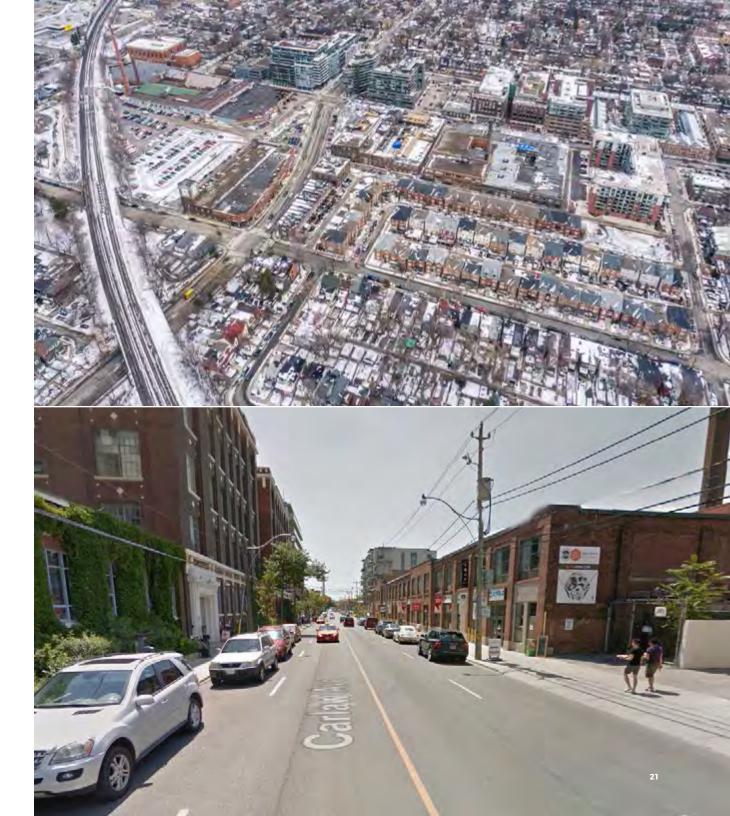


CASE STUDY 01 DUNDAS & CARLAW, TORONTO



Design

- Height, density and massing of new buildings respects and reinforces the existing character
- Opportunities for public realm improvements, such as street furniture, improved lighting and parks space
- Redevelopment of the area must continue to retain industrial heritage



02. Uptown Core, Oakville

Uptown Core is the name of a larger neighbourhood that extends south of Dundas Street and is designated as a growth area by the City of Oakville. It is located in Central Oakville at the major intersection of Trafalgar and Dundas. The area has a range of housing types including townhouses, high-rise and mid-rise, at higher densities than typical suburban neighbourhoods within the GGH. There are lots of amenities, such as community centres, schools, shops and restaurants, but they are mostly separated from the residential areas, making walking inconvenient.



CASE STUDY 02 UPTOWN CORE, OAKVILLE

UPPER MIDDLE RD E.

