



# Planning for population and Density

Goldilocks level of high density design for an attractive community

Rapid delivery of Midtown homes in an attractive, sustainable, liveable community

A shining example of sustainable development for a climate crisis environment

## Planning for a liveable community in a climate crisis

Strategic flexibility of management of financial and market risks

# Planning to manage financial and market risks to Midtown development

## Planning to reduce traffic congestion

A managed plan for town-wide transition to transit and walkability

# How to develop Midtown as a shining example of environmental sustainability and community liveability

## Oakville: CORPORATE STRATEGIC GOALS

**Livability** – To be the most livable town in Canada by **embedding climate change resiliency throughout the corporation and community.**

**Engaged Community** – aimed at educating, engaging, and empowering the community to **take action on climate change.**

**Environment** – to protect the natural environment by reducing greenhouse gas emissions and protecting the environment from the already occurring impacts of climate change.

Oakville’s Mission Statement is serving the community in a responsible, inclusive way, **dedicated to building environmental, social, and economic sustainability.**

The Town of Oakville Council Strategic Plan and 2023-2026 Action Plan identified **environmental sustainability as a strategic priority**

**This is from the climate emergency declaration progress report dated July 11, 2023**

“4. **incorporate climate change crisis policies into Livable Oakville, the Town’s official plan;**”

“2. **Midtown Strategy Staff are working to ensure opportunities to integrate community energy and climate risk and resilience are realized throughout the project.**”

How to develop Midtown as a shining example of environmental sustainability and community liveability

### **Four Point Plan**

1. Build **mix of town house and mid-rise**, not high rise, with wood structures as a majority of built form
2. Encourage, incentivize and demand **higher green standards** than current minimums. Level 3 or LEED gold.
3. **Design the urban forest into the OPA**: Add all forms of park and trees in all possible spaces, and on central line of Cross Ave.
4. **Incorporate an appropriate Parks Plan specifically for Mid Town** into OPA to meet **healthy and complete community criteria**



## Four Point Plan

### 1. Build a mix of town house and mid-rise, not high rise with wood structures as a majority of built form: Research shows **reasons why this is critical**

- Analysis of Toronto high rises: between **20 to 50 percent of each project's total volume of concrete was below grade.**" (Kelly Alvarez Doran)
- When rising from five storeys and below to **21 storeys and above**, the mean intensity of electricity and fossil fuel use increases by 137% and 42% respectively, and mean **carbon emissions are more than doubled.**" (UCL energy institute)
- A Dutch study has shown empirically that **high-rise slabs and towers deliver, respectively, only half and a third of the density of low-to-medium rise courtyard forms** of urban block (similar to much of central Paris and Barcelona). (The Spacemate: Density and the typomorphology of the urban fabric)
- Architects Declare (UK): "The unavoidable fact is that, in terms of **resource efficiency, the embodied carbon in their construction and energy consumption in use, skyscrapers are an absurdity.** The amount of steel required to resist high windspeeds, the energy required to pump water hundreds of metres above ground and the amount of floorspace taken up by lifts and services make them one of the **most inefficient building types in a modern metropolis**"
- A simultaneous sensitivity study of embodied carbon, construction cost, and operational energy. It showed that **shorter, boxier, woodier, buildings have the lowest upfront and operating emissions of any building form** HL Gauch. Applied Energy.



High Density Low Rise (HDLR) has less than half the Life Cycle Greenhouse Gas Emissions (LCGE) per capita of High Density High Rise (HDHR) buildings  
(Francesco Pomponi et al)

|                            | LDLR    |           | LDHR    |           | HDLR    |           | HDHR    |           |
|----------------------------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
|                            | Average | Std. dev. | Average | Std. dev. | Average | Std. dev. | Average | Std. dev. |
| LCGE (MtCO <sub>2</sub> e) | 7.11    | 0.60      | 15.10   | 3.02      | 8.79    | 1.16      | 24.98   | 2.69      |
| Population (thousands)     | 21.04   | 5.19      | 42.69   | 12.70     | 46.66   | 12.65     | 57.80   | 18.98     |
| LCGE per capita            | 0.34    | 0.12      | 0.35    | 0.24      | 0.19    | 0.09      | 0.43    | 0.14      |

↑  
Suburbs

↑  
New York

↑  
Paris

↑  
April OPA

How to develop Midtown as a shining example of environmental sustainability and community liveability - a 4 point plan

## 2. Encourage, **incentivize and demand higher green standards** than current minimums. **Level 3 or LEED gold.**

The goal of LEED is to create better buildings that:

- Reduce contribution to global climate change
- Enhance individual human health
- Protect and restore water resources
- Protect and enhance biodiversity and ecosystem services
- Promote sustainable and regenerative material cycles
- Enhance community quality of life

Of all LEED credits, 35% relate to climate change, 20% directly impact human health, 15% impact water resources, 10% affect biodiversity, 10% relate to the green economy, and 5% impact community and natural resources



“The LEED Gold certification for Oakville Trafalgar Community Centre speaks to our commitment and leadership in managing energy resources effectively to address climate change. Ensuring that our facilities are built, operated and maintained to the highest standards of environmental sustainability will support the town’s goal to reduce greenhouse gas emissions by 50 per cent by 2041.”