Density

8,672 PEOPLE

2,340

271

UNDASST.E

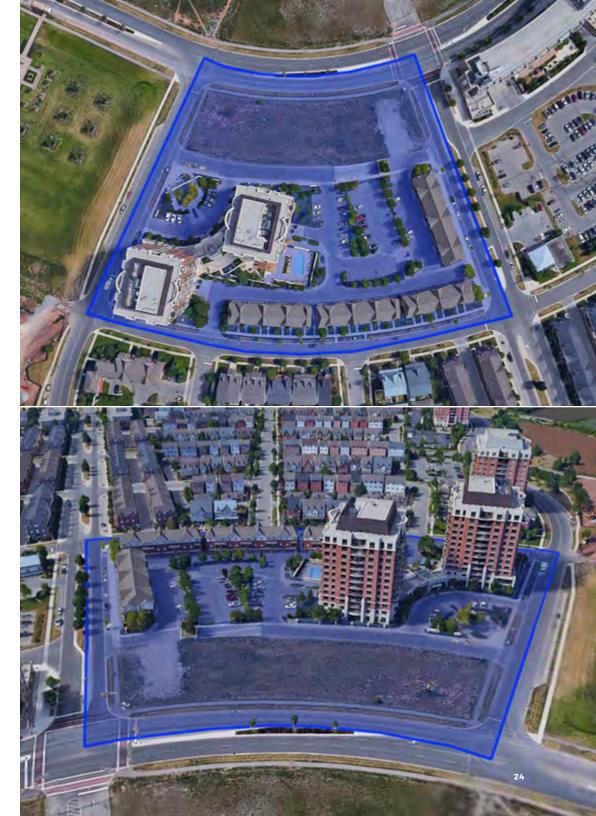
32 people/ha

JOBS + PEOPLE/HA

Block Density

412 2.6 158 PEOPLE HA **PEOPLE/HA**

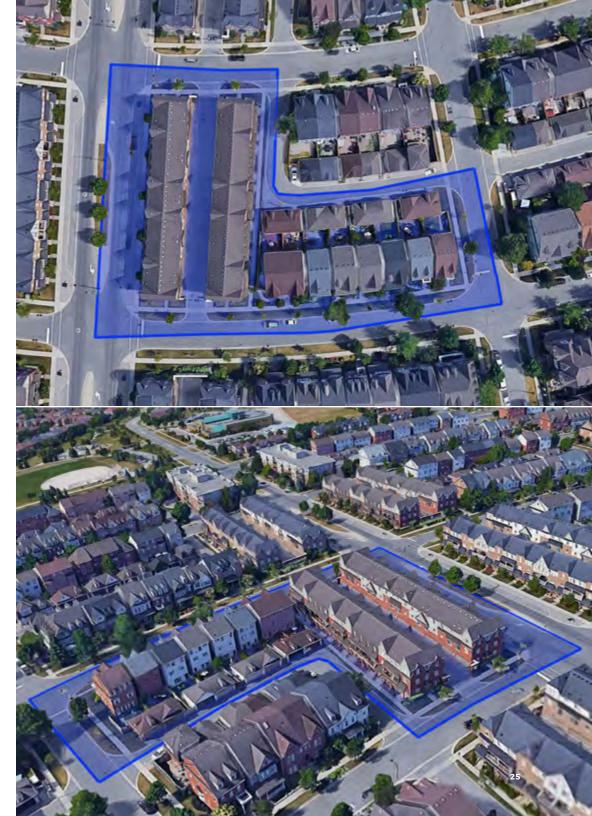




Block Density

163 0.74 220 PEOPLE **PEOPLE/HA** HA



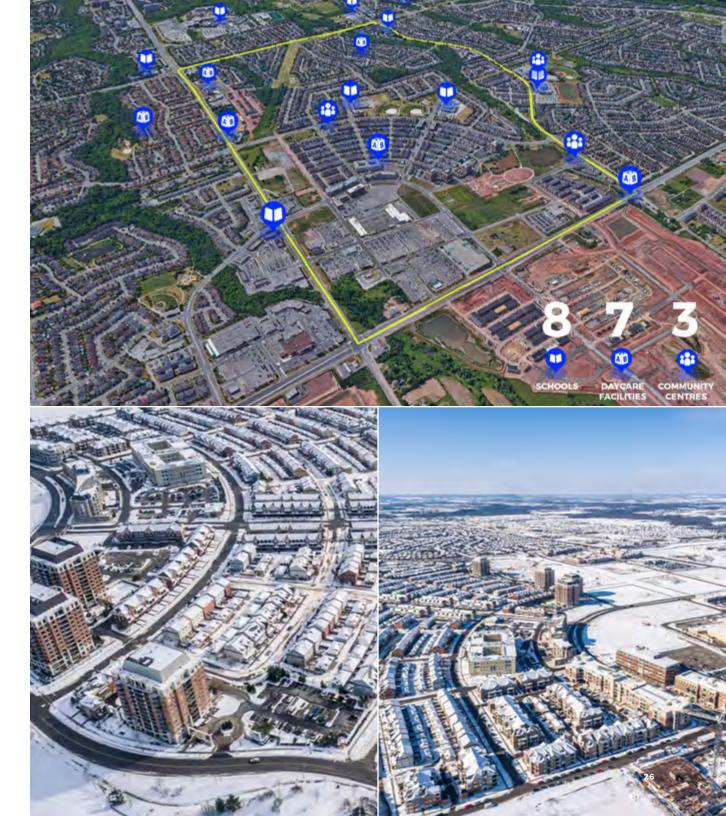


CASE STUDY 02 UPTOWN CORE, OAKVILLE



Walkability

- Several schools, daycares and community centres within walking distance
- Short block sizes make it easier to reach destinations
- Large parking lots separate residential and commercial areas, making it difficult to reach anything on foot
- Big-box format retail oriented towards the car





Transit

Many transit stops within walking distance.

A number of local public transit routes service the neighbourhood and connect it to the GO Transit station, Sheridan College, the Hospital and 407 GO Carpool.

Uptown Core Bus Terminal has bus shelter that acts as mini transit node; connects local transit with Oakville GO Transit station (20 minutes by bus).





Diversity

Mix of housing types with lots of opportunity for growth.

- Parking lots, industrial buildings provide opportunity for development
- Official Plan and site specific policies support re-development and increased density



Green & Open Spaces

51ha OF GREEN & OPEN SPACE

- This is equivalent to 5 hectares per 1000 people
- Linear greenspaces make it more accessible to greater number of people



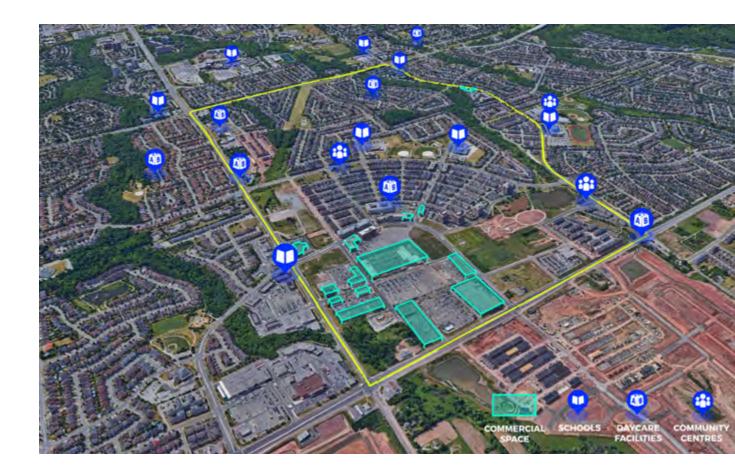




Amenities

Lots of amenities in big box plazas.

- Various restaurants
- Banks
- Walmart and Canadian Superstore
- Community facilities (schools, child care, and community centres)
- Halton Regional Police Service
- Optometrist
- Pharmacy
- Gym
- Liquor store

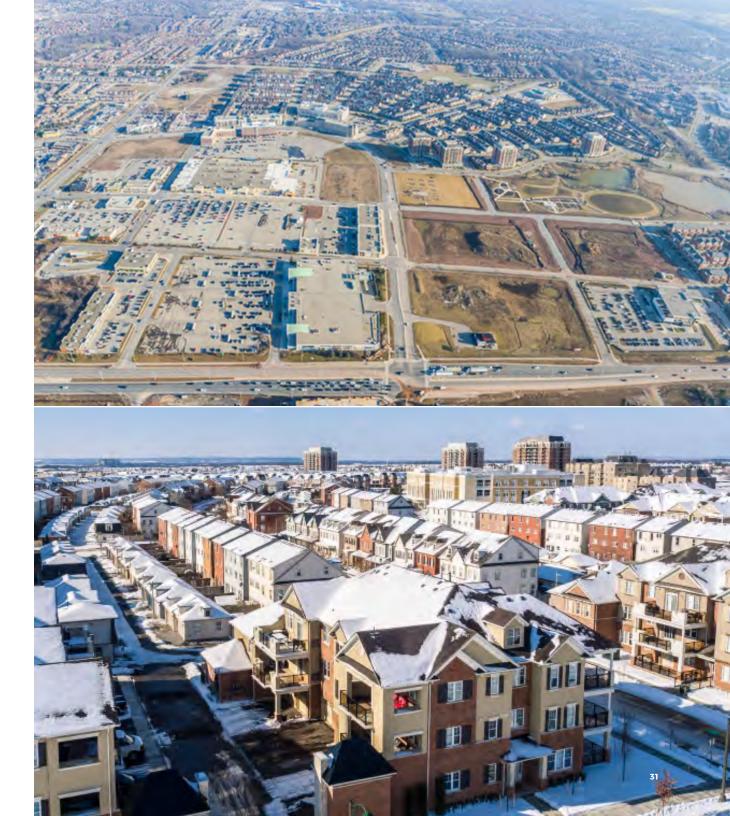


CASE STUDY 02 UPTOWN CORE, OAKVILLE



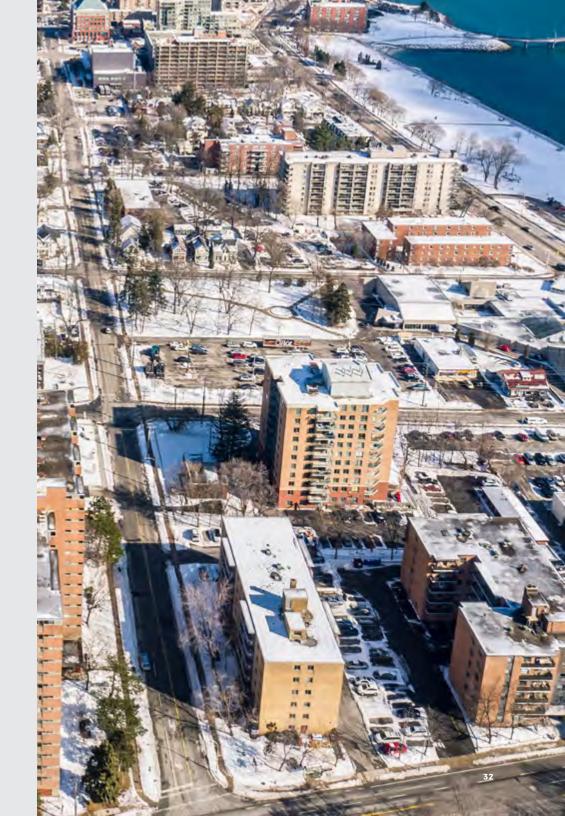
Design

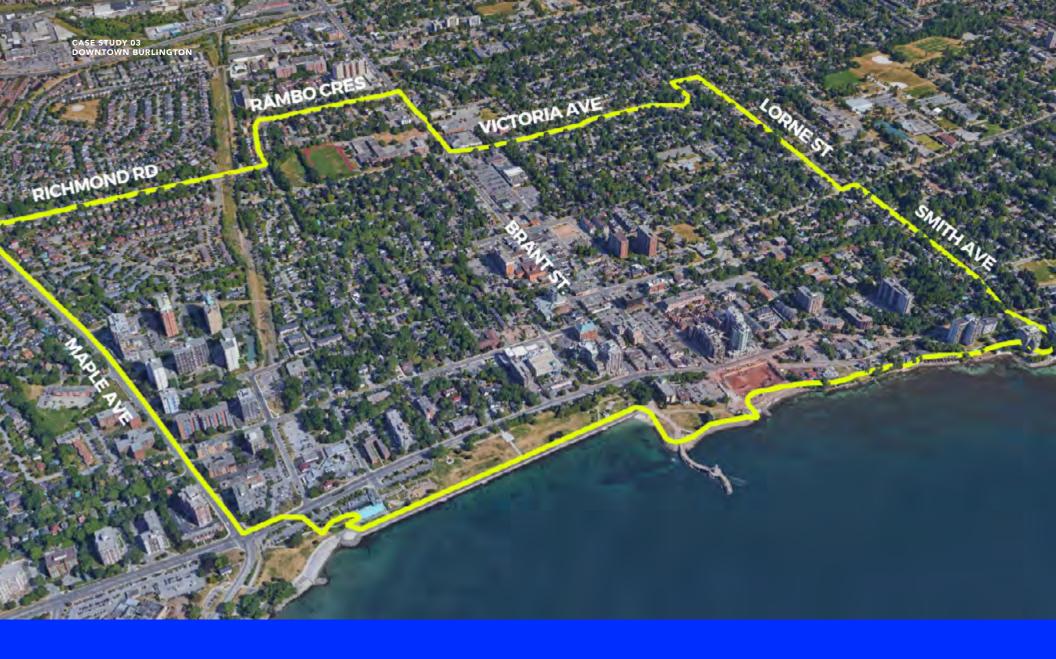
- Front entrances provide easy access to the street
- Car storage in the back keeps
 streets clear
- Parking dominates the public realm in commercial area



03. Downtown Burlington

Downtown Burlington is located on Lake Ontario. It is a typical mid-sized city downtown, characterized by a main street, and surrounded by residential neighbourhoods. The Downtown is designated as a mixed-use centre in the Official Plan and is identified as an Urban Growth Centre in the Provincial Growth Plan. The area is well connected by transit (although the Go Station is a car or bus ride away) and the main street provides lots of amenities within walking distance of residential neighbourhoods.