- Mayor Rob Burton



## Four Point Plan

### 3. Design the urban forest into the OPA: Add all forms of park and trees in all possible spaces, and on central line of Cross Avenue

The environmental benefits of urban forests include:

- **Reduce air pollution** and provide oxygen (Nowak, Hirabayashi, Doyle, McGovern & Pasher, 2018).
- **Reduce the urban heat island effect** and **reduce the temperature** of cities, helping cities adapt to **climate change** (Brandt et al., 2016; Sinnott, 2018; Rahman, Armson, & Ennos, 2014; Edmondson, Stott, Davies, Gaston, & Leake, 2016; Wang & Akbarib, 2016; Livesley, McPherson, & Calfapietra, 2016).
- **Reduce buildings' energy use**, including heating costs (Nowak, Hoehn, Bodine, Greenfield, & O'Neil-Dunne, 2016; Akbari, 2002; Akbari & Taha, 1992).
- **Improve water filtration, store water, and reduce stormwater runoff** (Berland, 2017; Bartens, Day, Harris, Dove, & Wynne, 2008).
- Help **provide habitat for wildlife** and help preserve biodiversity (Aronson et al., 2017; Alvey, 2006; Mörting, 2001).



## Four Point Plan

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#### The social benefits of urban forests include:

- Promote physical activity by providing **space for recreation** and creating an appealing outdoor environment (Mytton, Townsend, Rutter, & Foster, 2012).
- **Promote mental well-being** (Kardan et al., 2015)
- **Can reduce crime rates and violence** (Parker, 2018; Troy, Grove, and O'Neill-Dunne, 2012).
- **Can promote healing** – people in hospital rooms with views of trees heal faster (Ulrich, 1992; Cooper Marcus, 2007).
- **Make cities more beautiful** (Price, 2003; Tyrväinen, Pauleit, Seeland, & de Vries, 2005)
- **Slowing traffic**, (Mok, Landphair, & Naderi, 2006; Naderi, 2003).
- **Promote social interaction and a sense of community, including stronger ties to neighbours, a greater sense of safety, and more use of outdoor public spaces** (Kuo, 2003; Westphal, 2003).





## Four Point Plan

### 3. Design the urban forest into the OPA:

Add all forms of park and trees in all possible spaces, and on central line of Cross Ave.



Port Credit: Brightwater development. Green roofs and 40%+ of tree cover



## Four Point Plan

### 4. Incorporate a Supplemental Parks Plan for Mid Town specifically into OPA to meet healthy and complete community criteria (Parks Plan 2031)

#### Healthy and Complete Communities

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##### Community Development & A Sense of Community – from the Parks Plan 2031 released April 2024

- Sherer reports that *“research shows that residents of neighbourhoods with greenery in common spaces are more likely to enjoy stronger social ties than those who live surrounded by barren concrete”*.
- .... parks allow communities to build “social capital” through human relationships that promote neighbourhood strength and safety.
- Parks were understood as “necessities” in urban settings, not “amenities” (Sherer, 2003).

##### Psychological Health & Development

- Contact with the natural environment has been shown to improve both physical and psychological health (Sherer, 2003).
- Play is also central to learning and development in small children, connected to muscle strength, coordination, cognition, and reasoning.

##### Crime Reduction -

- Sherer (2003) reports that *“access to public parks and recreational facilities has been strongly linked to reductions in crime and in particular to juvenile delinquency”* by giving youth a safe environment in which to recreate, interact, and spend time.

##### Environmental Indicators -

- , *“trees reduce air pollution and water pollution, they help keep cities cooler, and they are a more effective and less expensive way to manage storm water runoff than building systems of concrete sewers and drainage ditches”* (Sherer, 2003).
- In particular, trees and shrubs improve urban air quality by removing air pollutants including nitrogen dioxide, sulfur dioxide, carbon monoxide, ozone, and particulate matter (The Trust for Public Land Center for Park Excellence & Philadelphia Parks Alliance, 2008).

## Four Point Plan

### 4. Incorporate a Supplemental Parks Plan for Mid Town specifically into OPA to meet healthy and complete community criteria

**Given the projected density and small size of the site, criteria that achieve the highest amount of parks should be used for Mid Town**

- **It is a fact that right now Mid Town out of all the Growth Areas has the smallest amount of projected green space based on current tools**
- **Something bold needs to be done including a land acquisition strategy**
- **Use all the tools in the tool box , including, but not relying primarily on these parks alternatives:**
- **POPS ( private open spaces) if properly governed by legal agreement, access, connection and other criteria**
- **including within the Official Plan, the implementing **Zoning By-Law** and/or any applicable **Design Guidelines** the requirement for private and semi-private amenity spaces within all residential apartment buildings , such as balconies, pools, green roofs, terraces etc These private and semi-private spaces are not to be considered for any credit as part of the Town's Parkland Dedication By-Law.**
- **Cash in lieu decisions must to come back to Council for full transparency**

How to develop Midtown as a shining example of environmental sustainability and community liveability - a 4 point plan

4. Incorporate a site specific Parks Plan specifically into OPA to meet healthy and complete community criteria

Specifically:

- In the Midtown OPA move the park South of Cross Avenue on Metrolinx land by the Go Station to North of Cross Avenue
- Metrolinx has made it clear this land will remain a parking garage until it becomes high density residential, never a park.
- So there is no point in presenting this in an OPA as a major part of the parkland.

# How to develop Midtown as a shining example of environmental sustainability and community liveability

- We need better tools!
- We agree with Council's directive motion to enable Community Permit Planning to define built form and require green building standards (Council directive Motion)
- Pressure province to issue enabling regulation (Council directive Motion) similar to Toronto
- As provided in the Council directive motion, include "shall" language for compliance with Green development standards and environmental sustainability
- Work with Conservation Halton to identify risks and find mitigation strategies of dense impermeable building on and near flood plain



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Planning to reduce traffic congestion

**High Density Low Rise built form (HDLR)**

**Green building standards**

**Trees, trees, trees**

**Parks plan**

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