Density

9,635

4,605

184

HA

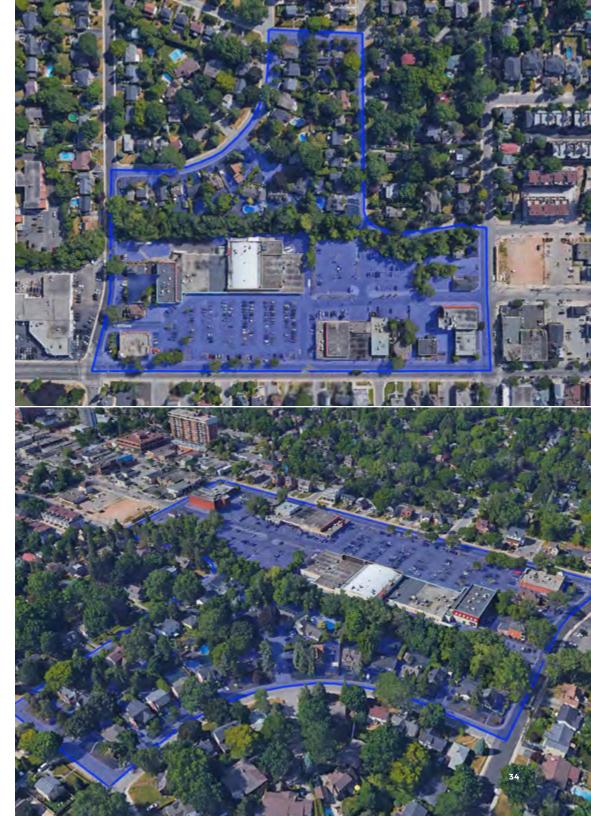
52 people/ha

77 Jobs + people/ha

Block Density

7.2 11 82 НА PEOPLE **PEOPLE/HA**

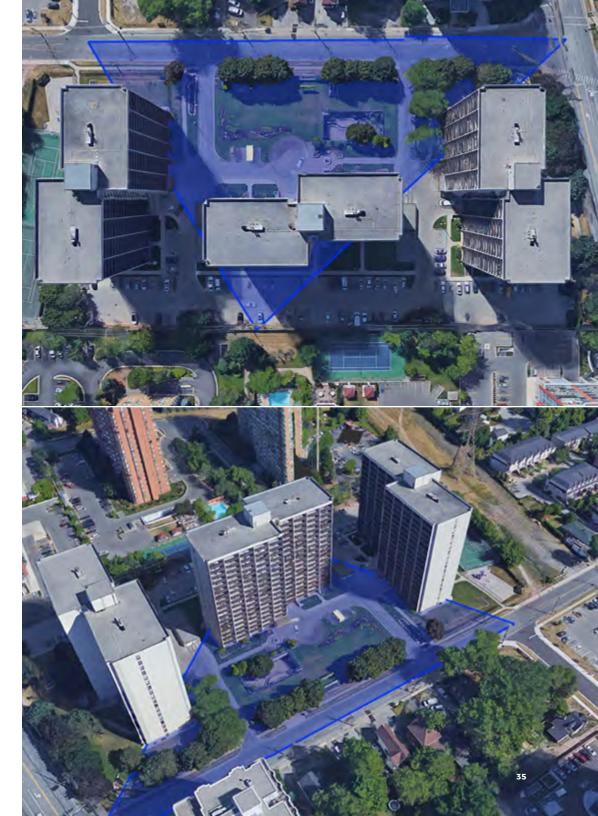




Block Density

601 1.05 571 PEOPLE HA **PEOPLE/HA**

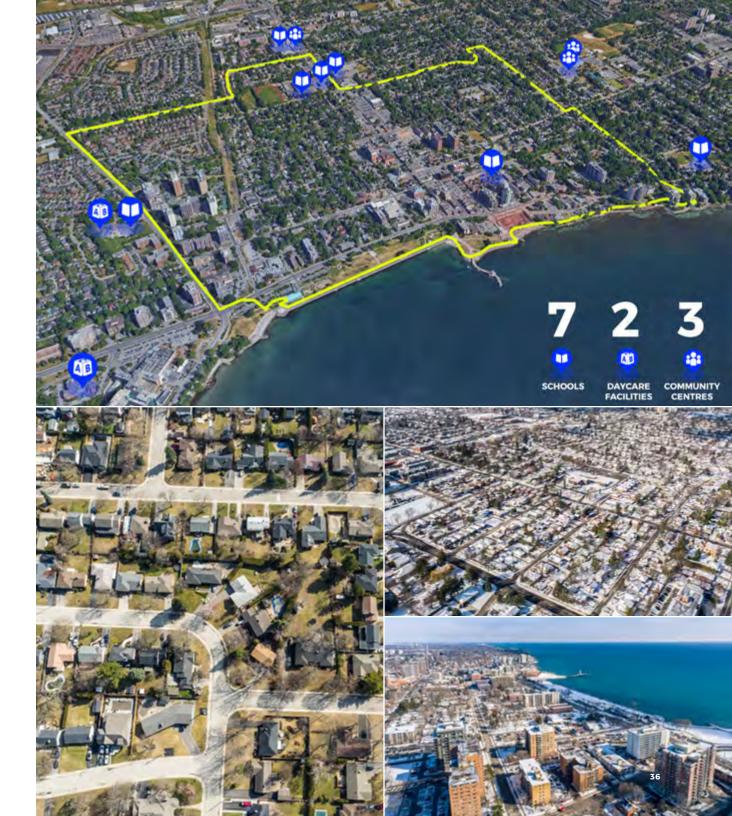






Walkability

- Within walking distance (400m) there are 2 schools, 3 community centres and 2 daycare facilities
- Residential areas are close to the downtown, making it easy to walk to shops and services
- Neighbourhoods were built for the car; garages and driveways are prominent; blocks are long and some streets don't connect to main street
- Access to waterfront trail provides
 recreational opportunities

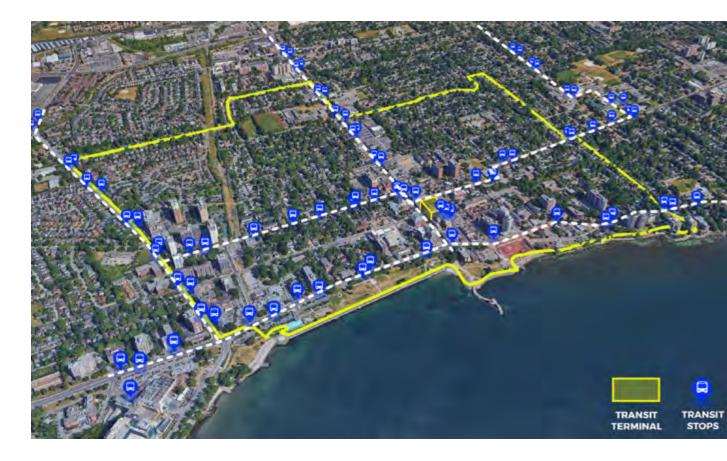


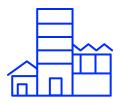


Transit

Many transit stops within walking distance.

- Burlington Bus Terminal located downtown, with buses arriving every 30 minutes
- Local buses connect to Burlington GO Station (15 minutes by bus)





Diversity

- Good mix of housing, including detached and attached single family, high-rise, mid-rise and town homes
- Parking lots and low-rise buildings along main street (Brant St.) provide opportunity for growth
- Also opportunity for growth along
 waterfront
- Policy and zoning support growth and redevelopment

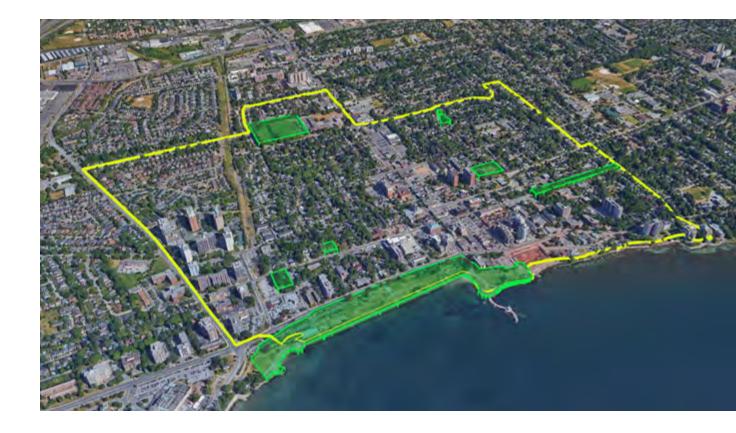




Green & Open Spaces

13 ha OF MUNICIPAL PARK SPACE

- This is equivalent to 1.3 hectares per 1000 people
- Waterfront provides great opportunities for recreational and nature-based activity



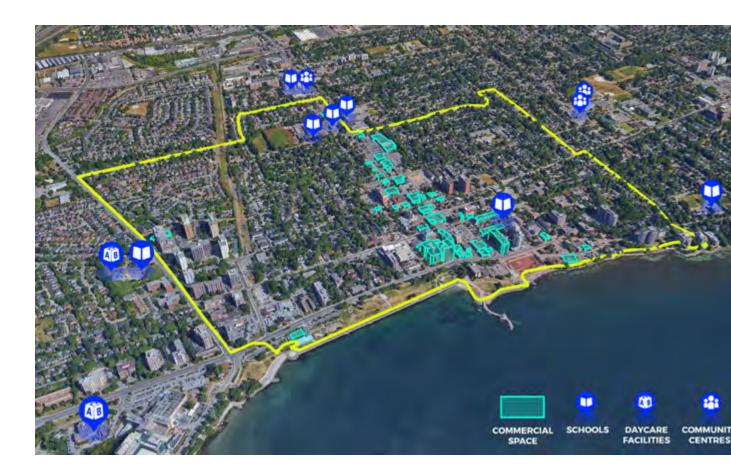




Amenities

Wide range of shops & amenities along the main street.

- Grocery stores
- Burlington Public Library
- Several gyms, YMCA
- Cultural spaces
- Municipal office
- Hotels
- Wide range of restaurants, cafes and bakeries
- Banks
- Several parks and green spaces
- Post office

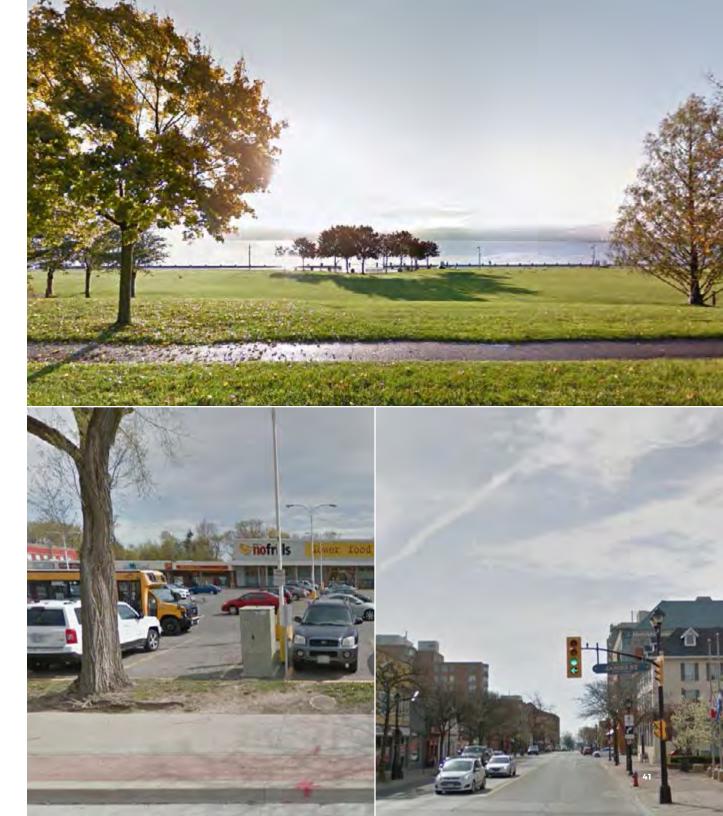


CASE STUDY 03 DOWNTOWN BURLINGTON



Design

- Heritage buildings contribute to unique sense of place
- Public realm improvements
 (e.g. signage, benches, etc.) along main street make for pleasant
 pedestrian environment
- Opportunity for Façade improvements of older buildings along Brant Street
- Opportunity to animate waterfront and connect it with the downtown commercial areas
- Parking lots along Brant Street reduce visual interest and make the public realm less attractive



04. Cornell, Markham

Planned on a greenfield, Cornell was designed in the mid-90s using New Urbanism principles. The area is anticipated to develop as a walkable, high density, mixed-use area. The area has seen significant residential development, however the commercial centre Cornell Centre, remains undeveloped within the larger community.







PROVINCIAL NATURAL HERITAGE AREA EXCLUDED FROM DENSITY CALCULATION







JOBS



HWY7



PAPE AVENUE

JOBS + PEOPLE/HA

VORK DURHANI LINE

B

CORNELL

Block Density

0.34 47 16 PEOPLE HA **PEOPLE/HA**



VISUALIZING DENSITY | CASE STUDIES

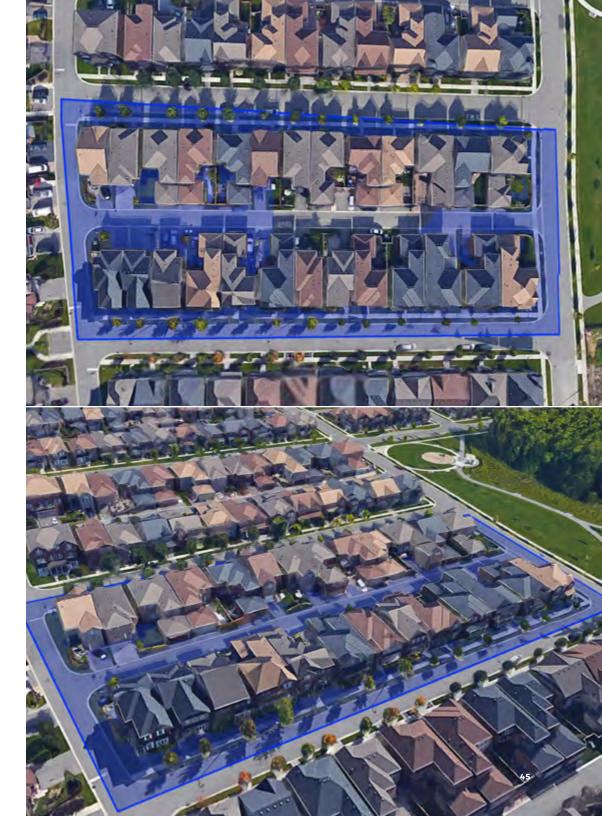


Block Density

103 1.07 96 PEOPLE HA **PEOPLE/HA**



VISUALIZING DENSITY | CASE STUDIES





Walkability

- Only 2 schools within walking distance
- The closest community centre is a 28 minute walk
- Grid-like pattern of streets and blocks is improvement on subdivisions of the 60s-90s
- Garages in the back, favours pedestrians over cars
- Lack of destinations to walk to make walking uninteresting

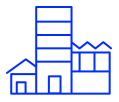


Transit

Several local bus stops go through the neighbourhoood.

- Frequency of local buses and lack of central transit node make it difficult to reach amenities such as grocery stories by transit
- Getting to the local grocery store by transit , would require one to walk over the 407
- Basically, a car dependent neighbourhood

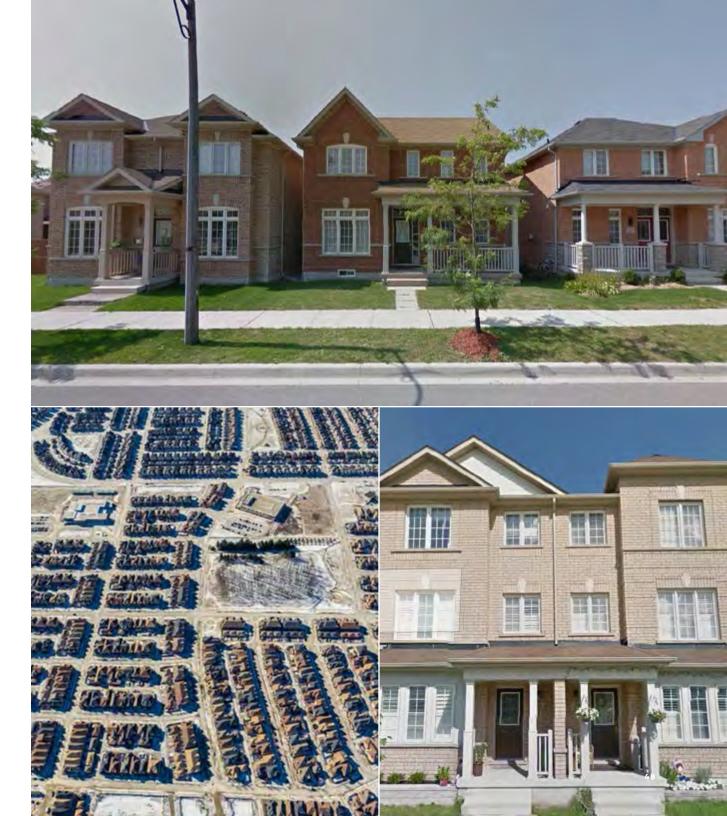




Diversity

Little diversity in built form.

- All detached and semi-detached
- Undeveloped land provides opportunity for increasing density over time, but likely to be more of the same



Green & Open Spaces

13 ha of municipal park space

• This is equivalent to 0.4 hectares for every 100 people







2,894

Amenities

- Two neighbourhood schools
- No other amenities within 400m walking distance

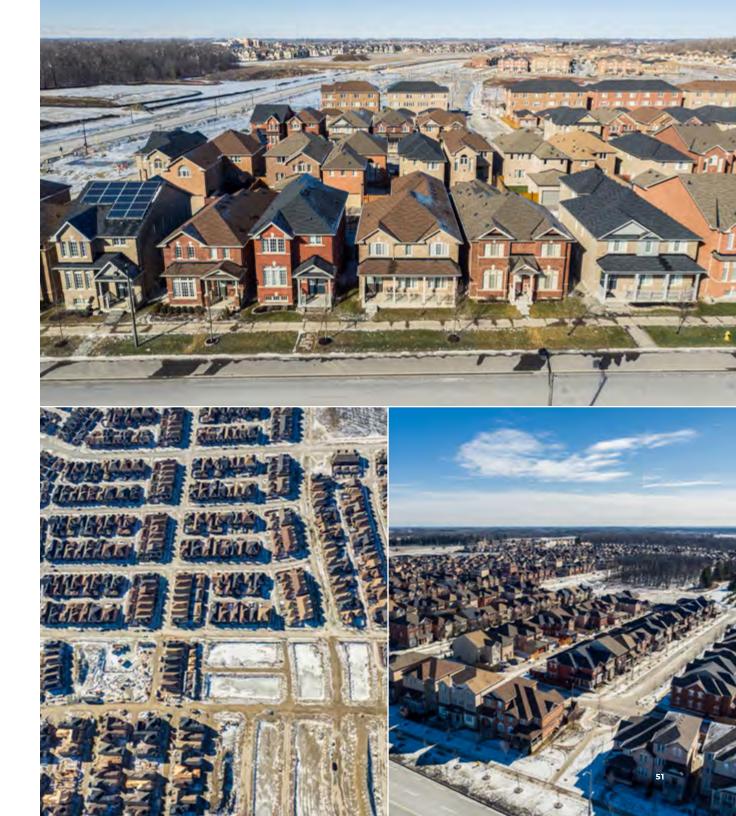


CASE STUDY 04 CORNELL, MARKHAM



Design

- Lack of street furniture or public realm amenities to animate the street
- Laneways put the cars in the back and help to ensure the attractiveness of the public streets



05. Barrel Yards, Waterloo

The Barrel Yards is the name of a larger area that extends south east of the study area and is being planned as a mixed-use development that incorporates a hotel, commercial office space, apartments and townhouses and high-rise condominiums. This area is located adjacent to the University of Waterloo and the Downtown, which is designated as an Urban Growth Centre in the Growth Plan. The older parts of the community are low density, and lack connectivity with amenities and community facilities.





Density



1,515 Jobs

68

10

PEOPLE/HA

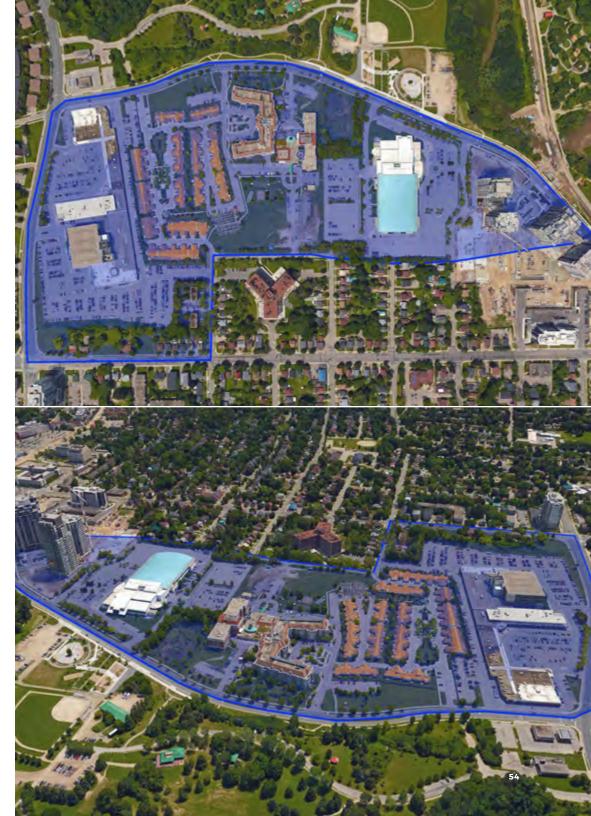
32 JOBS + PEOPLE/HA

*based on 2011 datadoes not include 3 new condo buildings.

Block Density

561 25.3 22 PEOPLE **PEOPLE/HA** HA





Block Density

188 63 3 PEOPLE HA **PEOPLE/HA**

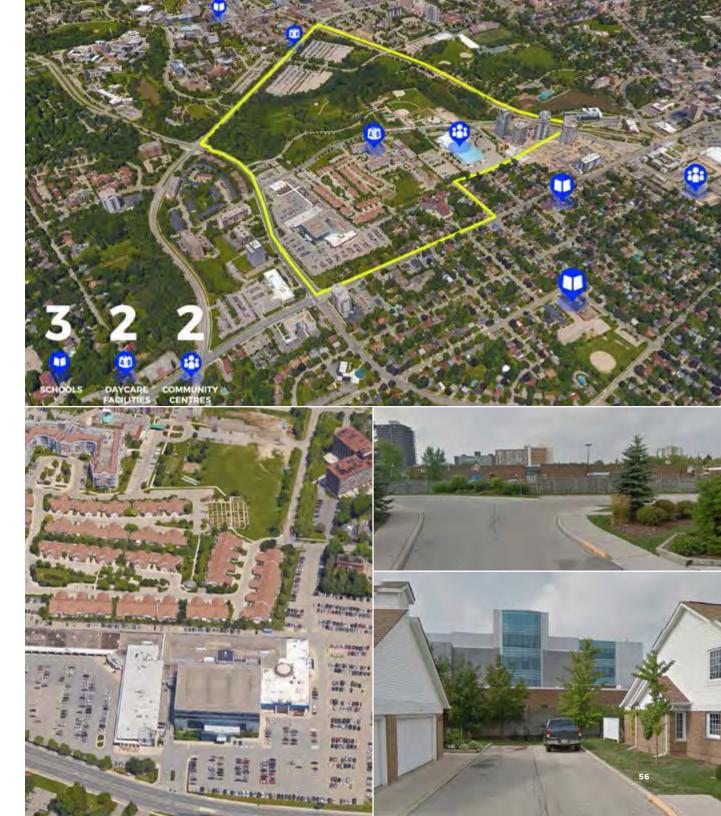


100801 NET BULLING CASE STUDY 05 BARREL YARDS, WATERLOO



Walkability

- Several schools, community centres and child care centres within walking distance
- Barriers between residential areas and community amenities, reduce walkability
- 15 minute walk from Downtown





Transit

Local bus stops surround the neighbourhood.

- Possible to reach Central Business District, University or Hospital by bus
- Lack of bus shelters or benches at bus stops can make taking transit unpleasant
- Difficult for some areas to reach transit





Diversity

Diverse types of housing.

- Retirement community means area has a high percentage of seniors
- New high-rise condos may attract more diverse residence
- Land available for new development near high-rise condos; policy framework supports growth



Green & Open Spaces

24 ha of municipal park space

- This is equivalent to 36.9 ha/1000 people (average for Canada is 9.2)
- A large park, sports fields, a skate park and open green space, supports livability in this neighbourhood





Amenities

Amenities concentrated in plaza.

- Shopping plaza
- medical services
- Office building located in South-West corner
- Waterloo Recreational Complex
- Hotel
- Restaurants
- Post office
- Banks
- Day care and community centre

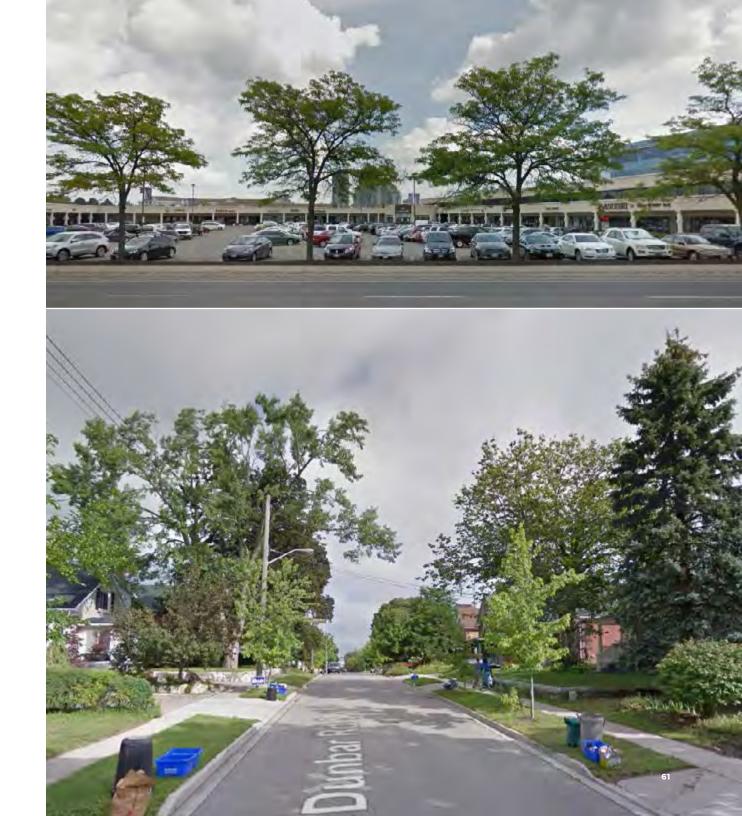


CASE STUDY 05 BARREL YARDS, WATERLOO



Design

- Parking lots dominate the public realm in commercial areas
- Old street trees make the residential areas pleasant



For more information about Visualizing Density, please contact Canadian Urban Institute: info@canurb.org

VISUALIZINGDENSITY.CA

